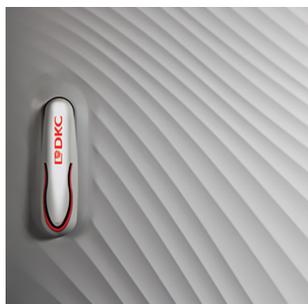


Conchiglia



Grafi road enclosures
Catalogue

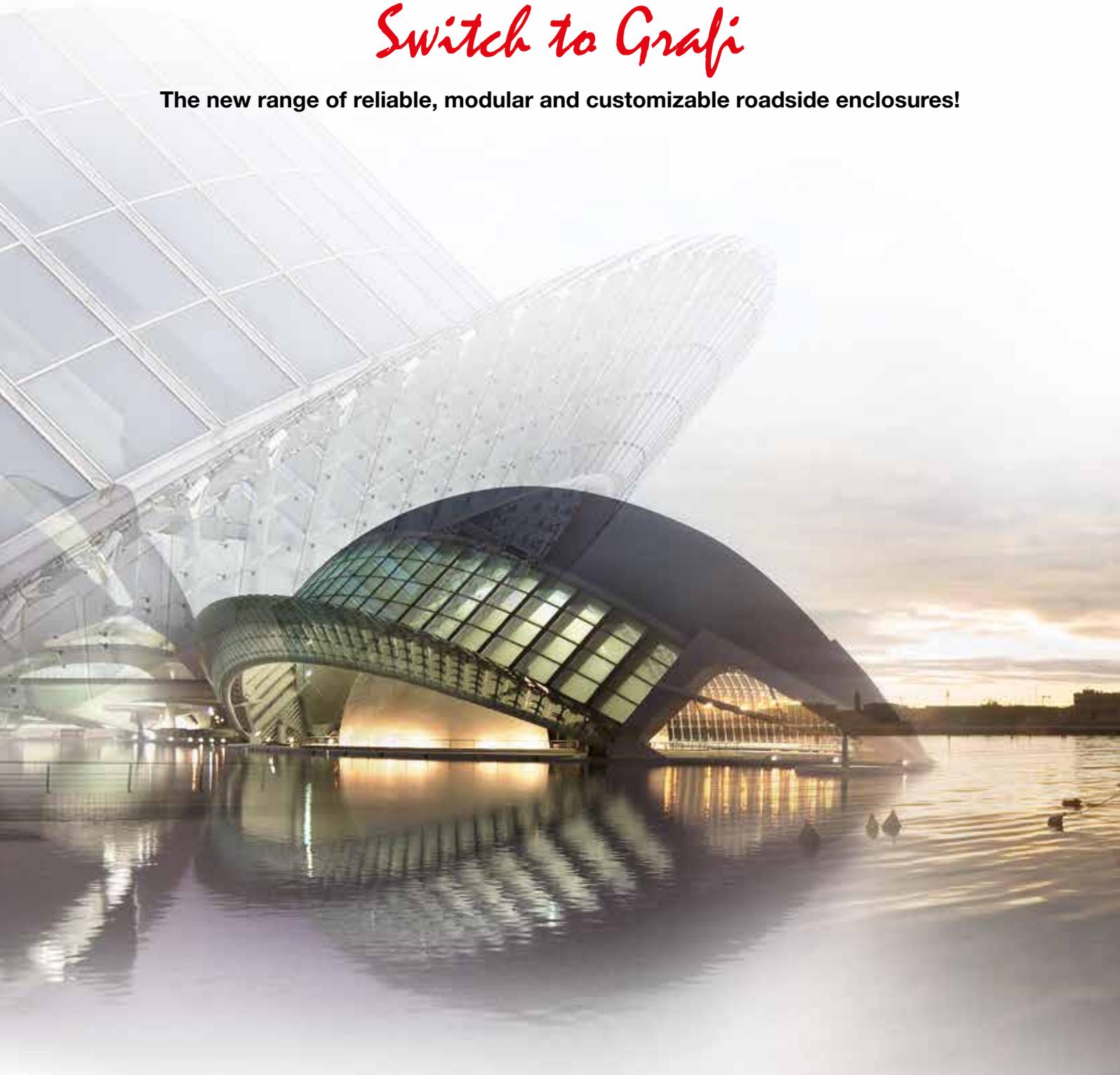




www.dkceurope.com

Switch to Grafi

The new range of reliable, modular and customizable roadside enclosures!



Grafi is the new range of roadside enclosures for installations intended for electricity, telephone, water/gas distribution networks, traffic light systems and in general for all management systems designed for outdoor installation.

Grafi enclosures integrate the traditional and well-established Conchiglia line of products, reaffirming the high level of quality, reliability and safety we have always guaranteed while introducing new concepts of maximum "modularity" and "multi-functionality".

They are 'tailor-made' and can therefore meet the most varied needs of customization, offering maximum freedom in composing the individual compartments, electrical reliability, mechanical performance and aesthetics for greater integration in public or private urban contexts.

The individual components have been created to be integrated and develop in a wide, functional and competitive range. It is possible to equip the interior spaces with customized solutions to meet every installation need and requirement.

Characteristics:

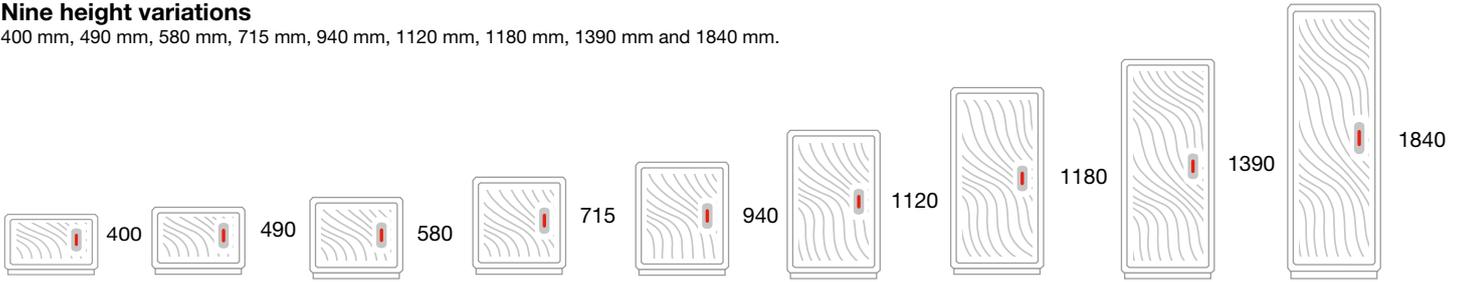
- Made from fibreglass, RAL 7035 color
- Availability, across the entire range of system protection rating IP44 and IP55 in accordance with CEI EN 60529
- IMQ Certification in accordance with CEI EN 62208
- Suitable for creating equipment in class II
- Maximum system modularity
- Over 500 versions available in standard executions
- Possibility of rearranging the partitioning of compartments, even in site (leaving door clearance unchanged)
- Wide range of accessories available to best meet equipment needs in the various sectors of use
- Availability of painted units for greater integration in historical urban contexts.



Range

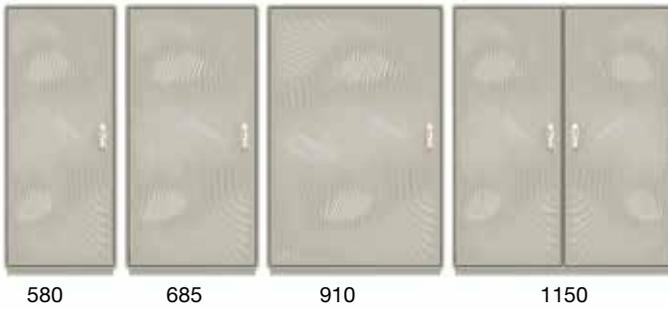
Nine height variations

400 mm, 490 mm, 580 mm, 715 mm, 940 mm, 1120 mm, 1180 mm, 1390 mm and 1840 mm.



Four width variations

580 mm (internal useful 562 mm), 685 mm (internal useful 667 mm), 910 mm (internal useful 892 mm), 1150 mm (internal useful 1132 mm)



Two depths

330 and 460 mm



The range is complete with top units, plinths and internal accessories that can be used to create panels in over 500 versions that can be obtained with the two series.

Two degrees of IP protection and IMQ certification



IP44

In the IP44 versions, the seal is installed along the whole perimeter of the bottom wall and the upper part of the door.



IP55

In the IP55 versions both the doors and the bottom walls of the enclosures are fitted with EPDM foam seals. A closing bottom plates with conical membranes and a seal guarantees effective protection in the cable entry area.

Thanks to the construction characteristics and the special snap-fit profile used as a seal, an IP44 enclosure can easily be converted into an IP55 version by fitting the seal into the relative housings. Vice versa, an IP55 enclosure can be converted into an IP44 version by removing the door seal if the internal equipment requires extra ventilation and especially if such a conversion is permitted by the project specifications and installation conditions.

The Grafi enclosures are designed for the implementation of CLASS II equipment according to CEI 64-8/4

IMQ certification according to CEI EN 62208 standard

Advantages



New handles with gasket for protection against dust and vandalism.



Stainless steel door hinges.



Availability of accessories for realization of panels with modular equipment



Internal bakelite dividers to create partitions of different heights.



The optimized structure of the Grafi enclosures has allowed the bottom walls and the door to be the same component. Possibility of double-sided access to the compartments.



Monobloc side panels also used in versions with multiple compartments. High electrical and mechanical reliability.

Customizing

When the new GRAFI series of enclosures was created, particular attention has been paid to customizing the structure of the rooms, especially the versions with multiple compartments of different sizes. New installation methods often oblige design engineers to allow for different functions (power, operation, electronic devices, telecommunications) requiring dedicated compartments of different sizes, which sometimes need to be interconnected.

The structure of the new enclosures has therefore been designed in such a way that it can be subdivided without further processing of the maximum available light, delimited by side panels of different heights, in a number of compartments also of different sizes simply moving the crosspieces that partition off the compartments themselves. Thanks to the patented Dotper® system, enclosures of the same height can be divided into various configurations with the use of 3 doors of different sizes, as shown in the examples below. In this way, without prejudice to the provision initially envisaged for the compartments, the same can be modified in operation according to varied needs for installation and/or components used.

The doors can be opened on either side and this allows the enclosures to be customized to a further extent. The door opening side can even be reversed on the individual compartments of multiple versions. This is done by applying an upright to support the hinges, corresponding to the overall height of the enclosure (to be ordered separately).

The basic compositions in the range can be diversified yet again by using the available top units.



Modularity

Besides the versions that can be created by dividing enclosures from the basic range into compartments of different sizes, the total absence of projections from its external profile allows the structure of the GRAFI enclosure to provide a high degree of modularity belonging to different series. (Grafi5 - Grafi7 - Grafi9 - Grafi12 only for side-by-side couplings).

Vertical modularity

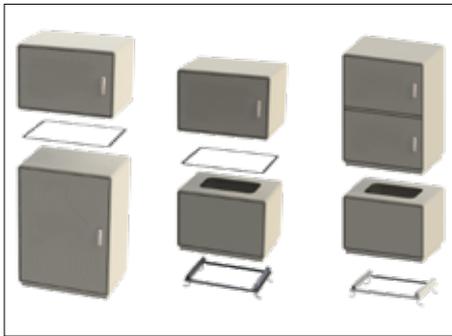
This is achieved by stacking a top unit, belonging to the same series, on top of a basic enclosure when the compartment combination is not one of the standard versions. Compositions can be created by just stacking top units if total separation between the two compartments is required. The plinth component can be used for vertical compositions when not included in the integrated version.

Horizontal modularity

Height and depth measurements being equal, the enclosure can be arranged side by side even when they are of different widths. These versions and the holes or slots required for routing cables between the enclosures, can be provided on request.

Depth modularity

In this case, the enclosure must be of the same height and width, but not necessarily the same depth. The versions can be provided with access from the two fronts of the joined compartments or with just one front access. This sort of composition can also be used to obtain deeper compartments than those available in the standard versions (Ex 330+330 mm; 330+460 mm; 460+460 mm).



Vertical Modularity



Horizontal modularity



Modularity in depth

Functional Design

A "Grafi" fits into any context with the utmost ease. In a classic or modern, historic or futuristic, public or private urban landscape. It can be considered a simple, necessary object, but it's certainly decorative and highly technological.

A style that allows design engineers to customize the systems thanks to the shape and integrated modularity of the line.

The relief pattern on the front door and back wall of the enclosure is not merely to make it look more attractive. Besides providing the part more liable to impact with greater mechanical strength, it also attenuates the degree to which the surfaces are exposed to sunlight to a sensible extent.



Suitable for any environment

Ideal for classic or modern, historical or avant-garde urban settings, public or private relevance.



Easily customizable

Grafi offers designers the chance to customize systems, thanks to the aesthetics of the form and the integrated modular system of the line.



Raised surface

Guarantees greater impact resistance and reduces UV exposure.

Applications



External environments where design and functionality are sought.



Electrical distribution



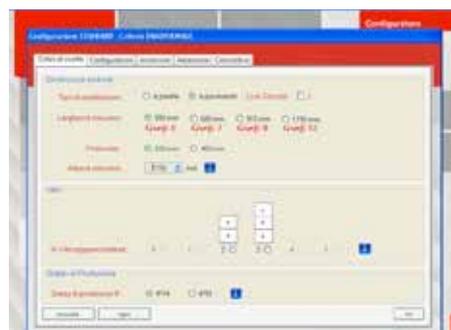
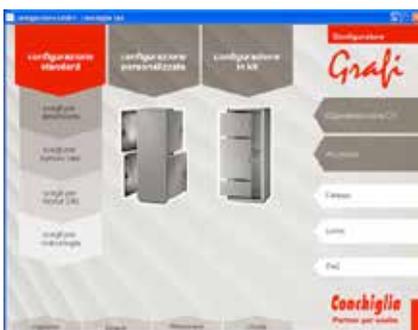
Telephone derivation and control systems in water and gas distribution systems

Grafi enclosures configurator



The new Grafi enclosures configurator allows you to identify the enclosures corresponding to your needs, download the pdf drawing of your chosen enclosures and to export the technical data sheet in Word format. A tool which facilitates customization of the compartments in the selected enclosures with different accessories (mounting plates - accessories for modular equipment - racks with aggregated mounting plate - ventilation units - forced ventilation fan). Thanks to automatic data updating and the option to save the project, the configurator becomes an essential tool for quickly identifying the Grafi you need without error.

It is possible to download the configurator from the site www.conchiglia.com



Reliability

GRAFI roadside enclosures confirm the high level of safety and reliability that has always been guaranteed by Conchiglia products, thanks to a design which is strictly based on observing the international standards governing the sector.

CEI EN 62208 standard

Type tests prescribed by the standard to be performed on enclosures

Art.	Test	Standards requirements	Notes
9.3	Static loads	CEI EN 62208	Testing carried out at a temperature of 70 °C. For 1 hour apply a weight equal to 1.25 times the declared maximum permitted load on the partition and supports.
9.6	Check on the degree of resistance against external mechanical impact (IK Rating)	CEI EN 62208 CEI EN 62262	IK 10 = subject each surface to 3/5 impacts using a 5-Kg steel testing hammer dropped from a height of 40 cm (impact energy = 20 J).
9.7	Testing of the degree of protection (IP) - access to live parts - ingress of solid foreign bodies - ingress of water - access to hazardous parts	CEI EN 62208 CEI EN 60529 § 12.1 - § 12.2 § 13.4 - § 13.5 § 14.1 - § 14.2 § 15	IP 54 = a testing probe, diameter 1mm, thrust with a force of 1 N, must not enter any part of the enclosure. Any talc getting into the protected space must not exceed 1 g/m ² . No water ingress in the protected space after water spraying from all directions for 5' with a water flow rate of 10 litres/minute. The testing probe must not touch the surface of the protected space.
9.8.1	Thermal stability test	CEI EN 62208 IEC 60068-2-2	Testing to be performed in a climatic chamber at a temperature of 70° ±2 °C for 168 hours and subsequently at ambient temperature with humidity levels at between 45% and 55% for 96 hours.
9.8.2	Heat resistance testing	CEI EN 62208	Testing to be performed in a climatic chamber at a temperature of 70° ±2 °C for 1 hour with a steel ball with a diameter of 5 mm pressed with a force of 20 N.
9.8.3	Checking resistance to abnormal heat and fire	CEI EN 62208 EN 60695-2-10 EN 60695-2-11	Testing using a glow-wire at a temperature of 650° ±15 °C applied for 30 ±1 s.
9.9	Dielectric sealing test	CEI EN 62208 EN 60439-1 § 8.2.2.2	Permanence in a climatic chamber for 48 hours with humidity levels of between 91% and 95% and a temperature of 40° ±2 °C and subsequent application of a voltage of 3750 V.
9.11	Weather resistance testing	CEI EN 62208 ISO 4892-2- A method ISO 178 ISO 179	UV testing with Xenon lamp with cycles for a total period of 500 hours with subsequent mechanical verification of resistance to bending and Charpy impact test.
9.12	Corrosion resistance testing	CEI EN 62208 IEC 60068-2-30 IEC 60068-2-11 ISO 4628-3	Internal metal parts Humid heat = 6 24-hour cycles at 40 °C and 95% relative humidity Salt fog = 2 24-hour cycles at 35° ± 2° C External metal parts Humid heat = 12 24-hour cycles at 40 °C and 95% relative humidity Salt fog = 14 24-hour cycles at 35° ± 2° C



Grabi 5

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Enclosures without doors, customizable	44
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Width 580 mm



Characteristics

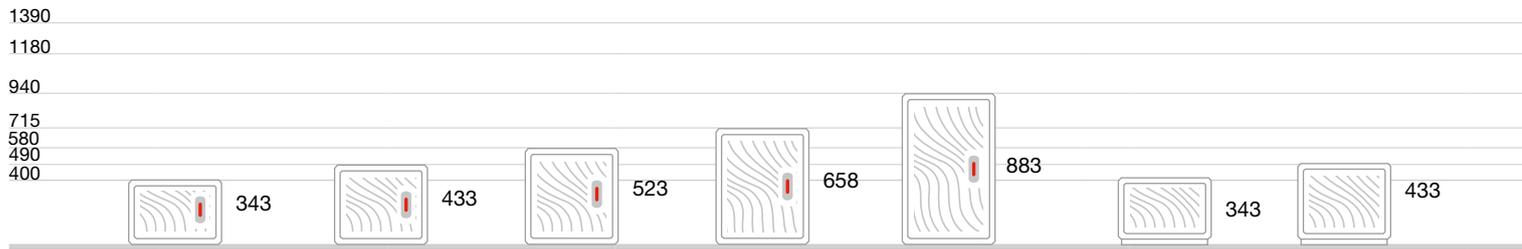
The Grafi5 series is characterized by an external width of 580 mm (usable interior width = 562 mm). 9 different overall heights available, from 400 mm to 1840 mm. All versions are available in two depths: 330 mm and 460 mm. Rated insulation voltage = Ui 690V. IMQ certification in accordance with CEI EN 62208.

Production prospectus

The values on the left of the drawing indicate the overall height. The figures for the individual compartments indicate their usable height, essential when selecting dedicated accessories.

TOP UNITS PAG. 12

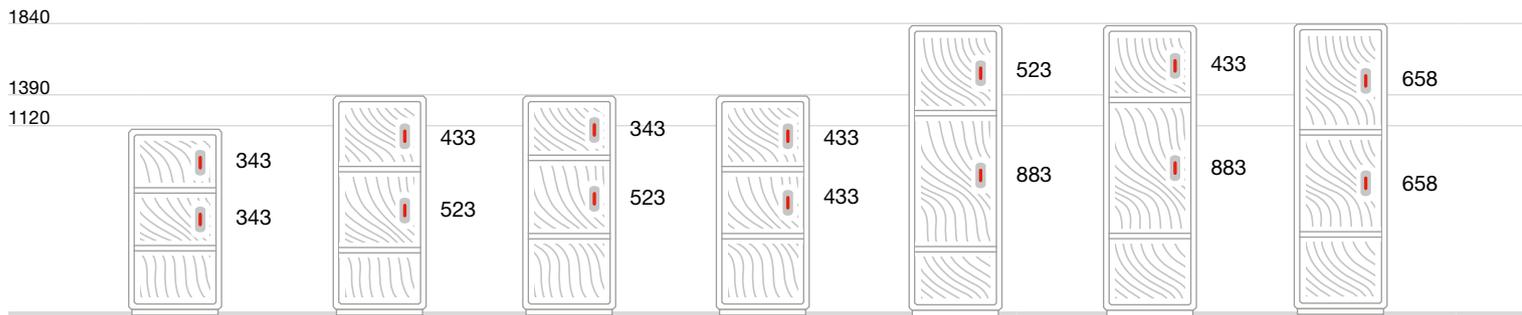
PLINTHS



1 COMPARTMENT WITH INTEGRATED PLINTH ENCLOSURES PAG. 21

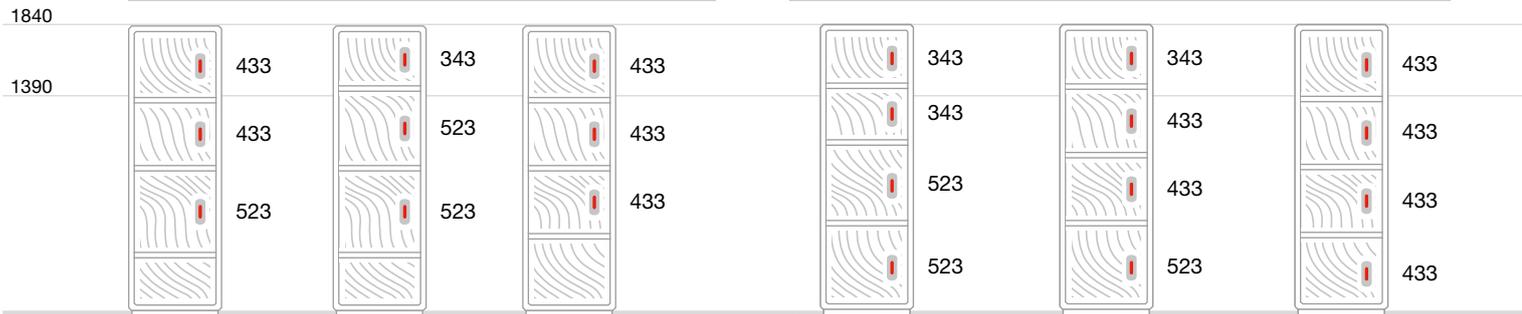


2 COMPARTMENTS WITH INTEGRATED PLINTH ENCLOSURES PAG. 27



3 COMPARTMENTS WITH INTEGRATED PLINTH ENCLOSURES PAG. 33

4 COMPARTMENTS ENCLOSURES PAG. 38



Materials

Made in fiberglass (SMC) in RAL 7035 color. Thermoplastic resin handle, operating tenon in galvanized steel, internal rods and posts in steel with GEOMET 321 treatment.
Hinges in stainless steel. Anchor frame in galvanized and painted steel.
Seals made of expanded EPDM.

Level of protection

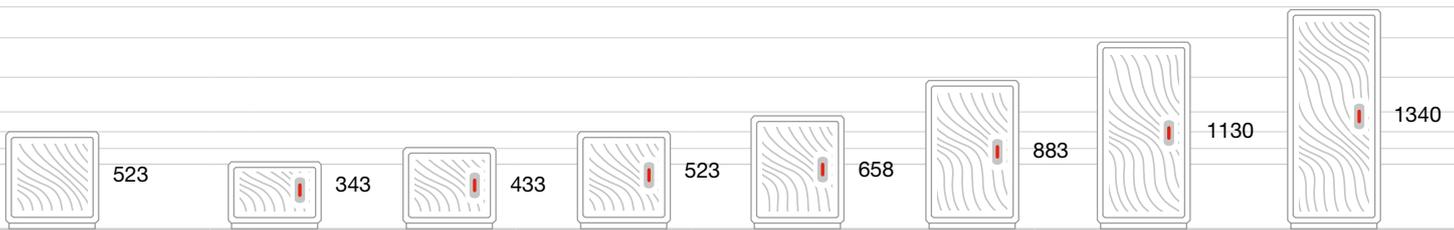
Available with IP44 - IP55 protection class according to CEI EN 60529, IK10 according to CEI EN 62262.

Prepared for execution of CLASS II equipment according to CEI 64-8/4. 

PAG. 13

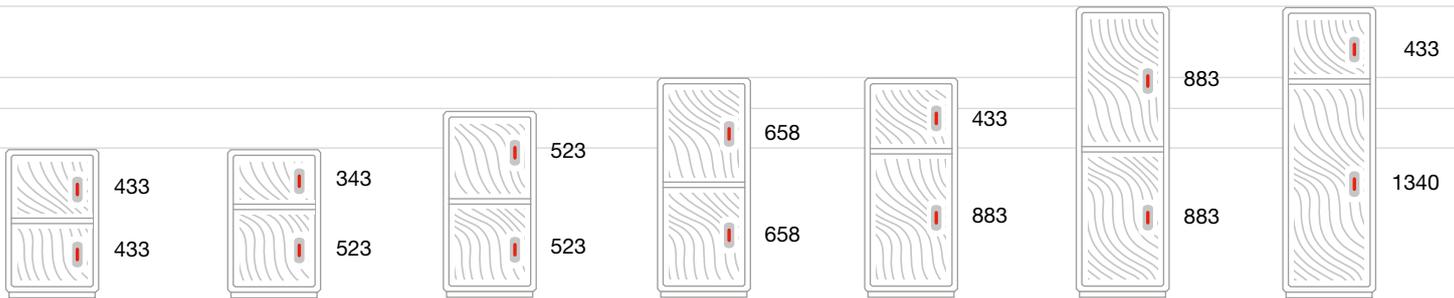
1 COMPARTMENT ENCLOSURES

PAG. 20



2 COMPARTMENTS ENCLOSURES

PAG. 26



3 COMPARTMENTS ENCLOSURES

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4 COMPARTMENTS WITH INTEGRATED PLINTH ENCLOSURES

PAG. 39

5 COMPARTMENTS ENCLOSURES

PAG. 38

ENCLOSURES WITHOUT DOORS FOR CUSTOMIZED COMPOSITIONS

PAG. 44



Top units



Characteristics

Overall height sizes available: 370mm - 460mm - 550mm - 685mm - 910mm - for two depths: 330mm - 460mm. Rated insulation voltage Ui 690V. Completely intact structure without slots or holes for cable passage to be realized by the customer or on request.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request). Door opening side can be changed on site (for detailed information consult the accessories selection). Can be equipped with bottom plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions, mm			Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
a	370	580	330	a= 343	562	298	284x490	IP55	G5-1/1/S	077501906
								IP44	G5-1/1/S-4	078501905
a	460	580	330	a= 433	562	298	374x490	IP55	G5-2/2/S	077502904
								IP44	G5-2/2/S-4	078502903
580		460	a= 433	562	428	374x490	IP55	GH5-2/2/S	077512903	
							IP44	GH5-2/2/S-4	078512902	
a	550	580	330	a= 523	562	298	464x490	IP55	G5-3/3/S	077503902
								IP44	G5-3/3/S-4	078503901
580		460	a= 523	562	428	464x490	IP55	GH5-3/3/S	077513901	
							IP44	GH5-3/3/S-4	078513900	
a	685	580	330	a= 658	562	298	599x490	IP55	G5-4/4/S	077504900
								IP44	G5-4/4/S-4	078504909
580		460	a= 658	562	428	599x490	IP55	GH5-4/4/S	077514909	
							IP44	GH5-4/4/S-4	078514908	
a	910	580	330	a= 883	562	298	824x490	IP55	G5-5/5/S	077505907
								IP44	G5-5/5/S-4	078505906
580		460	a= 883	562	428	824x490	IP55	GH5-5/5/S	077515906	
							IP44	GH5-5/5/S-4	078515905	

Warnings

Usable for installation in enclosures of the same series and depth to achieve non-standard compositions in the integrated units or for extending enclosures already in use. Can be used to make single compartment enclosures for floor installation, together with dedicated plinths.

Holes for fastening systems and cable opening to be made in site or executable in the factory on request. Wall-mounted version also available.

Plinth

**Characteristics**

Overall height sizes available: 400mm - 490mm - 580mm - for two depths: 330mm - 460mm.
Prepared for installation on a concrete base using an anchor frame (not included).

To be used in combination with cabinets of the series 5 same depths not available in the version with "integrated plinth".

They allow the realization of cabinets for floor installation combined with top units.

Materials

Made in fiberglass-reinforced plastic RAL 7035 color. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 .

External dimensions, mm			Useful height	IP	Model	Code
Height	Width	Depth				
400	580	330	z= 343	IP55	G5-1/ZT	077501955
490	580	330	z= 433	IP55	G5-2/ZT	077502953
	580	460	z= 433	IP55	GH5-2/ZT	077512952
580	580	330	z= 523	IP55	G5-3/ZT	077503951
	580	460	z= 523	IP55	GH5-3/ZT	077513950

z

Closing bottom plate for plinths



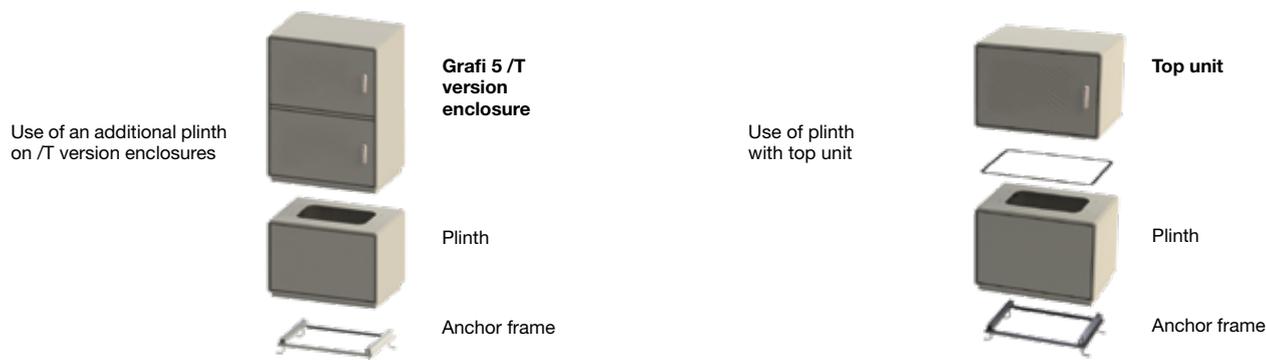
Characteristics

Made of 3 mm thick bakelite it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76)

Enclosures depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G5/SIC	095775409	G5/SIM	095775425
460	GH5/SIC	095775458	GH5/SIM	095775474

Installation method

The plinths can be fitted with closing bottom plate (blank or with conical fairleads), positioned between the fixing frame and plinth, to provide additional protection in the cable input area.



Anchor frame



Characteristics

Screws in AISI 304 stainless steel to guarantee access over time. Complete with brackets for fixing onto a concrete base.

Materials

Made of steel with black color 18/24 cataphoretic coating treatment.

Enclosure depth, mm	Model	Code
330	G5/TA	095775300
460	GH5/TA	095775359

Mounting plates



Characteristics

Can be applied to the mounting plate of the cabinet using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or enclosure using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2 mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
343	455x265	G5/1/PA	095775011	G5/1/PB	095775110	G5/1/PP	095775219
433	455x355	G5/2/PA	095775029	G5/2/PB	095775128	G5/2/PP	095775227
523	455x445	G5/3/PA	095775037	G5/3/PB	095775136	G5/3/PP	095775235
658	455x580	G5/4/PA	095775045	G5/4/PB	095775144	G5/4/PP	095775243
883	455x805	G5/5/PA	095775052	G5/5/PB	095775151	G5/5/PP	095775250

Brackets for fixing to a wall



Characteristics

The top unit can be used as single compartments that can be installed on the wall using special brackets, using wall plugs or another fixing element depending on the type of wall.

Drilling holes for cable entry by the customer with cable / cable glands. The brackets are available in loose execution (with assembly by the customer) or in applied execution performed directly in the factory.

Description	Model	Code
Brackets for fixing to a wall (loose version)	G/SFP	095770939
Version on brackets for fixing to a wall	G-EA/SFP	097770028

Brackets kit for supporting mounting plates on uprights



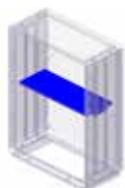
Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required.

Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



Characteristics

To be installed using 2 upright kits G-.../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosures depth.

Top unit depth, mm	Overall dimension of shelves, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	485	17	G5/RP	095775631
460	355	485	17	GH5/RP	095775649

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height top unit mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
400	G-1/MT	095770012	G/SM	095770905	GH/SM	095770913
490	G-2/MT	095770020	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
580	G-3/MT	095770038				
715	G-4/MT	095770046				
940	G-5/MT	095770053				

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey color RAL 7035. Designed to be fastened onto the uprights kit.

To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
343	1	24	G5/1/TPM	095775706
433	2	48	G5/2/TPM	095775714
523	3	72	G5/3/TPM	095775722
658	3	72	G5/4/TPM	095775730
883	4	96	G5/5/TPM	095775748

Modular equipments support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
343	G5/1/CST	095775805	1	G5/1/TPM	095775706
433	G5/2-5/CST	095775813	1	G5/2/TPM	095775714
523	G5/3-7/CST	095775821	1	G5/3/TPM	095775722
658	G5/4-8/CST	095775839	1	G5/4/TPM	095775730
883	G5/2-5/CST	095775813	2	G5/5/TPM	095775748

Blank or slotted panels

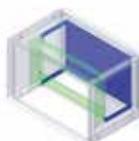


Characteristics

Made from thermoplastic material. Suitable for Grafi5 enclosures. To be applied on the modular equipments support rack.

Panels	Description	Model	Code
Blank		G5/PC	095775607
Slotted	24 DIN modules (17,5mm) for each panel	G5/PM24	095775623

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

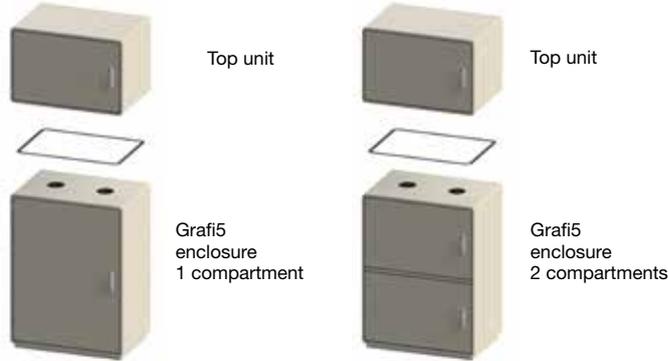
Kit made up of 4 brackets and 1 mounting plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipments support racks for fixing any non-modular components on the back of the panel.

To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G5/1/CST	095775805	330	85	G5/1/PACST	095775854
G5/2-5/CST	095775813	330	85	G5/2-5/PACST	095775862
		460	215	GH5/2-5/PACST	095775904
G5/3-7/CST	095775821	330	85	G5/3-7/PACST	095775870
		460	215	GH5/3-7/PACST	095775912
G5/4-8/CST	095775839	330	85	G5/4-8/PACST	095775888
		460	215	GH5/4-8/PACST	095775920

Installation methods for top units

The top units can be installed on any type of enclosure of the corresponding series (Grafi5) and of the same depth. Installation is carried out easily by making holes in the fixing points already arranged on the enclosures and with the insertion of special seals to guarantee the necessary protection rating. Any passages between the bottom compartment and top unit must be made in site as required. The arrangement for the installation of the top unit may be carried out directly in the factory on request. It is suitable for both IP44 and IP55 enclosures and is valid for all depths (330 - 460 mm).



Execution of top unit installation arrangement with 2 holes

Bottom compartment:

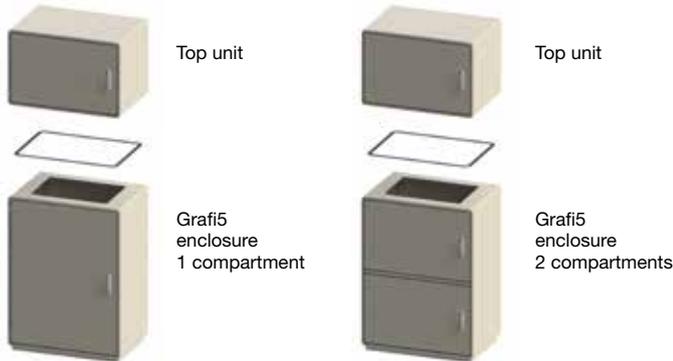
- 4 fastening holes
- 2 holes (Ø 85) for cable passage

Top compartment (top unit):

- 4 fastening holes
- 2 holes (Ø 76) for securing the conical membrane

Provided: Compartment fastening screws/seal/2 conical membranes.

Model	Code	Description
G-EA/MS/I	097770002	Execution of drilling for application on enclosure
G-EA/MS/S	097770010	Execution of drilling top unit for application on enclosure



Execution of preparation for installation of top unit with maximum clearance

Application envisages the realization of enclosures with fully open slots and realization of the corresponding slot on the top unit which will be installed above.

Bottom compartment:

- 4 fastening holes
- 1 single slot for cable passage

Top compartment (top unit):

- 4 fastening holes
- 1 single slot

Provided: Compartment fastening screws / seal

Model	Code	Slot size Depth 330 mm	Slot size Depth 460 mm	Description
G-EA/MSA/I	097770044	320x205	320x305	Execution of slotted roof for installing top unit
G-EA/MSA/S	097770051	355x240	355x340	Execution of slotted top unit for installation on lower compartment

Warning

Separation partitions can also be requested with or without cable passage to integrate execution, to be selected from the normal envisaged accessories. G5/SIC or GH5/SIC (blank plate) - G5/SIM OR GH5/SIM (partition with conical membranes).

The top units may be installed on the floor using the relative plinth envisaged in the series and of the same depth. The fixing frame must be requested separately. Also in this case it is possible to request arrangement in the factory of hole drilling and for cable passage into the top units (G-EA/MS/S or G-EA/MSA/S)

Standard order kit for making panels with modular equipment accessories

For quick composition of accessories for making panels it is necessary to request: **1 uprights/brackets kit + 1 Frame/Panels/Rack kit**

REFERENCE TOP UNIT				Uprights/Brackets Kit	Frame/Panels/Rack Kit
IP55		IP44			compartment "a" 
Model	Code	Model	Code	Code	Code
Depth mm 330					
G5-1/1/S	077501906	G5-1/1/S-4	078501905	095773313	095775193
G5-2/2/S	077502904	G5-2/2/S-4	078502903	095773321	095775292
G5-3/3/S	077503902	G5-3/3/S-4	078503901	095773339	095775391
G5-4/4/S	077504900	G5-4/4/S-4	078504909	095773347	095775490
G5-5/5/S	077505907	G5-5/5/S-4	078505906	095773354	095775599
Depth mm 460					
GH5-2/2/S	077512903	GH5-2/2/S-4	078512902	095774626	095775292
GH5-3/3/S	077513901	GH5-3/3/S-4	078513900	095774634	095775391
GH5-4/4/S	077514909	GH5-4/4/S-4	078514908	095774642	095775490
GH5-5/5/S	077515906	GH5-5/5/S-4	078515905	095774659	095775599

How to order

To order the kits for making panels you need simply to know the code of the top unit and select the codes of the order kits corresponding to the reference top unit code.
Example: top unit code 077504900

Corresponding kits:

- Uprights/Brackets Kit: Code 095773347
- Frame/Panels/Racks kit for compartment "a" Code 095775490

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For further details on the composition of internal accessories for the realization of panels, consult the dedicated section.

Maximum load applicable on the mounting plate/Usable protected space for equipments/Thermal energy dissipation page 50

Accessories and spare parts common to the whole Grafi5 series:

Ventilation units page 190

Enclosure 1 compartment

Grafi 5

Characteristics

Overall height sizes available: 400mm - 490mm - 580mm - 715mm - 940mm - 1180mm - 1390mm - for two depths: 330mm - 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request). Door opening side can be changed on site (for detailed information consult the accessories selection). Can be equipped with bottom plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Lower closing partition with conical fairleads and seal (only IP55 versions).

Materials

Made of berglass-reinforced plastic RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions compartment, mm			Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
	*400	580	330	a= 343	562	298	284x490	IP55	G5-1/1/T	077500106
								IP44	G5-1/1/T-4	078500105
	*490	580	330	a= 433	562	298	374x490	IP55	G5-2/2/T	077502102
								IP44	G5-2/2/T-4	078502101
		580	460	a= 433	562	428	374x490	IP55	GH5-2/2/T	077512101
								IP44	GH5-2/2/T-4	078512100
	*580	580	330	a= 523	562	298	464x490	IP55	G5-3/3/T	077503100
								IP44	G5-3/3/T-4	078503109
		580	460	a= 523	562	428	464x490	IP55	GH5-3/3/T	077513109
								IP44	GH5-3/3/T-4	078513109
	*715	580	330	a= 658	562	298	599x490	IP55	G5-4/4/T	077504108
								IP44	G5-4/4/T-4	078504107
		580	460	a= 658	562	428	599x490	IP55	GH5-4/4/T	077514107
								IP44	GH5-4/4/T-4	078514106
	*940	580	330	a= 883	562	298	824x490	IP55	G5-5/5/T	077505105
								IP44	G5-5/5/T-4	078505104
		580	460	a= 883	562	428	824x490	IP55	GH5-5/5/T	077515104
								IP44	GH5-5/5/T-4	078515103
	1180	580	330	a= 1130	562	298	1064x490	IP55	G5-7/7/T	077507101
								IP44	G5-7/7/T-4	078507100
		580	460	a= 1130	562	428	1064x490	IP55	GH5-7/7/T	077517100
								IP44	GH5-7/7/T-4	078517109
	1390	580	330	a= 1340	562	298	1274x490	IP55	G5-8/8/T	077508109
								IP44	G5-8/8/T-4	078508108
		580	460	a= 1340	562	428	1274x490	IP55	GH5-8/8/T	077518108
								IP44	GH5-8/8/T-4	078518107

* Models that can also be made in the wall version see Accessories section on page 177

Enclosure 1 compartment with integrated plinth

**Characteristics**

Made with 1 equipment compartment + bottom plinth integrated in a single support structure.
Overall height sizes available: 940mm - 1120mm - 1390mm - 1840mm for two depths: 330mm - 460mm.
Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request). Door opening side can be changed on site (for detailed information consult the accessories selection). Can be equipped with bottom plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Lower closing partition with conical fairleads and seal (only IP55 versions).

Materials

Made of berglass-reinforced plastic RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4 

	External dimensions, mm			Internal dimensions compartment, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
a plinth	940	580	330	a= 523	562	298	400	464x490	IP55	G5-5/13/ZT	077505196
		580	460	a= 523	562	428			IP44	G5-5/13/ZT-4	078505195
a plinth	940	580	330	a= 433	562	298	490	374x490	IP55	GH5-5/13/ZT	077515195
		580	460	a= 433	562	428			IP44	GH5-5/13/ZT-4	078515194
a plinth	1120	580	330	a= 523	562	298	580	464x490	IP55	G5-5/22/ZT	077505188
		580	460	a= 523	562	428			IP44	G5-5/22/ZT-4	078505187
a plinth	1390	580	330	a= 883	562	298	490	824x490	IP55	GH5-5/22/ZT	077515187
		580	460	a= 883	562	428			IP44	GH5-5/22/ZT-4	078515186
a plinth	1840	580	330	a= 1340	562	298	490	1274x490	IP55	G5-6/33/ZT	077506194
		580	460	a= 1340	562	428			IP44	G5-6/33/ZT-4	078506193
a plinth	1840	580	330	a= 883	562	298	490	824x490	IP55	GH5-6/33/ZT	077516193
		580	460	a= 883	562	428			IP44	GH5-6/33/ZT-4	078516193
a plinth	1840	580	330	a= 883	562	298	490	824x490	IP55	G5-8/25/ZT	077508190
		580	460	a= 883	562	428			IP44	G5-8/25/ZT-4	078508199
a plinth	1840	580	330	a= 1340	562	298	490	1274x490	IP55	GH5-8/25/ZT	077518199
		580	460	a= 1340	562	428			IP44	GH5-8/25/ZT-4	078518198
a plinth	1840	580	330	a= 1340	562	298	490	1274x490	IP55	G5-9/28/ZT	077509198
		580	460	a= 1340	562	428			IP44	G5-9/28/ZT-4	078509197
a plinth	1840	580	330	a= 1340	562	298	490	1274x490	IP55	GH5-9/28/ZT	077519197
		580	460	a= 1340	562	428			IP44	GH5-9/28/ZT-4	078519196

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in combination with equipment uprights. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. To be chosen according to the useful height of the single compartment.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
343	455x265	G5/1/PA	095775011	G5/1/PB	095775110	G5/1/PP	095775219
433	455x355	G5/2/PA	095775029	G5/2/PB	095775128	G5/2/PP	095775227
523	455x445	G5/3/PA	095775037	G5/3/PB	095775136	G5/3/PP	095775235
658	455x580	G5/4/PA	095775045	G5/4/PB	095775144	G5/4/PP	095775243
883	455x805	G5/5/PA	095775052	G5/5/PB	095775151	G5/5/PP	095775250
1130	455x1030 (in 2 pieces)	G5/7/PA	095775060	G5/7/PB	095775169	G5/7/PP	095775268
1340	455x1240 (in 2 pieces)	G5/8/PA	095775078	G5/8/PB	095775177	G5/8/PP	095775276

Closing bottom plates



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosure to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads max. diam. 76. In the IP55 enclosure the partition is supplied as standard.

Enclosure depth, mm	Blank partition		Partition with conical fairleads	
	Model	Code	Model	Code
330	G5/SIC	095775409	G5/SIM	095775425
460	GH5/SIC	095775458	GH5/SIM	095775474

Brackets kit for supporting the mounting plates on the uprights

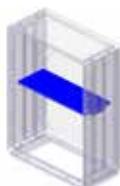


Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plates. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plates. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



Characteristics

To be installed using 2 upright kits G-./MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM. These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

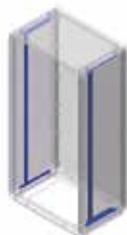
Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	485	17	G5/RP	095775631
460	355	485	17	GH5/RP	095775649

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, bottom partitions. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height enclosure mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
400	G-1/MT	095770012	G/SM	095770905	GH/SM	095770913
490	G-2/MT	095770020				
580	G-3/MT	095770038				
715	G-4/MT	095770046				
940	G-5/MT	095770053				
1120	G-6/MT	095770061				
1180	G-7/MT	095770079				
1390	G-8/MT	095770087				
1840	G-9/MT	095770095				
N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.						

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey color RAL 7035. Designed to be fastened onto the uprights kit.

To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment mm	Nr. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
343	1	24	G5/1/TPM	095775706
433	2	48	G5/2/TPM	095775714
523	3	72	G5/3/TPM	095775722
658	3	72	G5/4/TPM	095775730
883	4	96	G5/5/TPM	095775748
1130	6	144	G5/7/TPM	095775755
1340	6	144	G5/8/TPM	095775763

Modular equipment support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
343	G5/1/CST	095775805	1	G5/1/TPM	095775706
433	G5/2-5/CST	095775813	1	G5/2/TPM	095775714
523	G5/3-7/CST	095775821	1	G5/3/TPM	095775722
658	G5/4-8/CST	095775839	1	G5/4/TPM	095775730
883	G5/2-5/CST	095775813	2	G5/5/TPM	095775748
1130	G5/3-7/CST	095775821	2	G5/7/TPM	095775755
1340	G5/4-8/CST	095775839	2	G5/8/TPM	095775763

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Graf5 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G5/PC	095775607
Slotted	24 DIN modules (17,5mm) for each panel	G5/PM24	095775623

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 mounting plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel. To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G5/1/CST	095775805	330	85	G5/1/PACST	095775854
G5/2-5/CST	095775813	330	85	G5/2-5/PACST	095775862
		460	215	GH5/2-5/PACST	095775904
G5/3-7/CST	095775821	330	85	G5/3-7/PACST	095775870
		460	215	GH5/3-7/PACST	095775912
G5/4-8/CST	095775839	330	85	G5/4-8/PACST	095775888
		460	215	GH5/4-8/PACST	095775920

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit**.

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit
IP55		IP44			Vano "a" 
Model	Code	Model	Code	Code	Code
Depth mm 330					
G5-1/1/T	077500106	G5-1/1/T-4	078500105	095773313	095775193
G5-2/2/T	077502102	G5-2/2/T-4	078502101	095773321	095775292
G5-3/3/T	077503100	G5-3/3/T-4	078503109	095773339	095775391
G5-4/4/T	077504108	G5-4/4/T-4	078504107	095773347	095775490
G5-5/5/T	077505105	G5-5/5/T-4	078505104	095773354	095775599
G5-7/7/T	077507101	G5-7/7/T-4	078507100	095773370	095775797
G5-8/8/T	077508109	G5-8/8/T-4	078508108	095773388	095775896
G5-5/13/ZT	077505196	G5-5/13/ZT-4	078505195	095773354	095775391
G5-5/22/ZT	077505188	G5-5/22/ZT-4	078505187	095773354	095775292
G5-6/33/ZT	077506194	G5-6/33/ZT-4	078506193	095773362	095775391
G5-8/25/ZT	077508190	G5-8/25/ZT-4	078508199	095773388	095775599
G5-9/28/ZT	077509198	G5-9/28/ZT-4	078509197	095773396	095775896
Depth mm 460					
GH5-2/2/T	077512101	GH5-2/2/T-4	078512100	095774626	095775292
GH5-3/3/T	077513109	GH5-3/3/T-4	078513109	095774634	095775391
GH5-4/4/T	077514107	GH5-4/4/T-4	078514106	095774642	095775490
GH5-5/5/T	077515104	GH5-5/5/T-4	078515103	095774659	095775599
GH5-7/7/T	077517100	GH5-7/7/T-4	078517109	095774675	095775797
GH5-8/8/T	077518108	GH5-8/8/T-4	078518107	095774683	095775896
GH5-5/13/ZT	077515195	GH5-5/13/ZT-4	078515194	095774659	095775391
GH5-5/22/ZT	077515187	GH5-5/22/ZT-4	078515186	095774659	095775292
GH5-6/33/ZT	077516193	GH5-6/33/ZT-4	078516192	095774667	095775391
GH5-8/25/ZT	077518199	GH5-8/25/ZT-4	078518198	095774683	095775599
GH5-9/28/ZT	077519197	GH5-9/28/ZT-4	078519196	095774691	095775896

How to order

To order the kits for making panels you need simply to know the code of the enclosure and select the codes of the order kits corresponding to the reference enclosure code.
Example: enclosure code 078514106

Corresponding kits:

- Uprights/Brackets Kit: code 095774642
- Frame/Panels/Racks kit for compartment "a" code 095775490

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For further details on the composition of internal accessories for the realization of panels, consult the dedicated section at page 181.

Maximum load applicable on the mounting plate/Usable protected space for equipment/Thermal energy dissipation, page 51

Accessories and spare parts common to the whole Grafi5 series:

Ventilation units, page 190

Anchor frame, page 189

2 compartments cabinet



Characteristics

Made with 2 equipment compartments separated by an intermediate partition.
Overall height sizes available: 940mm – 1120mm - 1390mm – 1840mm for two depths: 330mm – 460mm.
Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock on all compartments (DIN18252 profile cylinder - customized differentiated on request). Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). The layout of the compartment (upper/lower) that can be modified according to the need for the installation of the internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels. Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Lower closing partition with conical fairleads and seal (only IP55 versions).

Materials

Made of RAL 7035 color berglass-reinforced plastic. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4

External dimensions, mm			Internal dimensions compartment, mm			Door dimension mm	IP	Model	Code	
Height	Width	Depth	Height	Width	Depth					
<div style="border: 1px solid black; padding: 2px; display: inline-block;">b</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">a</div>	580	330	a-b= 433	562	298	374x490	IP55	G5-5/22/T	077505204	
		460	a-b= 433	562	428	374x490	IP44	G5-5/22/T-4	078505203	
	*940	580	330	a= 523 b= 343	562	298	464x490 284x490	IP55	G5-5/31/T	077505212
			460	a= 523 b= 343	562	428	464x490 284x490	IP44	G5-5/31/T-4	078505211
<div style="border: 1px solid black; padding: 2px; display: inline-block;">b</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">a</div>	580	330	a-b= 523	562	298	464x490	IP55	GH5-5/22/T	077515203	
		460	a-b= 523	562	428	464x490	IP44	GH5-5/22/T-4	078515202	
	*940	580	330	a-b= 523	562	298	464x490	IP55	GH5-5/31/T	077515211
			460	a-b= 523	562	428	464x490	IP44	GH5-5/31/T-4	078515210
<div style="border: 1px solid black; padding: 2px; display: inline-block;">b</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">a</div>	580	330	a-b= 523	562	298	464x490	IP55	G5-6/33/T	077506202	
		460	a-b= 523	562	428	464x490	IP44	G5-6/33/T-4	078506201	
	1120	580	330	a-b= 523	562	298	464x490	IP55	GH5-6/33/T	077516201
			460	a-b= 523	562	428	464x490	IP44	GH5-6/33/T-4	078516200
<div style="border: 1px solid black; padding: 2px; display: inline-block;">b</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">a</div>	580	330	a-b= 658	562	298	599x490	IP55	G5-8/44/T	077508208	
		460	a-b= 658	562	428	599x490	IP44	G5-8/44/T-4	078508207	
	1390	580	330	a-b= 658	562	298	599x490	IP55	GH5-8/44/T	077518207
			460	a-b= 658	562	428	599x490	IP44	GH5-8/44/T-4	078518206
<div style="border: 1px solid black; padding: 2px; display: inline-block;">b</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">a</div>	580	330	a= 883 b= 433	562	298	824x490 374x490	IP55	G5-8/52/T	077508216	
		460	a= 883 b= 433	562	428	824x490 374x490	IP44	G5-8/52/T-4	078508215	
	1390	580	330	a= 883 b= 433	562	298	824x490 374x490	IP55	GH5-8/52/T	077518215
			460	a= 883 b= 433	562	428	824x490 374x490	IP44	GH5-8/52/T-4	078518214
<div style="border: 1px solid black; padding: 2px; display: inline-block;">b</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">a</div>	580	330	a-b= 883	562	298	824x490	IP55	G5-9/55/T	077509208	
		460	a-b= 883	562	428	824x490	IP44	G5-9/55/T-4	078509205	
	1840	580	330	a-b= 883	562	298	824x490	IP55	GH5-9/55/T	077519205
			460	a-b= 883	562	428	824x490	IP44	GH5-9/55/T-4	078519204
<div style="border: 1px solid black; padding: 2px; display: inline-block;">b</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">a</div>	580	330	a= 1340 b= 433	562	298	1274x490 374x490	IP55	G5-9/82/T	077509214	
		460	a= 1340 b= 433	562	428	1274x490 374x490	IP44	G5-9/82/T-4	078509213	
	1840	580	330	a= 1340 b= 433	562	298	1274x490 374x490	IP55	GH5-9/82/T	077519213
			460	a= 1340 b= 433	562	428	1274x490 374x490	IP44	GH5-9/82/T-4	078519212

* Models that can also be produced on the wall, see the Accessories section on page 177

2 compartments with integrated plinth



Characteristics

Made with 2 equipment compartments separated by an intermediate partition + bottom plinth integrated in a single support structure.

Available overall heights: 1120mm – 1390mm – 1840mm for two depth: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock on all compartments (DIN18252 profile cylinder - customized differentiated on request). Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). The layout of the compartment (higher/lower) that can be modified according to the need for the installation of the internal equipment and accessories (DOTPER® system).

Can be equipped with bottom plates and dedicated accessories for creating panels. Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Lower closing partition with conical fairleads and seal (only IP55 versions).

Materials

Made of RAL 7035 color berglass-reinforced plastic. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment.

Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions compartment, mm			Plinth height, mm	Door dimension mm	IP	Model	Code			
	Height	Width	Depth	Height	Width	Depth								
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1120	580	330	a-b= 343	562	298	400	284x490	IP55	G5-6/111/ZT	077506293
	b													
a														
plinth														
580	460	a-b= 343	562	428	284x490	IP44	G5-6/111/ZT-4	078506292						
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1390	580	330	a= 523 b= 433	562	298	400	464x490 374x490	IP55	G5-8/132/ZT	077508281
	b													
a														
plinth														
580	460	a= 523 b= 433	562	428	464x490 374x490	IP44	G5-8/132/ZT-4	078508280						
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1390	580	330	a= 523 b= 433	562	298	490	464x490 284x490	IP55	G5-8/231/ZT	077508273
	b													
a														
plinth														
580	460	a= 523 b= 433	562	428	464x490 284x490	IP44	G5-8/231/ZT-4	078508272						
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1390	580	330	a-b= 433	562	298	490	374x490	IP55	G5-8/222/ZT	077508299
	b													
a														
plinth														
580	460	a-b= 433	562	428	374x490	IP44	G5-8/222/ZT-4	078508298						
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1840	580	330	a= 883 b= 523	562	298	400	824x490 464x490	IP55	G5-9/153/ZT	077509297
	b													
a														
plinth														
580	460	a= 883 b= 523	562	428	824x490 464x490	IP44	G5-9/153/ZT-4	078509296						
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1840	580	330	a= 883 b= 433	562	298	490	824x490 374x490	IP55	G5-9/252/ZT	077509271
	b													
a														
plinth														
580	460	a= 883 b= 433	562	428	824x490 374x490	IP44	G5-9/252/ZT-4	078509270						
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1840	580	330	a-b= 658	562	298	490	599x490	IP55	G5-9/244/ZT	077509289
	b													
a														
plinth														
580	460	a-b= 658	562	428	599x490	IP44	G5-9/244/ZT-4	078509288						
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>b</td></tr> <tr><td>a</td></tr> <tr><td>plinth</td></tr> </table>	b	a	plinth	1840	580	330	a-b= 658	562	298	490	599x490	IP55	G5-9/244/ZT	077509289
	b													
a														
plinth														
580	460	a-b= 658	562	428	599x490	IP44	G5-9/244/ZT-4	078509288						

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
343	455x265	G5/1/PA	095775011	G5/1/PB	095775110	G5/1/PP	095775219
433	455x355	G5/2/PA	095775029	G5/2/PB	095775128	G5/2/PP	095775227
523	455x445	G5/3/PA	095775037	G5/3/PB	095775136	G5/3/PP	095775235
658	455x580	G5/4/PA	095775045	G5/4/PB	095775144	G5/4/PP	095775243
883	455x805	G5/5/PA	095775052	G5/5/PB	095775151	G5/5/PP	095775250
1340	455x1240 (in 2 pezzi)	G5/8/PA	095775078	G5/8/PB	095775177	G5/8/PP	095775276

Closing bottom plates



Characteristics

Made of 3 mm thick bakelite. It is installed in the lower part of the cabinets to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In the IP55 enclosure the partition is supplied as standard.

Enclosure depth mm	Blank partition		Partition with conical fairleads	
	Model	Code	Model	Code
330	G5/SIC	095775409	G5/SIM	095775425
460	GH5/SIC	095775458	GH5/SIM	095775474

Brackets kit for supporting the mounting plates on the uprights

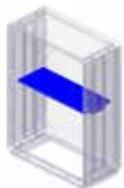


Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



Characteristics

To be installed using 2 upright kits G-./MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM. These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	485	17	G5/RP	095775631
460	355	485	17	GH5/RP	095775649

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plates/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, bottom panels. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height enclosure mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
940	G-5/MT	095770053	G/SM	095770905	GH/SM	095770913
1120	G-6/MT	095770061				
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey color RAL 7035. Designed to be fastened onto the uprights kit.

To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
343	1	24	G5/1/TPM	095775706
433	2	48	G5/2/TPM	095775714
523	3	72	G5/3/TPM	095775722
658	3	72	G5/4/TPM	095775730
883	4	96	G5/5/TPM	095775748
1340	6	144	G5/8/TPM	095775763

Modular equipment support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
343	G5/1/CST	095775805	1	G5/1/TPM	095775706
433	G5/2-5/CST	095775813	1	G5/2/TPM	095775714
523	G5/3-7/CST	095775821	1	G5/3/TPM	095775722
658	G5/4-8/CST	095775839	1	G5/4/TPM	095775730
883	G5/2-5/CST	095775813	2	G5/5/TPM	095775748
1340	G5/4-8/CST	095775839	2	G5/8/TPM	095775763

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi5 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G5/PC	095775607
Slotted	24 DIN modules (17,5mm) for each panel	G5/PM24	095775623

Bottom partition/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 mounting plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel. To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G5/1/CST	095775805	330	85	G5/1/PACST	095775854
G5/2-5/CST	095775813	330	85	G5/2-5/PACST	095775862
		460	215	GH5/2-5/PACST	095775904
G5/3-7/CST	095775821	330	85	G5/3-7/PACST	095775870
		460	215	GH5/3-7/PACST	095775912
G5/4-8/CST	095775839	330	85	G5/4-8/PACST	095775888
		460	215	GH5/4-8/PACST	095775920

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit	
IP55		IP44				
Model	Code	Model	Code		Compartment "a"	Compartment "b"
Model	Code	Model	Code	Code	Code	Code
Depth mm 330						
G5-5/22/T	077505204	G5-5/22/T-4	078505203	095773354	095775292	095775292
G5-5/31/T	077505212	G5-5/31/T-4	078505211	095773354	095775391	095775193
G5-6/33/T	077506202	G5-6/33/T-4	078506201	095773362	095775391	095775391
G5-8/44/T	077508208	G5-8/44/T-4	078508207	095773388	095775490	095775490
G5-8/52/T	077508216	G5-8/52/T-4	078508215	095773388	095775599	095775292
G5-9/55/T	077509208	G5-9/55/T-4	078509205	095773396	095775599	095775599
G5-9/82/T	077509214	G5-9/82/T-4	078509213	095773396	095775896	095775292
G5-6/111/ZT	077506293	G5-6/111/ZT-4	078506292	095773362	095775193	095775193
G5-8/132/ZT	077508281	G5-8/132/ZT-4	078508280	095773388	095775391	095775292
G5-8/231/ZT	077508273	G5-8/231/ZT-4	078508272	095773388	095775391	095775193
G5-8/222/ZT	077508299	G5-8/222/ZT-4	078508298	095773388	095775292	095775292
G5-9/153/ZT	077509297	G5-9/153/ZT-4	078509296	095773396	095775599	095775292
G5-9/252/ZT	077509271	G5-9/252/ZT-4	078509270	095773396	095775599	095775391
G5-9/244/ZT	077509289	G5-9/244/ZT-4	078509288	095773396	095775490	095775490
Depth mm 460						
GH5-5/22/T	077515203	GH5-5/22/T-4	078515202	095774659	095775292	095775292
GH5-5/31/T	077515211	GH5-5/31/T-4	078515210	095774659	095775391	095775193
GH5-6/33/T	077516201	GH5-6/33/T-4	078516200	095774667	095775391	095775391
GH5-8/44/T	077518207	GH5-8/44/T-4	078518206	095774683	095775490	095775490
GH5-8/52/T	077518215	GH5-8/52/T-4	078518214	095774683	095775599	095775292
GH5-9/55/T	077519205	GH5-9/55/T-4	078519204	095774691	095775599	095775599
GH5-9/82/T	077519213	GH5-9/82/T-4	078519212	095774691	095775896	095775292
GH5-6/111/ZT	077516292	GH5-6/111/ZT-4	078516291	095774667	095775193	095775193
GH5-8/132/ZT	077518280	GH5-8/132/ZT-4	078518289	095774683	095775391	095775292
GH5-8/231/ZT	077518272	GH5-8/231/ZT-4	078518271	095774683	095775391	095775193
GH5-8/222/ZT	077518298	GH5-8/222/ZT-4	078518297	095774683	095775292	095775292
GH5-9/153/ZT	077519296	GH5-9/153/ZT-4	078519295	095774691	095775599	095775292
GH5-9/252/ZT	077519270	GH5-9/252/ZT-4	078519279	095774691	095775599	095775391
GH5-9/244/ZT	077519288	GH5-9/244/ZT-4	078519287	095774691	095775490	095775490

How to order

To order the kits for making panels you need simply to know the code of the 2 compartments enclosure - 2 compartments with integrated plinth and select the codes of the order kits corresponding to the reference enclosure code. Example: Enclosure code 077508281.

Corresponding kits:

- Uprights/Brackets Kit: code 095773388
- Frame/Panels/Racks kit
 - for compartment "a" code 095775391
 - for compartment "b" code 095775292

In case you want to equip only a single compartment must always order the Upright/Brackets Kit + Frame/Panel/Rack Kit corresponding to the compartment to be accessorised..

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For further details on the composition of internal accessories for the realization of panels, consult the dedicated section at page 181.

Maximum load applicable on the mounting plate/Usable protected space for equipment/Thermal energy dissipation, page 52

Accessories and spare parts common to the whole Grafi5 series:

Ventilation units, page 190

Anchor frame, page 189

3 compartments enclosures



Characteristics

Made with 3 equipment compartments separated by an intermediate partition.
 Overall height sizes available: 1120mm – 1390mm – 1840mm for two depths: 330mm – 460mm.
 Rated insulation voltage Ui 690V.
 Complete with fixing frame for installation on a concrete base.
 Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).
 Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).
 Arrangement of the compartments (upper / intermediate / lower) modifiable on site according to the needs of installation of equipment and internal accessories (DOTPER® system)
 Can be equipped with mounting plates and dedicated accessories for creating panels.
 Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.
 Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of RAL 7035 color fiberglass-reinforced plastic. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.
 Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions compartment, mm			Door dimension, mm	IP	Model	Code			
	Height	Width	Depth	Height	Width	Depth							
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1120	580	330	a-b-c= 343	562	298	284x490	IP55	G5-6/111/T	077506301
	c												
	b												
	a												
580	460	a-b-c= 343	562	428	284x490	IP44	G5-6/111/T-4	078506300					
	1120	580	460	a-b-c= 343	562	428	284x490	IP55	GH5-6/111/T	077516300			
								IP44	GH5-6/111/T-4	078516309			
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1390	580	330	a-b-c= 433	562	298	374x490	IP55	G5-8/222/T	077508307
	c												
	b												
	a												
580	460	a-b-c= 433	562	428	374x490	IP44	G5-8/222/T-4	078508306					
	1390	580	460	a-b-c= 433	562	428	374x490	IP55	GH5-8/222/T	077518306			
								IP44	GH5-8/222/T-4	078518305			
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1390	580	330	a= 523 b= 433 c= 343	562	298	464x490 374x490 284x490	IP55	G5-8/321/T	077508315
	c												
	b												
	a												
464x490 374x490 284x490	IP44	G5-8/321/T-4	078508314										
	1390	580	460	a= 523 b= 433 c= 343	562	428	464x490 374x490 284x490	IP55	GH5-8/321/T	077518314			
							464x490 374x490 284x490	IP44	GH5-8/321/T-4	078518313			
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1840	580	330	a= 883 b-c= 433	562	298	824x490 374x490	IP55	G5-9/522/T	077509305
	c												
	b												
	a												
824x490 374x490	IP44	G5-9/522/T-4	078509304										
	1840	580	460	a= 883 b-c= 433	562	428	824x490 374x490	IP55	GH5-9/522/T	077519304			
							824x490 374x490	IP44	GH5-9/522/T-4	078519303			
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1840	580	330	a-b= 658 c= 433	562	298	599x490 374x490	IP55	G5-9/442/T	077509313
	c												
	b												
	a												
599x490 374x490	IP44	G5-9/442/T-4	078509312										
	1840	580	460	a-b= 658 c= 433	562	428	599x490 374x490	IP55	GH5-9/442/T	077519312			
							599x490 374x490	IP44	GH5-9/442/T-4	078519311			
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1840	580	330	a= 883 b= 523 c= 343	562	298	824x490 464x490 284x490	IP55	G5-9/531/T	077509321
	c												
	b												
	a												
824x490 464x490 284x490	IP44	G5-9/531/T-4	078509320										
	1840	580	460	a= 883 b= 523 c= 343	562	428	824x490 464x490 284x490	IP55	GH5-9/531/T	077519320			
							824x490 464x490 284x490	IP44	GH5-9/531/T-4	078519329			

3 compartments enclosures with integrated plinth

**Characteristics**

Made with 3 equipment compartments separated by an intermediate partition + bottom plinth integrated in a single support structure.

Overall height sizes available: 1840mm for two depths: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).

Arrangement of the compartments (upper / intermediate / lower) modifiable on site according to the needs of installation of equipment and internal accessories (DOTPER® system)

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of RAL 7035 color fiberglass-reinforced plastic. Handle in thermoplastic resin. Rotating

bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment.

Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4 .

External dimensions, mm			Internal dimensions compartment, mm			Plinth height mm	Door dimension mm	IP	Model	Code
Height	Width	Depth	Height	Width	Depth					
1840	580	330	a= 523 b-c= 433	562	298	400	464x490 374x490	IP55	G5-9/1322/ZT	077509388
								IP44	G5-9/1322/ZT-4	078509387
	580	460	a= 523 b-c= 433	562	428		464x490 374x490	IP55	GH5-9/1322/ZT	077519387
								IP44	GH5-9/1322/ZT-4	078519386
1840	580	330	a-b= 523 c= 343	562	298	400	464x490 284x490	IP55	G5-9/1331/ZT	077509396
								IP44	G5-9/1331/ZT-4	078509395
	580	460	a-b= 523 c= 343	562	428		464x490 284x490	IP55	GH5-9/1331/ZT	077519395
								IP44	GH5-9/1331/ZT-4	078519394
1840	580	330	a-b-c= 433	562	298	490	374x490	IP55	G5-9/2222/ZT	077509370
								IP44	G5-9/2222/ZT-4	078509379
	580	460	a-b-c= 433	562	428		374x490	IP55	GH5-9/2222/ZT	077519379
								IP44	GH5-9/2222/ZT-4	078519378

c
b
a
plinth

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bachelite (spessore 5 mm)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
343	455x265	G5/1/PA	095775011	G5/1/PB	095775110	G5/1/PP	095775219
433	455x355	G5/2/PA	095775029	G5/2/PB	095775128	G5/2/PP	095775227
523	455x445	G5/3/PA	095775037	G5/3/PB	095775136	G5/3/PP	095775235
658	455x580	G5/4/PA	095775045	G5/4/PB	095775144	G5/4/PP	095775243
883	455x805	G5/5/PA	095775052	G5/5/PB	095775151	G5/5/PP	095775250

Closing bottom plates



Characteristics

Made of 3 mm thick bakelite. It is installed in the lower part of the cabinets to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In the IP55 enclosure the partition is supplied as standard.

Enclosure depth mm	Blank partition		Partition with conical fairleads	
	Model	Code	Model	Code
330	G5/SIC	095775409	G5/SIM	095775425
460	GH5/SIC	095775458	GH5/SIM	095775474

Brackets kit for supporting the mounting plates on the uprights

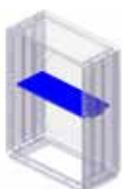


Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM. These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	485	17	G5/RP	095775631
460	355	485	17	GH5/RP	095775649

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment plates
- Modular equipment support rack
- Blank and slotted plates
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, bottom plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height enclosure mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
1120	G-6/MT	095770061	G/SM	095770905	GH/SM	095770913
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey color RAL 7035. Designed to be fastened onto the uprights kit. To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment, mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
343	1	24	G5/1/TPM	095775706
433	2	48	G5/2/TPM	095775714
523	3	72	G5/3/TPM	095775722
658	3	72	G5/4/TPM	095775730
883	4	96	G5/5/TPM	095775748

Modular equipment support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
343	G5/1/CST	095775805	1	G5/1/TPM	095775706
433	G5/2-5/CST	095775813	1	G5/2/TPM	095775714
523	G5/3-7/CST	095775821	1	G5/3/TPM	095775722
658	G5/4-8/CST	095775839	1	G5/4/TPM	095775730
883	G5/2-5/CST	095775813	2	G5/5/TPM	095775748

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi5 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G5/PC	095775607
Slotted	24 DIN modules (17,5mm) for each panel	G5/PM24	095775623

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 mounting plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel. To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G5/1/CST	095775805	330	85	G5/1/PACST	095775854
G5/2-5/CST	095775813	330	85	G5/2-5/PACST	095775862
		460	215	GH5/2-5/PACST	095775904
G5/3-7/CST	095775821	330	85	G5/3-7/PACST	095775870
		460	215	GH5/3-7/PACST	095775912
G5/4-8/CST	095775839	330	85	G5/4-8/PACST	095775888
		460	215	GH5/4-8/PACST	095775920

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: Upright/bracket kit + Frame/Panels/Rack kit.

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit		
IP55		IP44					
Model	Code	Model	Code	Code	Compartment "a"	Compartment "b"	Compartment "c"
					Code	Code	Code
Depth mm 330							
G5-6/111/T	077506301	G5-6/111/T-4	078506300	095773362	095775193	095775193	095775193
G5-8/222/T	077508307	G5-8/222/T-4	078508306	095773388	095775292	095775292	095775292
G5-8/321/T	077508315	G5-8/321/T-4	078508314	095773388	095775391	095775292	095775193
G5-9/522/T	077509305	G5-9/522/T-4	078509304	095773396	095775599	095775292	095775292
G5-9/442/T	077509313	G5-9/442/T-4	078509312	095773396	095775490	095775490	095775292
G5-9/531/T	077509321	G5-9/531/T-4	078509320	095773396	095775599	095775391	095775193
G5-9/1322/ZT	077509388	G5-9/1322/ZT-4	078509387	095773396	095775391	095775292	095775292
G5-9/1331/ZT	077509396	G5-9/1331/ZT-4	078509395	095773396	095775391	095775391	095775193
G5-9/2222/ZT	077509370	G5-9/2222/ZT-4	078509379	095773396	095775292	095775292	095775292
Depth mm 460							
GH5-6/111/T	077516300	GH5-6/111/T-4	078516309	095774667	095775193	095775193	095775193
GH5-8/222/T	077518306	GH5-8/222/T-4	078518305	095774683	095775292	095775292	095775292
GH5-8/321/T	077518314	GH5-8/321/T-4	078518313	095774683	095775391	095775292	095775193
GH5-9/522/T	077519304	GH5-9/522/T-4	078519303	095774691	095775599	095775292	095775292
GH5-9/442/T	077519312	GH5-9/442/T-4	078519311	095774691	095775490	095775490	095775292
GH5-9/531/T	077519320	GH5-9/531/T-4	078519329	095774691	095775599	095775391	095775193
GH5-9/1322/ZT	077519387	GH5-9/1322/ZT-4	078519386	095774691	095775391	095775292	095775292
GH5-9/1331/ZT	077519395	GH5-9/1331/ZT-4	078519394	095774691	095775391	095775391	095775193
GH5-9/2222/ZT	077519379	GH5-9/2222/ZT-4	078519378	095774691	095775292	095775292	095775292

How to order

To order the kits for making panels you need simply to know the code of the 3 compartments enclosure - 3 compartments with integrated plinth and select the codes of the order kits corresponding to the reference enclosure code. Example: Enclosure code 077508281.

Corresponding kits:

- Uprights/Brackets Kit: code 095774683
- Frame/Panels/Racks kit
 - for compartment "a" code 095775391
 - for compartment "b" code 095775292
 - for compartment "c" code 095775193

In case you want to equip only a single compartment must always order the Upright/Brackets Kit + Frame/Panel/Rack Kit corresponding to the compartment to be accessorised.

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For further details on the composition of internal accessories for the realization of panels, consult the dedicated section at page 181.

Maximum load applicable on the mounting plate/Usable protected space for equipment/Thermal energy dissipation, page 54

Accessories and spare parts common to the whole Grafi5 series:

Ventilation units, page 190

Anchor frame, page 189

4 and 5 compartments enclosures



Characteristics

Made with 4/5 equipment compartments separated by an intermediate partition.
 Arrangement of the compartments (upper / intermediate / lower) modifiable on site according to the needs of installation of equipment and internal accessories (DOTPER® system)
 Overall height sizes available: 1840mm for two depths: 330mm – 460mm.
 Rated insulation voltage Ui 690V.
 Complete with fixing frame for installation on a concrete base.
 Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).
 Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).
 Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.
 Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

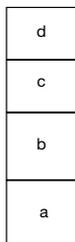
Made of RAL 7035 color fiberglass-reinforced plastic. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment.
 Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with
 CEI EN 60529, IK10 according to CEI EN 62262.
 Pre-engineered for apparatus in class II according to CEI 64-8/4

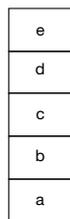
4 compartments cabinets

External dimensions, mm			Internal dimensions compartment, mm			Door dimension, mm	IP	Model	Code
Height	Width	Depth	Height	Width	Depth				
1840	580	330	a-b= 523 c-d= 343	562	298	464x490 284x490	IP55	G5-9/3311/T	077509404
							IP44	G5-9/3311/T-4	078509403
	580	460	a-b= 523 c-d= 343	562	428	464x490 284x490	IP55	GH5-9/3311/T	077519403
							IP44	GH5-9/3311/T-4	078519402
1840	580	330	a= 523 b-c= 433 d= 343	562	298	464x490 374x490 284x490	IP55	G5-9/3221/T	077509412
							IP44	G5-9/3221/T-4	078509411
	580	460	a= 523 b-c= 433 d= 343	562	428	464x490 374x490 284x490	IP55	GH5-9/3221/T	077519411
							IP44	GH5-9/3221/T-4	078519410
1840	580	330	a-b-c-d=433	562	298	374x490	IP55	G5-9/2222/T	077509420
							IP44	G5-9/2222/T-4	078509429
	580	460	a-b-c-d=433	562	428	374x490	IP55	GH5-9/2222/T	077519429
							IP44	GH5-9/2222/T-4	078519428



5 compartments cabinets

External dimensions, mm			Internal dimensions compartment, mm			Door dimension, mm	IP	Model	Code
Height	Width	Depth	Height	Width	Depth				
1840	580	330	a-b-c-d-e=343	562	298	284x490	IP55	G5-9/11111/T	077509503
							IP44	G5-9/11111/T-4	078509502
	580	460	a-b-c-d-e=343	562	428	284x490	IP55	GH5-9/11111/T	077519502
							IP44	GH5-9/11111/T-4	078519501



4 compartments enclosures with integrated plinth

**Characteristics**

Made with 4 equipment compartments separated by an intermediate partition + bottom plinth integrated in a single support structure.

Arrangement of the compartments (upper / intermediate / lower) modifiable on site according to the needs of installation of equipment and internal accessories (DOTPER® system)

Overall height sizes available: 1840mm for two depth: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).

Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of RAL 7035 color fiberglass-reinforced plastic. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment.

Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with

CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4 

	External dimensions, mm			Internal dimensions compartment, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
d	1840	580	330	a-b-c-d=343	562	298	400	284x490	IP55	G5-9/11111/ZT	077509495
c									IP44	G5-9/1111/ZT-4	078509494
b	580	460	a-b-c-d=343	562	428	400	284x490	IP55	GH5-9/1111/ZT	077519494	
a								IP44	GH5-9/1111/ZT-4	078519493	
plinth											

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
343	455x265	G5/1/PA	095775011	G5/1/PB	095775110	G5/1/PP	095775219
433	455x355	G5/2/PA	095775029	G5/2/PB	095775128	G5/2/PP	095775227
523	455x445	G5/3/PA	095775037	G5/3/PB	095775136	G5/3/PP	095775235

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite. It is installed in the lower part of the cabinets to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In IP55 cabinets the partition is provided as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G5/SIC	095775409	G5/SIM	095775425
460	GH5/SIC	095775458	GH5/SIM	095775474

Brackets kit for supporting the mounting plates on the uprights

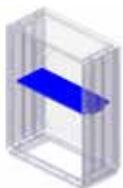


Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM. These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	485	17	G5/RP	095775631
460	355	485	17	GH5/RP	095775649

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, bottom plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height enclosure, mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
1840	G-9/MT	095770095	G/SM	095770905	GH/SM	095770913

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey color RAL 7035. Designed to be fastened onto the uprights kit. To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment, mm	Nr. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
343	1	24	G5/1/TPM	095775706
433	2	48	G5/2/TPM	095775714
523	3	72	G5/3/TPM	095775722

Modular equipments support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
343	G5/1/CST	095775805	1	G5/1/TPM	095775706
433	G5/2-5/CST	095775813	1	G5/2/TPM	095775714
523	G5/3-7/CST	095775821	1	G5/3/TPM	095775722

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi5 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G5/PC	095775607
Slotted	24 DIN modules (17,5mm) for each panel	G5/PM24	095775623

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 mounting plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel. To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G5/1/CST	095775805	330	85	G5/1/PACST	095775854
G5/2-5/CST	095775813	330	85	G5/2-5/PACST	095775862
		460	215	GH5/2-5/PACST	095775904
G5/3-7/CST	095775821	330	85	G5/3-7/PACST	095775870
		460	215	GH5/3-7/PACST	095775912

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE ENCLOSURE				Upright/ Bracket kit	Frame/Panels/Rack kit				
IP55		IP44							
Model	Code	Model	Code	Code	Compartment "a"	Compartment "b"	Compartment "c"	Compartment "d"	Compartment "e"
Depth mm 330									
G5-9/3311/T	077509404	G5-9/3311/T-4	078509403	095773396	095775391	095775391	095775193	095775193	
G5-9/3221/T	077509412	G5-9/3221/T-4	078509411	095773396	095775391	095775292	095775292	095775193	
G5-9/2222/T	077509420	G5-9/2222/T-4	078509429	095773396	095775292	095775292	095775292	095775292	
G5-9/11111/ZT	077509495	G5-9/11111/ZT-4	078509494	095773396	095775193	095775193	095775193	095775193	
G5-9/11111/T	077509503	G5-9/11111/T-4	078509502	095773396	095775193	095775193	095775193	095775193	095775193
Depth mm 460									
GH5-9/3311/T	077519403	GH5-9/3311/T-4	078519402	095774691	095775391	095775391	095775193	095775193	
GH5-9/3221/T	077519411	GH5-9/3221/T-4	078519410	095774691	095775391	095775292	095775292	095775193	
GH5-9/2222/T	077519429	GH5-9/2222/T-4	078519428	095774691	095775292	095775292	095775292	095775292	
GH5-9/1111/ZT	077519494	GH5-9/1111/ZT-4	078519493	095774691	095775193	095775193	095775193	095775193	
GH5-9/11111/T	077519502	GH5-9/11111/T-4	078519501	095774691	095775193	095775193	095775193	095775193	095775193

How to order

To order the kits for making panels you need simply to know the code of the 2 compartments enclosure - 2 compartments with integrated plinth and select the codes of the order kits corresponding to the reference enclosure code. Example: Enclosure code 077519502.

Corresponding kits:

- Uprights/Brackets Kit: code 095774691
- Frame/Panels/Racks kit
 - for compartment "a" code 095775193
 - for compartment "b" code 095775193
 - for compartment "c" code 095775193
 - for compartment "d" code 095775193.
 - for compartment "e" code 095775193

In case you want to equip only a single compartment must always order the Upright/Brackets Kit + Frame/Panel/Rack Kit corresponding to the compartment to be accessorised.

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For further details on the composition of internal accessories for the realization of panels, consult the dedicated section at page 181.

Maximum load applicable on the mounting plate/Usable protected space for equipment/Thermal energy dissipation, page 55-56

Accessories and spare parts common to the whole Grafi5 series:

Ventilation units, page 190

Anchor frame, page 189

Enclosures without doors, customizable



Characteristics

Made with the standard bearing structure but without door.

Overall height sizes available: 1390mm - 1840mm for two depths: 330mm - 460mm.

Can be used in conjunction with single "door kits" to create enclosures with multiple compartments in sizes and/or arrangements to suit specific requirements. Structure pre-engineered with hinges into which the individual doors can be fitted in the required positions.

Complete with fixing frame for installation on a concrete base. Can be equipped with mounting plates and dedicated accessories for creating switchgear.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Closing bottom plate with conical fairleads and seal available.

Materials

Made of fiberglass-reinforced plastic in RAL7035 color.

External non-accessible stainless steel hinges. Galvanized and painted steel frame.

Seals made of expanded EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4

External dimensions, mm			Internal dimensions compartment, mm			IP	Model	Code
Height	Width	Depth	Height	Width	Depth			
1390	580	330	-	562	298	IP55	G5-8/T	077508000
	580	460	-	562	428	IP55	GH5-8/T	077518009
1840	580	330	-	562	298	IP55	G5-9/T	077509008
	580	460	-	562	428	IP55	GH5-9/T	077519007

Through the combination of the following accessories, on the enclosure without doors can be made over the coded compartments, other versions with compartments arranged according to the specific requirements of switchboards.

Plinth front panel kit + crossbar



Characteristics
Supplied complete with gasket and fixing screws.

Compartment useful height, mm	Model	Code
343	G5/1/KTZ	095778015
433	G5/2/KTZ	095778023
523	G5/3/KTZ	095778031

Compartment door Kit



Characteristics
Supplied with side door hinge parts, seals and lever lock Y21 encryption.

Compartment useful height, mm	Door dimension, mm	Model	Code
343	284x490	G5/1/KA	095778510
433	374x490	G5/2/KA	095778528
523	464x490	G5/3/KA	095778536
658	599x490	G5/4/KA	095778544
883	824x490	G5/5/KA	095778551
1340	1274x490	G5/8/KA	095778585

Partition compartment Kit + crossbar



Characteristics
Supplied complete with brackets and fixing screws. To be chosen according to the enclosure depth (330 or 460).

Depth, mm	Model	Code
330	G5/KTS	095775003
460	GH5/KTS	095775102

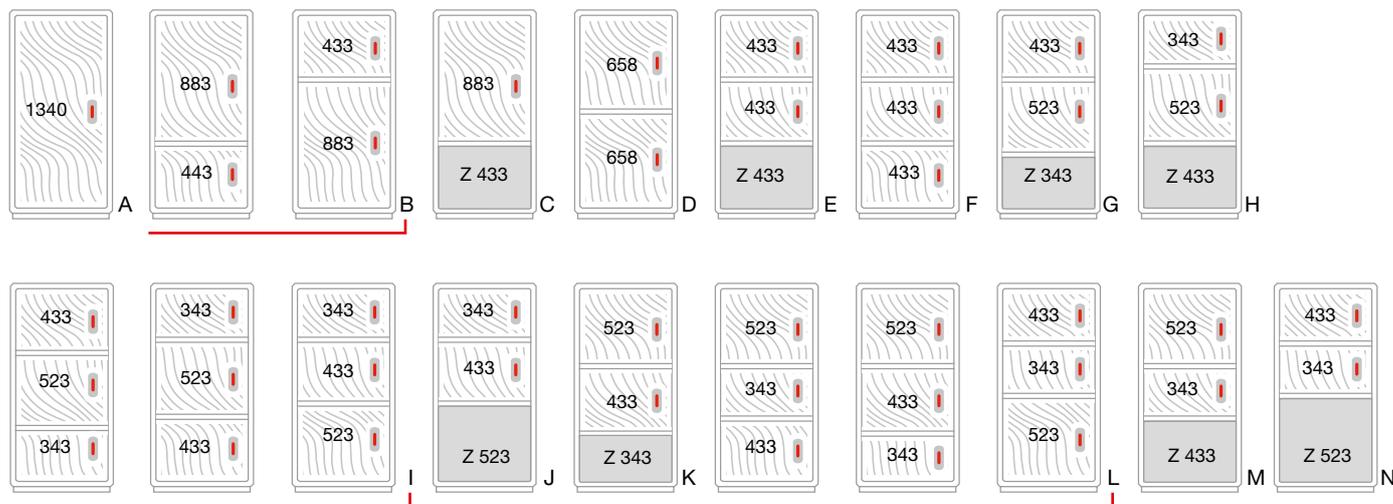


Possible compositions

Customizable enclosures without doors make it possible to tackle different partitioning needs of the interior volume starting with a few basic elements. In the composition diagrams provided below, all the possible combinations which can be obtained on enclosures of an overall height of 1390mm and 1840mm are highlighted. The letters identifying the single compositions shown in the table make it possible to quickly identify the types and number of kits needed to make them.

The figures shown on each individual compartment indicate its usable height, which is essential for identifying any internal accessories (mounting plates, accessories for making panels, etc.). When selecting accessories, refer to the sections corresponding to the selected composition/s based on the number of compartments (1 compartment page 20; 2 compartments page 26; 3 compartments page 32; 4 compartments page 38; 5 compartments page 38).

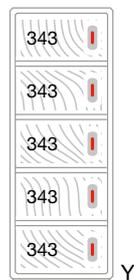
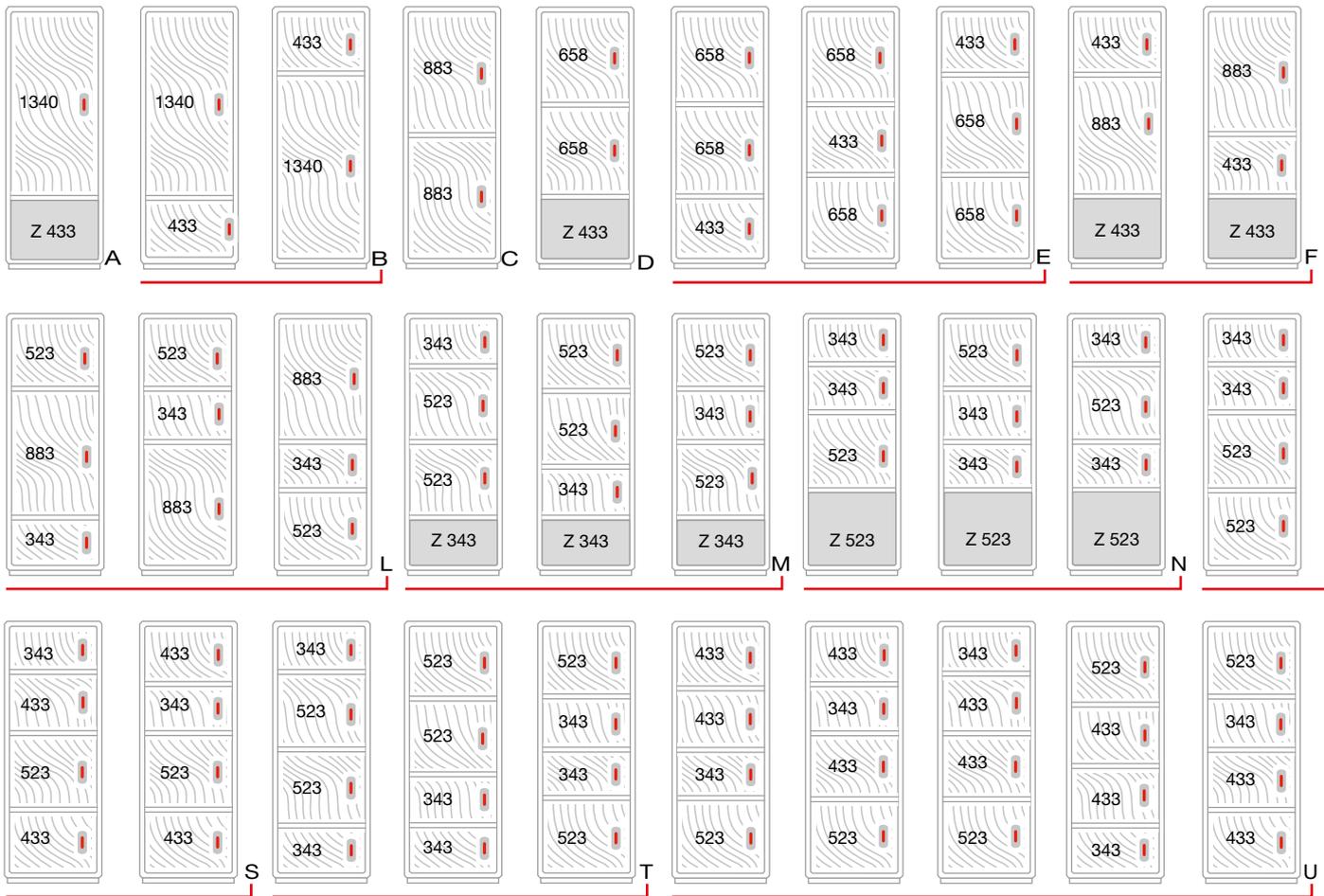
COMPOSITIONS REALIZED ON ENCLOSURES WITHOUT DOOR HEIGHT OVERALL DIMENSIONS - 1390MM



	Code	Model	Useful height mm	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Plinth kit	095778015	G5/1/KTZ	343							1				1			
	095778023	G5/2/KTZ	433			1		1			1					1	
	095778031	G5/3/KTZ	523										1				1
Door kit	095778510	G5/1/KA	343								1	1	1		1	1	1
	095778528	G5/2/KA	433		1			2	3	1		1	1	1	1		1
	095778536	G5/3/KA	523							1	1	1		1	1	1	
	095778544	G5/4/KA	658				2										
	095778551	G5/5/KA	883		1	1											
	095778585	G5/8/KA	1340	1													
Partition kit Depth 330	095775003	G5/KTS			1		1	1	2	1	1	2	1	1	2	1	1
or																	
Partition kit Depth 460	095775102	GH5/KTS			1		1	1	2	1	1	2	1	1	2	1	1

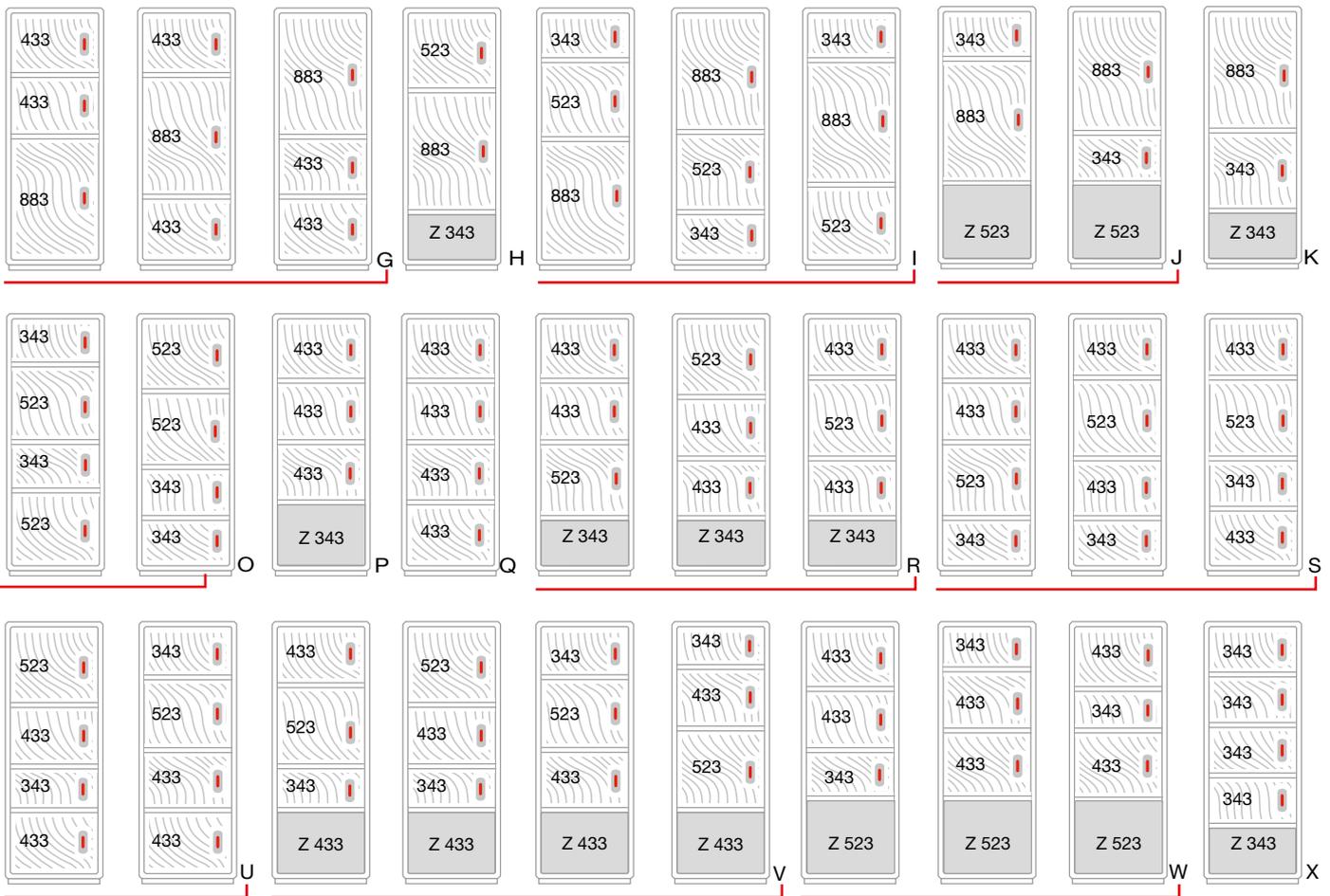
The following table specifies what configurations are supported for customizable without door enclosures.

COMPOSITIONS REALIZED ON ENCLOSURES WITHOUT DOOR HEIGHT OVERALL DIMENSIONS - 1840mm



	Code	Model	Useful height mm	A	B	C	D	E	F	G	H	I	
Plinth kit	095778015	G5/1/KTZ	343								1		
	095778023	G5/2/KTZ	433	1			1		1				
	095778031	G5/3/KTZ	523										
Door kit	095778510	G5/1/KA	343									1	
	095778528	G5/2/KA	433		1			1	1	2			
	095778536	G5/3/KA	523								1	1	
	095778544	G5/4/KA	658				2	2					
	095778551	G5/5/KA	883			2			1	1	1	1	
	095778585	G5/8/KA	1340	1	1								
Partition kit Depth 330	095775003	G5/KTS			1	1	1	2	1	2	1	2	
or													
Partition kit Depth 460	095775102	GH5/KTS			1	1	1	2	1	2	1	2	

The following table specifies what configurations are supported for customizable without door enclosures.



	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
		1		1					1						1	
							1					1				
	1				1									1		
	1		1	1	2	2				1	2	1	1	1	4	5
							3	4	2	2		2	1	2		
		1	1	2	1	2			1	1	2	1	1			
	1	1	1													
	1	1	2	2	2	3	2	3	2	3	3	3	2	2	3	4
	1	1	2	2	2	3	2	3	2	3	3	3	2	2	3	4

Maximum load

Maximum load applicable on the mounting plate and usable protected space for equipment in observance of the characteristics certified by standard CEI EN 62208.

The table shows the maximum load value applicable on the mounting plate installed on both the bottom wall and on the uprights

(in the case of multiple compartments, the value refers to the individual compartments). Other installation methods may bear greater weights.

By usable protected space we mean the space dedicated to the installation of protection and manoeuvring equipment for which the IP rating is guaranteed by the casing.

Thermal energy dissipation (Pmax. = watt)

Calculation carried out in accordance with standard CEI 17-43: method of temperature-rise assessment by extrapolation for partially type-tested assemblies of low-voltage (BT panels) switchgear and controlgear not in series (ANS). Thermal energy dissipation values (Pmax=watt) of the enclosures provided in the table are valid considering:

- standard installation conditions (exposure on all sides);
- ambient temperature established at 35 °C;
- overtemperature values achieved at mid height [Δt 0.5 (°C)] (value indicated in the table);
- overtemperature values established at the top Δt 1.0 =30 °C.

Pmax(watt) is an overall value referring to the entire structure of the enclosure; in the case of multiple compartments, the value must be divided by the number of compartments. The standard thermal energy dissipation value [Pmax(watt)] can be increased by applying ventilation units.

Top units



Code	Model	Useful space protected, mm			Max load kg compartment "a"	ΔT 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077501906	G5-1/1/S	a=265	455	235	40	26,8	84
077502904	G5-2/2/S	a=355	455	235	50	26	94
077503902	G5-3/3/S	a=445	455	235	60	25,4	104
077504900	G5-4/4/S	a=580	455	235	65	22,4	111
077505907	G5-5/5/S	a=805	455	235	70	21,3	130
077512903	GH5-2/2/S	a=355	455	365	50	26	114
077513901	GH5-3/3/S	a=445	455	365	60	23,7	119
077514909	GH5-4/4/S	a=580	455	365	65	23,1	134
077515906	GH5-5/5/S	a=805	455	365	70	22,3	168
IP44							
078501905	G5-1/1/S-4	a=265	455	235	40	27,7	88
078502903	G5-2/2/S-4	a=355	455	235	50	27	98
078503901	G5-3/3/S-4	a=445	455	235	60	26,3	109
078504909	G5-4/4/S-4	a=580	455	235	65	23	115
078505906	G5-5/5/S-4	a=805	455	235	70	22	135
078512902	GH5-2/2/S-4	a=355	455	365	50	27	119
078513900	GH5-3/3/S-4	a=445	455	365	60	24,5	124
078514908	GH5-4/4/S-4	a=580	455	365	65	24	140
078515905	GH5-5/5/S-4	a=805	455	365	70	23	175

1 compartment

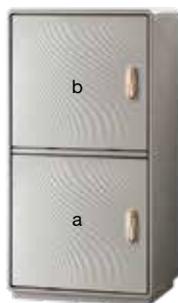


Code	Model	Useful space protected, mm			Max load kg compartment "a"	Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077500106	G5-1/1/T	a=265	455	235	40	26,8	84
077502102	G5-2/2/T	a=355	455	235	50	26	94
077503100	G5-3/3/T	a=445	455	235	60	25,4	104
077504108	G5-4/4/T	a=580	455	235	65	22,4	111
077505105	G5-5/5/T	a=805	455	235	70	21,3	130
077507101	G5-7/7/T	a=1045	455	235	80	20,2	159
077508109	G5-8/8/T	a=1255	455	235	90	19,6	184
077512101	GH5-2/2/T	a=355	455	365	50	26	114
077513109	GH5-3/3/T	a=445	455	365	60	23,7	119
077514107	GH5-4/4/T	a=580	455	365	65	23,1	134
077515104	GH5-5/5/T	a=805	455	365	70	22,3	168
077517100	GH5-7/7/T	a=1045	455	365	80	21,3	216
077518108	GH5-8/8/T	a=1255	455	365	90	20,6	241
IP44							
078500105	G5-1/1/T-4	a=265	455	235	40	27,7	88
078502101	G5-2/2/T-4	a=355	455	235	50	27	98
078503109	G5-3/3/T-4	a=445	455	235	60	26,3	109
078504107	G5-4/4/T-4	a=580	455	235	65	23	115
078505104	G5-5/5/T-4	a=805	455	235	70	22	135
078507100	G5-7/7/T-4	a=1045	455	235	80	21	166
078508108	G5-8/8/T-4	a=1255	455	235	90	20	192
078512100	GH5-2/2/T-4	a=355	455	365	50	27	119
078513109	GH5-3/3/T-4	a=445	455	365	60	24,5	124
078514106	GH5-4/4/T-4	a=580	455	365	65	24	140
078515103	GH5-5/5/T-4	a=805	455	365	70	23	175
078517109	GH5-7/7/T-4	a=1045	455	365	80	22	225
078518107	GH5-8/8/T-4	a=1255	455	365	90	21,3	252

1 compartment with integrated plinth



Code	Model	Useful space protected, mm			Max load, kg compartment "a"	Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077505196	G5-5/13/ZT	a=445	455	235	60	21,3	130
077505188	G5-5/22/ZT	a=805	455	235	60	21,3	130
077506194	G5-6/33/ZT	a=445	455	235	60	20,4	151
077508190	G5-8/25/ZT	a=580	455	235	65	19,6	184
077509198	G5-9/28/ZT	a=1255	455	235	90	18,7	244
077515195	GH5-5/13/ZT	a=445	455	365	60	22,3	168
077515187	GH5-5/22/ZT	a=355	455	365	60	22,3	168
077516193	GH5-6/33/ZT	a=445	455	365	60	21,5	194
077518199	GH5-8/25/ZT	a=580	455	365	65	20,6	241
077519197	GH5-9/28/ZT	a=1255	455	365	90	19,5	298
IP44							
078505195	G5-5/13/ZT-4	a=445	455	235	60	22	135
078505187	G5-5/22/ZT-4	a=805	455	235	60	22	135
078506193	G5-6/33/ZT-4	a=445	455	235	60	21	157
078508199	G5-8/25/ZT-4	a=580	455	235	65	20	192
078509197	G5-9/28/ZT-4	a=1255	455	235	90	19,3	254
078515194	GH5-5/13/ZT-4	a=445	455	365	60	23	175
078515186	GH5-5/22/ZT-4	a=355	455	365	60	23	175
078516192	GH5-6/33/ZT-4	a=445	455	365	60	22,2	202
078518198	GH5-8/25/ZT-4	a=580	455	365	65	21,3	252
078519196	GH5-9/28/ZT-4	a=1255	455	365	90	20,2	311

2 compartments


Graf:5

Code	Model	Useful space, mm			Max load, kg		$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"		
IP55								
077505204	G5-5/22/T	a-b=355	455	235	50	50	21,3	122
077505212	G5-5/31/T	a=445 b=265	455	235	60	40	21,3	122
077506202	G5-6/33/T	a-b=445	455	235	60	60	20,4	142
077508208	G5-8/44/T	a-b=580	455	235	65	65	19,6	173
077508216	G5-8/52/T	a=805 b=355	455	235	70	50	19,6	173
077509208	G5-9/55/T	a-b=805	455	235	70	70	18,7	229
077509214	G5-9/82/T	a=1255 b=355	455	235	90	50	18,7	229
077515211	GH5-5/31/T	a=445 b=265	455	365	60	40	22,3	158
077515203	GH5-5/22/T	a-b=355	455	365	50	50	22,3	158
077516201	GH5-6/33/T	a-b=445	455	365	60	60	21,5	183
077518207	GH5-8/44/T	a-b=580	455	365	65	65	20,6	227
077518215	GH5-8/52/T	a=805 b=355	455	365	70	50	20,6	227
077519205	GH5-9/55/T	a-b=805	455	365	70	70	19,5	281
077519213	GH5-9/82/T	a=1255 b=355	455	365	90	50	19,5	281
IP44								
078505203	G5-5/22/T-4	a-b=355	455	235	50	50	22	127
078505211	G5-5/31/T-4	a=445 b=265	455	235	60	40	22	127
078506201	G5-6/33/T-4	a-b=445	455	235	60	60	21	148
078508207	G5-8/44/T-4	a-b=580	455	235	65	65	20	180
078508215	G5-8/52/T-4	a=805 b=355	455	235	70	50	20	180
078509205	G5-9/55/T-4	a-b=805	455	235	70	70	19,3	239
078509213	G5-9/82/T-4	a=1255 b=355	455	235	90	50	19,3	239
078515210	GH5-5/31/T-4	a=445 b=265	455	365	60	40	23	165
078515202	GH5-5/22/T-4	a-b=355	455	365	50	50	23	165
078516200	GH5-6/33/T-4	a-b=445	455	365	60	60	22,2	190
078518206	GH5-8/44/T-4	a-b=580	455	365	65	65	21,3	237
078518214	GH5-8/52/T-4	a=805 b=355	455	365	70	50	21,3	237
078519204	GH5-9/55/T-4	a-b=805	455	365	70	70	20,2	293
078519212	GH5-9/82/T-4	a=1255 b=355	455	365	90	50	20,2	293

2 compartments with integrated plinth

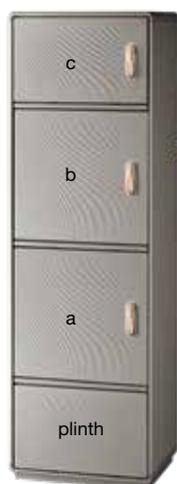


Code	Model	Useful space, mm			Max load, kg		Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"		
IP55								
077506293	G5-6/111/ZT	a-b=265	455	235	40	40	20,4	142
077508281	G5-8/132/ZT	a=445 b=355	455	235	60	50	19,6	173
077508273	G5-8/231/ZT	a=445 b=355	455	235	60	50	19,6	173
077508299	G5-8/222/ZT	a-b=355	455	235	50	50	19,6	173
077509297	G5-9/153/ZT	a=805 b=445	455	235	70	60	18,7	229
077509271	G5-9/252/ZT	a=805 b=355	455	235	70	50	18,7	229
077509289	G5-9/244/ZT	a-b=580	455	235	65	65	18,7	229
077516292	GH5-6/111/ZT	a-b=265	455	365	40	40	21,5	183
077518280	GH5-8/132/ZT	a=445 b=355	455	365	60	50	20,6	227
077518272	GH5-8/231/ZT	a=445 b=355	455	365	60	50	20,6	227
077518298	GH5-8/222/ZT	a-b=355	455	365	50	50	20,6	227
077519296	GH5-9/153/ZT	a=805 b=445	455	365	70	60	19,5	281
077519270	GH5-9/252/ZT	a=805 b=355	455	365	70	50	19,5	281
077519288	GH5-9/244/ZT	a-b=580	455	365	65	65	19,5	281
IP44								
078506292	G5-6/111/ZT-4	a-b=265	455	235	40	40	21	148
078508280	G5-8/132/ZT-4	a=445 b=355	455	235	60	50	20	180
078508272	G5-8/231/ZT-4	a=445 b=355	455	235	60	50	20	180
078508298	G5-8/222/ZT-4	a-b=355	455	235	50	50	20	180
078509296	G5-9/153/ZT-4	a=805 b=445	455	235	70	60	19,3	239
078509270	G5-9/252/ZT-4	a=805 b=355	455	235	70	50	19,3	239
078509288	G5-9/244/ZT-4	a-b=580	455	235	65	65	19,3	239
078516291	GH5-6/111/ZT-4	a-b=265	455	365	40	40	22,2	190
078518289	GH5-8/132/ZT-4	a=445 b=355	455	365	60	50	21,3	237
078518271	GH5-8/231/ZT-4	a=445 b=355	455	365	60	50	21,3	237
078518297	GH5-8/222/ZT-4	a-b=355	455	365	50	50	21,3	237
078519295	GH5-9/153/ZT-4	a=805 b=445	455	365	70	60	20,2	293
078519279	GH5-9/252/ZT-4	a=805 b=355	455	365	70	50	20,2	293
078519287	GH5-9/244/ZT-4	a-b=580	455	365	65	65	20,2	293

3 compartments

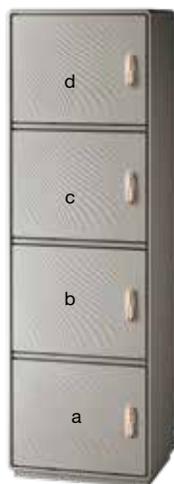

Code	Model	Useful space, mm			Max load, kg			$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"	comp. "c"		
IP55									
077506301	G5-6/111/T	a-b-c=265	455	235	40	40	40	20,4	127
077508307	G5-8/222/T	a-b-c=355	455	235	50	50	50	19,6	154
077508315	G5-8/321/T	a=445 b=355 c=265	455	235	60	50	40	19,6	154
077509305	G5-9/522/T	a=805 b-c=355	455	235	70	50	50	18,7	205
077509313	G5-9/442/T	a-b=580 c=355	455	235	65	65	50	18,7	205
077509321	G5-9/531/T	a=805 b=445 c=265	455	235	70	60	40	18,7	205
077516300	GH5-6/111/T	a-b-c=265	455	365	40	40	40	21,5	163
077518306	GH5-8/222/T	a-b-c=355	455	365	50	50	50	20,6	203
077518314	GH5-8/321/T	a=445 b=355 c=265	455	365	60	50	40	20,6	203
077519304	GH5-9/522/T	a=805 b-c=355	455	365	70	50	50	19,5	251
077519312	GH5-9/442/T	a-b=580 c=355	455	365	65	65	50	19,5	251
077519320	GH5-9/531/T	a=805 b=445 c=265	455	365	70	60	40	19,5	251
IP44									
078506300	G5-6/111/T-4	a-b-c=265	455	235	40	40	40	21	132
078508306	G5-8/222/T-4	a-b-c=355	455	235	50	50	50	20	161
078508314	G5-8/321/T-4	a=445 b=355 c=265	455	235	60	50	40	20	161
078509304	G5-9/522/T-4	a=805 b-c=355	455	235	70	50	50	19,3	213
078509312	G5-9/442/T-4	a-b=580 c=355	455	235	65	65	50	19,3	213
078509320	G5-9/531/T-4	a=805 b=445 c=265	455	235	70	60	40	19,3	213
078516309	GH5-6/111/T-4	a-b-c=265	455	365	40	40	40	22,2	170
078518305	GH5-8/222/T-4	a-b-c=355	455	365	50	50	50	21,3	211
078518313	GH5-8/321/T-4	a=445 b=355 c=265	455	365	60	50	40	21,3	211
078519303	GH5-9/522/T-4	a=805 b-c=355	455	365	70	50	50	20,2	261
078519311	GH5-9/442/T-4	a-b=580 c=355	455	365	65	65	50	20,2	261
078519329	GH5-9/531/T-4	a=805 b=445 c=265	455	365	70	60	40	20,2	261

3 compartments with integrated plinth

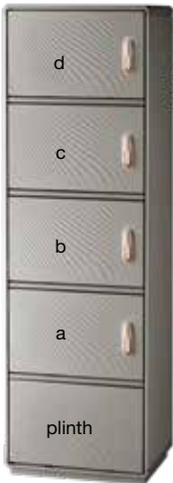


Code	Model	Useful space, mm			Max load, kg			Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"	comp. "c"		
IP55									
077509388	G5-9/1322/ZT	a=445 b-c=355	455	235	60	50	50	18,7	205
077509396	G5-9/1331/ZT	a-b=445 c=265	455	235	60	60	40	18,7	205
077509370	G5-9/2222/ZT	a-b-c=355	455	235	50	50	50	18,7	205
077519387	GH5-9/1322/ZT	a=445 b-c=355	455	365	60	50	50	19,5	251
077519395	GH5-9/1331/ZT	a-b=445 c=265	455	365	60	60	40	19,5	251
077519379	GH5-9/2222/ZT	a-b-c=355	455	365	50	50	50	19,5	251
IP44									
078509387	G5-9/1322/ZT-4	a=445 b-c=355	455	235	60	50	50	19,3	213
078509395	G5-9/1331/ZT-4	a-b=445 c=265	455	235	60	60	40	19,3	213
078509379	G5-9/2222/ZT-4	a-b-c=355	455	235	50	50	50	19,3	213
078519386	GH5-9/1322/ZT-4	a=445 b-c=355	455	365	60	50	50	20,2	261
078519394	GH5-9/1331/ZT-4	a-b=445 c=265	455	365	60	60	40	20,2	261
078519378	GH5-9/2222/ZT-4	a-b-c=355	455	365	50	50	50	20,2	261

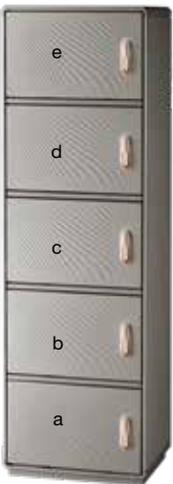
4 compartments



Code	Model	Useful space, mm			Max load, kg				Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"	comp. "c"	comp. "d"		
IP55										
077509404	G5-9/3311/T	a-b=445 c-d=265	455	235	60	60	40	40	18,7	176
077509412	G5-9/3221/T	a=445 b-c=355 d=265	455	235	60	50	50	40	18,7	176
077509420	G5-9/2222/T	a-b-c-d=355	455	235	50	50	50	50	18,7	176
077519403	GH5-9/3311/T	a-b=445 c-d=265	455	365	60	60	40	40	19,5	215
077519411	GH5-9/3221/T	a=445 b-c=255 d=265	455	365	60	50	50	40	19,5	215
077519429	GH5-9/2222/T	a-b-c-d=355	455	365	50	50	50	50	19,5	215
IP44										
078509403	G5-9/3311/T-4	a-b=445 c-d=265	455	235	60	60	40	40	19,3	183
078509411	G5-9/3221/T-4	a=445 b-c=355 d=265	455	235	60	50	50	40	19,3	183
078509429	G5-9/2222/T-4	a-b-c-d=355	455	235	50	50	50	50	19,3	183
078519402	GH5-9/3311/T-4	a-b=445 c-d=265	455	365	60	60	40	40	20,2	224
078519410	GH5-9/3221/T-4	a=445 b-c=255 d=265	455	365	60	50	50	40	20,2	224
078519428	GH5-9/2222/T-4	a-b-c-d=355	455	365	50	50	50	50	20,2	224

4 compartments with integrated plinth


Code	Model	Useful space, mm			Max load, kg				Δ T 0,5 (°C)	Pmax (W)	
		Height	Width	Depth	comp. "a"	comp. "b"	comp. "c"	comp. "d"			
IP55											
077509495	G5-9/11111/ZT	a-b-c-d=265	455	235	40	40	40	40	18,7	176	
077519494	GH5-9/11111/ZT	a-b-c-d=265	455	365	40	40	40	40	19,5	215	
IP44											
078509494	G5-9/11111/ZT-4	a-b-c-d=265	455	235	40	40	40	40	19,3	183	
078519493	GH5-9/11111/ZT-4	a-b-c-d=265	455	365	40	40	40	40	20,2	224	

5 compartments


Code	Model	Useful space, mm			Max load, kg					Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"	comp. "c"	comp. "d"	comp. "e"		
IP55											
77509503	G5-9/11111/T	a-b-c-d-e=265	455	235	40	40	40	40	40	18,7	176
77519502	GH5-9/11111/T	a-b-c-d-e=265	455	365	40	40	40	40	40	19,5	215
IP44											
78509502	G5-9/11111/T-4	a-b-c-d-e=265	455	235	40	40	40	40	40	19,3	183
78519501	GH5-9/11111/T-4	a-b-c-d-e=265	455	365	40	40	40	40	40	20,2	224

Average integration of the Dissipable Power

The standard value of Pmax (Watt) can be increased by the application of the aeration vents, in particular:

- n ° 2 aeration vents, applied diagonally, increase the dissipable power [Pmax (Watt)] of 100W.

Ex. For the enclosure G5-1 / 1 / T Pmax (Watt) = 84W. Applying n ° 2 ventilation units the Pmax (Watt) is 84W + 100W = 184W.

- n ° 2 aeration vents, applied diagonally, one of which with forced ventilation and installed in the upper part of the enclosure, increase the dissipable power [Pmax (Watt)] of 250W.

Ex. For the enclosure G5-5 / 5 / T Pmax (Watt) = 130W. Applying n ° 2 ventilation units, one with forced ventilation, the Pmax (Watt) is 130W + 250W = 380W.

For any specific compositions request a specific calculation in place.



Grabi 7

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Width 685 mm

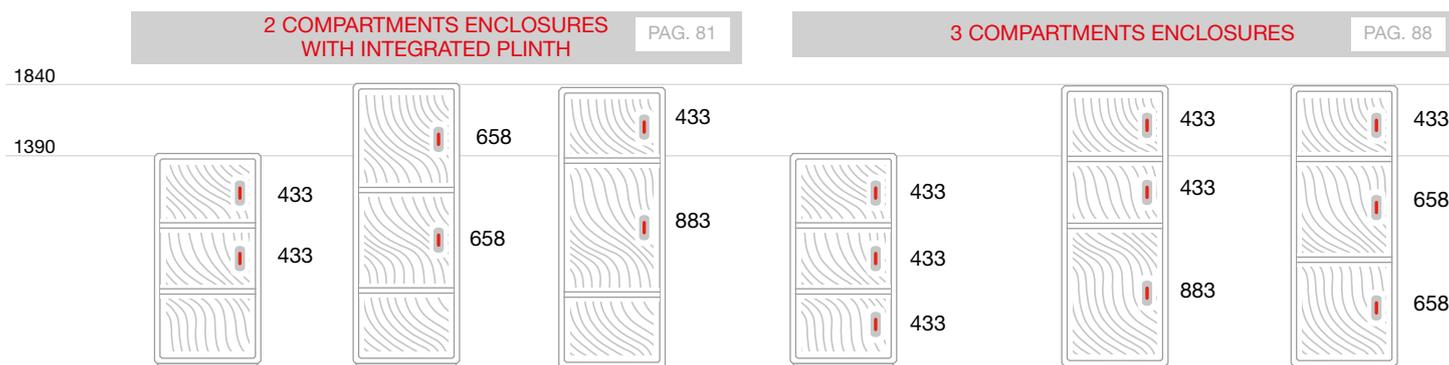
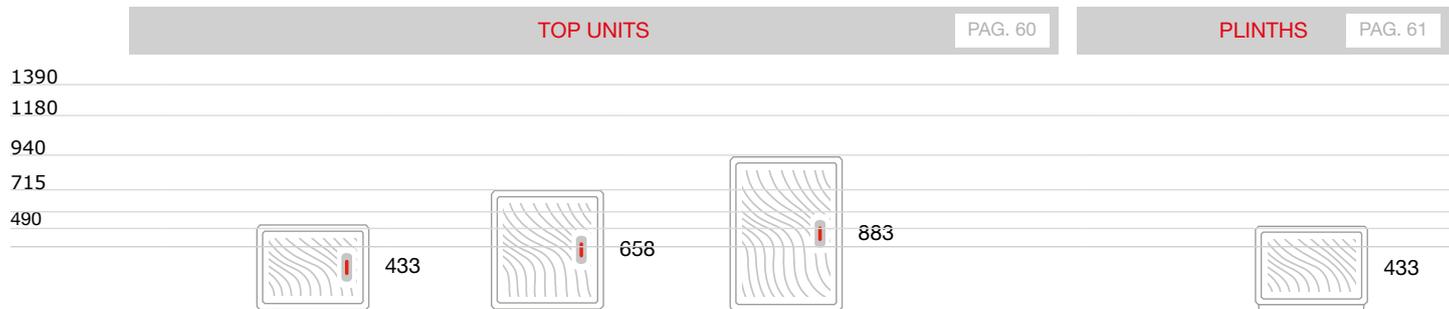


Characteristics

The Grafi7 series is characterized by an external width of 685 mm (usable interior width = 667 mm). 6 different overall heights available, from 490 mm to 1840 mm. All versions are available in two depths: 330 mm and 460 mm. Rated insulation voltage = U_i 690V. IMQ Certification in accordance with CEI EN 62208.

Production drawing

The values on the left of the drawing indicate the overall height. The figures for the individual compartments indicate their usable height, essential when selecting dedicated accessories.



Materials

Made in fiberglass (SMC) in RAL 7035 color. Thermoplastic resin handle, operating tenon in galvanized steel, internal rods and posts in steel with GEOMET 321 treatment.
 Concealed external hinges in stainless steel. Anchor frame in galvanized and painted steel.
 Seals in foamed EPDM.

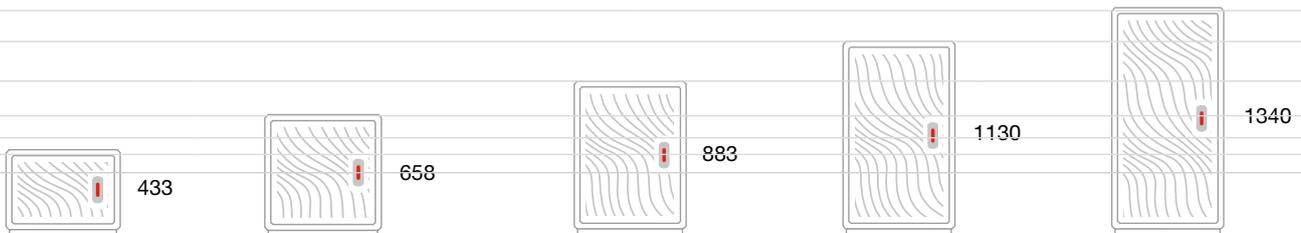
Level of protection

Available with IP44 - IP55 protection class according to CEI EN 60529, IK10 according to CEI EN 62262.

Prepared for execution of CLASS II equipment according to CEI 64-8/4. 

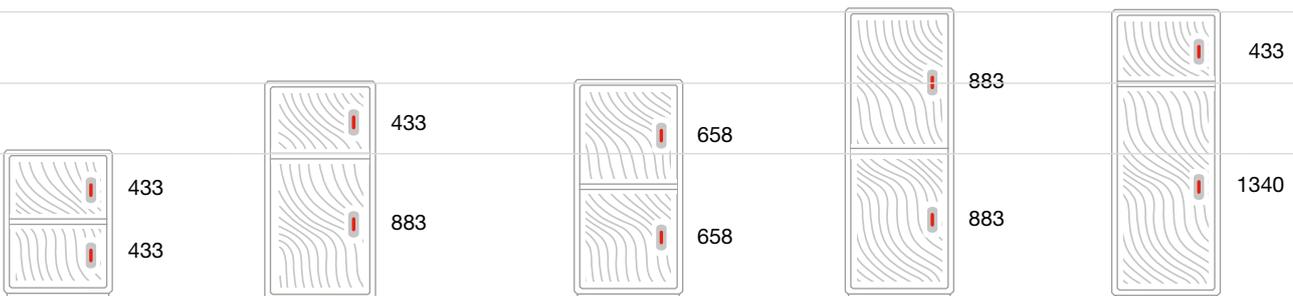
1 COMPARTMENT ENCLOSURES

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3 COMPARTMENTS ENCLOSURES WITH INTEGRATED PLINTH

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4 COMPARTMENTS ENCLOSURES

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WITHOUT DOOR ENCLOSURES FOR CUSTOMIZED COMPOSITIONS

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Top units



Characteristics

Overall height sizes available: 460mm - 685mm - 910mm for two depths: 330mm - 460mm. Rated insulation voltage U_i 690V. Completely intact structure without holes. The holes for cable passage to be realized by the customer or on request. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request). Door opening side can be changed on site. Can be equipped with mounting plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Materials

Made in fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions compartment, mm			Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
a	460	685	330	a= 433	667	298	374x595	IP55	G7-2/2/S	077702900
		685	460	a= 433	667	428		IP44	G7-2/2/S-4	078702909
a	685	685	330	a= 658	667	298	599x595	IP55	G7-4/4/S	077704906
								IP44	G7-4/4/S-4	078704905
		685	460	a= 658	667	428		IP55	GH7-4/4/S	077714905
								IP44	GH7-4/4/S-4	078714904
a	910	685	330	a= 883	667	298	824x595	IP55	G7-5/5/S	077705903
								IP44	G7-5/5/S-4	078705902
		685	460	a= 883	667	428		IP55	GH7-5/5/S	077715902
								IP44	GH7-5/5/S-4	078715901

Warnings

Usable for installation in enclosures of the same series and depth to achieve non-standard compositions in the integrated units or for extending enclosures already in use. Can be used to make single compartment enclosures for floor installation, together with dedicated plinths.

Holes for fastening systems and cable opening to be made in site or in the factory on request.

Wall-mounted version also available.

Plinths



Characteristics

Overall height sizes available: 490mm for two depths: 330mm - 460mm.
 Prepared for installation on a concrete base using an anchor frame (not included).
 To be used in combination with cabinets of the series 7 same depth not available in the version with "integrated plinth".
 They allow the realization of enclosures for floor installation combined with top units.

Material

Made in fiberglass in RAL 7035 color. Seals in foamed EPDM.

Standards

Made in accordance with standard CEI EN 62208. Protection classes IP55 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4



Graf 7

External dimensions, mm			Useful height	IP	Model	Code
Height	Width	Depth				
490	685	330	z= 433	IP55	G7-2/ZT	077702959
	685	460	z= 433	IP55	GH7-2/ZT	077712958



Closing bottom plate for plinths



Characteristics

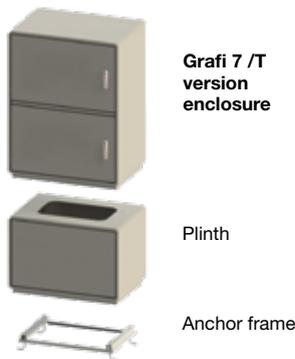
Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76)

Enclosures depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G7/SIC	095777405	G7/SIM	095777421
460	GH7/SIC	095777454	GH7/SIM	095777470

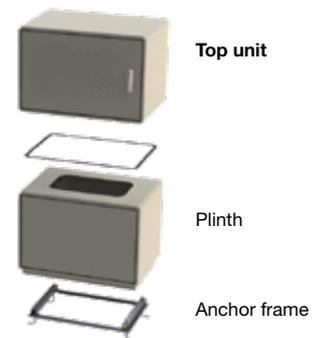
Installation method

The plinths can be fitted with closing bottom plates (blank or with conical fairleads) positioned between the fixing frame and plinth, to provide additional protection in the cable input area.

Use of an additional plinth on /T version enclosures



Use of plinth with top unit



Anchor frame



Characteristics

Screws in AISI 304 stainless steel to guarantee access over time. Complete with brackets for fixing onto a concrete base.

Materials

Made of steel with black color 18/24 cataphoretic coating treatment.

Enclosure depth mm	Model	Code
330	G7/TA	095777306
460	GH7/TA	095777355

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	560x355	G7/2/PA	095777017	G7/2/PB	095777116	G7/2/PP	095777215
658	560x580	G7/4/PA	095777025	G7/4/PB	095777124	G7/4/PP	095777223
883	560x805	G7/5/PA	095777033	G7/5/PB	095777132	G7/5/PP	095777231

Brackets for fixing to a wall



Characteristics

The top units can be used as single compartments that can be installed on the wall using special brackets, using wall plugs or another fixing element depending on the type of wall. Drilling holes for cable entry by the customer with cable/cable glands. The brackets are available in loose execution (with assembly by the customer) or in applied execution performed directly in the factory.

Description	Model	Code
Brackets for fixing to a wall (loose version)	G/SFP	095770939
Version on brackets for fixing to a wall	G-EA/SFP	097770028

Brackets kit for supporting the mounting plates on the uprights

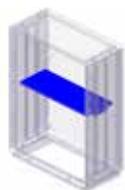


Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves

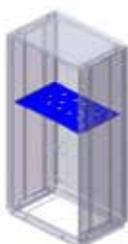


Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.
These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	590	17	G7/RP	095777561
460	355	590	17	GH7/RP	095777579

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit GH/SM and 1 Kit dedicated brackets GH/SRP/A-L.
To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	575	12	20	RPA/CVL	095751202	GH/SRP/A-L	095777397

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment plates
- Modular equipment support rack
- Blank and slotted plates
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, bottom plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
490	G-2/MT	095770020	G/SM	095770905	GH/SM	095770913
715	G-4/MT	095770046	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
940	G-5/MT	095770053				

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit.
To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment, mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	58	G7/2/TPM	095777702
658	3	87	G7/4/TPM	095777710
883	4	116	G7/5/TPM	095777728

Modular equipments support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench.
Designed to be fastened onto the uprights kit.
Complete with DIN 46 277/3 profiles.
To be selected in combination with the relative panels support frame/framework.

Useful height mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G7/2-5/CST	095777801	1	G7/2/TPM	095777702
658	G7/4-8/CST	095777819	1	G7/4/TPM	095777710
883	G7/2-5/CST	095777801	2	G7/5/TPM	095777728

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi7 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G7/PC	095777603
Slotted	29 DIN modules (17,5mm) for each panel	G7/PM29	095777629

Mounting plate/brackets kit for arranging the modular equipments support racks



Characteristics

Kit made up of 4 brackets and 1 closign bottom plate. Brackets and plate made from steel. Plate thickness 2mm.
To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel.
To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G7/2-5/CST	095777801	330	85	G7/2-5/PACST	095777865
		460	215	GH7/2-5/PACST	095777868
G7/4-8/CST	095777819	330	85	G7/4-8/PACST	095777850
		460	215	GH7/4-8/PACST	095777884

Accessories for creating RACK 19" equipments

Uprights kit + brackets kit for RACK 19"



Characteristics

Uprights made of steel. Predisposed with holes for frame/frame fixing and shelves for RACK19". Brackets for support uprights made of steel. The kit must be chosen according to the depth and overall height of the enclosure regardless of the number and arrangement of the compartments. Order 2 kit uprights and 1 kit brackets.

Top unit overall height, mm	Uprights (2 pieces)		No. Uprights kit to be requested	Uprights support brackets (4 pieces)			
	Model	Code		Depth 330 mm		Depth 460 mm	
				Model	Code	Model	Code
490	G-2/MT	095770020	2	G/SM	095770905	GH/SM	095770913
715	G-4/MT	095770046					
940	G-5/MT	095770053					

Frame/framework for Rack 19"



Characteristics

Made of sheet metal complete with grey RAL7035 color. Prepared for fixing on uprights kit. To be chosen according to the useful height of the single compartment. In case of multiple compartments, the individual compartment can also be equipped.

Useful height compartment, mm	No. max unit HE	Max equipment weight (Kg)	Frame/framework	
			Model	Code
433	6	20	G7/2/TR19	095777645
658	12	35	G7/4/TR19	095777652
883	16	48	G7/5/TR19	095777660

Modular equipments panels



Characteristics

Made of steel sheet grey RAL7032 color
Complete with DIN 46 277/3 profile and a pair of slotted fixing brackets in 24 modules for 17,5mm. Overall height 4 units HE.

With buttonhole

Buttonhole size	External dimensions	No. unit HE	Model	Code
423x46	490x177	4	ACV/PM/RACK	095759247

Closing blinds

Characteristics

Made of steel sheet grey RAL7032 color

External dimensions	Dimensions	Model	Code
490x44	n. 1 unit HE	ACV/PC1/RACK	095759114
490x88	n. 2 unit HE	ACV/PC2/RACK	095759122
490x177	n. 4 unit HE	ACV/PC4/RACK	095759148
490x355	n. 8 unit HE	ACV/PC8/RACK	095759139

Brackets and guides



ACV/SF/RACK

Profile fixing brackets

Made of galvanized and passivated steel sheet; adjustable in depth. For fixing DIN profiles.

Drawer support guides

Made of galvanized and passivated steel sheet. For guide and support drawers for RACK 19 "

Notes	Model	Code
Profile fixing bracket set (2pc)	ACV/SF/RACK	095759627
Set of support for bins rack 19" (2pc)	ACV/GS/RACK	095759619

Cage nuts

Made of galvanized and passivated steel - M6 thread.

Model	Code
ACV/DG6/50	095759817

Shelves for deep equipments support



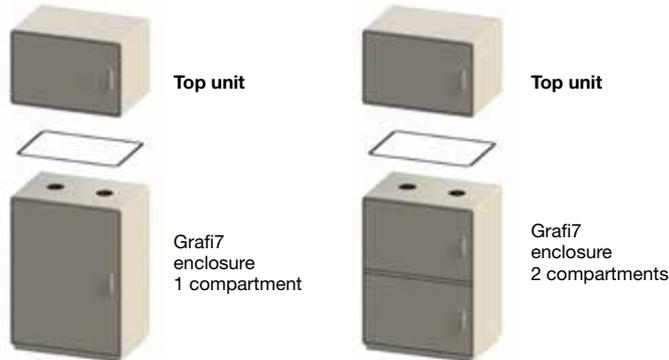
Characteristics

In galvanized steel. To be used with the RACK19" to support and secure heavy and deep equipments frontally.

Shelves (2 pieces)	
Model	Code
G/M/TR19	095770806

Installation methods

The top units can be installed on any type of enclosure of the corresponding series (Grafi7) and of the same depth. Installation is carried out easily by making holes in the fixing points already arranged on the enclosures and with the insertion of special seals to guarantee the necessary protection rating. Any passages between the bottom compartment and top unit must be made in site as required. The arrangement for the installation of the top unit may be carried out directly in the factory on request. It is suitable for both IP44 and IP55 enclosures and is valid for all depths (330 - 460 mm).



Execution of top unit installation arrangement with 2 holes

Bottom compartment:

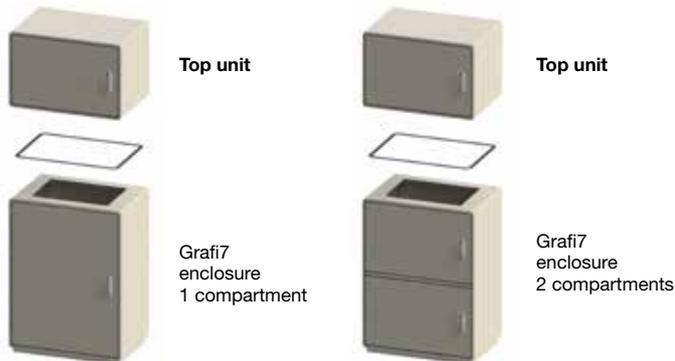
- 4 fastening holes
- 2 holes (Ø 85) for cable passage

Top compartment (top unit):

- 2 holes (Ø 76) for securing the conical membrane

Provided: Compartment fastening screws/seal/2 conical membranes.

Model	Code	Description
G-EA/MS/I	097770002	Execution of slotted roof for installing top unit
G-EA/MS/S	097770010	Execution of slotted top unit for installation on compartment



Execution of preparation for installation of top unit with maximum clearance

Application envisages the realization of enclosures with fully open slots and realization of the corresponding slot on the top unit which will be installed above.

Bottom compartment:

- 4 fastening holes
- 1 single slot for cable passage

Top compartment (top unit):

- 4 fastening holes
- 1 single slot

Provided: Compartment fastening screws/seal

Model	Code	Slot size Depth 330 mm	Slot size Depth 460 mm	Description
G-EA/MSA/I	097770044	455x225	455x305	Application of an insulated roof for overlap
G-EA/MSA/S	097770051	490x260	490x340	Execution of raising slotted application to overlap on the lower compartment

Warning

Separation partitions can also be requested with or without cable passage to integrate execution, to be selected from the normal envisaged accessories. G7/SIC o GH7/SIC (blank partition) - G7/SIM OR GH7/SIM (partition with conical membranes).

The top units may be installed on the floor using the relative plinth envisaged in the series and of the same depth. The fixing frame must be requested separately. Also in this case it is possible to request arrangement in the factory of hole drilling for cable passage into the top units (G-EA/MS/S or G-EA/MSA/S).

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE TOP UNIT				Upright/Bracket kit	Frame/Panels/Rack kit
IP55		IP44			Compartment "a" 
Model	Code	Model	Code	Code	Code
Depth mm 330					
G7-2/2/S	077702900	G7-2/2/S-4	078702909	095773321	095777298
G7-4/4/S	077704906	G7-4/4/S-4	078704905	095773347	095777496
G7-5/5/S	077705903	G7-5/5/S-4	078705902	095773354	095777595
Depth mm 460					
GH7-2/2/S	077712909	GH7-2/2/S-4	078712908	095774626	095777298
GH7-4/4/S	077714905	GH7-4/4/S-4	078714904	095774642	095777496
GH7-5/5/S	077715902	GH7-5/5/S-4	078715901	095774659	095777595

How to order

To order the kits for making panels you need simply to know the code of top unit and select the codes of the order kits corresponding to the reference top unit code. Example: Top unit code 077702900

Corresponding kits:

- Uprights/Brackets Kit: code 095773321
- Frame/Panels/Racks kit for compartment "a" code 095777298

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For further details on the composition of internal accessories for the realization of panels, consult the dedicated section.

Maximum load applicable on the bottom partition/Usable protected space for equipment/Thermal energy dissipation, page 99

Accessories and spare parts common to the whole Grafi7 series:

Ventilation units, page 190

Enclosure 1 compartment



Characteristics

Overall height sizes available: 490mm - 715mm - 940mm - 1180mm - 1390mm- for two depths: 330mm - 460mm. Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock on all compartments (DIN18252 profile cylinder - customized differentiated on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Galvanized and painted steel frame. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions compartment, mm			Door dimension, mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
	*490	685	330	a= 433	667	298	374x595	IP55	G7-2/2/T	077702108
		685	460	a= 433	667	428	374x595	IP44	G7-2/2/T-4	078702107
	*715	685	330	a= 658	667	298	599x595	IP55	GH7-2/2/T	077712107
		685	460	a= 658	667	428	599x595	IP44	GH7-2/2/T-4	078712106
	*940	685	330	a= 883	667	298	824x595	IP55	G7-4/4/T	077704104
		685	460	a= 883	667	428	824x595	IP44	G7-4/4/T-4	078704103
	*1180	685	330	a= 1130	667	298	1064x595	IP55	GH7-4/4/T	077714103
		685	460	a= 1130	667	428	1064x595	IP44	GH7-4/4/T-4	078714102
	*1390	685	330	a= 1340	667	298	1274x595	IP55	G7-5/5/T	077705101
		685	460	a= 1340	667	428	1274x595	IP44	G7-5/5/T-4	078705100
	*1390	685	330	a= 1340	667	298	1274x595	IP55	GH7-5/5/T	077715100
		685	460	a= 1340	667	428	1274x595	IP44	GH7-5/5/T-4	078715109
	*1390	685	330	a= 1340	667	298	1274x595	IP55	G7-7/7/T	077707107
		685	460	a= 1340	667	428	1274x595	IP44	G7-7/7/T-4	078707106
	*1390	685	330	a= 1340	667	298	1274x595	IP55	GH7-7/7/T	077717106
		685	460	a= 1340	667	428	1274x595	IP44	GH7-7/7/T-4	078717105
	*1390	685	330	a= 1340	667	298	1274x595	IP55	G7-8/8/T	077708105
		685	460	a= 1340	667	428	1274x595	IP44	G7-8/8/T-4	078708104
	*1390	685	330	a= 1340	667	298	1274x595	IP55	GH7-8/8/T	077718104
		685	460	a= 1340	667	428	1274x595	IP44	GH7-8/8/T-4	078718103

* Models that can also be made in the wall version see Accessories section on page 177

Enclosure 1 compartment with integrated plinth

**Characteristics**

Made with 1 equipment compartment + bottom plinth integrated in a single support structure.
Overall height sizes available: 940mm - 1390mm - 1840mm for two depths: 330mm - 460mm.
Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock on all compartments (DIN18252 profile cylinder - customized differentiated on request). Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Closign bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Galvanized and painted steel frame. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 4 .

	External dimensions, mm			Internal dimensions compartment, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
a	940	685	330	a= 433	667	298	490	374X595	IP55	G7-5/22/ZT	077705192
plinth			460	a= 433					428	IP44	G7-5/22/ZT-4
a	1390	685	330	a= 883	667	298		824x595	IP55	G7-8/25/ZT	077708196
plinth			460	a= 883					428	IP44	G7-8/25/ZT-4
a	1840	685	330	a= 1340	667	298	490	1274x595	IP55	G7-9/28/ZT	077709194
plinth			460	a= 1340					428	IP44	G7-9/28/ZT-4
									IP55	GH7-9/28/ZT	077719193
									IP44	GH7-9/28/ZT-4	078719192

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm;

PVC - thickness 5 mm.

Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	560x355	G7/2/PA	095777017	G7/2/PB	095777116	G7/2/PP	095777215
658	560x580	G7/4/PA	095777025	G7/4/PB	095777124	G7/4/PP	095777223
883	560x805	G7/5/PA	095777033	G7/5/PB	095777132	G7/5/PP	095777231
1130	560x1030 (supplied in 2 pcs)	G7/7/PA	095777041	G7/7/PB	095777140	G7/7/PP	095777249
1340	560x1240 (supplied in 2 pcs)	G7/8/PA	095777058	G7/8/PB	095777157	G7/8/PP	095777256

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In IP55 enclosures the partition is provided as standard.

Enclosures depth mm	Blank partition		Partition with conical fairleads	
	Model	Code	Model	Code
330	G7/SIC	095777405	G7/SIM	095777421
460	GH7/SIC	095777454	GH7/SIM	095777470

Brackets kit for supporting the mounting plates on the uprights



Characteristics

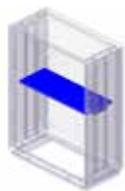
Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required.

Suitable for all types of plate.

For plates provided in 2 parts, 2 bracket kits are required.

Model	Code	Description
G/SP/MT	095770921	Brackets kit for support plates on uprights (4 pcs)

Pre-galvanized sheet metal equipment holding shelves



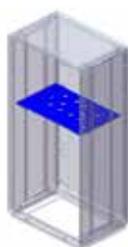
Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	590	17	G7/RP	095777561
460	355	590	17	GH7/RP	095777579

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 upright kits G-../MT uprights (selected based on the overall height), 1 brackets kit GH/SM and 1 brackets dedicate kit GH/SRP/A-L.

To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	575	12	20	RPA/CVL	095751202	GH/SRP/A-L	095777397

Accessories for creating modular equipments panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment plates
- Modular equipment support rack
- Blank and slotted plates
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
490	G-2/MT	095770020	G/SM	095770905	GH/SM	095770913
715	G-4/MT	095770046				
940	G-5/MT	095770053				
1180	G-7/MT	095770079				
1390	G-8/MT	095770087				
1840	G-9/MT	095770095	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			

Frame/framework for supporting modular equipments panels


Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit.

To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment, mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	58	G7/2/TPM	095777702
658	3	87	G7/4/TPM	095777710
883	4	116	G7/5/TPM	095777728
1130	6	174	G7/7/TPM	095777736
1340	6	174	G7/8/TPM	095777744

Modular equipments support rack


Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative support frame/framework panels.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G7/2-5/CST	095777801	1	G7/2/TPM	095777702
658	G7/4-8/CST	095777819	1	G7/4/TPM	095777710
883	G7/2-5/CST	095777801	2	G7/5/TPM	095777728
1130	G7/7/CST	095777827	2	G7/7/TPM	095777736
1340	G7/4-8/CST	095777819	2	G7/8/TPM	095777744

Blank or slotted panels


Characteristics

Made from thermoplastic material. Suitable for Grafi7 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G7/PC	095777603
Slotted	29 DIN modules (17,5mm) for each panel	G7/PM/29	095777629

Mounting plate/brackets kit for arranging the modular equipments support racks



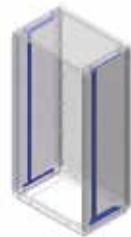
Characteristics

Kit made up of 4 brackets and 1 closing bottom plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipments support racks for fixing any non-modular components on the back of the panel. To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G7/2-5/CST	095777801	330	85	G7/2-5/PACST	095777865
		460	215	GH7/2-5/PACST	095777868
G7/4-8/CST	095777819	330	85	G7/4-8/PACST	095777850
		460	215	GH7/4-8/PACST	095777884
G7/7/CST	095777827	330	85	G7/7/PACST	095777843
		460	215	GH7/7/PACST	095777876

Accessories for creating RACK 19" equipments

Uprights kit + brackets kit for RACK 19"



Characteristics

Uprights made of steel. Predisposed with holes for frame/frame fixing and shelves for RACK19". Brackets for support uprights made of steel. The kit must be chosen according to the depth and overall height of the enclosure regardless of the number and arrangement of the compartments. Order 2 kit uprights and 1 kit brackets.

Enclosure overall height, mm	Uprights (2 pezzi)		No. Uprights kit to be requested	Uprights support brackets (4 pieces)			
	Model	Code		Depth 330 mm		Depth 460 mm	
				Model	Code	Model	Code
490	G-2/MT	095770020	2	G/SM	095770905	GH/SM	095770913
715	G-4/MT	095770046					
940	G-5/MT	095770053					
1180	G-7/MT	095770079					
1390	G-8/MT	095770087					
1840	G-9/MT	095770095					

Frame/framework for Rack 19"



Characteristics

Made of sheet metal complete with grey RAL7035 color. Prepared for fixing on uprights kit. To be chosen according to the useful height of the single compartment. In case of multiple compartments, the individual compartment can also be equipped.

Useful height compartment, mm	No. max unit HE	Max equipment weight (Kg)	Frame/framework	
			Model	Code
433	6	20	G7/2/TR19	095777645
658	12	35	G7/4/TR19	095777652
883	16	48	G7/5/TR19	095777660
1130	20	60	G7/7/TR19	095777678
1340	24	80	G7/8/TR19	095777686

Modular equipments panels



Characteristics

Made of steel sheet grey RAL7032 color
Complete with DIN 46 277/3 profile and a pair of slotted fixing brackets in 24 modules for 17,5mm. Overall height 4 units HE.

With buttonhole

Buttonhole size	External dimensions	No. unit HE	Model	Code
423x46	490x177	4	ACV/PM/RACK	095759247

Closing blinds

Characteristics

Made of steel sheet grey RAL7032 color

External dimensions	Dimensions	Model	Code
490x44	n. 1 unità HE	ACV/PC1/RACK	095759114
490x88	n. 2 unità HE	ACV/PC2/RACK	095759122
490x177	n. 4 unità HE	ACV/PC4/RACK	095759148
490x355	n. 8 unità HE	ACV/PC8/RACK	095759139

Brackets and guides



ACV/SF/RACK

Profile fixing brackets

Made of galvanized and passivated steel sheet; adjustable in depth. For fixing DIN profiles.

Drawer support guides

Made of galvanized and passivated steel sheet. For guide and support for RACK 19" drawers

Type	Model	Code
Profile fixing bracket (2pcs)	ACV/SF/RACK	095759627
Drawer support guide for Rack 19" (2pcs)	ACV/GS/RACK	095759619

Cage nuts

Made of galvanized and passivated steel - M6 thread.

Model	Code
ACV/DG6/50	095759817

Shelves for deep equipments support



Characteristics

In galvanized steel. To be used with the RACK 19" to frontally fix and support heavy and deep equipment.

Shelves (2 pieces)	
Model	Code
G/M/TR19	095770806

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE TOP UNIT				Upright/Bracket kit	Frame/Panels/Rack kit
IP55		IP44			Compartment "a" 
Model	Code	Model	Code	Code	Code
Depth mm 330					
G7-2/2/T	077702108	G7-2/2/T-4	078702107	095773321	095777298
G7-4/4/T	077704104	G7-4/4/T-4	078704103	095773347	095777496
G7-5/5/T	077705101	G7-5/5/T-4	078705100	095773354	095777595
G7-7//7/T	077707107	G7-7//7/T-4	078707106	095773370	095777793
G7-8/8/T	077708105	G7-8/8/T-4	078708104	095773388	095777892
G7-5/22/ZT	077705192	G7-5/22/ZT-4	078705191	095773354	095777298
G7-8/25/ZT	077708196	G7-8/25/ZT-4	078708195	095773388	095777595
G7-9/28/ZT	077709194	G7-9/28/ZT-4	078709193	095773396	095777892
Depth mm 460					
GH7-2/2/T	077712107	GH7-2/2/T-4	078712106	095774626	095777298
GH7-4/4/T	077714103	GH7-4/4/T-4	078714102	095774642	095777496
GH7-5/5/T	077715100	GH7-5/5/T-4	078715109	095774659	095777595
GH7-7/7/T	077717106	GH7-7/7/T-4	078717105	095774675	095777793
GH7-8/8/T	077718104	GH7-8/8/T-4	078718103	095774683	095777892
GH7-5/22/ZT	077715191	GH7-5/22/ZT-4	078715190	095774659	095777298
GH7-8/25/ZT	077718195	GH7-8/25/ZT-4	078718194	095774683	095777595
GH7-9/28/ZT	077719193	GH7-9/28/ZT-4	078719192	095774691	095777892

How to order

To order the kits for making panels you need simply to know the code of the 1 compartment enclosure - 1 compartment with integrated plinth and select the codes of the order kits corresponding to the reference enclosure code. Example: Enclosure code 077718104.

Corresponding kits:

- Uprights/Brackets Kit: code 095774683
- Frame/Panels/Racks kit: for compartment "a" code 09577892

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For further details on the composition of internal accessories for the realization of panels, consult the dedicated section at page 181.

Maximum load applicable on the bottom partition/Usable protected space for equipment/Thermal energy dissipation, page 55-56

Accessories and spare parts common to the whole Grafi7 series:

Ventilation units, page 190

Anchor frame, page 189

1 compartment enclosure with counter compartment

**Characteristics**

Overall height sizes available: 1390mm with depth: 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site. Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

With built-in contact box on the right-hand side-independent access with a diversified lock (standard, triangular, lukeable).

Suitable for direct mounting of electronic meters:

- max n°1 integrated single-phase measuring group, GMI-GMY type.

- max n°1 single phase for powers up to 10Kw GEM-GISM type. Fixing with no.1 base T5 A2 (serial number 286103).

- max n°1 three-phase for powers up to 16.5Kw type GET2A, up to 30Kw type GIST. Fixing with n°1 base T5 A4 (Serial number 286142).

IP43 degree of protection according to CEI EN 60529, IK10 according to CEI EN 62262.

For self-standing installation with masonry frame.

Materials

Made of fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Galvanized and painted steel frame. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 4 .

External dimensions, mm			Internal dimensions compartment, mm			Door dimension mm	Counter compartment dimension, mm			IP	Model	Code
Height	Width	Depth	Height	Width	Depth		Height	Width	Depth			
1390	685	460	a = 1340	667	428	1274x595	375	182	182	IP44	GH7-8/8/GMI/T-4	078718350

2 compartments enclosures



Characteristics

Made with 2 equipment compartments separated by an intermediate partition.
 Overall height sizes available: 940mm – 1390mm – 1840mm for two depths: 330mm – 460mm.
 Rated insulation voltage Ui 690V.
 Complete with fixing frame for installation on a concrete base.
 Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).
 Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).
 Arrangement of the compartments (upper/lower) modifiable on site according to the needs of installation of equipment and internal accessories (DOTPER® system)
 Can be equipped with mounting plates and dedicated accessories for creating panels.
 Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.
 Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

External dimensions, mm			Internal dimensions compartment, mm			Door dimension, mm	IP	Model	Code
Height	Width	Depth	Height	Width	Depth				
*940	685	330	a-b= 433	667	298	374x595	IP55	G7-5/22/T	077705200
							IP44	G7-5/22/T-4	078705209
	685	460	a-b= 433	667	428	374x595	IP55	GH7-5/22/T	077715209
							IP44	GH7-5/22/T-4	078715208
1390	685	330	a-b= 658	667	298	599x595	IP55	G7-8/44/T	077708204
							IP44	G7-8/44/T-4	078708203
	685	460	a-b= 658	667	428	599x595	IP55	GH7-8/44/T	077718203
							IP44	GH7-8/44/T-4	078718202
1390	685	330	a= 883 b= 433	667	298	824x595 374x595	IP55	G7-8/52/T	077708212
							IP44	G7-8/52/T-4	078708211
	685	460	a= 883 b= 433	667	428	824x595 374x595	IP55	GH7-8/52/T	077718211
							IP44	GH7-8/52/T-4	078718210
1840	685	330	a-b= 883	667	298	824x595	IP55	G7-9/55/T	077709202
							IP44	G7-9/55/T-4	078709201
	685	460	a-b= 883	667	428	824x595	IP55	GH7-9/55/T	077719201
							IP44	GH7-9/55/T-4	078719200
1840	685	330	a= 1340 b= 433	667	298	1274x595 374x595	IP55	G7-9/82/T	077709210
							IP44	G7-9/82/T-4	078709219
	685	460	a= 1340 b= 433	667	428	1274x595 374x595	IP55	GH7-9/82/T	077719219
							IP44	GH7-9/82/T-4	078719218
2080	685	330	a= 1340 b= 658	667	298	1274x595 599x595	IP44	G7-S/84/T-4**	078709508
	685	460						GH7-S/84/T-4**	078719507

* Models that can also be produced on the wall, see the Accessories section on page 177

** Double compartment executions + complete top unit with sealing gasket;

Cable passage made with 3 tapered diaphragms diam. 76 mm.

2 compartments enclosures with integrated plinth

**Characteristics**

Made with 2 compartments separated by an intermediate partition + lower base integrated into a single support structure.

Overall height sizes available: 1390mm – 1840mm for two depths: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).

Arrangement of the compartments (upper/lower) modifiable on site according to the needs of installation of equipment and internal accessories (DOTPER® system)

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plates equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4 .

	External dimensions, mm			Internal dimensions compartment, mm			Plinth height mm	Door dimension mm	IP	Model	Code			
	Height	Width	Depth	Height	Width	Depth								
<table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td style="text-align: center;">b</td></tr> <tr><td style="text-align: center;">a</td></tr> <tr><td style="text-align: center;">plinth</td></tr> </table>	b	a	plinth	1390	685	330	a-b=433	667	298	490	374x595	IP55	G7-8/222/ZT	077708295
	b													
	a													
	plinth													
685	460	a-b=433	667	428	374x595	IP44	G7-8/222/ZT-4	078708294						
	1840	685	330	a-b=658	667	298	490	599x595	IP55	G7-9/244/ZT	077709293			
		685	460	a-b=658	667	428		599x595	IP44	G7-9/244/ZT-4	078709292			
<table border="1" style="border-collapse: collapse; width: 100%;"> <tr><td style="text-align: center;">b</td></tr> <tr><td style="text-align: center;">a</td></tr> <tr><td style="text-align: center;">plinth</td></tr> </table>	b	a	plinth	1840	685	330	a= 883 b= 433	667	298	490	824x595 374x595	IP55	G7-9/252/ZT	077709285
	b													
	a													
	plinth													
685	460	a= 883 b= 433	667	428	824x595 374x595	IP44	G7-9/252/ZT-4	078709284						
	1840	685	330	a= 883 b= 433	667	298	490	824x595 374x595	IP55	GH7-9/252/ZT-4	077719284			
		685	460	a= 883 b= 433	667	428		824x595 374x595	IP44	GH7-9/252/ZT	078719284			

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	560x355	G7/2/PA	095777017	G7/2/PB	095777116	G7/2/PP	095777215
658	560x580	G7/4/PA	095777025	G7/4/PB	095777124	G7/4/PP	095777223
883	560x805	G7/5/PA	095777033	G7/5/PB	095777132	G7/5/PP	095777231
1340	560x1240 (supplied in 2 pcs)	G7/8/PA	095777058	G7/8/PB	095777157	G7/8/PP	095777256

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated.

Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In IP55 cabinets the partition is provided as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G7/SIC	095777405	G7/SIM	095777421
460	GH7/SIC	095777454	GH7/SIM	095777470

Brackets kit for supporting the mounting plates on the uprights



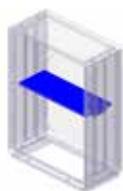
Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate.

For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



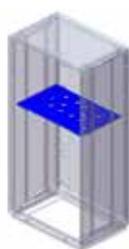
Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	590	17	G7/RP	095777561
460	355	590	17	GH7/RP	095777579

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 G-../MT uprights (selected based on the overall height), 1 GH/SM brackets kit and 1 GH/SRP/A-L brackets kit.

To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	575	12	20	RPA/CVL	095751202	GH/SRP/A-L	095777397

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, bottom plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Enclosure overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
940	G-5/MT	095770053	G/SM	095770905	GH/SM	095770913
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

Frame/framework for supporting modular equipments panels



Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit. To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	58	G7/2/TPM	095777702
658	3	87	G7/4/TPM	095777710
883	4	116	G7/5/TPM	095777728
1340	6	174	G7/8/TPM	095777744

Modular equipment support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G7/2-5/CST	095777801	1	G7/2/TPM	095777702
658	G7/4-8/CST	095777819	1	G7/4/TPM	095777710
883	G7/2-5/CST	095777801	2	G7/5/TPM	095777728
1340	G7/4-8/CST	095777819	2	G7/8/TPM	095777744

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi7 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G7/PC	095777603
Slotted	29 DIN modules (17,5mm) for each panel	G7/PM/29	095777629

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 closing bottom plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel.
To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G7/2-5/CST	095777801	330	85	G7/2-5/PACST	095777865
		460	215	GH7/2-5/PACST	095777868
G7/4-8/CST	095777819	330	85	G7/4-8/PACST	095777850
		460	215	GH7/4-8/PACST	095777884

Accessories for creating RACK 19" equipments

Uprights kit + brackets kit for RACK 19"

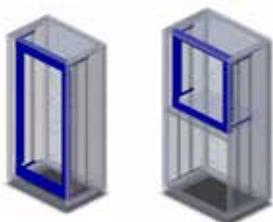


Characteristics

Uprights made of steel. Predisposed with holes for frame/frame fixing and shelves for RACK19". Brackets for support uprights made of steel. The kit must be chosen according to the depth and overall height of the enclosure regardless of the number and arrangement of the compartments. Order 2 kit uprights and 1 kit brackets.

Enclosure overall height, mm	Uprights (2 pieces)		No. Uprights kit to be requested	Uprights support brackets (4 pieces)			
	Model	Code		Depth 330 mm		Depth 460 mm	
				Model	Code	Model	Code
940	G-5/MT	095770053	2	G/SM	095770905	GH/SM	095770913
1390	G-8/MT	095770087					
1840	G-9/MT	095770095					

Frame/framework for Rack 19"



Characteristics

Made of sheet metal complete with grey RAL7035 color. Prepared for fixing on uprights kit. To be chosen according to the useful height of the single compartment. In case of multiple compartments, the individual compartment can also be equipped.

Useful height compartment mm	No. max unit HE	Max equipment weight (Kg)	Frame/framework	
			Model	Code
433	6	20	G7/2/TR19	095777645
658	12	35	G7/4/TR19	095777652
883	16	48	G7/5/TR19	095777660
1340	24	80	G7/8/TR19	095777686

Modular equipments panels



Characteristics

Made of steel sheet grey RAL7032 color
Complete with DIN 46 277/3 profile and a pair of slotted fixing brackets in 24 modules for 17,5mm. Overall height 4 units HE.

With buttonhole

Buttonhole size	External dimensions	No. unit HE	Model	Code
423x46	490x177	4	ACV/PM/RACK	095759247

Closing blinds

Characteristics

Made of steel sheet grey RAL7032 color

External dimensions	Dimensions	Model	Code
490x44	no. 1 unit HE	ACV/PC1/RACK	095759114
490x88	no. 2 unit HE	ACV/PC2/RACK	095759122
490x177	no. 4 unit HE	ACV/PC4/RACK	095759148
490x355	no. 8 unit HE	ACV/PC8/RACK	095759139

Brackets and guides



ACV/SF/RACK

Profile fixing brackets

Made of galvanized and passivated steel sheet; adjustable in depth. For fixing DIN profiles.

Drawer support guides

Made of galvanized and passivated steel sheet. For guide and support for RACK 19" drawers

Notes	Model	Code
Profile fixing bracket (2pcs)	ACV/SF/RACK	095759627
Drawer support guide for Rack 19" (2pcs)	ACV/GS/RACK	095759619

Cage nuts

Made of galvanized and passivated steel - M6 thread.

Model	Code
ACV/DG6/50	095759817

Shelves for deep equipments support



Characteristics

In galvanized steel. To be used with the RACK 19" to frontally fix and support heavy and deep equipment.

Shelves (2 pieces)	
Model	Code
G/M/TR19	095770806

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit	
IP55		IP44				
Model	Code	Model	Code	Code	Compartment "a"	Compartment "b"
Depth mm 330						
G7-5/22/T	077705200	G7-5/22/T-4	078705209	095773354	095777298	095777298
G7-8/44/T	077708204	G7-8/44/T-4	078708203	095773388	095777496	095777496
G7-8/52/T	077708212	G7-8/52/T-4	078708211	095773388	095777595	095777298
G7-9/55/T	077709202	G7-9/55/T-4	078709201	095773396	095777595	095777595
G7-9/82/T	077709210	G7-9/82/T-4	078709219	095773396	095777892	095777298
		G7-S/84/T-4	078709508	Comp "a" = 095773396 Comp "b" = 095773388	095777892	095777496
G7-8/222/ZT	077708295	G7-8/222/ZT-4	078708294	095773388	095777298	095777298
G7-9/244/ZT	077709293	G7-9/244/ZT-4	078709292	095773396	095777496	095777496
G7-9/252/ZT	077709285	G7-9/252/ZT-4	078709284	095773396	095777595	095777298
Depth mm 460						
GH7-5/22/T	077715209	GH7-5/22/T-4	078715208	095774659	095777298	095777298
GH7-8/44/T	077718203	GH7-8/44/T-4	078718202	095774683	095777496	095777496
GH7-8/52/T	077718211	GH7-8/52/-4	078718210	095774683	095777595	095777298
GH7-9/55/T	077719201	GH7-9/55/T-4	078719200	095774691	095777595	095777595
GH7-9/82/T	077719219	GH7-9/82/T-4	078719218	095774691	095777892	095777298
		GH7-S/84/T-4	078719507	Comp "a" = 095774691 Comp "b" = 095774683	095777892	095777496
GH7-8/222/ZT	077718294	GH7-8/222/ZT-4	078718293	095774683	095777298	095777298
GH7-9/244/ZT	077719292	GH7-9/244/ZT-4	078719291	095774691	095777496	095777496
GH7-9/252/ZT	077719284	GH7-9/252/ZT-4	078719284	095774691	095777595	095777298

How to order

To order the kits for making panels you need simply to know the code of the 2 compartment enclosure - 2 compartment with integrated plinth and select the codes of the order kits corresponding to the reference cabinet code. Example: Enclosure code 077709210.

Corresponding kits:

- Uprights/Brackets Kit: code 095773396
- Frame/Panels/Racks kit
 - for compartment "a" code 095777892
 - for compartment "b" code 095777298.

In case you want to equip only a single compartment must always order the Upright/Brackets Kit + Frame/Panel/Rack Kit corresponding to the compartment to be accessorised.

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

Maximum load applicable on the bottom partition/Usable protected space for equipment/Thermal energy dissipation, page 102

Accessories and spare parts common to the whole Grafi7 series:

Ventilation units, page 190

Anchor frame, page 189

3 and 4 compartments enclosures


Characteristics

Made with 3/4 equipments compartments separated by an intermediate partition.
 Overall height sizes available: 1390mm - 1840mm for two depths: 330mm - 460mm.
 Rated insulation voltage Ui 690V.
 Complete with fixing frame for installation on a concrete base.
 Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).
 Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).
 Door opening side can be changed on site (for detailed information see the Accessories section).
 Arrangement of the compartments (upper/intermediate/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).
 Can be equipped with mounting plates and dedicated accessories for creating panels.
 Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.
 Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

Made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4



3 compartments

	External dimensions, mm			Internal dimensions compartment, mm			Door dimension, mm	IP	Model	Code			
	Height	Width	Depth	Height	Width	Depth							
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1390	685	330	a-b-c= 433	667	298	374x595	IP55	G7-8/222/T	077708303
	c												
	b												
	a												
IP44	G7-8/222/T-4	078708302											
	685	460	a-b-c= 433	667	428	374x595	IP55	GH7-8/222/T	077718302				
							IP44	GH7-8/222/T-4	078718301				
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1840	685	330	a= 883 b-c= 433	667	298	824x595 374x595	IP55	G7-9/522/T	077709301
	c												
	b												
	a												
IP44	G7-9/522/T-4	078709300											
	685	460	a= 883 b-c= 433	667	428	824x595 374x595	IP55	GH7-9/522/T	077719300				
							IP44	GH7-9/522/T-4	078719309				
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1840	685	330	a-b= 658 c= 433	667	298	599x595 374x595	IP55	G7-9/442/T	077709319
	c												
	b												
	a												
IP44	G7-9/442/T-4	078709318											
	685	460	a-b= 658 c= 433	667	428	599x595 374x595	IP55	GH7-9/442/T	077719318				
							IP44	GH7-9/442/T-4	078719317				

4 compartments

	External dimensions, mm			Internal dimensions compartment, mm			Door dimension, mm	IP	Model	Code				
	Height	Width	Depth	Height	Width	Depth								
<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td>d</td></tr> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	d	c	b	a	1840	685	330	a-b-c-d=433	667	298	374x595	IP55	G7-9/2222/T	077709400
	d													
	c													
	b													
a														
IP44	G7-9/2222/T-4	078709409												
	685	460	a-b-c-d=433	667	428	374x595	IP55	GH7-9/2222/T	077719409					
							IP44	GH7-9/2222/T-4	078719408					

3 compartments enclosures with integrated plinth



Characteristics

Made with 3 compartments separated by an intermediate partition + lower base integrated into a single support structure.

Overall height sizes available: 1840mm for two depths: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base.

Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).

Door opening side can be changed on site (for detailed information see the Accessories section).

Arrangement of the compartments (upper/intermediate/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

Made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4



	External dimensions, mm			Internal dimensions compartment, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
c	1840	685	330	a-b-c=433	667	298	490	374x595	IP55	G7-9/2222/ZT	077709392
b									IP44	G7-9/2222/ZT-4	078709391
a	1840	685	460	a-b-c=433	667	428	490	374x595	IP55	GH7-9/2222/ZT	077719391
plinth									IP44	GH7-9/2222/ZT-4	078719390

Mounting plates



Characteristics

Can be applied to the bottom of the cabinet using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	560x355	G7/2/PA	095777017	G7/2/PB	095777116	G7/2/PP	095777215
658	560x580	G7/4/PA	095777025	G7/4/PB	095777124	G7/4/PP	095777223
883	560x805	G7/5/PA	095777033	G7/5/PB	095777132	G7/5/PP	095777231

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated.

Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In IP55 cabinets the plate is provided as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G7/SIC	095777405	G7/SIM	095777421
460	GH7/SIC	095777454	GH7/SIM	095777470

Brackets kit for supporting the mounting plates on the uprights



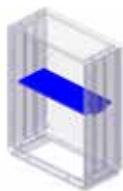
Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable partition. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required.

Suitable for all types of partition. For partitions provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



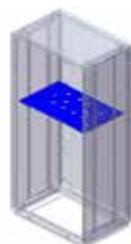
Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	590	17	G7/RP	095777561
460	355	590	17	GH7/RP	095777579

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 G-../MT uprights kits (selected based on the overall height), 1 GH/SM brackets kit and 1 GH/SRP/A-L brackets kit.

To be chosen in width to the depth of the enclosure.

Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	575	12	20	RPA/CVL	095751202	GH/SRP/A-L	095777397

Accessories for creating modular equipments panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Enclosure overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
1390	G-8/MT	095770087	G/SM	095770905	GH/SM	095770913
1840	G-9/MT	095770095	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			

Frame/framework for supporting modular equipment panels


Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit.

To be chosen according to the useful height of the single compartment. In the case of multiple compartments, the individual compartment can also be equipped.

Useful height compartment, mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	58	G7/2/TPM	095777702
658	3	87	G7/4/TPM	095777710
883	4	116	G7/5/TPM	095777728

Modular equipment support rack


Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench.

Designed to be fastened onto the uprights kit.

Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G7/2-5/CST	095777801	1	G7/2/TPM	095777702
658	G7/4-8/CST	095777819	1	G7/4/TPM	095777710
883	G7/2-5/CST	095777801	2	G7/5/TPM	095777728

Blank or slotted panels


Characteristics

Made from thermoplastic material. Suitable for Grafi7 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G7/PC	095777603
Slotted	29 DIN modules (17,5mm) for each panel	G7/PM/29	095777629

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 closign bottom plate. Brackets and partition made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel.

To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Kit staffe/plate	
Model	Code			Model	Code
G7/2-5/CST	095777801	330	85	G7/2-5/PACST	095777865
		460	215	GH7/2-5/PACST	095777868
G7/4-8/CST	095777819	330	85	G7/4-8/PACST	095777850
		460	215	GH7/4-8/PACST	095777884

Accessories for creating RACK 19" equipments

Uprights kit + brackets kit for RACK 19"



Characteristics

Uprights made of steel. Predisposed with holes for frame/frame fixing and shelves for RACK19".

Brackets for support uprights made of steel. The kit must be chosen according to the depth and overall height of the enclosure regardless of the number and arrangement of the compartments. Order 2 kit uprights and 1 kit brackets.

Enclosure overall height, mm	Uprights (2 pieces)		No. Uprights kit to be requested	Uprights support brackets (4 pieces)			
	Model	Code		Depth 330 mm		Depth 460 mm	
				Model	Code	Model	Code
1390	G-8/MT	095770087	2	G/SM	095770905	GH/SM	095770913
1840	G-9/MT	095770095					

Frame/framework for Rack 19"



Characteristics

Made of sheet metal complete with grey RAL7035 color. Prepared for fixing on uprights kit. To be chosen according to the useful height of the single compartment. In case of multiple compartments, the individual compartment can also be equipped.

Useful height mm	N° max unità HE	Peso max apparecchiature (Kg)	Telaio/Cornice	
			Model	Code
433	6	20	G7/2/TR19	095777645
658	12	35	G7/4/TR19	095777652
883	16	48	G7/5/TR19	095777660

Modular equipments panels



Characteristics

Made of steel sheet grey RAL7032 color
Complete with DIN 46 277/3 profile and a pair of slotted fixing brackets in 24 modules for 17,5mm. Overall height 4 units HE.

With buttonhole

Buttonhole size	External dimensions	No. unit HE	Model	Code
423x46	490x177	4	ACV/PM/RACK	095759247

Closing blinds

Characteristics

Made of steel sheet grey RAL7032 color

External dimensions	Dimensions	Model	Code
490x44	no. 1 unit HE	ACV/PC1/RACK	095759114
490x88	no. 2 unit HE	ACV/PC2/RACK	095759122
490x177	no. 4 unit HE	ACV/PC4/RACK	095759148
490x355	no. 8 unit HE	ACV/PC8/RACK	095759139

Brackets and guides



ACV/SF/RACK

Profile fixing brackets

Made of galvanized and passivated steel sheet; adjustable in depth. For fixing DIN profiles.

Drawer support guides

Made of galvanized and passivated steel sheet. For guide and support for RACK 19" drawers

Notes	Model	Code
Profile fixing bracket (2pcs)	ACV/SF/RACK	095759627
Drawer support guide for Rack 19" (2pcs)	ACV/GS/RACK	095759619

Cage nuts

Made of galvanized and passivated steel - M6 thread.

Model	Code
ACV/DG6/50	095759817

Shelves for deep equipments support



Characteristics

In galvanized steel. To be used with the RACK 19" to frontally fix and support heavy and deep equipment.

Shelves (2 pieces)	
Model	Code
G/M/TR19	095770806

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit			
IP55		IP44						
Model	Code	Model	Code		Comp. "a"	Comp. "b"	Comp. "c"	Comp. "d"
Depth mm 330								
G7-8/222/T	077708303	G7-8/222/T-4	078708302	095773388	095777298	095777298	095777298	-
G7-9/522/T	077709301	G7-9/522/T-4	078709300	095773396	095777595	095777298	095777298	-
G7-9/442/T	077709319	G7-9/442/T-4	078709318	095773396	095777496	095777496	095777298	-
G7-9/2222/ZT	077709392	G7-9/2222/ZT-4	078709391	095773396	095777298	095777298	095777298	-
G7-9/2222/T	077709400	G7-9/2222/T-4	078709409	095773396	095777298	095777298	095777298	095777298
Depth mm 460								
GH7-8/222/T	077718302	GH7-8/222/T-4	078718301	095774683	095777298	095777298	095777298	-
GH7-9/522/T	077719300	GH7-9/522/T-4	078719309	095774691	095777595	095777298	095777298	-
GH7-9/442/T	077719318	GH7-9/442/T-4	078719317	095774691	095777496	095777496	095777298	-
GH7-9/2222/ZT	077719391	GH7-9/2222/ZT-4	078719390	095774691	095777298	095777298	095777298	-
GH7-9/2222/T	077719409	GH7-9/2222/T-4	078719408	095774691	095777298	095777298	095777298	095777298

How to order

To order the kits for making panels you need simply to know the code of the 3 compartments enclosures - 3 compartments with integrated plinth and select the codes of the order kits corresponding to the reference enclosure code. Example: Enclosure code 077709319.

Corresponding kits:

- Uprights/Brackets Kit: code 095773396
- Frame/Panels/Racks kit
 - for compartment "a" code 095777496
 - for compartment "b" code 095777496
 - for compartment "c" code 095777298

In case you want to equip only a single compartment must always order the Upright/Brackets Kit + Frame/Panel/Rack Kit corresponding to the compartment to be accessorised.

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

Maximum load applicable on the bottom partition/Usable protected space for equipment/Thermal energy dissipation, page 102

Accessories and spare parts common to the whole Grafi7 series:

Ventilation units, page 190

Anchor frame, page 189

Grafi7

Enclosures without doors, customizable



Characteristics

Made with the standard bearing structure but without door.
 Overall height sizes available: 1390mm - 1840mm for two depths: 330mm - 460mm.
 Can be used in conjunction with single "door kits" to create cabinets with multiple compartments in sizes and/or arrangements to suit specific requirements.
 Structure pre-engineered with hinges into which the individual doors can be fitted in the required positions.
 Complete with fixing frame for installation on a concrete base. Can be equipped with mounting plates and dedicated accessories for creating switchgear.
 Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Lower closing partition with conical fairleads and seal available.

Materials

Made of fiberglass in grey RAL7035 color. External non-accessible stainless steel hinges. Galvanized and painted steel frame. Seals made of expanded EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262.

Pre-engineered for apparatus in class II according to CEI 64-8/4

External dimensions, mm			Internal dimensions compartment, mm			IP	Model	Code
Height	Width	Depth	Height	Width	Depth			
1390	685	330		667	298	IP55	G7-8/T	077708006
	685	460		667	428	IP55	GH7-8/T	077718005
1840	685	330		667	298	IP55	G7-9/T	077709004
	685	460		667	428	IP55	GH7-9/T	077719003

Through the combination of the following accessories, on the enclosure without doors can be made over the coded compartments, other versions with compartments arranged according to the specific requirements of switchboards.

Plinth front panel kit + trail



Characteristics

Supplied complete with gasket and fixing screws.

Useful height, mm	Model	Code
433	G7/2/KTZ	095778205

Compartment doors Kit



Characteristics

Supplied with side door hinge parts, seals and Y21 encrypted lever lock.

Useful height , mm	Door dimension mm	Model	Code
433	374x595	G7/2/KA	095778726
658	599x595	G7/4/KA	095778742
883	824x595	G7/5/KA	095778759
1180	1064x595	G7/7/KA	095778775
1340	1274x595	G7/8/KA	095778783

Partition compartments Kit + trail



Characteristics

Supplied complete with brackets and fixing screws. To be chosen according to the enclosure depth (330 or 460).

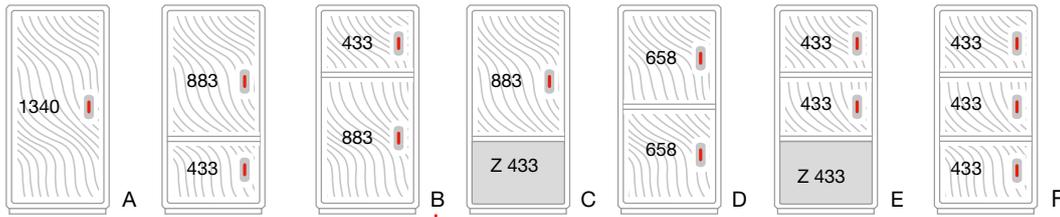
Depth, mm	Model	Code
330	G7/KTS	095777009
460	GH7/KTS	095777108

Possible compositions

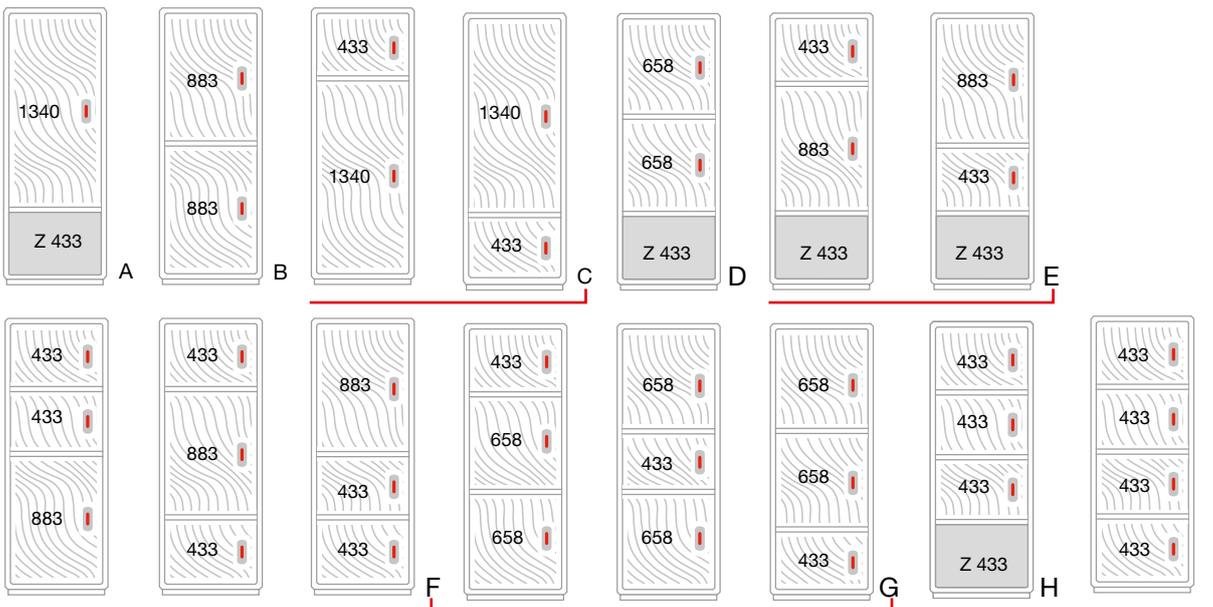
Customizable enclosures without doors make it possible to tackle different partitioning needs of the interior volume starting with a few basic elements. In the composition diagrams provided below, all the possible combinations which can be obtained on enclosures of an overall height of 1390mm and 1840mm are highlighted.

The letters identifying the single compositions shown in the table make it possible to quickly identify the types and number of kits needed to make them.

The figures shown on each individual compartment indicate its usable height, which is essential for identifying any internal accessories (mounting plates, accessories for making panels, etc.). When selecting accessories, refer to the sections corresponding to the selected composition/s based on the number of compartments.

COMPOSITIONS REALIZED ON ENCLOSURES WITHOUT DOOR HEIGHT OVERALL DIMENSIONS - 1390mm


	Code	Model	Useful height mm	A	B	C	D	E	F
Plinth kit	095778205	G7/2/KTZ	433			1		1	
Doors Kit	095778726	G7/2/KA	433		1			2	3
	095778742	G7/4/KA	658				2		
	095778759	G7/5/KA	883		1	1			
	095778783	G7/8/KA	1340	1					
Partition kit Depth330	095777009	G7/KTS			1		1	1	2
or									
Partition kit Depth460	095777108	GH7/KTS			1		1	1	2

COMPOSITIONS REALIZED ON ENCLOSURES WITHOUT DOOR HEIGHT OVERALL DIMENSIONS - 1840mm


	Code	Model	Useful height mm	A	B	C	D	E	F	G	H	I
Plinth kit	095778205	G7/2/KTZ	433	1			1	1			1	
Doors kit	095778726	G7/2/KA	433			1		1	2	1	3	4
	095778742	G7/4/KA	658				2			2		
	095778759	G7/5/KA	883		2			1	1			
	095778783	G7/8/KA	1340	1		1						
Partition kit Depth 330	095777009	G7/KTS			1	1	1	1	2	2	2	3
or												
Partition kit Depth 460	095777108	GH7/KTS			1	1	1	1	2	2	2	3

The following table specifies what configurations are supported for customizable without door enclosures.

Maximum load

Maximum load applicable on the mounting plate and usable protected space for equipment in observance of the characteristics certified by standard CEI EN 62208.

The table shows the maximum load value applicable on the mounting plate installed on both the bottom wall and on the uprights

(in the case of multiple compartments, the value refers to the individual compartments). Other installation methods may bear greater weights.

By usable protected space we mean the space dedicated to the installation of protection and manoeuvring equipment for which the IP rating is guaranteed by the casing.

Thermal energy dissipation (Pmax. = watt)

Calculation carried out in accordance with standard CEI 17-43: method of temperature-rise assessment by extrapolation for partially type-tested assemblies for protection (BT panels) of low-voltage switchgear not standard (ANS).

Thermal energy dissipation values (Pmax=watt) of the enclosures provided in the table are valid considering:

- standard installation conditions (exposure on all sides);
- ambient temperature established at 35 °C;
- overtemperature values achieved at mid height [Δt 0.5 (°C)] (value indicated in the table);
- overtemperature values established at the top Δt 1.0 =30 °C.

Pmax(watt) is an overall value referring to the entire structure of the enclosure; in the case of multiple compartments, the value must be divided by the number of compartments. The standard thermal energy dissipation value [Pmax(watt)] can be increased by applying ventilation units.

Top Units



Code	Model	Useful space protected, mm			Max load kg compartment "a"	ΔT 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077702900	G7-2/2/S	a=355	580	235	45	26,6	109
077704906	G7-4/4/S	a=580	580	235	55	22,8	122
077705903	G7-5/5/S	a=805	580	235	65	21,8	153
077712909	GH7-2/2/S	a=355	580	365	45	24,2	122
077714905	GH7-4/4/S	a=580	580	365	55	23,4	158
077715902	GH7-5/5/S	a=805	580	365	65	22,7	194
IP44							
078702909	G7-2/2/S-4	a=355	580	235	45	25	114
078704905	G7-4/4/S-4	a=580	580	235	55	23,5	128
078705902	G7-5/5/S-4	a=805	580	235	65	22,5	159
078712908	GH7-2/2/S-4	a=355	580	365	45	25	127
078714904	GH7-4/4/S-4	a=580	580	365	55	24,3	165
078715901	GH7-5/5/S-4	a=805	580	365	65	23,5	203

Average integration of the Dissipable Power

The standard value of Pmax (Watt) can be increased by the application of the aeration vents, in particular:

- no. 2 aeration vents, applied diagonally, increase the dissipable power [Pmax (Watt)] of **100W**.

Ex. For the enclosure G7-5/22/T Pmax (Watt) = 144W. Applying no. 2 ventilation units the Pmax (Watt) is 144W + 100W = 244W.

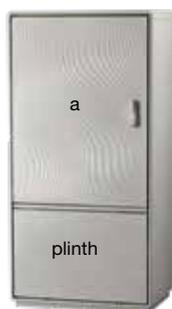
- no. 2 aeration vents, applied diagonally, one of which with forced ventilation and installed in the upper part of the enclosure, increase the dissipable power [Pmax (Watt)] of **250W**.

Ex. For the enclosure G7-8/25/ZT Pmax (Watt) = 222W. Applying no. 2 ventilation units, one with forced ventilation, the Pmax (Watt) is 222W + 250W = 472W.

For any specific composition requests a specific calculation in place.

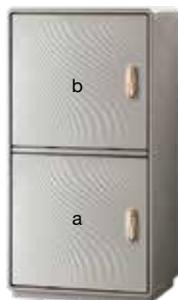
1 compartment


Code	Model	Useful space protected, mm			Max load kg compartment "a"	$\Delta T 0,5$ (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077702108	G7-2/2/T	a=355	580	235	45	26,6	109
077704104	G7-4/4/T	a=580	580	235	55	22,8	122
077705101	G7-5/5/T	a=805	580	235	65	21,8	153
077707107	G7-7/7/T	a=1045	580	235	80	20,8	185
077708105	G7-8/8/T	a=1255	580	235	90	20,1	222
077712107	GH7-2/2/T	a=355	580	365	45	24,2	122
077714103	GH7-4/4/T	a=580	580	365	55	23,4	158
077715100	GH7-5/5/T	a=805	580	365	65	22,7	194
077717106	GH7-7/7/T	a=1045	580	365	80	21,9	248
077718104	GH7-8/8/T	a=1255	580	365	90	21,2	284
IP44							
078702107	G7-2/2/T-4	a=355	580	235	45	25	114
078704103	G7-4/4/T-4	a=580	580	235	55	23,5	128
078705100	G7-5/5/T-4	a=805	580	235	65	22,5	159
078707106	G7-7/7/T-4	a=1045	580	235	80	21,5	193
078708104	G7-8/8/T-4	a=1255	580	235	90	21	232
078712106	GH7-2/2/T-4	a=355	580	365	45	25	127
078714102	GH7-4/4/T-4	a=580	580	365	55	24,3	165
078715109	GH7-5/5/T-4	a=805	580	365	65	23,5	203
078717105	GH7-7/7/T-4	a=1045	580	365	80	22,6	258
078718103	GH7-8/8/T-4	a=1255	580	365	90	22	296

1 compartment with integrated plinth


Code	Model	Useful space protected, mm			Max load kg compartment "a"	$\Delta T 0,5$ (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077705192	G7-5/22/ZT	a=355	580	235	45	21,8	153
077708196	G7-8/25/ZT	a=805	580	235	65	20,1	222
077709194	G7-9/28/ZT	a=1255	580	235	90	19	281
077715191	GH7-5/22/ZT	a=355	580	365	45	22,7	194
077718195	GH7-8/25/ZT	a=805	580	365	65	21,2	284
077719193	GH7-9/28/ZT	a=1255	580	365	90	20	332
IP44							
078705191	G7-5/22/ZT-4	a=355	580	235	45	22,5	159
078708195	G7-8/25/ZT-4	a=805	580	235	65	21	232
078709193	G7-9/28/ZT-4	a=1255	580	235	90	20	293
078715190	GH7-5/22/ZT-4	a=355	580	365	45	23,5	203
078718194	GH7-8/25/ZT-4	a=805	580	365	65	22	296
078719192	GH7-9/28/ZT-4	a=1255	580	365	90	21	345

2 compartments



Code	Model	Useful space protected, mm			Max load kg		Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"		
IP55								
077705200	G7-5/22/T	a-b=355	580	235	45	45	21,8	144
077708204	G7-8/44/T	a-b=580	580	235	55	55	20,1	209
077708212	G7-8/52/T	a=805 b=355	580	235	65	45	20,1	209
077709202	G7-9/55/T	a-b=805	580	235	65	65	19	264
077709210	G7-9/82/T	a=1255 b=355	580	235	90	45	19	264
077715209	GH7-5/22/T	a-b=355	580	365	45	45	22,7	183
077718203	GH7-8/44/T	a-b=580	580	365	55	55	21,2	268
077718211	GH7-8/52/T	a=805 b=355	580	365	65	45	21,2	268
077719201	GH7-9/55/T	a-b=805	580	365	65	65	20	312
077719219	GH7-9/82/T	a=1255 b=355	580	365	90	45	20	312
IP44								
078705209	G7-5/22/T-4	a-b=355	580	235	45	45	22,5	150
078708203	G7-8/44/T-4	a-b=580	580	235	55	55	21	218
078708211	G7-8/52/T-4	a=805 b=355	580	235	65	45	21	218
078709201	G7-9/55/T-4	a-b=805	580	235	65	65	20	275
078709219	G7-9/82/T-4	a=1255 b=355	580	235	90	45	20	275
078709508	G7-S/84/T-4	a=1255 b=580	580	235	90	55	a=20 b=21	a=275 b=218
078715208	GH7-5/22/T-4	a-b=355	580	365	45	45	23,5	191
078718202	GH7-8/44/T-4	a-b=580	580	365	55	55	22	279
078718210	GH7-8/52/T-4	a=805 b=355	580	365	65	45	22	279
078719200	GH7-9/55/T-4	a-b=805	580	365	65	65	21	325
078719218	GH7-9/82/T-4	a=1255 b=355	580	365	90	45	21	325
078719507	GH7-S/84/T-4	a=1255 b=580	580	365	90	55	a=20 b=21	a=275 b=218

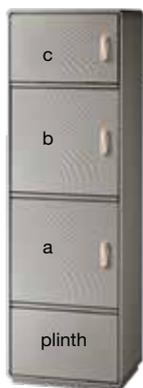
2 compartments with integrated plinth



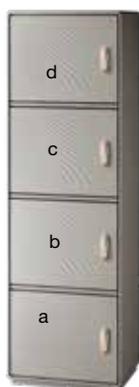
Code	Model	Useful space protected, mm			Max load kg		Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"		
IP55								
077708295	G7-8/222/ZT	a-b=355	580	235	45	45	20,1	209
077709293	G7-9/244/ZT	a-b=580	580	235	55	55	19	264
077709285	G7-9/252/ZT	a=805 b=355	580	235	65	45	19	264
077718294	GH7-8/222/ZT	a-b=355	580	365	45	45	21,2	268
077719292	GH7-9/244/ZT	a-b=580	580	365	55	55	20	312
077719284	GH7-9/252/ZT	a=805 b=355	580	365	65	45	20	312
IP44								
078708294	G7-8/222/ZT-4	a-b=355	580	235	45	45	21	218
078709292	G7-9/244/ZT-4	a-b=580	580	235	55	55	20	275
078709284	G7-9/252/ZT-4	a=805 b=355	580	235	65	45	20	275
078718293	GH7-8/222/ZT-4	a-b=355	580	365	45	45	22	279
078719291	GH7-9/244/ZT-4	a-b=580	580	365	55	55	21	325
078719284	GH7-9/252/ZT-4	a=805 b=355	580	365	65	45	21	325

3 compartments


Code	Model	Useful space protected, mm			Max load kg			$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"		
IP55									
077708303	G7-8/222/T	a-b-c=355	580	235	45	45	45	20,1	187
077709301	G7-9/522/T	a=805 b-c=355	580	235	65	45	45	19	236
077709319	G7-9/442/T	a-b=580 c=355	580	235	55	55	45	19	236
077718302	GH7-8/222/T	a-b-c=355	580	365	45	45	45	21,2	239
077719300	GH7-9/522/T	a=805 b-c=355	580	365	65	45	45	20	279
077719318	GH7-9/442/T	a-b=580 c=355	580	365	55	55	45	20	279
IP44									
078708302	G7-8/222/T-4	a-b-c=355	580	235	45	45	45	21	195
078709300	G7-9/522/T-4	a=805 b-c=355	580	235	65	45	45	20	246
078709318	G7-9/442/T-4	a-b=580 c=355	580	235	55	55	45	20	246
078718301	GH7-8/222/T-4	a-b-c=355	580	365	45	45	45	22	249
078719309	GH7-9/522/T-4	a=805 b-c=355	580	365	65	45	45	21	290
078719317	GH7-9/442/T-4	a-b=580 c=355	580	365	55	55	45	21	290

3 compartments with integrated plinth


Code	Model	Useful space protected, mm			Max load kg			$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"		
IP55									
077709392	G7-9/2222/ZT	a-b-c=355	580	235	45	45	45	19	236
077719391	GH7-9/2222/ZT	a-b-c=355	580	365	45	45	45	20	279
IP44									
078709391	G7-9/2222/ZT-4	a-b-c=355	580	235	45	45	45	20	246
078719390	GH7-9/2222/ZT-4	a-b-c=355	580	365	45	45	45	21	290

4 compartments


Code	Model	Useful space protected, mm			Max load kg				$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"	comp "d"		
IP55										
077709400	G7-9/2222/T	a-b-c-d=355	580	235	45	45	45	45	19	203
077719409	GH7-9/2222/T	a-b-c-d=355	580	365	45	45	45	45	20	239
IP44										
078709409	G7-9/2222/T-4	a-b-c-d=355	580	235	45	45	45	45	20	211
078719408	GH7-9/2222/T-4	a-b-c-d=355	580	365	45	45	45	45	21	249



Grafi 9

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Width 910 mm



Characteristics

The Grafi9 series is characterized by an external width of 910 mm (usable interior width = 892 mm).
 6 different overall heights available, from 490 mm to 1840 mm.
 All versions are available in two depths: 330 mm and 460 mm.
 Rated insulation voltage = Ui 690V.
 IMQ Certification in accordance with CEI EN 62208.

Production drawing

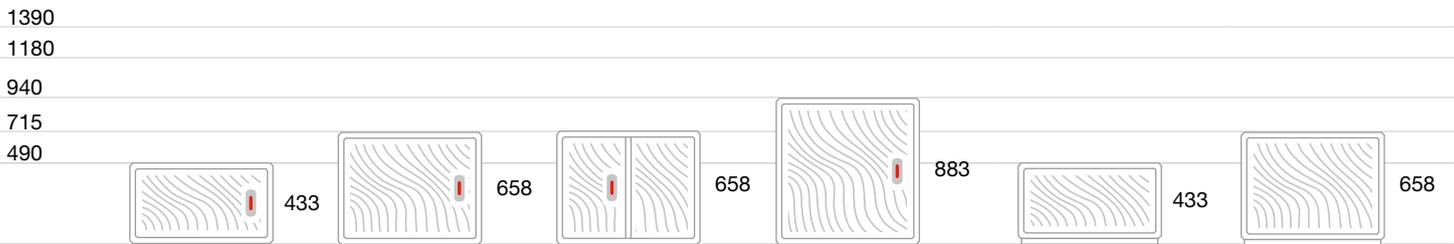
The values on the left of the drawing indicate the overall height. The figures for the individual compartments indicate their usable height, essential when selecting dedicated accessories.

TOP UNITS

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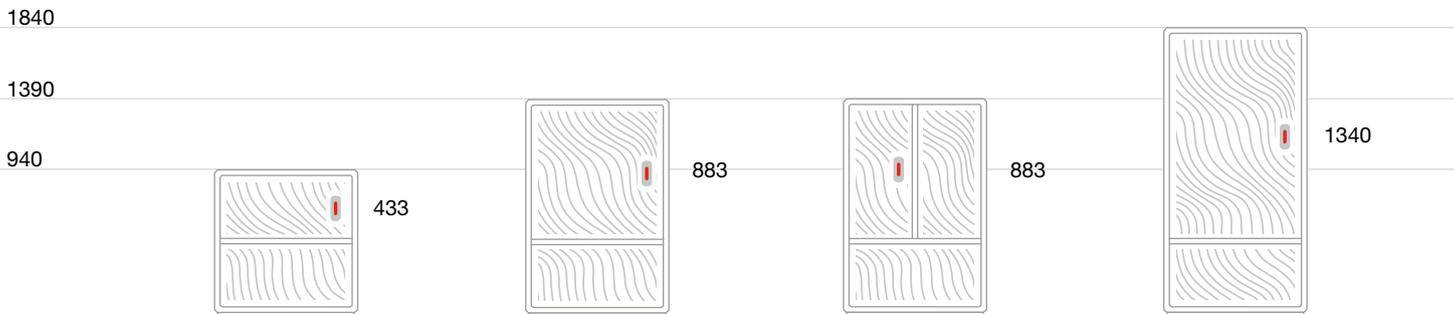
PLINTHS

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1 COMPARTMENT ENCLOSURE WITH INTEGRATED PLINTH

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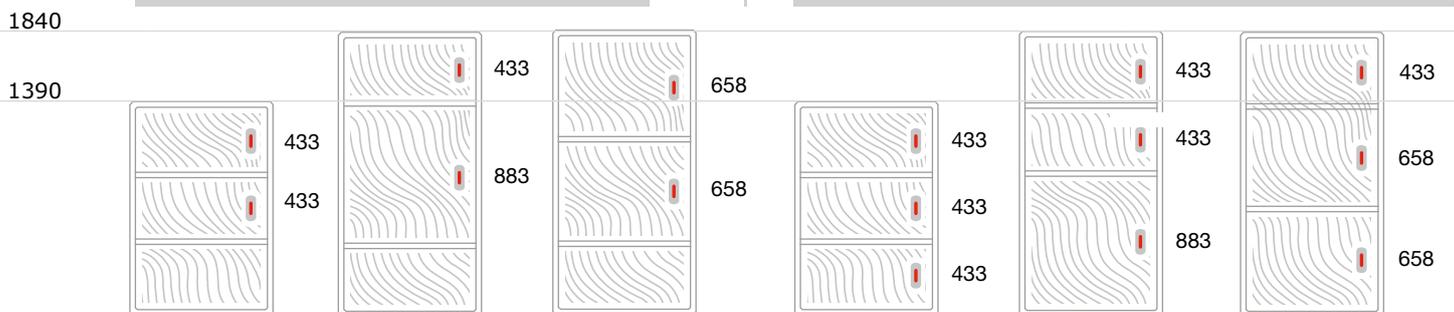


2 COMPARTMENTS ENCLOSURES WITH INTEGRATED PLINTH

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3 COMPARTMENTS ENCLOSURES

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Materials

Made in fiberglass (SMC) in RAL 7035 colour. Thermoplastic resin handle, operating tenon in galvanized steel, internal rods and posts in steel with GEOMET 321 treatment.

Concealed external hinges in stainless steel. Anchor frame in galvanized and painted steel.

Seals in foamed EPDM.

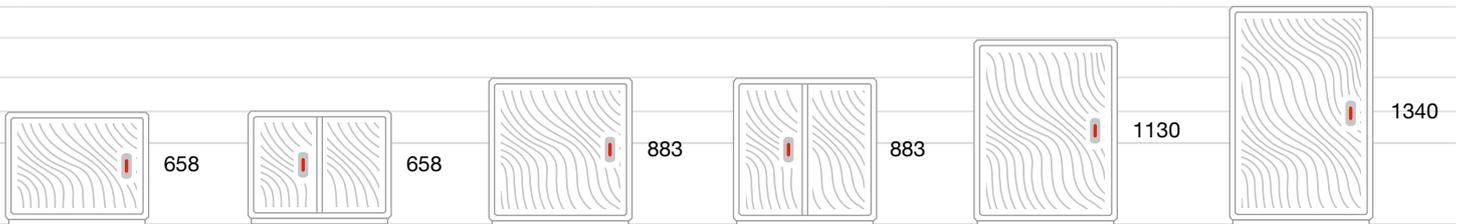
Degree of protection

Available with IP44 - IP55 protection class according to CEI EN 60529, IK10 according to CEI EN 62262.

Prepared for execution of CLASS II equipment according to CEI 64-8 / 4. 

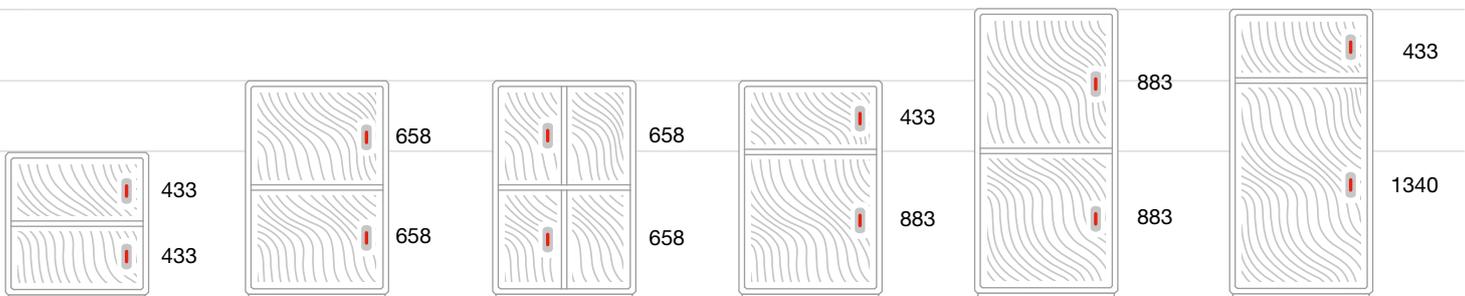
1 COMPARTMENT ENCLOSURE

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2 COMPARTMENTS ENCLOSURES

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3 COMPARTMENTS ENCLOSURES WITH INTEGRATED PLINTH

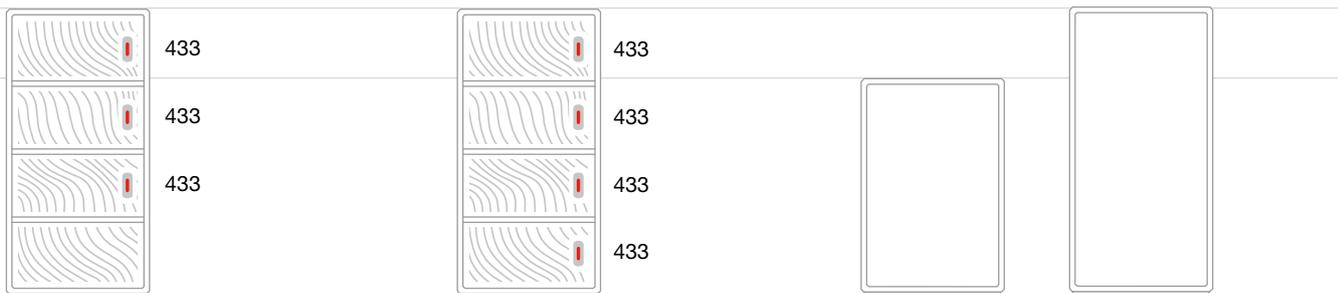
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4 COMPARTMENTS ENCLOSURES

PAG. 134

ENCLOSURES WITHOUT DOORS CUSTOMIZABLE

PAG. 142



Top units



Characteristics

Overall height sizes available: 460mm - 685mm - 910mm for two depths: 330mm - 460mm. Rated insulation voltage U_i 690V. Completely intact structure without holes. The holes for cable passage to be realized by the customer or on request. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request). Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Can be equipped with bottom plates and dedicated accessories for creating panels. Bottom plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions compartment, mm			Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
	460	910	330	a= 433	892	298	374x820	IP55	G9-2/2/S	077902906
								IP44	G9-2/2/S-4	078902905
	460	910	460	a= 433	892	428	374x820	IP55	GH9-2/2/S	077912905
								IP44	GH9-2/2/S-4	078912904
	685	910	330	a= 658	892	298	599x820	IP55	G9-4/4/S	077904902
								IP44	G9-4/4/S-4	078904901
	685	910	460	a= 658	892	428	599x820	IP55	GH9-4/4/S	077914901
								IP44	GH9-4/4/S-4	078914900
	685	910	330	a= 658	892	298	599x820	IP55	G9-4/4A/S*	077904910
								IP44	G9-4/4A/S-4*	078904919
	685	910	460	a= 658	892	428	599x820	IP55	GH9-4/4A/S*	077914919
								IP44	GH9-4/4A/S-4*	078914918
	910	910	330	a= 883	892	298	824x820	IP55	G9-5/5/S	077905909
								IP44	G9-5/5/S-4	078905908
	910	910	460	a= 883	892	428	824x820	IP55	GH9-5/5/S	077915908
								IP44	GH9-5/5/S-4	078915907

*with double door

Warnings

Usable for installation in enclosures of the same series and depth to achieve non-standard compositions in the integrated units or for extending enclosures already in use. Can be used to make single compartment enclosures for floor installation, together with dedicated plinths. Holes for fastening systems and cable opening to be made in situ or in the factory on request.

Wall-mounted version also available.

Plinths

**Characteristics**

Overall height sizes available: 490mm - 715mm - with two depths: 330mm - 460mm.

Prepared for installation on a concrete based using an anchor frame (not included).

To be used in combination with enclosures of the series 9 same depth not available in the version with "integrated plinth".

They allow the realization of enclosures for floor installation combined with top units.

Material

Made in fiberglass in RAL 7035 color. Seals in foamed EPDM.

Standards

Made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4



	External dimensions, mm			Useful height	IP	Model	Code
	Height	Width	Depth				
z	490	910	330	433	IP55	G9-2/ZT	077902955
		910	460	433	IP55	GH9-2/ZT	077912954
z	715	910	330	658	IP55	G9-4/ZT	077904951
		910	460	658	IP55	GH9-4/ZT	077914950

Closign bottom plate for plinths



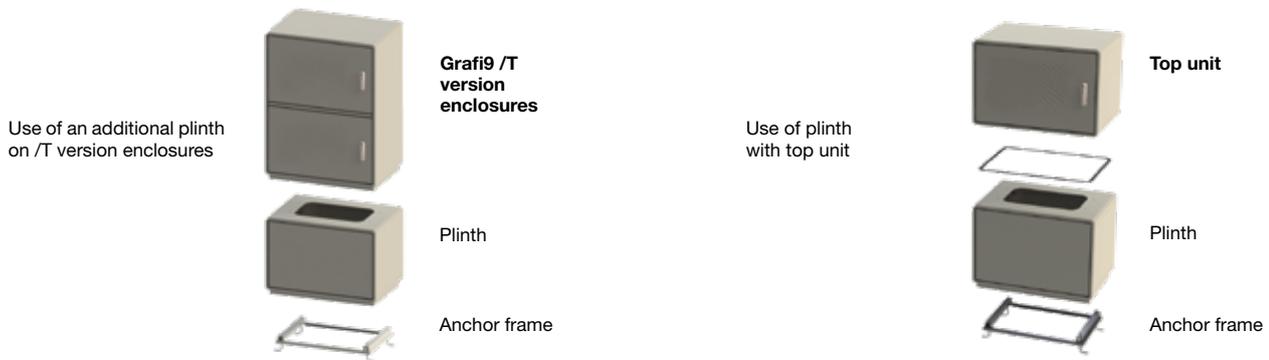
Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76)

Enclosures depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G9/SIC	095779401	G9/SIM	095779427
460	GH9/SIC	095779450	GH9/SIM	095779476

Installation method

The plinths can be fitted with closing bottom plate (blank or with conical fairleads) positioned between the fixing frame and plinth, to provide additional protection in the cable input area.



Anchor frame



Characteristics

Screws in AISI 304 stainless steel to guarantee access over time. Complete with brackets for fixing onto a concrete base.

Materials

Made of steel with black coloured 18/24 cataphoretic coating treatment.

Enclosure depth mm	Model	Code
330	G9/TA	095779302
460	GH9/TA	095779351

Top units accessories

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	785x355	G9/2/PA	095779013	G9/2/PB	095779112	G9/2/PP	095779211
658	785x580	G9/4/PA	095779021	G9/4/PB	095779120	G9/4/PP	095779229
883	785x805	G9/5/PA	095779039	G9/5/PB	095779138	G9/5/PP	095779237

Brackets for fixing to a wall



Characteristics

The top units can be used as single compartments that can be installed on the wall using special brackets, using wall plugs or another fixing element depending on the type of wall.

Drilling holes for cable entry by the customer with cable/cable glands. The brackets are available in loose execution (with assembly by the customer) or in applied execution performed directly in the factory.

Description	Model	Code
Brackets for fixing to a wall (loose version)	G/SFP	095770938
Version on brackets for fixing to a wall	G-EA/SFP	097770028

Brackets kit for supporting the mounting plate on the uprights



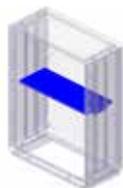
Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required.

Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



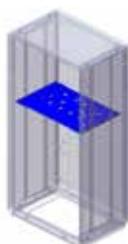
Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Top unit depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	815	17	G9/RP	095779633
460	355	815	17	GH9/RP	095779641

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 G-../MT uprights kit (selected based on the overall height), 1 GH/SM brackets kit and GH/SRP/A-L brackets kit.

To be selected based on enclosure depth.

Top unit depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	675	12	20	RPL/CVL	095751251	GH/SRP/A-L	095777397

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plate. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Top unit overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
490	G-2/MT	095770020	G/SM	095770905	GH/SM	095770913
715	G-4/MT	095770046	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
940	G-5/MT	095770053				

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit.

To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartments can also be fitted out.

Useful height compartment mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	80	G9/2/TPM	095779708
658	3	120	G9/4/TPM	095779716
883	4	160	G9/5/TPM	095779724

Modular equipment support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G9/2-5/CST	095779807	1	G9/2/TPM	095779708
658	G9/4-8/CST	095779815	1	G9/4/TPM	095779716
883	G9/2-5/CST	095779807	2	G9/5/TPM	095779724

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi9 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G9/PC	095779609
Slotted	40 DIN modules (17,5mm) for each panel	G9/PM/40	095779625

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 closing bottom plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel.

To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G9/2-5/CST	095779807	330	85	G9/2-5/PACST	095779831
		460	215	GH9/2-5/PACST	095779906
G9/4-8/CST	095779815	330	85	G9/4-8/PACST	095779856
		460	215	GH9/4-8/PACST	095779922

Trasparent internal door



Characteristics

Made up of a panel in transparent self-extinguishing thermoplastic material (polycarbonate) and 2 black fibreglass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment mm	Internal door dimension, mm	No. internal door	Trasparent internal door		Drilling execution frame/framework		in combination*
			Model	Code	Model	Code	Frame/framework
							Code
433	796x300	1	G9-2/CNT	095779948			095779708
658	796x450	1	G9-4/CNT	095779963	G-EA/CNPT	097770192	095779716
883	796x300	2	G9-2/CNT	095779948			095779724

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 110).

Opaque internal door



Opaque internal door

Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment mm	Internal door dimension, mm	No. internal door	Opaque blank panel		Drilling execution frame/framework		in combination*
			Model	Code	Model	Code	Frame/framework
							Code
433	796x300	1	G9-2/CNP	095779930			095779708
658	796x450	1	G9-4/CNP	095779955	G-EA/CNPT	097770192	095779716
883	796x300	2	G9-2/CNP	095779930			095779724

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 110).

Opaque blank panel



Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment, mm	Panel dimension, mm	No. panel	Opaque blank panel		in combination*
			Model	Code	Frame/framework
					Code
433	796x300	1	G9-2/PC/P	095779658	095779708
658	796x450	1	G9-4/PC/P	095779674	095779716
883	796x300	2	G9-2/PC/P	095779658	095779724

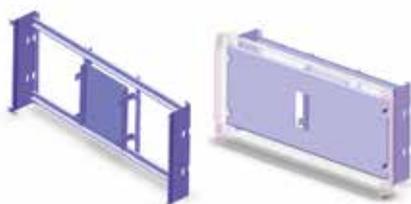
*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 110).

Trasparent blank panel

Useful height compartment, mm	Panel dimension, mm	No. panel	Trasparent blank panel		in combination*
			Model	Code	Frame/framework
					Code
433	796x300	1	G9-2/PC/T	095779666	095779708
658	796x450	1	G9-4/PC/T	095779682	095779716
883	796x300	2	G9-2/PC/T	095779666	095779724

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 110).

Functional unit for MCCB



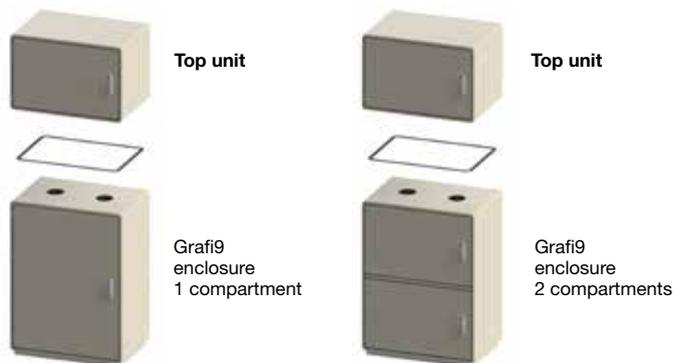
Characteristics

In electrolytically galvanized steel, complete with plate, removable and adjustable in depth, for moulded case circuit breakers. Drill holes the plate as per the fastening template of the moulded case circuit breakers used. Holes must be drilled in the opaque blank panel based on the front size of the moulded case circuit breaker.

Useful height compartment, mm	No. racks	Rack		In combination	
		Model	Code	Opaque blank panel	
				Model	Code
433	1	G9-2/CST/SC	095779864	G9-2/PC/P	095779658
658	1	G9-4/CST/SC	095779872	G9-4/PC/P	095779674

Installation method

The top units can be installed on any type of enclosure of the corresponding series (Grafi9) and of the same depth. Installation is carried out easily by making holes in the fixing points already arranged on the enclosures and with the insertion of special seals to guarantee the necessary protection rating. Any passages between the bottom compartment and top unit must be made in situ as required. The arrangement for the installation of the top unit may be carried out directly in the factory on request. It is suitable for both IP44 and IP55 enclosures and is valid for all depths (330 - 460 mm).



Execution of top unit installation arrangement with 2 holes

Bottom compartment:

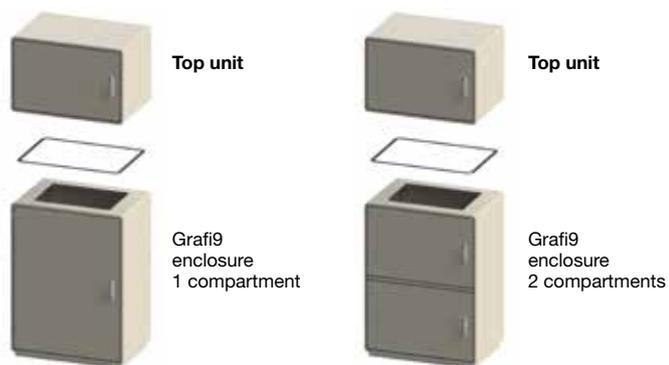
- 4 fastening holes
- 2 holes (Ø 85) for cable passage

Top compartment (top unit):

- 4 fastening holes
- 2 holes (Ø 76) for securing the conical membrane

Provided: Compartment fastening screws/seal/2 conical membranes.

Model	Code	Description
G-EA/MS/I	097770002	Execution of slotted roof for installing enclosure
G-EA/MS/S	097770010	Execution of slotted top unit for installation on enclosure



Execution of preparation for installation of top unit with maximum clearance

Application envisages the realization of enclosures with fully open slots and realization of the corresponding slot on the top unit which will be installed above.

Bottom compartment:

- 4 fastening holes
- 1 single slot for cable passage

Top compartment (top unit):

- 4 fastening holes
- 1 single slot

Provided: Compartment fastening screws/seal

Model	Code	Slot size Depth 330 mm	Slot size Depth 460 mm	Description
G-EA/MSA/I	097770044	650x225	650x305	Application of an insulated roof for overlap top unit
G-EA/MSA/S	097770051	685x260	685x340	Execution of raising slotted top unit application to overlap on the lower compartment

Warning
Separation partitions can also be requested with or without cable passage to integrate execution, to be selected from the normal envisaged accessories. G9/SIC o GH9/SIC (blank partition) - G9/SIM OR GH9/SIM (partition with conical membranes).

The top units may be installed on the floor using the relative plinth envisaged in the series and of the same depth. The fixing frame must be requested separately. Also in this case it is possible to request arrangement in the factory of hole drilling for cable passage into the top units (G-EA/MS/S or G-EA/MSA/S).

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE TOP UNIT				Upright/Bracket kit	Frame/Panels/Rack kit
IP55		IP44			
					Compartment "a"
Model	Code	Model	Code	Code	Code
Depth mm 330					
G9-2/2/S	077902906	G9-2/2/S-4	078902905	095773321	095779294
G9-4/4/S	077904902	G9-4/4/S-4	078904901	095773347	095779492
G9-4/4A/S	077904910	G9-4/4A/S-4	078904919	095773347	095779492
G9-5/5/S	077905909	G9-5/5/S-4	078905908	095773354	095779591
Depth mm 460					
GH9-2/2/S	077912905	GH9-2/2/S-4	078912904	095774626	095779294
GH9-4/4/S	077914901	GH9-4/4/S -4	078914900	095774642	095779492
GH9-4/4A/S	077914919	GH9-4/4A/S -4	078914918	095774642	095779492
GH9-5/5/S	077915908	GH9-5/5/S-4	078915907	095774659	095779591

How to order

To order the kits for making panels you need simply to know the code of the top unit and select the codes of the order kits corresponding to the reference top unit code.
Example: Top unit code 077912905.

Corresponding kits:

- Uprights/Brackets Kit: code 095774626
- Frame/Panels/Racks kit for compartment "a" code 095779294

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

For more details on the composition of internal accessories see the dedicated section.

Maximum load applicable on the bottom partition/Usable protected space for equipment/Thermal energy dissipation, page 145

Accessories and spare parts common to the whole Grafi9 series:

Ventilation units, page 190

Enclosure 1 compartment



Characteristics

Overall height sizes available: 715mm - 940mm - 1180mm - 1390mm- for two depths: 330mm - 460mm.
 Rated insulation voltage Ui 690V.
 Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).
 Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).
 Can be equipped with mounting plates and dedicated accessories for creating panels.
 Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.
 Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions, mm			Door dimension, mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
	**715	910	330	a= 658	892	298	599x820	IP55	G9-4/4/T	077904100
			460	a= 658	892	428		599x820	IP44	G9-4/4/T-4
	**715	910	460	a= 658	892	428	599x820	IP55	GH9-4/4/T	077914109
				a= 658	892	428		599x820	IP44	GH9-4/4/T-4
	**715	910	330	a= 658	892	298	599x820	IP55	G9-4/4A/T	077904118
			460	a= 658	892	428		599x820	IP44	G9-4/4A/T-4
	**940	910	460	a= 658	892	428	599x820	IP55	GH9-4/4A/T*	077914117
				a= 658	892	428		599x820	IP44	GH9-4/4A/T-4*
	**940	910	330	a= 883	892	298	824x820	IP55	G9-5/5/T	077905107
			460	a= 883	892	428		824x820	IP44	G9-5/5/T-4
	**940	910	460	a= 883	892	428	824x820	IP55	GH9-5/5/T	077915106
				a= 883	892	428		824x820	IP44	GH9-5/5/T -4
	**940	910	330	a= 883	892	298	824x820	IP55	G9-5/5A/T*	077905115
			460	a= 883	892	428		824x820	IP44	G9-5/5A/T-4 *
	**940	910	460	a= 883	892	428	824x820	IP55	GH9-5/5A/T*	077915114
				a= 883	892	428		824x820	IP44	GH9-5/5A/T-4*
	1180	910	330	a= 1130	892	298	1064x820	IP55	G9-7/7/T	077907103
			460	a= 1130	892	428		1064x820	IP44	G9-7/7/T-4
	1180	910	460	a= 1130	892	428	1064x820	IP55	GH9-7/7/T	077917102
				a= 1130	892	428		1064x820	IP44	GH9-7/7/T-4
	1390	910	330	a= 1340	892	298	1274x820	IP55	G9-8/8/T	077908101
			460	a= 1340	892	428		1274x820	IP44	G9-8/8/T-4
	1390	910	460	a= 1340	892	428	1274x820	IP55	GH9-8/8/T	077918100
				a= 1340	892	428		1274x820	IP44	GH9-8/8/T-4

* Double door

** Models that can also be realized in wall version see Accessories section on page 177

1 compartment with integrated plinth

**Characteristics**

Made with 1 compartment + lower plinth integrated into a single support structure.
Overall height sizes available: 940mm - 1390mm - 1840mm - for two depths: 330mm – 460mm.
Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request). Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection).

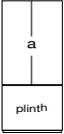
Can be equipped with mounting plates and dedicated accessories for creating panels.
Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 .

	External dimensions, mm			Internal dimensions, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
	940	910	330	a= 433	892	298	490	374x820	IP55	G9-5/22/ZT	077905198
		910	460	a= 433	892	428		374x820	IP44	G9-5/22/ZT-4	078905197
	1390	910	330	a= 883	892	298	490	824x820	IP55	G9-8/25/ZT	077908192
		910	460	a= 883	892	428		824x820	IP44	G9-8/25/ZT-4	078908191
	1390	910	330	a= 883	892	298	490	824x820	IP55	G9-8/25A/ZT*	077908184
		910	460	a= 883	892	428		824x820	IP44	G9-8/25A/ZT-4*	078908183
	1840	910	330	a= 1340	892	298	490	1274x820	IP55	G9-9/28/ZT	077909190
		910	460	a= 1340	892	428		1274x820	IP44	G9-9/28/ZT-4	078909199

* Double door

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	785x355	G9/2/PA	095779013	G9/2/PB	095779112	G9/2/PP	095779211
658	785x580	G9/4/PA	095779021	G9/4/PB	095779120	G9/4/PP	095779229
883	785x805	G9/5/PA	095779039	G9/5/PB	095779138	G9/5/PP	095779237
1130	785x1030 (supplied in 2 pcs)	G9/7/PA	095779047	G9/7/PB	095779146	G9/7/PP	095779245
1340	785x1240 (supplied in 2 pcs)	G9/8/PA	095779054	G9/8/PB	095779153	G9/8/PP	095779252

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated.

Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In IP55 enclosures the partition is provided as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G9/SIC	095779401	G9/SIM	095779427
460	GH9/SIC	095779450	GH9/SIM	095779476

Brackets kit for supporting the bottom partitions on the uprights



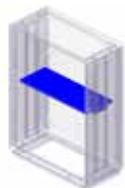
Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required.

Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



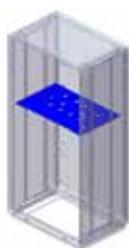
Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	815	17	G9/RP	095779633
460	355	815	17	GH9/RP	095779641

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 G-../MT uprights (selected based on the overall height), 1 GH/SM brackets kit and 1 GH/SRP/A-L brackets kit.

To be chosen in width to the depth of the enclosure.

Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	675	12	20	RPL/CVL	095751251	GH/SRP/A-L	095777397

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment plates
- Modular equipment support rack
- Blank and slotted plates
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Enclosure overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
490	G-2/MT	095770020	G/SM	095770905	GH/SM	095770913
715	G-4/MT	095770046				
940	G-5/MT	095770053				
1180	G-7/MT	095770079				
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit. To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartment can also be fitted out.

Useful height compartment, mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	80	G9/2/TPM	095779708
658	3	120	G9/4/TPM	095779716
883	4	160	G9/5/TPM	095779724
1130	6	240	G9/7/TPM	095779732
1340	6	240	G9/8/TPM	095779740

Modular equipments support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G9/2-5/CST	095779807	1	G9/2/TPM	095779708
658	G9/4-8/CST	095779815	1	G9/4/TPM	095779716
883	G9/2-5/CST	095779807	2	G9/5/TPM	095779724
1130	G9/7/CST	095779823	2	G9/7/TPM	095779732
1340	G9/4-8/CST	095779815	2	G9/8/TPM	095779740

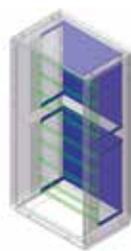
Blank or slotted panels

**Characteristics**

Made from thermoplastic material. Suitable for Grafi9 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G9/PC	095779609
Slotted	40 DIN modules (17,5mm) for each panel	G9/PM/40	095779625

Mounting plate/brackets kit for arranging the modular equipment support racks

**Characteristics**

Kit made up of 4 brackets and 1 closing bottom plate. Brackets and plate made from steel. Plates thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel. To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G9/2-5/CST	095779807	330	85	G9/2-5/PACST	095779831
		460	215	GH9/2-5/PACST	095779906
G9/4-8/CST	095779815	330	85	G9/4-8/PACST	095779856
		460	215	GH9/4-8/PACST	095779922
G9/7/CST	095779823	330	85	G9/7/PACST	095779849
		460	215	GH9/7/PACST	095779914

Trasparent internal door



Characteristics

Made up of a partition in transparent self-extinguishing thermoplastic material (polycarbonate) and 2 black fibre-glass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment mm	Internal door dimension, mm	No. internal door	Trasparent internal door		Drilling execution frame/framework		in combination*	
			Model	Code	Model	Code	Frame/framework	
							Code	
658	796x450	1	G9-4/CNT	095779963	G-EA/CNPT	097770192	095779716	
883	796x300	2	G9-2/CNT	095779948			095779724	
1130	796x450	2	G9-4/CNT	095779963			095779732	
1340	796x450	2	G9-4/CNT	095779963			095779740	

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 119).

Opaque internal door



Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment mm	Internal door dimension, mm	No. internal door	Opaque blank panel		Drilling execution frame/framework		in combination*	
			Model	Code	Model	Code	Frame/framework	
							Code	
658	796x450	1	G9-4/CNP	095779955	G-EA/CNPT	097770192	095779716	
883	796x300	2	G9-2/CNP	095779930			095779724	
1130	796x450	2	G9-4/CNP	095779955			095779732	
1340	796x450	2	G9-4/CNP	095779955			095779740	

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 119).

Opaque blank panel



Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment, mm	Panel dimension, mm	No. panels	Opaque blank panel		in combination*
			Model	Code	Frame/framework
					Code
658	796x450	1	G9-4/PC/P	095779674	095779716
883	796x300	2	G9-2/PC/P	095779658	095779724
1130	796x450	2	G9-4/PC/P	095779674	095779732
1340	796x450	2	G9-4/PC/P	095779674	095779740

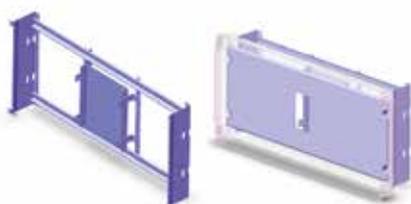
*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 119).

Trasparent blank panel

Useful height compartment, mm	Panel dimension, mm	No. panels	Trasparent blank panel		in combination*
			Model	Code	Frame/framework
					Code
658	796x450	1	G9-4/PC/T	095779682	095779716
883	796x300	2	G9-2/PC/T	095779666	095779724
1130	796x450	2	G9-4/PC/T	095779682	095779732
1340	796x450	2	G9-4/PC/T	095779682	095779740

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 119).

Functional unit for MCCB



Characteristics

In electrolytically galvanized steel, complete with plate, removable and adjustable in depth, for moulded case circuit breakers. Drill holes the plate as per the fastening template of the moulded case circuit breakers used. Holes must be drilled in the opaque blank panel based on the front size of the moulded case circuit breaker.

Useful height compartment, mm	No. rack	Rack		in combination	
		Model	Code	Opaque blank panel	
				Model	Code
658	1	G9-4/CST/SC	095779872	G9-4/PC/P	095779674

Standard ordering kit for panels realization with modular devices accessories

 For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit
IP55		IP44			
				Compartment "a"	
Model	Code	Model	Code	Code	Code
Depth mm 330					
G9-4/4/T	077904100	G9-4/4/T-4	078904109	095773347	095779492
G9-4/4A/T	077904118	G9-4/4A/T-4	078904117	095773347	095779492
G9-5/5/T	077905107	G9-5/5/T-4	078905106	095773354	095779591
G9-5/5A/T	077905115	G9-5/5A/T-4	078905114	095773354	095779591
G9-7/7/T	077907103	G9-7/7/T-4	078907102	095773370	095779799
G9-8/8/T	077908101	G9-8/8/T-4	078908100	095773388	095779898
G9-5/22/ZT	077905198	G9-5/22/ZT-4	078905197	095773354	095779294
G9-8/25/ZT	077908192	G9-8/25/ZT-4	078908191	095773388	095779591
G9-8/25A/ZT	077908184	G9-8/25A/ZT-4	078908183	095773388	095779591
G9-9/28/ZT	077909190	G9-9/28/ZT-4	078909199	095773396	095779898
Depth mm 460					
GH9-4/4/T	077914109	GH9-4/4/T -4	078914108	095774642	095779492
GH9-4/4A/T	077914117	GH9-4/4A/T -4	078914116	095774642	095779492
GH9-5/5/T	077915106	GH9-5/5/T-4	078915105	095774659	095779591
GH9-5/5A/T	077915114	GH9-5/5A/T-4	078915113	095774659	095779591
GH9-7/7/T	077917102	GH9-7/7/T-4	078917101	095774675	095779799
GH9-8/8/T	077918100	GH9-8/8/T-4	078918109	095774683	095779898
GH9-5/22/ZT	077915197	GH9-5/22/ZT-4	078915196	095774659	095779294
GH9-8/25/ZT	077918191	GH9-8/25/ZT-4	078918190	095774683	095779591
GH9-8/25A/ZT	077918183	GH9-8/25A/ZT-4	078918182	095774683	095779591
GH9-9/28/ZT	077919199	GH9-9/28/ZT-4	078919198	095774691	095779898

How to order

To order the kits for making panels you need simply to know the code of the 1 compartment enclosure - 1 compartment with integrated plinth and select the codes of the order kits corresponding to the reference enclosure code. Example: Enclosure code 077905107.

Corresponding kits:

- Uprights/Brackets Kit: code 095773354
- Frame/Panels/Racks kit for compartment "a" code 095779591.

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.
Maximum load applicable on the bottom partition / Usable protected space for equipment / Thermal energy dissipation, page 146

Accessories and spare parts common to the whole Grafi9 series:

Ventilation units, page 190
Anchor frame, page 189

1 compartment enclosure with counter compartment

**Characteristics**

Overall height sizes available: 1390mm with depth: 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).

Door opening side can be changed on site.

Can be equipped with mounting plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

With built-in contact box on the right-hand side independent access with a diversified lock (standard, triangular, lukeable). **Suitable for direct mounting of electronic meters:**

- max n°1 integrated single-phase measuring group, GMI-GMY type.

- max n°1 single phase for powers up to 10Kw GEM-GISM type. Fixing with no.1 base T5 A2 (serial number 286103).

- max n°1 three-phase for powers up to 16.5Kw type GET2A, up to 30Kw type GIST. Fixing with n°1 base T5 A4 (Serial number 286142).

IP43 degree of protection according to CEI EN 60529, IK10 according to CEI EN 62262.

For self-standing installation with masonry frame.

Materials

Made of RAL 7035 coloured berglass-reinforced plastic. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Galvanized and painted steel frame. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 .

External dimensions, mm			Internal dimensions, mm			Door dimension mm	Counter compartment dimension, mm			IP	Model	Code
Height	Width	Depth	Height	Width	Depth		Height	Width	Depth			
1390	910	460	a = 1340	892	428	1274x820	375	182	182	IP44	GH9-8/8/GMI/T-4	078918356

2 compartments enclosures



Characteristics

Made with 2 equipment compartments separated by an intermediate partition.

Overall height sizes available: 940mm – 1390mm – 1840mm for two depths: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Arrangement of the compartments (upper/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

External dimensions, mm			Internal dimensions, mm			Door dimension mm	IP	Model	Code		
Height	Width	Depth	Height	Width	Depth						
	**940	910	330	a-b= 433	892	298	374x820	IP55	G9-5/22/T	077905206	
		910	460	a-b= 433	892	428	374x820	IP44	G9-5/22/T-4	078905205	
		910	460	a-b= 433	892	428	374x820	374x820	IP55	GH9-5/22/T	077915205
									IP44	GH9-5/22/T-4	078915204
	1390	910	330	a-b= 658	892	298	599x820	IP55	G9-8/44/T	077908200	
		910	460	a-b= 658	892	428	599x820	IP44	G9-8/44/T-4	078908209	
		910	460	a-b= 658	892	428	599x820	599x820	IP55	GH9-8/44/T	077918209
									IP44	GH9-8/44/T-4	078918208
	1390	910	330	a-b= 658	892	298	599x820	IP55	G9-8/44A/T*	077908226	
		910	460	a-b= 658	892	428	599x820	IP44	G9-8/44A/T-4*	078908225	
		910	460	a-b= 658	892	428	599x820	599x820	IP55	GH9-8/44A/T*	077918225
									IP44	GH9-8/44A/T-4*	078918224
	1390	910	330	a= 883 b= 433	892	298	824x820 374x820	IP55	G9-8/52/T	077908218	
		910	460	a= 883 b= 433	892	428	824x820 374x820	IP44	G9-8/52/T-4	078908217	
		910	460	a= 883 b= 433	892	428	824x820 374x820	824x820 374x820	IP55	GH9-8/52/T	077918217
									IP44	GH9-8/52/T-4	078918216
	1840	910	330	a-b= 883	892	298	824x820	IP55	G9-9/55/T	077909208	
		910	460	a-b= 883	892	428	824x820	IP44	G9-9/55/T-4	078909207	
		910	460	a-b= 883	892	428	824x820	824x820	IP55	GH9-9/55/T	077919207
									IP44	GH9-9/55/T-4	078919206
	1840	910	330	a= 1340 b= 433	892	298	1274x820 374x820	IP55	G9-9/82/T	077909216	
		910	460	a= 1340 b= 433	892	428	1274x820 374x820	IP44	G9-9/82/T-4	078909215	
		910	460	a= 1340 b= 433	892	428	1274x820 374x820	1274x820 374x820	IP55	GH9-9/82/T	077919215
									IP44	GH9-9/82/T-4	078919214
2080	910	330	a= 1340 b= 658	892	298	1274x820	IP44	G9-S/84/T-4***	078909504		
		460	428		599x820	078919503					

* Double door

** Models can also be realized in wall version see Accessories section on page 177

*** Double compartment executions with complete reported raising with sealing gasket;
Cable passage made with 3 tapered diaphragms diam. 76 mm.

2 compartments enclosures with integrated plinth

**Characteristics**

Made with 2 compartments separated by an intermediate partition + lower base integrated into a single support structure.

Overall height sizes available: 1390mm – 1840mm for two depths: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Arrangement of the compartments (upper/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 

b
a
plinth

b
a
plinth

b
a
plinth

External dimensions, mm			Internal dimensions, mm			Plinth height mm	Door dimension mm	IP	Model	Code
Height	Width	Depth	Height	Width	Depth					
1390	910	330	a-b=433	892	298	490	374x820	IP55	G9-8/222/ZT	077908291
								IP44	G9-8/222/ZT-4	078908290
	910	460	a-b=433	892	428		374x820	IP55	GH9-8/222/ZT	077918290
								IP44	GH9-8/222/ZT-4	078918299
1840	910	330	a= 883 b= 433	892	298	490	824x820 374x820	IP55	G9-9/252/ZT	077909281
								IP44	G9-9/252/ZT-4	078909280
	910	460	a= 883 b= 433	892	428		824x820 374x820	IP55	GH9-9/252/ZT	077919280
								IP44	GH9-9/252/ZT-4	078919289
1840	910	330	a-b=658	892	298	490	599x820	IP55	G9-9/244/ZT	077909299
								IP44	G9-9/244/ZT-4	078909298
	910	460	a-b=658	892	428		599x820	IP55	GH9-9/244/ZT	077919298
								IP44	GH9-9/244/ZT-4	078919297

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	785x355	G9/2/PA	095779013	G9/2/PB	095779112	G9/2/PP	095779211
658	785x580	G9/4/PA	095779021	G9/4/PB	095779120	G9/4/PP	095779229
883	785x805	G9/5/PA	095779039	G9/5/PB	095779138	G9/5/PP	095779237
1340	785x1240 (supplied in 2 pcs)	G9/8/PA	095779054	G9/8/PB	095779153	G9/8/PP	095779252

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated.

Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In IP55 enclosures the partition is provided as standard.

Enclosure depth mm	Blank partition		Partition with conical fairleads	
	Model	Code	Model	Code
330	G9/SIC	095779401	G9/SIM	095779427
460	GH9/SIC	095779450	GH9/SIM	095779476

Brackets kit for supporting the mounting plate on the uprights



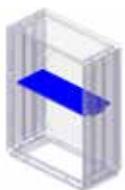
Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required.

Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Pre-galvanized sheet metal equipment holding shelves



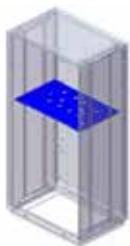
Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Enclosure depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	815	17	G9/RP	095779633
460	355	815	17	GH9/RP	095779641

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 G-./MT uprights (selected based on the overall height), 1 GH/SM brackets kit and 1 GH/SRP/A-L brackets kit.

To be chosen in width to the depth of the enclosure.

Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	675	12	20	RPL/CVL	095751251	GH/SRP/A-L	095777397

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Enclosure overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
940	G-5/MT	095770053	G/SM	095770905	GH/SM	095770913
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

Frame/framework for supporting modular equipment panels



Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit. To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartment can also be fitted out.

Useful height compartment, mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	80	G9/2/TPM	095779708
658	3	120	G9/4/TPM	095779716
883	4	160	G9/5/TPM	095779724
1340	6	240	G9/8/TPM	095779740

Modular equipments support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G9/2-5/CST	095779807	1	G9/2/TPM	095779708
658	G9/4-8/CST	095779815	1	G9/4/TPM	095779716
883	G9/2-5/CST	095779807	2	G9/5/TPM	095779724
1340	G9/4-8/CST	095779815	2	G9/8/TPM	095779740

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi9 enclosures. To be applied on the modular equipments support rack.

Panels	Description	Model	Code
Blank		G9/PC	095779609
Slotted	40 DIN modules (17,5mm) for each panel	G9/PM/40	095779625

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 closing bottom plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipments support racks for fixing any non-modular components on the back of the panel.

To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G9/2-5/CST	095779807	330	85	G9/2-5/PACST	095779831
		460	215	GH9/2-5/PACST	095779906
G9/4-8/CST	095779815	330	85	G9/4-8/PACST	095779856
		460	215	GH9/4-8/PACST	095779922

Trasparent internal door



Characteristics

Made up of a partition in transparent self-extinguishing thermoplastic material (polycarbonate) and 2 black fibre-glass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment, mm	Internal door dimension, mm	No. internal door	Trasparent internal door		Drilling execution frame/framework		in combination*
			Model	Code	Model	Code	Frame/framework
							Code
433	796x300	1	G9-2/CNT	095779948	G-EA/CNPT	097770192	095779708
658	796x450	1	G9-4/CNT	095779963			095779716
883	796x300	2	G9-2/CNT	095779948			095779724
1340	796x450	2	G9-4/CNT	095779963			095779740

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 129).

Opaque internal door



Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment mm	Internal door dimension, mm	No. internal door	Opaque blank panel		Drilling execution frame/framework		in combination*
			Model	Code	Model	Code	Frame/framework
							Code
433	796x300	1	G9-2/CNP	095779930	G-EA/CNPT	097770192	095779708
658	796x450	1	G9-4/CNP	095779955			095779716
883	796x300	2	G9-2/CNP	095779930			095779724
1340	796x450	2	G9-4/CNP	095779955			095779740

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 129).

Opaque blank panel



Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment, mm	Panel dimension, mm	No. panels	Opaque blank panel		in combination*
			Model	Code	Frame/framework
					Code
433	796x300	1	G9-2/PC/P	095779658	095779708
658	796x450	1	G9-4/PC/P	095779674	095779716
883	796x300	2	G9-2/PC/P	095779658	095779724
1340	796x450	2	G9-4/PC/P	095779674	095779740

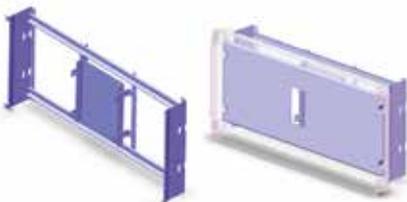
*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 129).

Trasparent blank panel

Useful height compartment, mm	Panel dimension, mm	No. panels	Trasparent blank panel		in combination*
			Model	Code	Frame/framework
					Code
433	796x300	1	G9-2/PC/T	095779666	095779708
658	796x450	1	G9-4/PC/T	095779682	095779716
883	796x300	2	G9-2/PC/T	095779666	095779724
1340	796x450	2	G9-4/PC/T	095779682	095779740

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 129).

Functional unit for MCCB



Characteristics

In electrolytically galvanized steel, complete with plate, removable and adjustable in depth, for moulded case circuit breakers. Drill holes the plate as per the fastening template of the moulded case circuit breakers used. Holes must be drilled in the opaque blank panel based on the front size of the moulded case circuit breaker.

Useful height compartment, mm	No. rack	Rack		in combination	
		Model	Code	Opaque blank panel	
				Model	Code
433	1	G9-2/CST/SC	095779864	G9-2/PC/P	095779658
658	1	G9-4/CST/SC	095779872	G9-4/PC/P	095779674

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: Upright/bracket kit + Frame/Panels/Rack kit.

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit	
IP55		IP44				
Model	Code	Model	Code		Compartment "a"	Compartment "b"
Depth mm 330						
G9-5/22/T	077905206	G9-5/22/T-4	078905205	095773354	095779294	095779294
G9-8/44/T	077908200	G9-8/44/T-4	078908209	095773388	095779492	095779492
G9-8/44A/T	077908226	G9-8/44A/T-4	078908225	095773388	095779492	095779492
G9-8/52/T	077908218	G9-8/52/T-4	078908217	095773388	095779591	095779294
G9-9/55/T	077909208	G9-9/55/T-4	078909207	095773396	095779591	095779591
G9-9/82/T	077909216	G9-9/82/T-4	078909215	095773396	095779898	095779294
		G9-S/84/T-4	078909504	Comp. "a" = 095773396 Comp. "b" = 095773388	095779898	095779492
G9-8/222/ZT	077908291	G9-8/222/ZT-4	078908290	095773388	095779294	095779294
G9-9/252/ZT	077909281	G9-9/252/ZT-4	078909280	095773396	095779591	095779294
G9-9/244/ZT	077909299	G9-9/244/ZT-4	078909298	095773396	095779492	095779492
Depth mm 460						
GH9-5/22/T	077915205	GH9-5/22/T-4	078915204	095774659	095779294	095779294
GH9-8/44/T	077918209	GH9-8/44/T-4	078918208	095774683	095779492	095779492
GH9-8/44A/T	077918225	GH9-8/44A/T-4	078918224	095774683	095779492	095779492
GH9-8/52/T	077918217	GH9-8/52/T-4	078918216	095774683	095779591	095779294
GH9-9/55/T	077919207	GH9-9/55/T-4	078919206	095774691	095779591	095779591
GH9-9/82/T	077919215	GH9-9/82/T-4	078919214	095774691	095779898	095779294
		GH9-S/84/T-4	078919503	Comp. "a" = 095774691 Comp. "b" = 095774683	095779898	095779492
GH9-8/222/ZT	077918290	GH9-8/222/ZT-4	078918299	095774683	095779294	095779294
GH9-9/252/ZT	077919280	GH9-9/252/ZT-4	078919289	095774691	095779591	095779294
GH9-9/244/ZT	077919298	GH9-9/244/ZT-4	078919297	095774691	095779492	095779492

How to order

To order the kits for making panels you need simply to know the code of the 2 compartments enclosures - 2 compartments with integrated plinth and select the codes of the order kits corresponding to the reference enclosure code. Example: Enclosure code 077908218.

Corresponding kits:

- Uprights/Brackets Kit: code 095773396
- Frame/Panels/Racks kit:
 - for compartment "a" code 095779591
 - for compartment "b" code 095779294.

In case you want to equip only a single compartment must always order the Upright/Brackets Kit + Frame/Panel/Rack Kit corresponding to the compartment to be accessorised.

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

Maximum load applicable on the bottom partition/Usable protected space for equipment/Thermal energy dissipation, page 147

Accessories and spare parts common to the whole Grafi9 series:

Ventilation units, page 190

Anchor frame, page 189

3/4 compartments enclosures



Characteristics

Made with 3/4 equipments compartments separated by an intermediate partition.
 Overall height sizes available: 1390mm - 1840mm for two depths: 330mm - 460mm.
 Rated insulation voltage Ui 690V.
 Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).
 Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Arrangement of the compartments (upper/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).
 Can be equipped with mounting plates and dedicated accessories for creating panels.
 Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.
 Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

3 compartments

	External dimensions, mm			Internal dimensions, mm			Door dimension mm	IP	Model	Code			
	Height	Width	Depth	Height	Width	Depth							
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1390	910	330	a-b-c= 433	892	298	374x820	IP55	G9-8/222/T	077908309
	c												
	b												
	a												
IP44	G9-8/222/T-4	078908308											
	910	460	a-b-c= 433	892	428	374x820	IP55	GH9-8/222/T	077918308				
							IP44	GH9-8/222/T-4	078918307				
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1840	910	330	a= 883 b-c= 433	892	298	824x820 374x820	IP55	G9-9/522/T	077909307
	c												
	b												
	a												
IP44	G9-9/522/T-4	078909306											
	910	460	a= 883 b-c= 433	892	428	824x820 374x820	IP55	GH9-9/522/T	077919306				
							IP44	GH9-9/522/T-4	078919305				
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	c	b	a	1840	910	330	a-b= 658 c= 433	892	298	599x820 374x820	IP55	G9-9/442/T	077909315
	c												
	b												
	a												
IP44	G9-9/442/T-4	078909314											
	910	460	a-b= 658 c= 433	892	428	599x820 374x820	IP55	GH9-9/442/T	077919314				
							IP44	GH9-9/442/T-4	078919313				

4 compartments

	External dimensions, mm			Internal dimensions, mm			Door dimension mm	IP	Model	Code				
	Height	Width	Depth	Height	Width	Depth								
<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>d</td></tr> <tr><td>c</td></tr> <tr><td>b</td></tr> <tr><td>a</td></tr> </table>	d	c	b	a	1840	910	330	a-b-c-d= 433	892	298	374x820	IP55	G9-9/2222/T	077909406
	d													
	c													
	b													
a														
IP44	G9-9/2222/T-4	078909405												
	910	460	a-b-c-d= 433	892	428	374x820	IP55	GH9-9/2222/T	077919405					
							IP44	GH9-9/2222/T-4	078919404					

3 compartments enclosures with integrated plinth

**Characteristics**

Made with 3 compartments separated by an intermediate partition + lower base integrated into a single support structure.

Overall height size available: 1840mm for two depths: 330mm - 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Arrangement of the compartments (upper/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 .

	External dimensions, mm			Internal dimensions, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
c	1840	910	330	a-b-c= 433	892	298	490	374x820	IP55	G9-9/2222/ZT	077909398
b									IP44	G9-9/2222/ZT-4	078909397
a	1840	910	460	a-b-c= 433	892	428	490	374x820	IP55	GH9-9/2222/ZT	077919397
plinth									IP44	GH9-9/2222/ZT-4	078919396

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	785x355	G9/2/PA	095779013	G9/2/PB	095779112	G9/2/PP	095779211
658	785x580	G9/4/PA	095779021	G9/4/PB	095779120	G9/4/PP	095779229
883	785x805	G9/5/PA	095779039	G9/5/PB	095779138	G9/5/PP	095779237

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the cabinets to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 3 conical fairleads (max. diam. 76). In IP55 enclosures the plate is provided as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G9/SIC	095779401	G9/SIM	095779427
460	GH9/SIC	095779450	GH9/SIM	095779476

Brackets kit for supporting the mounting plates on the uprights

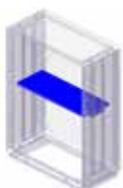


Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Model	Code	Description
G/SP/MT	095770921	Brackets kit for support plates on uprights (4 pcs)

Pre-galvanized sheet metal equipment holding shelves

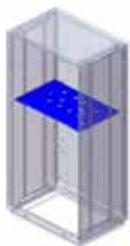


Characteristics

To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM. These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Cabinet depth mm	Overall shelves dimension, mm			Shelves	
	Height	Width	Depth	Model	Code
330	225	815	17	G9/RP	095779633
460	355	815	17	GH9/RP	095779641

Fiberglass equipment holding shelves



Characteristics

To be installed using 2 G-../MT uprights (selected based on the overall height), 1 GH/SM brackets kit and 1 GH/SRP/A-L brackets kit.

To be chosen in width to the depth of the enclosure.

Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
	Height	Width	Depth		Model	Code	Model	Code
460	360	675	12	20	RPL/CVL	095751251	GH/SRP/A-L	095777397

Accessories for creating modular equipment panels

For creating panels inside enclosures, you must order:

- Uprights kit + brackets kit for the realization of modular equipment panels
- Frame/framework for supporting modular equipment panels
- Modular equipment support rack
- Blank and slotted panels
- Mounting plate/brackets kit for arranging the modular equipment support racks (Optional)

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
1390	G-8/MT	095770087	G/SM	095770905	GH/SM	095770913
1840	G-9/MT	095770095	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			

Frame/framework for supporting modular equipments panels



Characteristics

Made from self-extinguishing thermoplastic material, grey RAL 7035 color. Designed to be fastened onto the uprights kit. To be selected based on the usable height of the individual compartment. In the case of multiple compartments, the individual compartment can also be fitted out.

Useful height compartment, mm	No. Installable panels (Blank or slotted)	Max. No. DIN modules available	Frame/framework	
			Model	Code
433	2	80	G9/2/TPM	095779708
658	3	120	G9/4/TPM	095779716
883	4	160	G9/5/TPM	095779724

Modular equipments support rack



Characteristics

Made from steel, can be removed from the enclosure to facilitate execution of the panel; assembly and wiring of the various equipment can be carried out on a work bench. Designed to be fastened onto the uprights kit. Complete with DIN 46 277/3 profiles.

To be selected in combination with the relative panels support frame/framework.

Useful height compartment, mm	Modular equipment support rack		no. pieces installable	In combination with frame/framework	
	Model	Code		Model	Code
433	G9/2-5/CST	095779807	1	G9/2/TPM	095779708
658	G9/4-8/CST	095779815	1	G9/4/TPM	095779716
883	G9/2-5/CST	095779807	2	G9/5/TPM	095779724

Blank or slotted panels



Characteristics

Made from thermoplastic material. Suitable for Grafi9 enclosures. To be applied on the modular equipment support rack.

Panels	Description	Model	Code
Blank		G9/PC	095779609
Slotted	40 DIN modules (17,5mm) for each panel	G9/PM/40	095779625

Mounting plate/brackets kit for arranging the modular equipment support racks



Characteristics

Kit made up of 4 brackets and 1 closing bottom plate. Brackets and plate made from steel. Plate thickness 2mm. To be used together with the modular equipment support racks for fixing any non-modular components on the back of the panel.

To be selected based on the equipment support rack and enclosure depth (330 - 460 mm).

Modular equipment support rack		Enclosure depth mm	Rack/plate distance	Bracket/plate Kit	
Model	Code			Model	Code
G9/2-5/CST	095779807	330	85	G9/2-5/PACST	095779831
		460	215	GH9/2-5/PACST	095779906
G9/4-8/CST	095779815	330	85	G9/4-8/PACST	095779856
		460	215	GH9/4-8/PACST	095779922

Trasparent internal door



Characteristics

Made up of a plate in transparent self-extinguishing thermoplastic material (polycarbonate) and 2 black fibreglass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipments panels. To be selected based on the usable height of the individual compartment.

Useful height mm	Internal door dimension, mm	No. second doors	Trasparent internal door		Drilling execution frame/framework		in combination*
			Model	Code	Model	Code	Frame/framework
							Code
433	796x300	1	G9-2/CNT	095779948	G-EA/CNPT	097770192	095779708
658	796x450	1	G9-4/CNT	095779963			095779716
883	796x300	2	G9-2/CNT	095779948			095779724

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 137).

Opaque internal door



Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

Hinge fastening screws in AISI304 stainless steel and 2 self-tapping captive screws.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height mm	Internal door dimension, mm	No. second doors	Opaque internal door		Drilling execution frame/framework		In combination
			Model	Code	Model	Code	Frame/framework
							Code
433	796x300	1	G9-2/CNP	095779930	G-EA/CNPT	097770192	095779708
658	796x450	1	G9-4/CNP	095779955			095779716
883	796x300	2	G9-2/CNP	095779930			095779724

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 137).

Opaque blank panel



Characteristics

Panel made in self-extinguishing thermoplastic material (ABS), grey RAL7035 color, 2 black fibreglass reinforced polyamide (PA) hinges.

To be applied on uprights kit, brackets kit and frame/framework to make modular equipment panels. To be selected based on the usable height of the individual compartment.

Useful height compartment, mm	Panel dimension, mm	No. panels	Opaque blank panel		in combination*
			Model	Code	Frame/framework
					Code
433	796x300	1	G9-2/PC/P	095779658	095779708
658	796x450	1	G9-4/PC/P	095779674	095779716
883	796x300	2	G9-2/PC/P	095779658	095779724

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 137).

Trasparent blank panel

Useful height compartment, mm	Panel dimension, mm	No. panels	Trasparent blank panel		in combination*
			Model	Code	Frame/framework
					Code
433	796x300	1	G9-2/PC/T	095779666	095779708
658	796x450	1	G9-4/PC/T	095779682	095779716
883	796x300	2	G9-2/PC/T	095779666	095779724

*Used together with uprights kit + brackets kit to be selected based on the depth and overall height of the enclosure regardless of the number and arrangement of compartments (see page 137).

Functional unit for MCCB



Characteristics

In electrolytically galvanized steel, complete with plate, removable and adjustable in depth, for moulded case circuit breakers. Drill holes the plate as per the fastening template of the moulded case circuit breakers used. Holes must be drilled in the opaque blank panel based on the front size of the moulded case circuit breaker.

Useful height compartment, mm	No. racks	Rack		in combination	
		Model	Code	Opaque blank panel	
				Model	Code
433	1	G9-2/CST/SC	095779864	G9-2/PC/P	095779658
658	1	G9-4/CST/SC	095779872	G9-4/PC/P	095779674

Standard ordering kit for panels realization with modular devices accessories

For a quick composition of the accessories for the realization of panels it is necessary to request: **Upright/bracket kit + Frame/Panels/Rack kit.**

REFERENCE ENCLOSURE				Upright/Bracket kit	Frame/Panels/Rack kit			
IP55		IP44						
Model	Code	Model	Code		Code	Code	Code	Code
Depth mm 330								
G9-8/222/T	077908309	G9-8/222/T-4	078908308	095773388	095779294	095779294	095779294	
G9-9/522/T	077909307	G9-9/522/T-4	078909306	095773396	095779591	095779294	095779294	
G9-9/442/T	077909315	G9-9/442/T-4	078909314	095773396	095779492	095779492	095779294	
G9-9/2222/ZT	077909398	G9-9/2222/ZT-4	078909397	095773396	095779294	095779294	095779294	
G9-9/2222/T	077909406	G9-9/2222/T-4	078909405	095773396	095779294	095779294	095779294	095779294
Depth mm 460								
GH9-8/222/T	077918308	GH9-8/222/T-4	078918307	095774683	095779294	095779294	095779294	
GH9-9/522/T	077919306	GH9-9/522/T-4	078919305	095774691	095779591	095779294	095779294	
GH9-9/442/T	077919314	GH9-9/442/T-4	078919313	095774691	095779492	095779492	095779294	
GH9-9/2222/ZT	077919397	GH9-9/2222/ZT-4	078919396	095774691	095779294	095779294	095779294	
GH9-9/2222/T	077919405	GH9-9/2222/T-4	078919404	095774691	095779294	095779294	095779294	095779294

How to order

To order the kits for making panels you need simply to know the code of the 3 compartments enclosure - 3 compartments with integrated plinth - 4 compartments and select the codes of the order kits corresponding to the reference cabinet code. Example: Enclosure code 077909307.

Corresponding kits:

- Uprights/Brackets Kit: code 095773396
- Frame/Panels/Racks kit:
 - for compartment "a" code 095779591
 - for compartment "b" code 095779294
 - for compartment "c" code 095779294

In case you want to equip only a single compartment must always order the Upright/Brackets Kit + Frame/Panel/Rack Kit corresponding to the compartment to be accessorised.

N.B. All panels provided in the Frame/Panels/Rack kit are slotted. Any requests for blank panels must be integrated separately.

Maximum load applicable on the mounting plate/Usable protected for equipment/Thermal energy dissipation, page 148

Accessories and spare parts common to the whole Grafi9 series:

Ventilation units, page 190

Anchor frame, page 189

Enclosures without doors, customizable



Characteristics

Made with the standard bearing structure but without door.

Overall height sizes available: 1390mm - 1840mm for two depths: 330mm - 460mm.

Can be used in conjunction with single "door kits" to create enclosures with multiple compartments in sizes and/or arrangements to suit specific requirements. Structure pre-engineered with hinges into which the individual doors can be fitted in the required positions.

Complete with fixing frame for installation on a concrete base. Can be equipped with mounting plates and dedicated accessories for creating switchgear.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Closing bottom plate with conical fairleads and seal available.

Materials

Made of fiberglass in RAL7035 color. External non-accessible stainless steel hinges. Galvanized and painted steel frame. Seals made of expanded EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

External dimensions, mm			Internal dimensions, mm			IP	Model	Code
Height	Width	Depth	Height	Width	Depth			
1390	910	330		892	298	IP55	G9-8/T	077908002
	910	460		892	428	IP55	GH9-8/T	077918001
1840	910	330		892	298	IP55	G9-9/T	077909000
	910	460		892	428	IP55	GH9-9/T	077919009

By combining the following accessories, on the enclosure without doors, beyond the coded compartment combinations, other versions can be made with compartments arranged according to the specific requirements of panel set-up.

Front panel kit with plinth + rail



Characteristics

Supplied complete with gasket and fixing screws.

Useful height, mm	Model	Code
433	G9/2/KTZ	095778304

Compartment door kit



Characteristics

Supplied complete with semi-hinged door leaves, sealing gaskets and Y21 encoded lever lock

Useful height, mm	Door dimension mm	Model	Code
433	374x820	G9/2/KA	095778924
658	599x820	G9/4/KA	095778940
883	824x820	G9/5/KA	095778957
1180	1064x820	G9/7/KA	095778973
1340	1274x820	G9/8/KA	095778981

Compartment partition kit + trail



Characteristics

Supplied complete with brackets and fixing screws. To be chosen according to the enclosure depth (330 or 460).

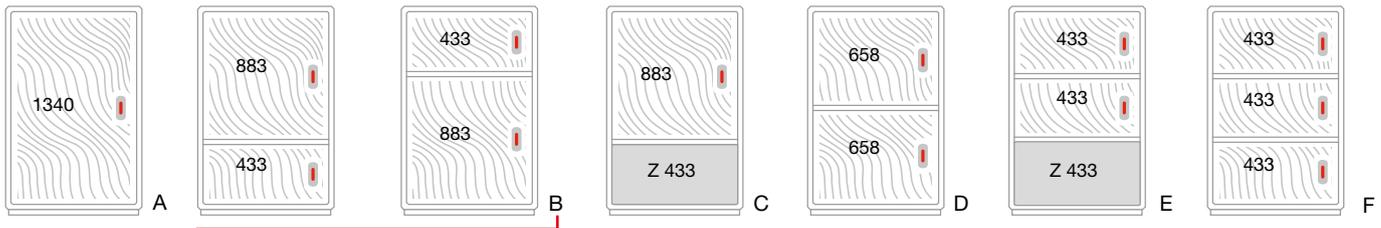
Depth, mm	Model	Code
330	G9/KTS	095779005
460	GH9/KTS	095779104

Possible compositions

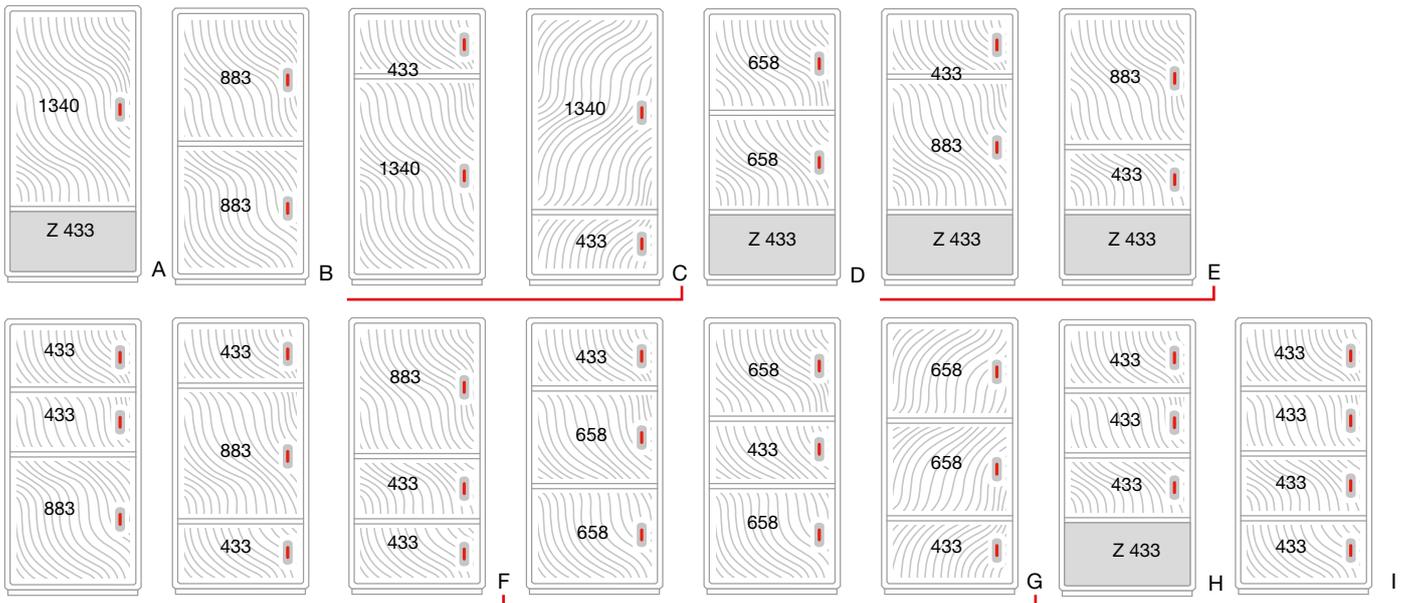
Customizable enclosures without doors make it possible to tackle different partitioning needs of the interior volume starting with a few basic elements. In the composition diagrams provided below, all the possible combinations which can be obtained on enclosures of an overall height of 1390mm and 1840mm are highlighted.

The letters identifying the single compositions shown in the table make it possible to quickly identify the types and number of kits needed to make them.

The figures shown on each individual compartment indicate its usable height, which is essential for identifying any internal accessories (mounting plates, accessories for making panels, etc.). When selecting accessories, refer to the sections corresponding to the selected composition/s based on the number of compartments.

COMPOSITIONS REALIZED ON ENCLOSURES WITHOUT DOOR HEIGHT OVERALL DIMENSIONS - 1390mm


	Code	Model	Useful height mm	A	B	C	D	E	F
Plinth kit	095778304	G9/2/KTZ	433			1		1	
Doors kit	095778924	G9/2/KA	433		1			2	3
	095778940	G9/4/KA	658				2		
	095778957	G9/5/KA	883		1	1			
	095778981	G9/8/KA	1340	1					
Plate kit Depth330	0957779005	G9/KTS			1		1	1	2
or									
Plate kit Depth460	0957779104	GH9/KTS			1		1	1	2

COMPOSITIONS REALIZED ON ENCLOSURES WITHOUT DOOR HEIGHT OVERALL DIMENSIONS - 1840mm


	Code	Model	Useful height mm	A	B	C	D	E	F	G	H	I
Plinth Kit	095778304	G9/2/KTZ	433	1			1	1			1	
Doors Kit	095778924	G9/2/KA	433			1		1	2	1	3	4
	095778940	G9/4/KA	658				2			2		
	095778957	G9/5/KA	883		2			1	1			
	095778981	G9/8/KA	1340	1		1						
Plate Kit Depth 330	0957779005	G9/KTS			1	1	1	1	2	2	2	3
or												
Plate Kit Depth 460	0957779104	GH9/KTS			1	1	1	1	2	2	2	3

The following table specifies what configurations are supported for customizable without door enclosures.

Maximum load

Maximum load applicable on the mounting plate and usable protected space for equipment in observance of the characteristics certified by standard CEI EN 62208.

The table shows the maximum load value applicable on the mounting plate installed on both the bottom wall and on the uprights

(in the case of multiple compartments, the value refers to the individual compartments). Other installation methods may bear greater weights.

By usable protected space we mean the space dedicated to the installation of protection and manoeuvring equipment for which the IP rating is guaranteed by the casing.

Thermal energy dissipation (Pmax. = watt)

Calculation carried out in accordance with standard CEI 17-43: method of temperature-rise assessment by extrapolation for partially type-tested assemblies for protection (BT panels) of low-voltage switchgear not standard (ANS).

Thermal energy dissipation values (Pmax=watt) of the enclosures provided in the table are valid considering:

- standard installation conditions (exposure on all sides);
- ambient temperature established at 35 °C;
- overtemperature values achieved at mid height [Δt 0.5 (°C)] (value indicated in the table);
- overtemperature values established at the top Δt 1.0 =30 °C.

Pmax(watt) is an overall value referring to the entire structure of the enclosure; in the case of multiple compartments, the value must be divided by the number of compartments. The standard thermal energy dissipation value [Pmax(watt)] can be increased by applying ventilation units.

Top Units



Code	Model	Protected useful space, mm			Max load kg compartment "a"	ΔT 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077902906	G9-2/2/S	a=355	805	235	50	24,1	121
077904902	G9-4/4/S	a=580	805	235	65	23,4	167
077904910	G9-4/4A/S	a=580	805	235	65	23,4	167
077905909	G9-5/5/S	a=805	805	235	70	22,5	218
077912905	GH9-2/2/S	a=355	805	365	50	24,5	154
077914901	GH9-4/4/S	a=580	805	365	65	24	207
077914919	GH9-4/4A/S	a=580	805	365	65	24	207
077915908	GH9-5/5/S	a=805	805	365	70	23,3	268
IP44							
078902905	G9-2/2/S-4	a=355	805	235	50	25	126
078904901	G9-4/4/S-4	a=580	805	235	65	24	174
078904919	G9-4/4A/S-4	a=580	805	235	65	24	174
078905908	G9-5/5/S-4	a=805	805	235	70	23,3	228
078912904	GH9-2/2/S-4	a=355	805	365	50	25,3	161
078914900	GH9-4/4/S-4	a=580	805	365	65	24,6	216
078914918	GH9-4/4A/S-4	a=580	805	365	65	24,6	216
078915907	GH9-5/5/S-4	a=805	805	365	70	24	279

Average integration of the Dissipable Power

The standard value of Pmax (Watt) can be increased by the application of the aeration vents, in particular:

- n°2 aeration vents, applied diagonally, increase the dissipable power [Pmax (Watt)] of **100W**.

Ex. For the enclosure G9-4/4/T Pmax (Watt) = 167W. Applying n°2 ventilation units the Pmax (Watt) is 167W + 100W = 267W.

- n°2 aeration vents, applied diagonally, one of which with forced ventilation and installed in the upper part of the enclosure, increase the dissipable power [Pmax (Watt)] of **250W**.

Ex. For the enclosure G9-7/7/T Pmax (Watt) = 270W. Applying n°2 ventilation units, one with forced ventilation, the Pmax (Watt) is 270W + 250W = 520W.

For any specific composition requests a specific calculation in place.

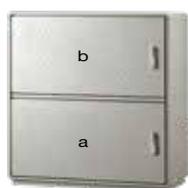
1 compartment


Code	Model	Useful space, mm			Max load kg compartment "a"	$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077904100	G9-4/4/T	a=580	805	235	65	23,4	167
077904118	G9-4/4A/T	a=580	805	235	65	23,4	167
077905107	G9-5/5/T	a=805	805	235	70	22,5	218
077905115	G9-5/5A/T	a=805	805	235	70	22,5	218
077907103	G9-7/7/T	a=1045	805	235	90	21,7	270
077908101	G9-8/8/T	a=1255	805	235	100	21	302
077914109	GH9-4/4/T	a=580	805	365	65	24	207
077914117	GH9-4/4A/T	a=580	805	365	65	24	207
077915106	GH9-5/5/T	a=805	805	365	70	23,3	268
077915114	GH9-5/5A/T	a=805	805	365	70	23,3	268
077917102	GH9-7/7/T	a=1045	805	365	90	22,6	331
077918100	GH9-8/8/T	a=1255	805	365	100	22	361
IP44							
078904109	G9-4/4/T-4	a=580	805	235	65	24	174
078904117	G9-4/4A/T-4	a=580	805	235	65	24	174
078905106	G9-5/5/T-4	a=805	805	235	70	23,3	228
078905114	G9-5/5A/T-4	a=805	805	235	70	23,3	228
078907102	G9-7/7/T-4	a=1045	805	235	90	22,5	281
078908100	G9-8/8/T-4	a=1255	805	235	100	21,6	314
078914108	GH9-4/4/T-4	a=580	805	365	65	24,6	216
078914116	GH9-4/4A/T-4	a=580	805	365	65	24,6	216
078915105	GH9-5/5/T-4	a=805	805	365	70	24	279
078915113	GH9-5/5A/T-4	a=805	805	365	70	24	279
078917101	GH9-7/7/T-4	a=1045	805	365	90	23,3	345
078918109	GH9-8/8/T-4	a=1255	805	365	100	22,7	376

1 compartment with integrated plinth


Code	Model	Useful space, mm			Max load kg compartment "a"	$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077905198	G9-5/22/ZT	a=355	805	235	50	22,5	218
077908192	G9-8/25/ZT	a=805	805	235	70	21	302
077908184	G9-8/25A/ZT	a=805	805	235	70	21	302
077909190	G9-9/28/ZT	a=1255	805	235	100	20	350
077915197	GH9-5/22/ZT	a=355	805	365	50	23,3	268
077918191	GH9-8/25/ZT	a=805	805	365	70	22	361
077918183	GH9-8/25A/ZT	a=805	805	365	70	22	361
077919199	GH9-9/28/ZT	a=1255	805	365	100	20,9	426
IP44							
078905197	G9-5/22/ZT-4	a=355	805	235	50	23,3	228
078908191	G9-8/25/ZT-4	a=805	805	235	70	21,6	314
078908183	G9-8/25A/ZT-4	a=805	805	235	70	21,6	314
078909199	G9-9/28/ZT-4	a=1255	805	235	100	20,4	364
078915196	GH9-5/22/ZT-4	a=355	805	365	50	24	279
078918190	GH9-8/25/ZT-4	a=805	805	365	70	22,7	376
078918182	GH9-8/25A/ZT-4	a=805	805	365	70	22,7	376
078919198	GH9-9/28/ZT-4	a=1255	805	365	100	21,6	444

2 compartments

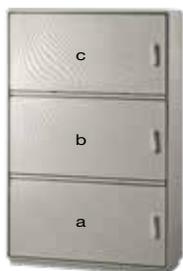


Code	Model	Useful space, mm			Max load kg		Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"		
IP55								
077905206	G9-5/22/T	a-b=355	805	235	50	50	22,5	206
077908200	G9-8/44/T	a-b=580	805	235	65	65	21	284
077908226	G9-8/44A/T	a-b=580	805	235	65	65	21	284
077908218	G9-8/52/T	a=805 - b=355	805	235	70	50	21	284
077909208	G9-9/55/T	a-b=805	805	235	70	70	20	329
077909216	G9-9/82/T	a=1255 - b=355	805	235	100	50	20	329
077915205	GH9-5/22/T	a-b=355	805	365	50	50	23,3	252
077918209	GH9-8/44/T	a-b=580	805	365	65	65	22	340
077918225	GH9-8/44A/T	a-b=580	805	365	65	65	22	340
077918217	GH9-8/52/T	a=805 - b=355	805	365	70	50	22	340
077919207	GH9-9/55/T	a-b=805	805	365	70	70	20,9	401
077919215	GH9-9/82/T	a=1255 - b=355	805	365	100	50	20,9	401
IP44								
078905205	G9-5/22/T-4	a-b=355	805	235	50	50	23,3	214
078908209	G9-8/44/T-4	a-b=580	805	235	65	65	21,6	296
078908225	G9-8/44A/T-4	a-b=580	805	235	65	65	21,6	296
078908217	G9-8/52/T-4	a=805 - b=355	805	235	70	50	21,6	296
078909207	G9-9/55/T-4	a-b=805	805	235	70	70	20,4	343
078909215	G9-9/82/T-4	a=1255 - b=355	805	235	100	50	20,4	343
078909504	G9-S/84/T-4	a=1255- b=5280	805	235	100	65	a=20,04 b=21,6	a=243 b=296
078915204	GH9-5/22/T-4	a-b=355	805	365	50	50	24	262
078918208	GH9-8/44/T-4	a-b=580	805	365	65	65	22,7	354
078918224	GH9-8/44A/T-4	a-b=580	805	365	65	65	22,7	354
078918216	GH9-8/52/T-4	a=805 - b=355	805	365	70	50	22,7	354
078919206	GH9-9/55/T-4	a-b=805	805	365	70	70	21,6	418
078919214	GH9-9/82/T-4	a=1255 - b=355	805	365	100	50	21,6	418
078919503	GH9-S/84/T-4	a=1255 - b=580	805	365	100	65	a=20,04 b=21,6	a=243 b=296

2 compartments with integrated plinth



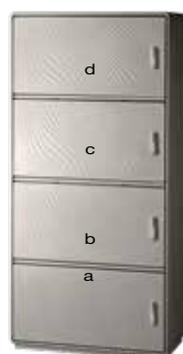
Code	Model	Useful space, mm			Max load kg		Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth	comp. "a"	comp. "b"		
IP55								
077908291	G9-8/222/ZT	a-b=355	805	235	50	50	21	284
077909281	G9-9/252/ZT	a=805 b=355	805	235	70	50	20	329
077909299	G9-9/244/ZT	a-b=580	805	235	65	65	20	329
077918290	GH9-8/222/ZT	a-b=355	805	365	50	50	22	340
077919280	GH9-9/252/ZT	a=805 b=355	805	365	70	50	20,9	401
077919298	GH9-9/244/ZT	a-b=580	805	365	65	65	20,9	401
IP44								
078908290	G9-8/222/ZT-4	a-b=355	805	235	50	50	21,6	296
078909280	G9-9/252/ZT-4	a=805 b=355	805	235	70	50	20,4	343
078909298	G9-9/244/ZT-4	a-b=580	805	235	65	65	20,4	343
078918299	GH9-8/222/ZT-4	a-b=355	805	365	50	50	22,7	354
078919289	GH9-9/252/ZT-4	a=805 b=355	805	365	70	50	21,6	418
078919297	GH9-9/244/ZT-4	a-b=580	805	365	65	65	21,6	418

3 compartments


Code	Model	Useful space, mm			Max load kg			$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"		
IP55									
077908309	G9-8/222/T	a-b-c=355	805	235	50	50	50	21	254
077909307	G9-9/522/T	a=805 b-c=355	805	235	70	50	50	20	294
077909315	G9-9/442/T	a-b=580 c=355	805	235	65	65	50	20	294
077918308	GH9-8/222/T	a-b-c=355	805	365	50	50	50	22	303
077919306	GH9-9/522/T	a=805 b-c=355	805	365	70	50	50	20,9	358
077919314	GH9-9/442/T	a-b=580 c=355	805	365	65	65	50	20,9	358
IP44									
078908308	G9-8/222/T-4	a-b-c=355	805	235	50	50	50	21,6	264
078909306	G9-9/522/T-4	a=805 b-c=355	805	235	70	50	50	20,4	306
078909314	G9-9/442/T-4	a-b=580 c=355	805	235	65	65	50	20,4	306
078918307	GH9-8/222/T-4	a-b-c=355	805	365	50	50	50	22,7	316
078919305	GH9-9/522/T-4	a=805 b-c=355	805	365	70	50	50	21,6	373
078919313	GH9-9/442/T-4	a-b=580 c=355	805	365	65	65	50	21,6	373

3 compartments with integrated plinth


Code	Model	Useful space, mm			Max load kg			$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"		
IP55									
077909398	G9-9/222/ZT	a-b-c=355	805	235	50	50	50	20	294
077919397	GH9-9/222/ZT	a-b-c=355	805	365	50	50	50	20,9	358
IP44									
078909397	G9-9/222/ZT-4	a-b-c=355	805	235	50	50	50	20,4	306
078919396	GH9-9/222/ZT-4	a-b-c=355	805	365	50	50	50	21,6	373

4 compartments


Code	Model	Protected useful space, mm			Max load kg				$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"	comp "d"		
IP55										
077909406	G9-9/222/T	a-b-c-d=355	805	235	50	50	50	50	20	252
077919405	GH9-9/222/T	a-b-c-d=355	805	365	50	50	50	50	20,9	307
IP44										
078909405	G9-9/222/T-4	a-b-c-d=355	805	235	50	50	50	50	20,4	263
078919404	GH9-9/222/T-4	a-b-c-d=355	805	365	50	50	50	50	21,6	320



Grabi 12

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Width 1150 mm



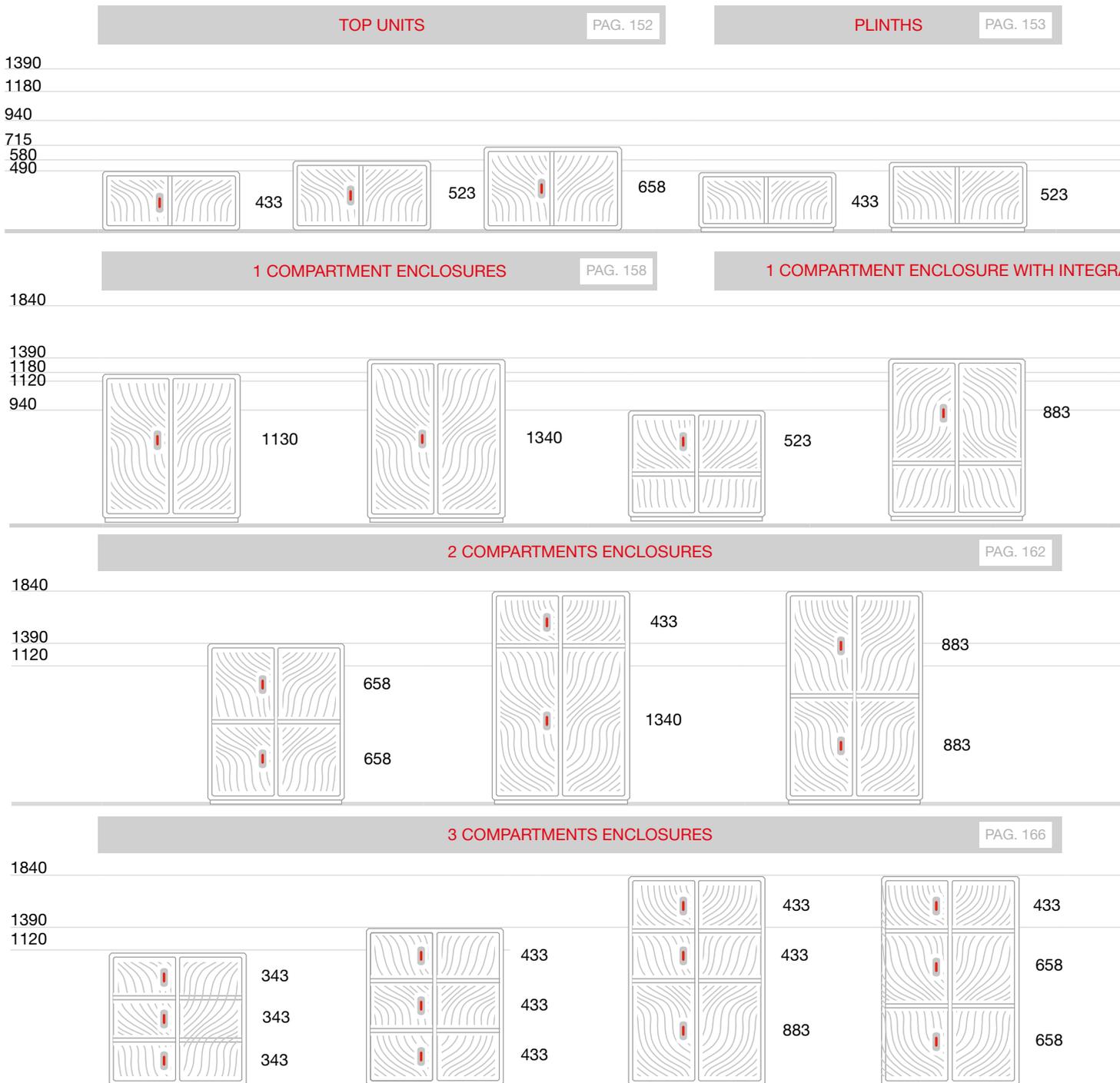
Characteristics

The Grafi12 series is characterized by an external width of 1150 mm (usable interior width = 1132 mm).
 6 different overall heights available, from 490 mm to 1840 mm.
 All versions are available in two depths: 330 mm and 460 mm.
 Rated insulation voltage = Ui 690V.
 IMQ Certification in accordance with CEI EN 62208.

Production drawing

The values on the left of the drawing indicate the overall height. The figures for the individual compartments indicate their usable height, essential when selecting dedicated accessories.

Grafi:12



Materials

Made in fiberglass (SMC) in RAL 7035 colour. Thermoplastic resin handle. Operating tenon in galvanized steel, internal rods and posts in steel with GEOMET 321 treatment.
 Concealed external hinges in stainless steel. Anchor frame in galvanized and painted steel.
 Seals in foamed EPDM.

Standards

Available with IP44 - IP55 protection class according to CEI EN 60529, IK10 according to CEI EN 62262.

Prepared for execution of CLASS II equipment according to CEI 64-8 / 4. 

1 COMPARTMENT ENCLOSURES

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INTEGRATED PLINTH

PAG. 159

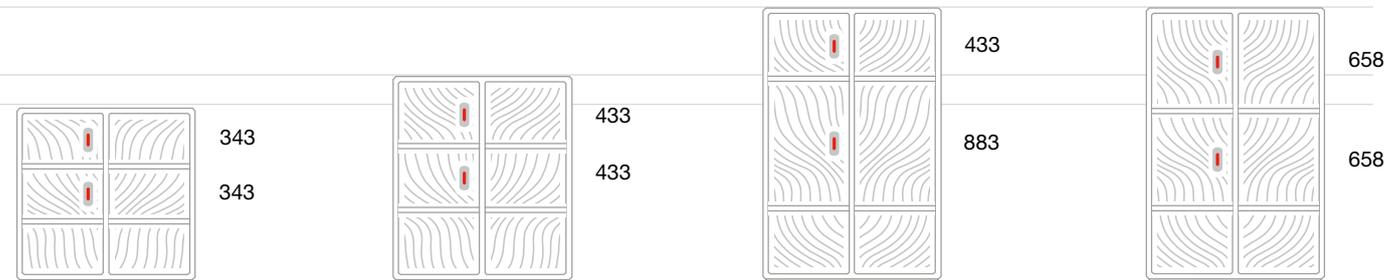
2 COMPARTMENTS ENCLOSURES

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2 COMPARTMENTS ENCLOSURES WITH INTEGRATED PLINTH

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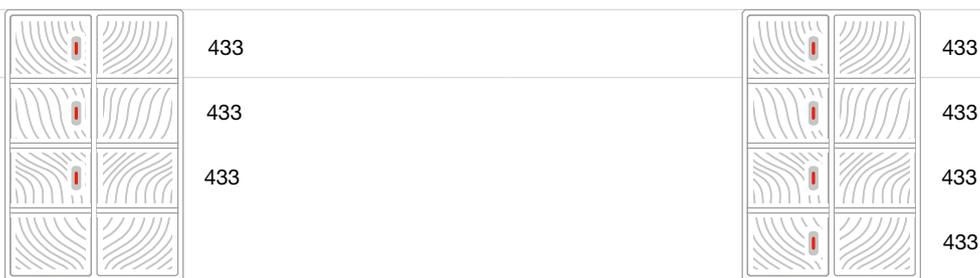


3 COMPARTMENTS WITH INTEGRATED PLINTH

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4 COMPARTMENTS ENCLOSURES

PAG. 166



Top units double door



Characteristics

Overall height sizes available: 460mm - 550mm - 685mm for two depths: 330mm - 460mm. Rated insulation voltage U_i 690V. Completely intact structure without holes. The holes for cable passage to be realized by the customer or on request. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request). Door opening side can be changed on site. Can be equipped with mounting plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Materials

Made of fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 .

External dimensions, mm			Internal dimensions, mm			Door dimension, mm	IP	Model	Code	
Height	Width	Depth	Height	Width	Depth					
 460	1150	330	a= 433	1132	298	374x1060	IP55	G12-2/2A/S	077122190	
		460	a= 433	1132	428		IP44	G12-2/2A/S-4	078122199	
	1150	460	330	a= 523	1132	298	464x1060	IP55	GH12-2/2A/S	077132199
								IP44	GH12-2/2A/S-4	078132198
 550	1150	330	a= 523	1132	298	464x1060	IP55	G12-3/3A/S	077123198	
		460	a= 523	1132	428		IP44	G12-3/3A/S-4	078123197	
	1150	460	330	a= 658	1132	298	599x1060	IP55	GH12-3/3A/S	077133197
								IP44	GH12-3/3A/S-4	078133196
 685	1150	330	a= 658	1132	298	599x1060	IP55	G12-4/4A/S	077124196	
		460	a= 658	1132	428		IP44	G12-4/4A/S-4	078124195	
	1150	460	330	a= 658	1132	298	599x1060	IP55	GH12-4/4A/S	077134195
								IP44	GH12-4/4A/S-4	078134194

Warnings

Usable for installation in enclosures of the same series and depth to achieve non-standard compositions in the integrated units or for extending enclosures already in use. Can be used to make single compartment enclosures for floor installation, together with dedicated plinths. Holes for fastening systems and cable opening to be made in site or in the factory on request. Wall-mounted version also available.

Plinths

**Characteristics**

Overall height sizes available: 490mm - 580mm - for two depths: 330mm - 460mm.
Prepared for installation on a concrete base using an anchor frame (not included).
To be used in combination with enclosures of the series 12 same depth not available in the version with "integrated plinth".
They allow the realization of enclosures for floor installation combined with top units.

Material

Made in fiberglass (SMC) in RAL 7035 colour. Seals in foamed EPDM.

Normative

Realizzati in conformità a norma CEI EN 62208 Grado di protezione IP55 secondo CEI EN 60529, IK10 secondo CEI EN 62262. Predisposti per esecuzione di apparecchiature in classe II secondo CEI 64-8/4 .

	External dimensions, mm			Useful height mm	IP	Model	Code
	Height	Width	Depth				
	490	1150	330	433	IP55	G12-2/ZT	077122158
		1150	460	433	IP55	GH12-2/ZT	077132157
	580	1150	330	523	IP55	G12-3/ZT	077123156
		1150	460	523	IP55	GH12-3/ZT	077133155

Closing bottom plate



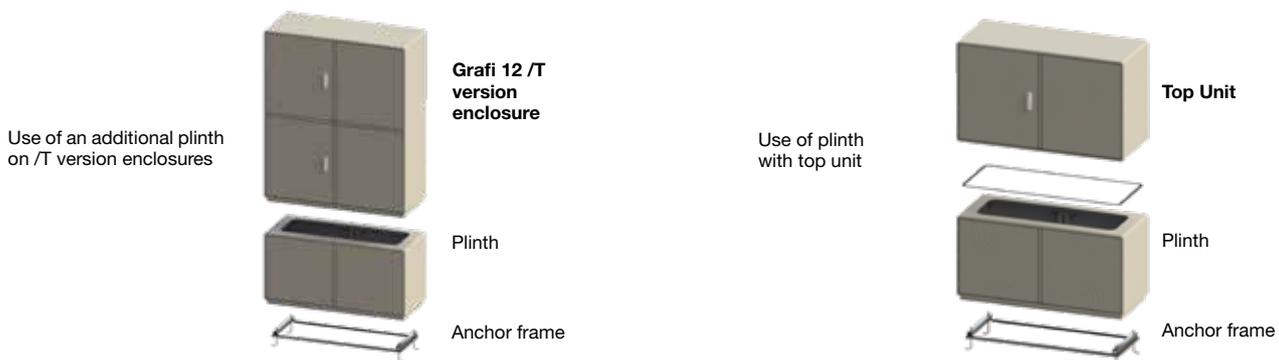
Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 4 conical fairleads (max. diam. 76).

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G12/SIC	095771408	G12/SIM	095771424
460	GH12/SIC	095771457	GH12/SIM	095771473

Installation method

The plinths can be fitted with closing bottom plate (blank or with conical fairleads) positioned between the fixing frame and plinth, to provide additional protection in the cable input area.



Anchor frame



Characteristics

Screws in AISI 304 stainless steel to guarantee access over time. Complete with brackets for fixing onto a concrete base.

Materials

Made of steel with black coloured 18/24 cataphoretic coating treatment.

Enclosure depth mm	Model	Code
330	G12/TA	095771309
460	GH12/TA	095771358

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets. Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	1026x355	G12/2/PA	095771028	G12/2/PB	095771127	G12/2/PP	095771226
523	1026x445	G12/3/PA	095771036	G12/3/PB	095771135	G12/3/PP	095771234
658	1026x580	G12/4/PA	095771044	G12/4/PB	095771143	G12/4/PP	095771242

Uprights kit + brackets kit for the realization of modular equipment panels



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, bottom plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Top unit overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
490	G-2/MT	095770020	G/SM	095770905	GH/SM	095770913
580	G-3/MT	095770038	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
715	G-4/MT	095770046				

Brackets kit for supporting the mounting plates on the uprights



Characteristics

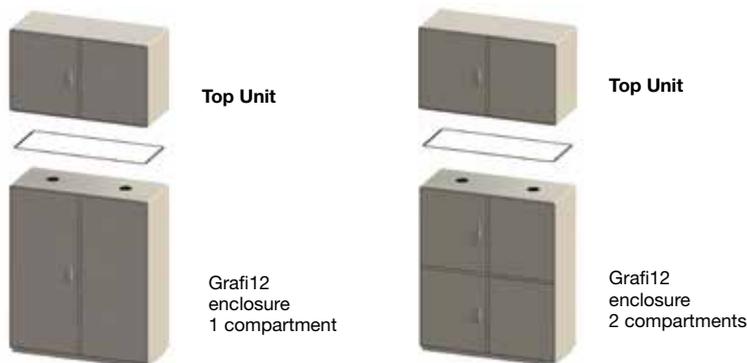
Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate. For partitions provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

N.B. The Grafi12 series does not provide accessories for modular equipment.

Installation methods

The top units can be installed on any type of enclosure of the corresponding series (Grafi12) and of the same depth. Installation is carried out easily by making holes in the fixing points already arranged on the enclosures and with the insertion of special seals to guarantee the necessary protection rating. Any passages between the bottom compartment and top unit must be made in situ as required. The arrangement for the installation of the top unit may be carried out directly in the factory on request. It is suitable for both IP44 and IP55 enclosures and is valid for all depths (330 - 460 mm).



Execution of top unit installation arrangement with 2 holes

- Bottom compartment:**
- 4 fastening holes
 - 2 holes (Ø 85) for cable passage
- Top compartment (top unit):**
- 4 fastening holes
 - 2 holes (Ø 76) for securing the conical membrane
- Provided:** Compartment fastening screws/seal/2 conical membranes.

Model	Code	Description
G-EA/MS/I	097770002	Execution of slotted roof for installing top unit
G-EA/MS/S	097770010	Execution of slotted top unit for installation on compartment



Execution of preparation for installation of top unit with maximum clearance

Application envisages the realization of enclosures with fully open slots and realization of the corresponding slot on the top unit which will be installed above.

- Bottom compartment:**
- 4 fastening holes
 - 1 single slot for cable passage
- Top compartment (top unit):**
- 4 fastening holes
 - 1 single slot
- Provided:** Compartment fastening screws/seal

Model	Code	Dim. loophole for Depth 330 mm	Dim. loophole for Depth 460 mm	Description
G-EA/MSA/I	097770044	960x225	960x305	Execution of slotted roof for installing top unit
G-EA/MSA/S	097770051	960x260	960x340	Execution of slotted top unit for installation on lower compartment

Warning
Separation plates can also be requested with or without cable passage to integrate execution, to be selected from the normal envisaged accessories. G12/SIC o GH12/SIC (blank plate) - G12/SIM OR GH12/SIM (plate with conical membranes).

The top units may be installed on the floor using the relative plinth envisaged in the series and of the same depth. The fixing frame must be requested separately. Also in this case it is possible to request arrangement in the factory of hole drilling for cable passage into the top units (G-EA/MS/S or G-EA/MSA/S)

N.B. The Grafi12 series does not provide accessories for modular equipment.

Maximum applicable load on bottom plate / Protected useful space for equipment / Heat dissipation pag. 170

Accessories and spare parts for the whole Grafi12 series
- **Ventilation units** page. 190

Grafi12

Double door 1 compartment enclosures



Characteristics

Overall height sizes available: 490mm - 580mm - 715mm - 940mm - 1180mm - 1390mm - for two depths: 330mm - 460mm.

Rated insulation voltage Ui 690V.

Completely intact structure without holes. The holes for cable passage to be realized by the customer or on request. Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).

Door opening side can be changed on site. Can be equipped with mounting plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made in fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

	External dimensions, mm			Internal dimensions, mm			Door dimension, mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
	490	1150	330	a= 433	1132	298	374x1060	IP55	G12-2/2A/T	077122117
		1150	460	a= 433	1132	428	374x1060	IP44	G12-2/2A/T-4	078122116
	580	1150	330	a= 523	1132	298	464x1060	IP55	GH12-2/2A/T	077132116
		1150	460	a= 523	1132	428	464x1060	IP44	GH12-2/2A/T-4	078132115
	715	1150	330	a= 658	1132	298	599x1060	IP55	G12-3/3A/T	077123115
		1150	460	a= 658	1132	428	599x1060	IP44	G12-3/3A/T-4	078123114
	940	1150	330	a= 883	1132	298	824x1060	IP55	GH12-3/3A/T	077133114
		1150	460	a= 883	1132	428	824x1060	IP44	GH12-3/3A/T-4	078133113
	1180	1150	330	a= 1130	1132	298	1064x1060	IP55	G12-4/4A/T	077124113
		1150	460	a= 1130	1132	428	1064x1060	IP44	G12-4/4A/T-4	078124112
	1390	1150	330	a= 1340	1132	298	1274x1060	IP55	GH12-4/4A/T	077134112
		1150	460	a= 1340	1132	428	1274x1060	IP44	GH12-4/4A/T-4	078134111
	940	1150	330	a= 883	1132	298	824x1060	IP55	G12-5/5A/T	077125110
		1150	460	a= 883	1132	428	824x1060	IP44	G12-5/5A/T-4	078125119
	1180	1150	330	a= 1130	1132	298	1064x1060	IP55	GH12-5/5A/T	077135119
		1150	460	a= 1130	1132	428	1064x1060	IP44	GH12-5/5A/T-4	078135118
	1390	1150	330	a= 1340	1132	298	1274x1060	IP55	G12-7/7A/T	077127116
		1150	460	a= 1340	1132	428	1274x1060	IP44	G12-7/7A/T-4	078127115
	1390	1150	330	a= 1340	1132	298	1274x1060	IP55	GH12-7/7A/T	077137115
		1150	460	a= 1340	1132	428	1274x1060	IP44	GH12-7/7A/T-4	078137114
	1390	1150	330	a= 1340	1132	298	1274x1060	IP55	G12-8/8A/T	077128114
		1150	460	a= 1340	1132	428	1274x1060	IP44	G12-8/8A/T-4	078128113
	1390	1150	330	a= 1340	1132	298	1274x1060	IP55	GH12-8/8A/T	077138113
		1150	460	a= 1340	1132	428	1274x1060	IP44	GH12-8/8A/T-4	078138112

Double door 1 compartment enclosures with integrated plinth

**Characteristics**

Made with 1 equipment compartment + bottom plinth integrated in a single support structure.
Overall height sizes available: 940mm - 1390mm - 1840mm for two depths: 330mm - 460mm.
Rated insulation voltage Ui 690V.

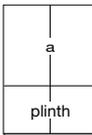
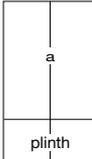
Completely intact structure without holes. The holes for cable passage to be realized by the customer or on request. Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request). Door opening side can be changed on site. Can be equipped with mounting plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories. Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

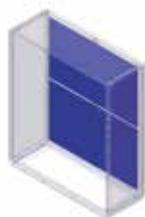
Made in fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 

	External dimensions, mm			Internal dimensions, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
	940	1150	330	a= 523	1132	298	400	464X1060	IP55	G12-5/13A/ZT	077125185
		1150	460	a= 523	1132	428		464X1060	IP44	G12-5/13A/ZT-4	078125184
	1390	1150	330	a= 883	1132	298	490	824x1060	IP55	G12-8/25A/ZT	077128197
		1150	460	a= 883	1132	428		824x1060	IP44	G12-8/25A/ZT-4	078128196
	1840	1150	330	a= 1340	1132	298	490	1274x1060	IP55	G12-9/28A/ZT	077129195
		1150	460	a= 1340	1132	428		1274x1060	IP44	G12-9/28A/ZT-4	078129194
									IP55	GH12-9/28A/ZT	077139194
									IP44	GH12-9/28A/ZT-4	078139193

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
433	1026x355	G12/2/PA	095771028	G12/2/PB	095771127	G12/2/PP	095771226
523	1026x445	G12/3/PA	095771036	G12/3/PB	095771135	G12/3/PP	095771234
658	1026x580	G12/4/PA	095771044	G12/4/PB	095771143	G12/4/PP	095771242
883	1026x805	G12/5/PA	095771051	G12/5/PB	095771150	G12/5/PP	095771259
1130	1026x1030 (supplied in 2 pcs)	G12/7/PA	095771069	G12/7/PB	095771168	G12/7/PP	095771267
1340	1026x1240 (supplied in 2 pcs)	G12/8/PA	095771077	G12/8/PB	095771176	G12/8/PP	095771275

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated.

Available in the blank version so that the required holes can be made during installation or complete with 4 conical fairleads (max. diam. 76). In IP55 enclosures the plate is provided as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G12/SIC	095771408	G12/SIM	095771424
460	GH12/SIC	095771457	GH12/SIM	095771473

Brackets kit for supporting the mounting plates on the uprights



Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Model	Code	Description
G/SP/MT	095770921	Brackets kit for support plates on uprights (4 pcs)

Uprights kit + brackets kit



Characteristics

Steel uprights set up with holes for fastening modular panel frames. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Overall height compartment, mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
490	G-2/MT	095770020	G/SM	095770905	GH/SM	095770913
580	G-3/MT	095770038				
715	G-4/MT	095770046				
940	G-5/MT	095770053				
1180	G-7/MT	095770079				
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

The Grafi12 series does not provide accessories for modular equipments

Maximum applicable load on mounting plate/Protected useful space for equipment/Heat dissipation pag. 171

Equal accessories and spare parts for the whole Grafi12 series

- Ventilation airs pag. 190

- Anchor frame pag. 189

Special executions

1 compartment enclosure with counter compartment



Characteristics

Overall height sizes available: 1390mm with depth: 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).

Door opening side can be changed on site. Can be equipped with mounting plates and dedicated accessories for creating panels. Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

With built-in contact box on the right-hand side - independent access with a diversified lock (standard, triangular, lukeable). **Suitable for direct mounting of electronic meters:**

- max n°1 integrated single-phase measuring group, GMI-GMY type.

- max n°1 single phase for powers up to 10Kw GEM-GISM type. Fixing with n. 1 base T5 A2 (serial number 286103).

- max n°1 three-phase for powers up to 16.5Kw type GET2A, up to 30Kw type GIST. Fixing with n°1 base T5 A4 (Serial number 286142).

IP43 degree of protection according to CEI EN 60529, IK10 according to CEI EN 62262.

For self-standing installation with masonry frame.

Materials

Made in fiberglass RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 .

External dimensions, mm			Internal dimensions, mm			Door dimension, mm	Counter compartment dimension, mm			IP	Model	Code
Height	Width	Depth	Height	Width	Depth		Height	Width	Depth			
1390	1150	460	a 1340	1132	428	1274x1060	375	182	182	IP44	GH12-8/8/GMI/T-4	078138351

Double door 2 compartments enclosures



Characteristics

Made with 2 equipment compartments integrated in a single support structure.

Overall height sizes available: 940 - 1120mm - 1390mm - 1840mm for two depths: 330mm - 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Arrangement of the compartments (upper/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

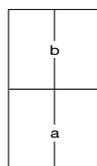
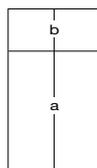
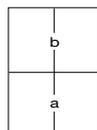
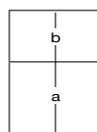
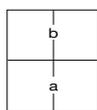
Materials

Made in fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

External dimensions, mm			Internal dimensions, mm			Door dimension, mm	IP	Model	Code
Height	Width	Depth	Height	Width	Depth				
940	1150	330	a-b= 433	1132	298	374x1060	IP55	G12-5/22A/T	077125219
							IP44	G12-5/22A/T-4	078125218
	1150	460	a-b= 433	1132	428		IP55	GH12-5/22A/T	077135218
							IP44	GH12-5/22A/T-4	078135217
1120	1150	330	a-b= 523	1132	298	464x1060	IP55	G12-6/33A/T	077126217
							IP44	G12-6/33A/T-4	078126216
	1150	460	a-b= 523	1132	428		IP55	GH12-6/33A/T	077136216
							IP44	GH12-6/33A/T-4	078136215
1390	1150	330	a= 883 b= 433	1132	298	824x1060 374x1060	IP55	G12-8/52A/T	077128213
							IP44	G12-8/52A/T-4	078128212
	1150	460	a= 883 b= 433	1132	428		IP55	GH12-8/52A/T	077138212
							IP44	GH12-8/52A/T-4	078138211
1390	1150	330	a-b= 658	1132	298	599x1060	IP55	G12-8/44A/T	077128221
							IP44	G12-8/44A/T-4	078128220
	1150	460	a-b= 658	1132	428		IP55	GH12-8/44A/T	077138220
							IP44	GH12-8/44A/T-4	078138229
1840	1150	330	a= 1340 b= 433	1132	298	1274x1060 374x1060	IP55	G12-9/82A/T	077129211
							IP44	G12-9/82A/T-4	078129210
	1150	460	a= 1340 b= 433	1132	428		IP55	GH12-9/82A/T	077139210
							IP44	GH12-9/82A/T-4	078139219
1840	1150	330	a-b= 883	1132	298	824x1060	IP55	G12-9/55A/T	077129229
							IP44	G12-9/55A/T-4	078129228
	1150	460	a-b= 883	1132	428		IP55	GH12-9/55A/T	077139228
							IP44	GH12-9/55A/T-4	078139227



Double door 2 compartments with integrated plinth

**Characteristics**

Made with 2 equipment compartments + bottom plinth integrated in a single support structure.

Overall height sizes available: 1120mm - 1390mm - 1840mm for two depth: 330mm - 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Arrangement of the compartments (upper/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

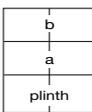
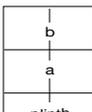
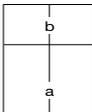
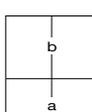
Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

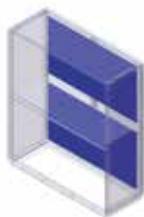
Made in fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 .

	External dimensions, mm			Internal dimensions, mm			Plinth height mm	Door dimension mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth					
	1120	1150	330	a-b= 343	1132	298	400	284x1060	IP55	G12-6/111A/ZT	077126290
				IP44					G12-6/111A/ZT-4	078126299	
	1150	460	a-b= 343	1132	428	284x1060		IP55	GH12-6/111A/ZT	077136299	
								IP44	GH12-6/111A/ZT-4	078136298	
	1390	1150	330	a-b= 433	1132	298	490	374x1060	IP55	G12-8/222A/ZT	077128296
				IP44					G12-8/222A/ZT-4	078128295	
	1150	460	a-b= 433	1132	428	374x1060		IP55	GH12-8/222A/ZT	077138295	
								IP44	GH12-8/222A/ZT-4	078138294	
	1840	1150	330	a= 883 b= 433	1132	298	490	824x1060 374x1060	IP55	G12-9/252A/ZT	077129286
				IP44					G12-9/252A/ZT-4	078129285	
	1150	460	a= 883 b= 433	1132	428	824x1060 374x1060		IP55	GH12-9/252A/ZT	077139285	
								IP44	GH12-9/252A/ZT-4	078139284	
	1840	1150	330	a-b= 658	1132	298	490	599x1060	IP55	G12-9/244A/ZT	077129294
				IP44					G12-9/244A/ZT-4	078129293	
	1150	460	a-b= 658	1132	428	599x1060		IP55	GH12-9/244A/ZT	077139293	
								IP44	GH12-9/244A/ZT-4	078139292	

Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
343	1026x265	G12/1/PA	095771010	G12/1/PB	095771119	G12/1/PP	095771218
433	1026x355	G12/2/PA	095771028	G12/2/PB	095771127	G12/2/PP	095771226
523	1026x445	G12/3/PA	095771036	G12/3/PB	095771135	G12/3/PP	095771234
658	1026x580	G12/4/PA	095771044	G12/4/PB	095771143	G12/4/PP	095771242
883	1026x805	G12/5/PA	095771051	G12/5/PB	095771150	G12/5/PP	095771259
1340	1026x1240 (in 2 pezzi)	G12/8/PA	095771077	G12/8/PB	095771176	G12/8/PP	095771275

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated. Available in the blank version so that the required holes can be made during installation or complete with 2 conical fairleads (max. diam. 76)

In the IP55 enclosures the partition is supplied as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G12/SIC	095771408	G12/SIM	095771424
460	GH12/SIC	095771457	GH12/SIM	095771473

Brackets kit for supporting the mounting plate on the uprights



Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required.

Suitable for all types of plate. For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Uprights kit + brackets kit



Characteristics

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Enclosure verall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
490	G-2/MT	095770020	G/SM	095770905	GH/SM	095770913
580	G-3/MT	095770038				
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

N.B. The Grafi12 series does not provide accessories for modular equipments

Maximum applicable load on mounting plate/Protected useful space for equipment/Heat dissipation pag. 172

Accessories and spare parts to the whole Grafi12 series

- Ventilation units page. 190
- Anchor frame pag. 189

Double door 3/4 compartments enclosures



Characteristics

Made with 3/4 equipment compartments integrated in a single support structure.

Overall height sizes available: 1120mm - 1390mm - 1840mm for two depths: 330mm - 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder-customized cipher on request).

Door opening side can be changed on site even on a single compartment (for detailed information consult the accessories selection). Arrangement of the compartments (upper/lower) modifiable on site according to the need for installation of internal equipment and accessories (DOTPER® system).

Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

Materials

Made in fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4

3 compartments

	External dimensions, mm			Internal dimensions, mm			Door dimension, mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
	1120	1150	330	a-b-c= 343	1132	298	284x1060	IP55	G12-6/111A/T	077126316
		1150	460	a-b-c= 343	1132	428	284x1060	IP44	G12-6/111A/T-4	078126315
	1120	1150	460	a-b-c= 343	1132	428	284x1060	IP55	GH12-6/111A/T	077136315
								IP44	GH12-6/111A/T-4	078136314
	1390	1150	330	a-b-c= 433	1132	298	374x1060	IP55	G12-8/222A/T	077128312
		1150	460	a-b-c= 433	1132	428	374x1060	IP44	G12-8/222A/T-4	078128311
	1390	1150	460	a-b-c= 433	1132	428	374x1060	IP55	GH12-8/222A/T	077138311
								IP44	GH12-8/222A/T-4	078138310
	1840	1150	330	a= 883 b-c= 433	1132	298	824x1060 374x1060	IP55	G12-9/522A/T	077129310
		1150	460	a= 883 b-c= 433	1132	428	824x1060 374x1060	IP44	G12-9/522A/T-4	078129319
	1840	1150	460	a= 883 b-c= 433	1132	428	824x1060 374x1060	IP55	GH12-9/522A/T	077139319
								IP44	GH12-9/522A/T-4	078139318
	1840	1150	330	a-b= 658 c= 433	1132	298	599x1060 374x1060	IP55	G12-9/442A/T	077129328
		1150	460	a-b= 658 c= 433	1132	428	599x1060 374x1060	IP44	G12-9/442A/T-4	078129327
	1840	1150	460	a-b= 658 c= 433	1132	428	599x1060 374x1060	IP55	GH12-9/442A/T	077139327
								IP44	GH12-9/442A/T-4	078139326

4 compartments

	External dimensions, mm			Internal dimensions, mm			Door dimension, mm	IP	Model	Code
	Height	Width	Depth	Height	Width	Depth				
	1840	1150	330	a-b-c-d= 433	1132	298	374x1060	IP55	G12-9/2222A/T	077129419
								IP44	G12-9/2222A/T-4	078129418
	1840	1150	460	a-b-c-d= 433	1132	428	374x1060	IP55	GH12-9/2222A/T	077139418
								IP44	GH12-9/2222A/T-4	078139417

Double door 3/4 compartments enclosures with integrated plinth

**Characteristics**

Made with 3 equipment compartments separated by an intermediate partition + bottom plinth integrated in a single support structure.

Overall height 1840mm for two depths: 330mm – 460mm.

Rated insulation voltage Ui 690V.

Complete with fixing frame for installation on a concrete base. Hinged door complete with closing mechanism operated by a retracting handle and Y21 single-cipher safety lock (DIN18252 profile cylinder - customized cipher on request).

Arrangement of the compartments (upper/intermediate) modifiable on site according to the needs of installation of equipment and internal accessories (DOTPER® system)

Door opening side can be changed on site. Can be equipped with mounting plates and dedicated accessories for creating panels.

Mounting plate equipped with studs that can be fitted with threaded inserts with M6x20 stud bolts for fixing accessories.

Closing bottom plate with conical fairleads and seal (only IP55 versions).

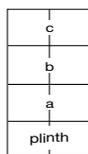
Materials

Made in fiberglass, RAL 7035 color. Handle in thermoplastic resin. Rotating bracket in galvanized steel. Internal rods and posts in steel with GEOMET 321 treatment. Concealed external hinges in stainless steel. Seals in foamed EPDM.

Standards

IMQ certification made in accordance with standard CEI EN 62208. Protection classes IP55 and IP44 in compliance with CEI EN 60529, IK10 according to CEI EN 62262. Pre-engineered for apparatus in class II according to CEI 64-8/4 

External dimensions, mm			Internal dimensions, mm			Plinth height mm	Door dimension mm	IP	Model	Code
Height	Width	Depth	Height	Width	Depth					
1840	1150	330	a-b-c= 433	1132	298	490	374x1060	IP55	G12-9/2222A/ZT	077129393
		460	a-b-c= 433					IP44	G12-9/2222A/ZT-4	078129392
1150	460			a-b-c= 433	1132		428	374x1060	IP55	GH12-9/2222A/ZT
		IP44	GH12-9/2222A/ZT-4						078139391	



Mounting plates



Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets.

Available in: Pre-galvanized steel - thickness 2 mm; bakelite - thickness 5 mm; PVC - thickness 5 mm. Must be chosen to suit the size of the compartment in question.

Useful height mm	Plate dimensions mm	Steel mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Model	Code	Model	Code	Model	Code
343	1026x265	G12/1/PA	095771010	G12/1/PB	095771119	G12/1/PP	095771218
433	1026x355	G12/2/PA	095771028	G12/2/PB	095771127	G12/2/PP	095771226
658	1026x580	G12/4/PA	095771044	G12/4/PB	095771143	G12/4/PP	095771242
883	1026x805	G12/5/PA	095771051	G12/5/PB	095771150	G12/5/PP	095771259

Closing bottom plate



Characteristics

Made of 3 mm thick bakelite, it is installed in the lower part of the enclosures to provide additional protection for the compartment where the cable input channels are situated.

Available in the blank version so that the required holes can be made during installation or complete with 4 conical fairleads (max. diam. 76). In IP55 enclosures the partition is provided as standard.

Enclosure depth mm	Blank plate		Plate with conical fairleads	
	Model	Code	Model	Code
330	G12/SIC	095771408	G12/SIM	095771424
460	GH12/SIC	095771457	GH12/SIM	095771473

Brackets kit for supporting the mounting plates on the uprights



Characteristics

Made from steel. To be used together with an uprights kit and brackets kit for installing the depth-adjustable plate. If uprights and brackets kits are envisaged for supporting modular equipment, a further uprights kit without the upright support brackets kit is required. Suitable for all types of plate.

For plates provided in 2 parts, 2 bracket kits are required.

Description	Model	Code
Brackets kit for support plates on uprights (4 pcs)	G/SP/MT	095770921

Uprights kit + brackets kit

**Characteristics**

Steel uprights set up with holes for fastening modular panel frames, equipment holding racks, mounting plates. Brackets for upright supports made from steel. The kit must be selected based on the depth and overall height of the enclosure regardless of the number and layout of compartments.

Enclosure overall height mm	Uprights (2 pieces)		Uprights support brackets (4 pieces)			
	Model	Code	Depth 330 mm		Depth 460 mm	
			Model	Code	Model	Code
1120	G-6/MT	095770061	G/SM	095770905	GH/SM	095770913
1390	G-8/MT	095770087	N.B. The support brackets can be used on all heights of upright kits and up to an overall number of three kits.			
1840	G-9/MT	095770095				

N.B. The Grafi12 series does not provide accessories for modular equipment.

Maximum applicable load on mounting plate/Protected useful space for equipment/Heat dissipation pag. 173

Accessories and spare parts to the whole Grafi12 series

- Ventilation units page. 190

- Anchor frame pag. 189

Maximum load

Maximum load applicable on the mounting plate and usable protected space for equipment in observance of the characteristics certified by standard CEI EN 62208.

The table shows the maximum load value applicable on the mounting plate installed on both the bottom wall and on the uprights

(in the case of multiple compartments, the value refers to the individual compartments). Other installation methods may bear greater weights.

By usable protected space we mean the space dedicated to the installation of protection and manoeuvring equipment for which the IP rating is guaranteed by the casing.

Thermal energy dissipation (Pmax. = watt)

Calculation carried out in accordance with standard CEI 17-43: method of temperature-rise assessment by extrapolation for partially type-tested assemblies for protection (BT panels) of low-voltage switchgear not standard (ANS).

Thermal energy dissipation values (Pmax=watt) of the enclosures provided in the table are valid considering:

- standard installation conditions (exposure on all sides);
- ambient temperature established at 35 °C;
- overtemperature values achieved at mid height [Δt 0.5 (°C)] (value indicated in the table);
- overtemperature values established at the top Δt 1.0 =30 °C.

Pmax(watt) is an overall value referring to the entire structure of the enclosure; in the case of multiple compartments, the value must be divided by the number of compartments. The standard thermal energy dissipation value [Pmax(watt)] can be increased by applying ventilation units.

Top units



Code	Model	Useful space, mm			Max load, kg comp "a"	ΔT 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077122190	G12-2/2A/S	a=355	1025	235	60	24,3	153
077123198	G12-3/3A/S	a=445	1025	235	70	24,1	174
077124196	G12-4/4A/S	a=580	1025	235	80	23,7	218
077132199	GH12-2/2A/S	a=355	1025	365	60	24,5	189
077133197	GH12-3/3A/S	a=445	1025	365	70	24,4	213
077134195	GH12-4/4A/S	a=580	1025	365	80	24,1	267
IP44							
078122199	G12-2/2A/S-4	a=355	1025	235	60	25	159
078123197	G12-3/3A/S-4	a=445	1025	235	70	25	181
078124195	G12-4/4A/S-4	a=580	1025	235	80	24,5	227
078132198	GH12-2/2A/S-4	a=355	1025	365	60	25,3	197
078133196	GH12-3/3A/S-4	a=445	1025	365	70	25,2	222
078134194	GH12-4/4A/S-4	a=580	1025	365	80	25	278

Average integration of the Dissipable Power

The standard value of Pmax (Watt) can be increased by the application of the aeration vents, in particular:

- n°2 aeration vents, applied diagonally, increase the dissipable power [Pmax (Watt)] of **100W**.

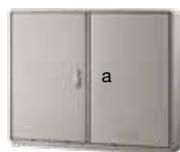
Ex. For the enclosure G12-3/3A/T la Pmax(Watt) = 174W. Applying n°2 ventilation units the Pmax (Watt) is 174W+100W = 274W.

- n°2 aeration vents, applied diagonally, one of which with forced ventilation and installed in the upper part of the enclosure, increase the dissipable power [Pmax (Watt)] of **250W**.

Ex. For the enclosure G12-5/13A/ZT la Pmax(Watt) = 277W. Applying n°2 ventilation units, one with forced ventilation, the Pmax (Watt) is 277W+250W = 527W.

For any specific composition requests a specific calculation in place.

1 compartment



Code	Model	Useful space, mm			Max load, kg comp "a"	Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077122117	G12-2/2A/T	a=355	1025	235	60	24,3	153
077123115	G12-3/3A/T	a=445	1025	235	70	24,1	174
077124113	G12-4/4A/T	a=580	1025	235	80	23,7	218
077125110	G12-5/5A/T	a=805	1025	235	90	23	277
077127116	G12-7/7A/T	a=1045	1025	235	95	22,3	343
077128114	G12-8/8A/T	a=1255	1025	235	100	21,7	367
077132116	GH12-2/2A/T	a=355	1025	365	60	24,5	189
077133114	GH12-3/3A/T	a=445	1025	365	70	24,4	213
077134112	GH12-4/4A/T	a=580	1025	365	80	24,1	267
077135119	GH12-5/5A/T	a=805	1025	365	90	23,7	351
077137115	GH12-7/7A/T	a=1045	1025	365	95	23,1	397
077138113	GH12-8/8A/T	a=1255	1025	365	100	22,6	435
IP44							
078122116	G12-2/2A/T-4	a=355	1025	235	60	25	159
078123114	G12-3/3A/T-4	a=445	1025	235	70	25	181
078124112	G12-4/4A/T-4	a=580	1025	235	80	24,5	227
078125119	G12-5/5A/T-4	a=805	1025	235	90	24	289
078127115	G12-7/7A/T-4	a=1045	1025	235	95	23	357
078128113	G12-8/8A/T-4	a=1255	1025	235	100	22,4	382
078132115	GH12-2/2A/T-4	a=355	1025	365	60	25,3	197
078133113	GH12-3/3A/T-4	a=445	1025	365	70	25,2	222
078134111	GH12-4/4A/T-4	a=580	1025	365	80	25	278
078135118	GH12-5/5A/T-4	a=805	1025	365	90	24,5	367
078137114	GH12-7/7A/T-4	a=1045	1025	365	95	24	414
078138112	GH12-8/8A/T-4	a=1255	1025	365	100	23,3	453

1 compartment with integrated plinth

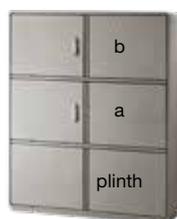


Code	Model	Useful space, mm			Max load, kg comp "a"	Δ T 0,5 (°C)	Pmax (W)
		Height	Width	Depth			
IP55							
077125185	G12-5/13A/ZT	a=445	1025	235	70	23	277
077128197	G12-8/25A/ZT	a=805	1025	235	90	21,7	345
077129195	G12-9/28A/ZT	a=1255	1025	235	100	20,4	434
077135184	GH12-5/13A/ZT	a=445	1025	365	70	23,7	351
077138196	GH12-8/25A/ZT	a=805	1025	365	90	22,6	435
077139194	GH12-9/28A/ZT	a=1255	1025	365	100	21,6	496
IP44							
078125184	G12-5/13A/ZT-4	a=445	1025	235	70	24	289
078128196	G12-8/25A/ZT-4	a=805	1025	235	90	22,4	360
078129194	G12-9/28A/ZT-4	a=1255	1025	235	100	21,2	452
078135183	GH12-5/13A/ZT-4	a=445	1025	365	70	24,5	367
078138195	GH12-8/25A/ZT-4	a=805	1025	365	90	23,3	453
078139193	GH12-9/28A/ZT-4	a=1255	1025	365	100	22,3	517

2 compartments

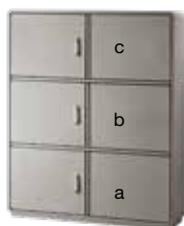

Graf. 12

Code	Model	Useful space, mm			Max load kg		$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"		
IP55								
077125219	G12-5/22A/T	a-b=355	1025	235	60	60	23	261
077126217	G12-6/33A/T	a-b=445	1025	235	70	70	22,5	311
077128213	G12-8/52A/T	a=805 b=355	1025	235	90	60	21,7	345
077128221	G12-8/44A/T	a-b=580	1025	235	80	80	21,7	345
077129211	G12-9/82A/T	a=1255 b=265	1025	235	100	50	20,4	409
077129229	G12-9/55A/T	a-b=805	1025	235	90	90	20,4	409
077135218	GH12-5/22A/T	a-b=355	1025	365	60	60	23,7	331
077136216	GH12-6/33A/T	a-b=445	1025	365	70	70	23,7	362
077138212	GH12-8/52A/T	a=805 b=355	1025	365	90	60	22,6	410
077138220	GH12-8/44A/T	a-b=580	1025	365	80	80	22,6	410
077139210	GH12-9/82A/T	a=1255 b=355	1025	365	100	50	21,6	467
077139228	GH12-9/55A/T	a-b=805	1025	365	90	90	21,6	467
IP44								
078125218	G12-5/22A/T-4	a-b=355	1025	235	60	60	24	272
078126216	G12-6/33A/T-4	a-b=445	1025	235	70	70	23,3	324
078128212	G12-8/52A/T-4	a=805 b=355	1025	235	90	60	22,4	360
078128220	G12-8/44A/T-4	a-b=580	1025	235	80	80	22,4	360
078129210	G12-9/82A/T-4	a=1255 b=265	1025	235	100	50	21,2	426
078129228	G12-9/55A/T-4	a-b=805	1025	235	90	90	21,2	426
078135217	GH12-5/22A/T-4	a-b=355	1025	365	60	60	24,5	345
078136215	GH12-6/33A/T-4	a-b=445	1025	365	70	70	24	377
078138211	GH12-8/52A/T-4	a=805 b=355	1025	365	90	60	23,3	427
078138229	GH12-8/44A/T-4	a-b=580	1025	365	80	80	23,3	427
078139219	GH12-9/82A/T-4	a=1255 b=355	1025	365	100	50	22,3	486
078139227	GH12-9/55A/T-4	a-b=805	1025	365	90	90	22,3	486

2 compartments with integrated plinth


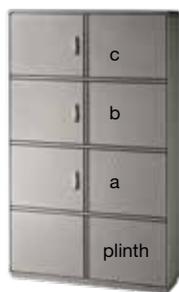
Code	Model	Useful space, mm			Max load kg		$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"		
IP55								
077126290	G12-6/111A/ZT	a-b=265	1025	235	50	50	22,5	311
077128296	G12-8/222A/ZT	a-b=355	1025	235	60	60	21,7	345
077129286	G12-9/252A/ZT	a=805 b=355	1025	235	90	60	20,4	409
077129294	G12-9/244A/ZT	a-b=580	1025	235	80	80	20,4	409
077136299	GH12-6/111A/ZT	a-b=265	1025	365	50	50	23,7	362
077138295	GH12-8/222A/ZT	a-b=355	1025	365	60	60	22,6	410
077139285	GH12-9/252A/ZT	a=805 b=355	1025	365	90	60	21,6	467
077139293	GH12-9/244A/ZT	a-b=580	1025	365	80	80	21,6	467
IP44								
078126299	G12-6/111A/ZT-4	a-b=265	1025	235	50	50	23,3	324
078128295	G12-8/222A/ZT-4	a-b=355	1025	235	60	60	22,4	360
078129285	G12-9/252A/ZT-4	a=805 b=355	1025	235	90	60	21,2	426
078129293	G12-9/244A/ZT-4	a-b=580	1025	235	80	80	21,2	426
078136298	GH12-6/111A/ZT-4	a-b=265	1025	365	50	50	24	377
078138294	GH12-8/222A/ZT-4	a-b=355	1025	365	60	60	23,3	427
078139284	GH12-9/252A/ZT-4	a=805 b=355	1025	365	90	60	22,3	486
078139292	GH12-9/244A/ZT-4	a-b=580	1025	365	80	80	22,3	486

3 compartments



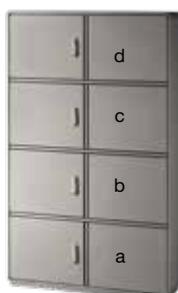
Code	Model	Useful space, mm			Max load, kg			$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"		
IP55									
077126316	G12-6/111A/T	a-b-c=265	1025	235	50	50	50	22,5	277
077128312	G12-8/222A/T	a-b-c=355	1025	235	60	60	60	21,7	308
077129310	G12-9/522A/T	a=805 b-c=355	1025	235	90	60	60	20,4	365
077129328	G12-9/442A/T	a-b=580 c=355	1025	235	80	80	60	20,4	365
077136315	GH12-6/111A/T	a-b-c=265	1025	365	50	50	50	23,7	323
077138311	GH12-8/222A/T	a-b-c=355	1025	365	60	60	60	22,6	366
077139319	GH12-9/522A/T	a=805 b-c=355	1025	365	90	60	60	21,6	417
077139327	GH12-9/442A/T	a-b=580 c=355	1025	365	80	80	60	21,6	417
IP44									
078126315	G12-6/111A/T-4	a-b-c=265	1025	235	50	50	50	23,3	289
078128311	G12-8/222A/T-4	a-b-c=355	1025	235	60	60	60	22,4	321
078129319	G12-9/522A/T-4	a=805 b-c=355	1025	235	90	60	60	21,2	380
078129327	G12-9/442A/T-4	a-b=580 c=355	1025	235	80	80	60	21,2	380
078136314	GH12-6/111A/T-4	a-b-c=265	1025	365	50	50	50	24	337
078138310	GH12-8/222A/T-4	a-b-c=355	1025	365	60	60	60	23,3	381
078139318	GH12-9/522A/T-4	a=805 b-c=355	1025	365	90	60	60	22,3	434
078139326	GH12-9/442A/T-4	a-b=580 c=355	1025	365	80	80	60	22,3	434

3 compartments with integrated plinth



Code	Model	Useful space, mm			Max load, kg			$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"		
IP55									
077129393	G12-9/2222A/ZT	a-b-c=355	1025	235	60	60	60	20,4	365
077139392	GH12-9/2222A/ZT	a-b-c=355	1025	365	60	60	60	21,6	417
IP44									
078129392	G12-9/2222A/ZT-4	a-b-c=355	1025	235	60	60	60	21,2	380
078139391	GH12-9/2222A/ZT-4	a-b-c=355	1025	365	60	60	60	22,3	434

4 compartments



Code	Model	Useful space, mm			Max load, kg				$\Delta T_{0,5}$ (°C)	Pmax (W)
		Height	Width	Depth	comp "a"	comp "b"	comp "c"	comp "d"		
IP55										
077129419	G12-9/2222A/T	a-b-c-d=355	1025	235	60	60	60	60	20,4	313
077139418	GH12-9/2222A/T	a-b-c-d=355	1025	365	60	60	60	60	21,6	358
IP44										
078129418	G12-9/2222A/T-4	a-b-c-d=355	1025	235	60	60	60	60	21,2	326
078139417	GH12-9/2222A/T-4	a-b-c-d=355	1025	365	60	60	60	60	22,3	373



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Mounting plates


Characteristics

Can be applied to the bottom of the enclosure using special threaded inserts with M6x20 stud bolts or in conjunction with switchgear risers or racks using the dedicated fixing brackets (MT).

For the choice of the mounting plates, refer to the "useful height of the single compartment" and to the series of enclosures (Grafi5-Grafi7-Grafi9-Grafi12).

Materials

Made of the following materials:
 Pre-galvanized steel (PA) 2 mm thick.
 Bakelite (PB) 5mm thick.
 PVC (PP) 5mm thick.

Enclosure series	Useful height	Plate dimensions mm		Steel (2mm thick)		Bakelite (5 mm thick)		PVC (5 mm thick)	
		Width	Height	Model	Code	Model	Code	Model	Code
Grafi5	343	455	265	G5/1/PA	095775011	G5/1/PB	095775110	G5/1/PP	095775219
	433	455	355	G5/2/PA	095775029	G5/2/PB	095775128	G5/2/PP	095775227
	523	455	445	G5/3/PA	095775037	G5/3/PB	095775136	G5/3/PP	095775235
	658	455	580	G5/4/PA	095775045	G5/4/PB	095775144	G5/4/PP	095775243
	883	455	805	G5/5/PA	095775052	G5/5/PB	095775151	G5/5/PP	095775250
	1130	455	1030 (in 2 pcs)	G5/7/PA	095775060	G5/7/PB	095775169	G5/7/PP	095775268
	1340	455	1240 (in 2 pcs)	G5/8/PA	095775078	G5/8/PB	095775177	G5/8/PP	095775276
Grafi7	433	560	355	G7/2/PA	095777017	G7/2/PB	095777116	G7/2/PP	095777215
	658	560	580	G7/4/PA	095777025	G7/4/PB	095777124	G7/4/PP	095777223
	883	560	805	G7/5/PA	095777033	G7/5/PB	095777132	G7/5/PP	095777231
	1130	560	1030 (in 2 pcs)	G7/7/PA	095777041	G7/7/PB	095777140	G7/7/PP	095777249
	1340	560	1240 (in 2 pcs)	G7/8/PA	095777058	G7/8/PB	095777157	G7/8/PP	095777256
Grafi9	433	785	355	G9/2/PA	095779013	G9/2/PB	095779112	G9/2/PP	095779211
	658	785	580	G9/4/PA	095779021	G9/4/PB	095779120	G9/4/PP	095779229
	883	785	805	G9/5/PA	095779039	G9/5/PB	095779138	G9/5/PP	095779237
	1130	785	1030 (in 2 pcs)	G9/7/PA	095779047	G9/7/PB	095779146	G9/7/PP	095779245
	1340	785	1240 (in 2 pcs)	G9/8/PA	095779054	G9/8/PB	095779153	G9/8/PP	095779252
Grafi12	343	1026	265	G12/1/PA	095771010	G12/1/PB	095771119	G12/1/PP	095771218
	433	1026	355	G12/2/PA	095771028	G12/2/PB	095771127	G12/2/PP	095771226
	523	1026	445	G12/3/PA	095771036	G12/3/PB	095771135	G12/3/PP	095771234
	658	1026	580	G12/4/PA	095771044	G12/4/PB	095771143	G12/4/PP	095771242
	883	1026	805	G12/5/PA	095771051	G12/5/PB	095771150	G12/5/PP	095771259
	1130	1026	1030 (in 2 pcs)	G12/7/PA	095771069	G12/7/PB	095771168	G12/7/PP	095771267
	1340	1026	1240 (in 2 pcs)	G12/8/PA	095771077	G12/8/PB	095771176	G12/8/PP	095771275

Installation on uprights for adjustable intermediate placement

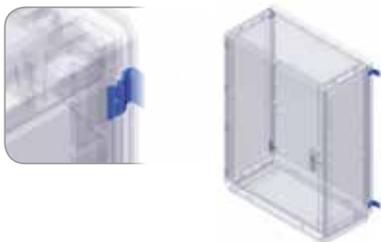


Characteristics

For this installation mode, the enclosure must be arranged with the appropriate Upright Kit + Bracket Kit that allow to the mounting plate to be applied in an intermediate position among the depth of the compartment. Besides the Uprights and Brackets kit for this installation, it is necessary to have 1 Fixing brackets kit for single plate installation.

Description	Model	Code
Brackets kit for support plates on uprights	G/SP/MT	095770921

Wall fixing brackets



Characteristics

The top units and some predisposed enclosures in standard execution for floor fixing can be supplied complete with 4 brackets installed on the back wall, to allow them to be fixed to the wall.

The brackets can be supplied:

- loose execution, assembled by the customer;
- applied execution, performed directly at the factory.

The application of brackets for wall mounting is provided for both the top units and the enclosures (see tables).

Description	Model	Code
Brackets for wall mounting (loose execution)	G/SFP	095770939
Applied execution of brackets for wall mounting	G-EA/SFP	097770028

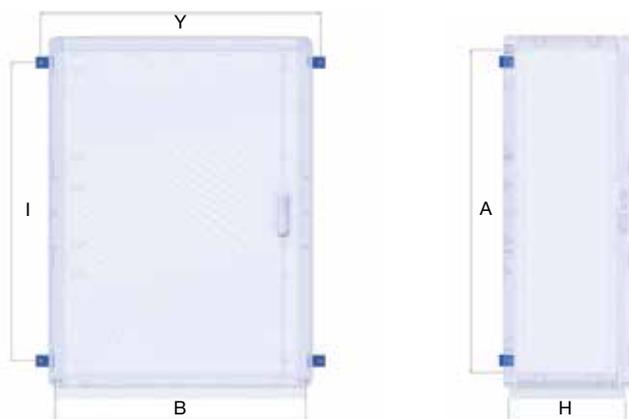
Top Units

The uprights are not provided with cable entry holes: they must be made on site or on request according to drawing quantities (for fixing distances see picture)

Brackets for wall mounting

Enclosures series	Top unit code		Top unit dimensions			Fixing wheelbase	
	IP55	IP44	A	B	H	I	Y
Graf5	077501906	078501905	400	580	330	233	616
	077502904	078502903	490	580	330	323	616
	077512903	078512902	490	580	460	323	616
	077503902	078503901	580	580	330	413	616
	077513901	078513900	580	580	460	413	616
	077504900	078504909	715	580	330	548	616
	077514909	078514908	715	580	460	548	616
	077505907	078505906	940	580	330	773	616
	077515906	078515905	940	580	460	773	616
Graf7	077702900	078702909	490	685	330	323	720
	077712909	078712908	490	685	460	323	720
	077704906	078704905	715	685	330	548	720
	077714905	078714904	715	685	460	548	720
	077705903	078705902	940	685	330	773	720
	077715902	078715901	940	685	460	773	720
Graf9	077902906	078902905	490	910	330	323	945
	077912905	078912904	490	910	460	323	945
	077904902	078904901	715	910	330	548	945
	077914901	078914900	715	910	460	548	945
	077904910	078904919	715	910	330	548	945
	077914919	078914918	715	910	460	548	945
	077905909	078905908	940	910	330	773	945
	077915908	078915907	940	910	460	773	945

Fixing wheelbase



Enclosures

The enclosures lower part must be completed with the corresponding closing bottom plate (included in the IP55 version): Closed plate (SIC) to make personalized holes - Plate with membranes (SIM) diam. 76mm (see accessory details on page 180).

Enclosures brackets for wall mounting

Enclosures series	Enclosure code		Enclosure dimensions			Fixing wheelbase	
	IP55	IP44	A	B	H	I	Y
Grafì5	077500106	078500105	400	580	330	233	616
	077502102	078502101	490	580	330	323	616
	077512101	078512100	490	580	460	323	616
	077503100	078503109	580	580	330	413	616
	077513109	078513109	580	580	460	413	616
	077504108	078504107	715	580	330	548	616
	077514107	078514106	715	580	460	548	616
	077505105	078505104	940	580	330	773	616
	077515104	078515103	940	580	460	773	616
	077505204	078505203	940	580	330	773	616
	077515203	078515202	940	580	460	773	616
	077505212	078505211	940	580	330	773	616
	077515211	078515210	940	580	460	773	616
Grafì7	077702108	078702107	490	685	330	323	720
	077712107	078712106	490	685	460	323	720
	077704104	078704103	715	685	330	548	720
	077714103	078714102	940	685	460	773	720
	077705101	078705100	940	685	330	773	720
	077715100	078715109	940	685	460	773	720
	077705200	078705209	940	685	330	773	720
	077715209	078715208	940	685	460	773	720
Grafì9	077904100	078904109	715	910	330	548	945
	077914109	078914108	715	910	460	548	945
	077904118	078904117	715	910	330	548	945
	077914117	078914116	715	910	460	548	945
	077905107	078905106	940	910	330	773	945
	077915106	078915105	940	910	460	773	945
	077905115	078905114	940	910	330	773	945
	077915114	078915113	940	910	460	773	945
	077905206	078905205	940	910	330	773	945
	077915205	078915204	940	910	460	773	945

Compartment intermediate plate



Characteristics

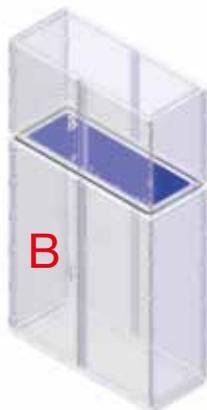
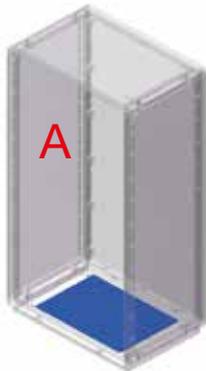
The intermediate plate are included in the supply of enclosures with multiple compartments, prepared for mounting in correspondence of the compartments tought special brackets. They can be supplied individually as spare parts or for installation in enclosures with integrated plinth (G.../.../ZT versions) for separation between plinth and equipment compartment. In the standard version are interconnected over the entire enclosure section. The choice must be made based on the enclosure series (Grafi5-Grafi7-Grafi9-Grafi12) and its depth (330-460).

Materials

Made of 3mm thick bakelite.

Enclosure series	Depth	Resin material (th. 3 mm)	
		Model	Code
Grafi5	330	G5/SSV	095775508
	460	GH5/SSV	095775557
Grafi7	330	G7/SSV	095777504
	460	GH7/SSV	095777553
Grafi9	330	G9/SSV	095779500
	460	GH9/SSV	095779559
Grafi12	330	G12/SSV	095771507
	460	GH12/SSV	095771556

Enclosure closing bottom plates



Characteristics

G.../SIC - Closed execution for possible drilling in place

G.../SIM - Complete execution of drilling diam. 76mm complete with thermoplastic conical cable glands. The choice must be made according to the enclosure series (Grafi5 - Grafi7 - Grafi9 - Grafi12) and its depth (330 - 460).

Materials

Made of 3mm thick bakelite.

The lower closing partitions can be used on request:

- on all floor-mounted enclosures to increase protection in the cable entry area from the tunnels. (A)
 - to separate the upper part with the lower compartment in the case where the applied execution of top mounting arrangement with maximum light is used (B) (see page Risers accessories).
- In the IP55 enclosures the lower plate is supplied as standard.

Enclosure series	Depth	Resin material (th. 3 mm)				
		Closed		With conical fairleads		
		Model	Code	Model	Code	
Grafi5	330	G5/SIC	095775409	G5/SIM	095775425	3 fairleads Ø 76 mm
	460	GH5/SIC	095775458	GH5/SIM	095775474	
Grafi7	330	G7/SIC	095777405	G7/SIM	095777421	3 fairleads Ø 76 mm
	460	GH7/SIC	095777454	GH7/SIM	095777470	
Grafi9	330	G9/SIC	095779401	G9/SIM	095779427	3 fairleads Ø 76 mm
	460	GH9/SIC	095779450	GH9/SIM	095779476	
Grafi12	330	G12/SIC	095771408	G12/SIM	095771424	4 fairleads Ø 76 mm
	460	GH12/SIC	095771457	GH12/SIM	095771473	

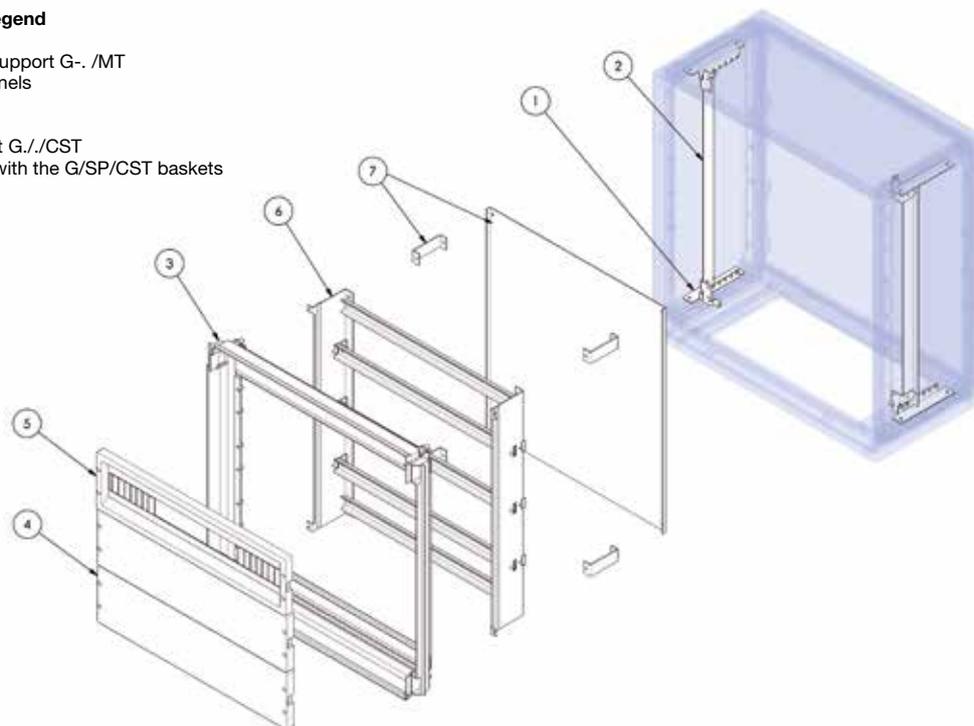
Accessories for creating modular equipments panels

Characteristics

The Grafi series enclosures provide a wide range of accessories that can be used for the realization of panels equipped with modular equipments. In addition to single-compartment enclosures, it is possible to customize enclosures with multiple compartments, even in different ways in order to be able to exploit the individual compartments in the most appropriate way.

The components of the system - Legend

- 1 - Mounting brackets G./SM
- 2 - Uprights for internal accessories support G-./MT
- 3 - Frame for supporting G./TPM panels
- 4 - Closed panels G./PC
- 5 - Slotted panels G./PM.
- 6 - Basket for modular device support G././CST
- 7 - Bracket/plate kit to be combined with the G/SP/CST baskets



Equipment compartments mode

To create panels inside the GRAFI enclosures, just follow the steps below:

Fixing upright brackets		Internal accessories brackets	
<p>You need 1 Kit (4 pcs) for single compartment enclosure even if used on a enclosure with multiple compartments. They must be chosen based on the enclosure depth (300 - 460 mm).</p>		<p>You need 1 Kit (2 pcs.) for single enclosure even if employed on a enclosure with multiple compartments. They must be chosen based on the enclosure overall height</p>	
Modular device support rack		Bracket/plate kit for rack mounting	
<p>1 piece for each single compartment that you want to accessorize. The choice must be made according to the series (Grafi5 - Grafi7 - Grafi9) and according to the useful height of the single compartment that you want to accessorize considering that: USEFUL HEIGHT COMPARTMENTS 883 - 1340 mm you need 2 pcs of suitable rack to use all the available space.</p>		<p>You need 1 kit (4 brackets + 1 steel plate) for each rack provided. To be chosen according to the enclosure series, depth (330-460mm) and type of rack. The brackets/plate kit is used in combination with modular equipment support racks for the possible fixing of non-modular back panel components.</p>	
Panel support frame		Closed or Slotted panels	
<p>1 piece for each single compartment that you want to accessorize. The choice must be made according to the series (Grafi5 - Grafi7 - Grafi9) and according to the useful height of the single compartment that you want to accessorize.</p>		<p>To be chosen according to the series (Grafi5 - Grafi7 - Grafi9) and maximum number that can be installed on each single support frame. The mix between closed and slotted execution according to the installation needs.</p>	

Uprights fixing brackets kit



Characteristics

The order code includes 4 pieces needed for the subsequent installation of the accessories support uprights and the plates used to equip the compartments.
 For any accessory installation only the BRACKETS KIT is needed.
 The selection depends entirely on the depth of the enclosures regardless of the number and usable height of the compartments.

Materials

Made of electrolytically galvanized steel.

Enclosures series	Depth 330 mm		Depth 460 mm	
	Model	Code	Model	Code
Graf5-Graf7-Graf9-Graf12	G/SM	095770905	GH/SM	095770913

The uprights fixing brackets kit may also be used as a shelf for creating intermediate shelves within the panel space.

Uprights kit to support internal accessories

Characteristics

Made with holes for securing accessories. The order Code includes 2 pieces. Made for installation together with uprights installation brackets (G/SM-GH/SM). They can be used mainly to:

- support accessories to create panels with modular equipment in the individual compartments (frames - racks);
 - mounting plates support if the position is to be intermediate and adjustable in relation to the depth of the enclosure.
- Suitable also for customising installations defined by the customer. The selection must be made based on the overall height of the enclosure, regardless of the enclosure series and type (1 compartment, 1 compartment with integrated plinth, multi-compartment, multi-compartment with integrated plinth, top units).

Materials

Made of electrolytically galvanized steel.

Graf5 Graf7 Graf9 Graf12	Overall height enclosure, mm								
	400	490	580	715	940	1120	1180	1390	1840
Model	G-1/MT	G-2/MT	G-3/MT	G-4/MT	G-5/MT	G-6/MT	G-7/MT	G-8/MT	G-9/MT
Code	095770012	095770020	095770038	095770046	095770053	095770061	095770079	095770087	095770095



Installation of uprights on a single compartment



Installation of uprights on a 2 compartments enclosure with integrated plinth



Installation of uprights on a cabinet complete with plinth (not integrated)

Bracket kit for mounting mounting plates on uprights adjustable in depth



Characteristics

4 pieces Kit supplied. 1 kit is required for each mounting plate to be installed.

Can be used on any type of enclosure as long as it is equipped with uprights dedicated to this installation (the uprights used to support the panel accessories can not be used).

Materials

Made of electrolytically galvanized steel.

Description	Model	Code
Brackets Kit for uprights support plate (4Pcs)	G/SP/MT	095770921

Modular equipments support rack



Characteristics

Prepared for installation on support and extractable uprights to facilitate the wiring and components positioning operations.

Complete with DIN 46277/3 profiles for the installation of modular components with a 70mm and 92.5 max height. To be chosen according to the enclosures series (Graf5 - Graf7 - Graf9) and the useful height of the single compartment on which to make the equipment in combination with the frame/framework selected with the same criterion.

In case of multiple compartments, it is naturally possible to equip only 1 compartment or some of the compartments available.

The rack can be equipped with a mounting plate through special brackets that make two components integral. In this way, the need to install non-modular (open) equipment, it is possible to make the rack + mounting plate and to make it removable, as to be able to carry out the wiring out of the closet with maximum comfort.

Materials

Made of electrolytically galvanized steel.

Enclosures series	Useful height	Model	Code	No. installable pieces*	Combination with frame/framework	
					Model	Code
Graf5	343	G5/1/CST	095775805	1	G5/1/TPM	095775706
	433	G5/2-5/CST	095775813	1	G5/2/TPM	095775714
	523	G5/3-7/CST	095775821	1	G5/3/TPM	095775722
	658	G5/4-8/CST	095775839	1	G5/4/TPM	095775730
	883	G5/2-5/CST	095775813	2	G5/5/TPM	095775748
	1130	G5/3-7/CST	095775821	2	G5/7/TPM	095775755
	1340	G5/4-8/CST	095775839	2	G5/8/TPM	095775763
Graf7	433	G7/2-5/CST	095777801	1	G7/2/TPM	095777702
	658	G7/4-8/CST	095777819	1	G7/4/TPM	095777710
	883	G7/2-5/CST	095777801	2	G7/5/TPM	095777728
	1130	G7/7/CST	095777827	1	G7/7/TPM	095777736
	1340	G7/4-8/CST	095777819	2	G7/8/TPM	095777744
Graf9	433	G9/2-5/CST	095779807	1	G9/2/TPM	095779708
	658	G9/4-8/CST	095779815	1	G9/4/TPM	095779716
	883	G9/2-5/CST	095779807	2	G9/5/TPM	095779724
	1130	G9/7/CST	095779823	1	G9/7/TPM	095779732
	1340	G9/4-8/CST	095779815	2	G9/8/TPM	095779740

*The useful height 883 and 1340 mm compartments have two identical racks as indicated in the table.

If the number of modules allows it, it is possible to use a single rack even if the compartment can accommodate 2.

Brackets and mounting plate kit for modular equipments support racks



Characteristics

Kit made up of 4 brackets and 1 plate to be combined with the racks when these are to be fitted out with accessories. For the selection of the KIT, refer to the series and depth of the enclosure and the type of rack used to support the modular equipment. In Grafi5 (usable height 883-1130-1340 mm), Grafi7 (usable height 883-1340 mm) and Grafi9 (usable height 883-1340 mm) enclosures, being as 2 racks per compartment are envisaged, it is necessary to also have 2 brackets and plates kits.

Materials

Brackets made from electrolytically galvanized steel. Pre-galvanized steel partition (PA), thickness 2 mm.

Enclosures series	Modular equipment support rack		Enclosure depth mm	Bracket/plate kit		Rack/plate distance, mm
	Model	Code		Model	Code	
Grafi5	G5/1/CST	095775805	330	G5/1/PACST	095775854	85
	G5/2-5/CST	095775813	330	G5/2-5/PACST	095775862	85
			460	GH5/2-5/PACST	095775904	215
	G5/3-7/CST	095775821	330	G5/3-7/PACST	095775870	85
			460	GH5/3-7/PACST	095775912	215
	G5/4-8/CST	095775839	330	G5/4-8/PACST	095775888	85
			460	GH5/4-8/PACST	095775920	215
	Grafi7	G7/2-5/CST	095777801	330	G7/2-5/PACST	095777865
460				GH7/2-5/PACST	095777868	215
G7/4-8/CST		095777819	330	G7/4-8/PACST	095777850	85
			460	GH7/4-8/PACST	095777884	215
G7/7/CST		095777827	330	G7/7/PACST	095777843	85
			460	GH7/7/PACST	095777876	215
Grafi9	G9/2-5/CST	095779807	330	G9/2-5/PACST	095779831	85
			460	GH9/2-5/PACST	095779906	215
	G9/4-8/CST	095779815	330	G9/4-8/PACST	095779856	85
			460	GH9/4-8/PACST	095779922	215
	G9/7/CST	095779823	330	G9/7/PACST	095779849	85
			460	GH9/7/PACST	095779914	215

Frame/framework for supporting modular equipments panels



1 compartment enclosure

Characteristics

Made in 4 pieces (2 side uprights and 2 top/bottom crosspieces) designed to be fastened to the relative support uprights. Designed to accommodate blank or slotted panels to protect modular equipments (G./PC-G./PM). To be selected based on the enclosure series (Graf5 - Graf7 - Graf9) and the usable height of the individual compartment being equipped. In the case of multiple compartments, it is of course possible to equip only one compartment or just some of the compartments available.

Materials

Made from self-extinguishing thermoplastic material, grey RAL 7035 color.



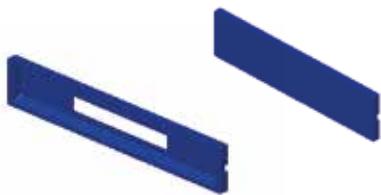
2 compartments enclosure



3 compartments enclosure

Enclosures series	Useful height compartment	Frame/framework for supporting modular equipment panels			
		Model	Code	Max No. installable panel	No. max DIN module (17,5 mm)
Graf5	343	G5/1/TPM	095775706	1	24
	433	G5/2/TPM	095775714	2	48
	523	G5/3/TPM	095775722	3	72
	658	G5/4/TPM	095775730	3	72
	883	G5/5/TPM	095775748	4	96
	1130	G5/7/TPM	095775755	6	144
	1340	G5/8/TPM	095775763	6	144
Graf7	433	G7/2/TPM	095777702	2	58
	658	G7/4/TPM	095777710	3	81
	883	G7/5/TPM	095777728	4	116
	1130	G7/7/TPM	095777736	6	174
	1340	G7/8/TPM	095777744	6	174
Graf9	433	G9/2/TPM	095779708	2	80
	658	G9/4/TPM	095779716	3	120
	883	G9/5/TPM	095779724	4	160
	1130	G9/7/TPM	095779732	6	240
	1340	G9/8/TPM	095779740	6	240

Closed or slotted panels



Characteristics

Prepared for fixing on relative frame/framework.
To be chosen according to the enclosures series (Grafi5 - Grafi7 - Grafi9) and to maximum installable on Frame/Framework.

Materials

Made in self-extinguishing thermoplastic material, grey RAL 7035 color.

Enclosures series	Description	Panels		
		Model	Code	No. max DIN module
Grafi5	Closed	G5/PC	095775607	-
	Slotted	G5/PM24	095775623	24
Grafi7	Closed	G7/PC	095777603	-
	slotted	G7/PM/29	095777629	29
Grafi9	Closed	G9/PC	095779609	-
	Slotted	G9/PM/40	095779625	40

Standard order kit for making panels with modular equipment accessories

Characteristics: For quick composition of the accessories which can be used to make panels equipped with modular accessories, it is possible, by knowing the reference code for the top unit or enclosure, to identify the standard KITS for ordering the relative Uprights/Brackets and Frame/Panels/Rack.

Kits are available for the Grafi5 - Grafi7 and Grafi9 series and are made up of:

Uprights/Brackets kit: with 2 uprights and 4 brackets. The uprights come ready with holes for installing accessories.



Frame/Panels/Rack kit: with

- 1 modular equipment support rack which can be removed from the enclosure to facilitate execution of the panel, complete with profiles DIN 46277/3.
- 1 panels support frame
- slotted panels (the panels supplied are all slotted, any requests for blank panels must be integrated separately).

The Frame/Panels/Rack kit must be selected for each individual compartment



For Code specific informations and standard ordering Kit abbreviations for panels with modular accessories, see the catalog in the Accessories section of the following series:

- Grafi5** Top unit pag. 12; 1compartment-1compartment with integrated plinth pag. 20; 2compartments-2compartments with integrated plinth pag. 26; 3compartments-3compartments with integrated plinth pag. 32; 4compartments-4compartments with integrated plinth-5compartments pag. 38.
- Grafi7** Top unit pag. 60; 1compartment-1compartment with integrated plinth pag. 70; 2compartments-2compartments with integrated plinth pag. 80; 3compartments-3compartments with integrated plinth pag. 88.
- Grafi9** Top unit pag. 106; 1compartment-1compartment with integrated plinth pag. 116; 2compartments-2compartments with integrated plinth pag. 126; 3compartments-3compartments with integrated plinth-4compartments pag. 134.

Accessories for creating RACK 19" equipments

Uprights kit and brackets kit for 19" Rack



Characteristics

Set up with holes for fastening of frame/framework and shelves for 19" RACK.

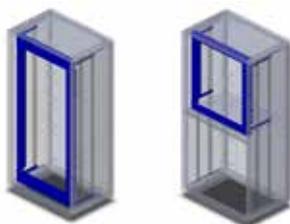
To be used together with uprights support brackets. The selection of the kit must be made based on the overall height of the enclosure, regardless of the number and layout of the various compartments. Order 2 uprights kits and 1 brackets kit. In multiple compartment enclosures, the same uprights and brackets kit can be used to fit out one or more compartments with 19" racks, so as to create, in the remaining compartments, panels with modular equipment or based on customized installations defined by the customer.

Materials

Steel uprights and brackets.

Enclosures series	Overall height mm	Uprights (2 pieces)		No. upright kit request	Uprights support brackets (4 pieces)			
		Model	Code		Depth 330 mm		Depth 460 mm	
					Model	Code	Model	Code
Grafi 7	490	G-2/MT	095770020	2	G/SM	095770905	GH/SM	095770913
	715	G-4/MT	095770046					
	940	G-5/MT	095770053					
	1180	G-7/MT	095770079					
	1390	G-8/MT	095770087					
	1840	G-9/MT	095770095					

Frame/framework for 19" Rack



Characteristics

In 4 pieces and prepared for fixing on uprights kit. To be chosen according to the useful height of the single compartment. In the case of multiple compartments, the individual compartment can also be equipped.

Materials

Made with metal sheet, grey RAL7035 color

Enclosures series	Useful height compartment, mm	No. max unit HE	Equipment maximum weight (Kg)	Frame/framework	
				Model	Code
Grafi 7	433	6	20	G7/2/TR19	095777645
	658	12	35	G7/4/TR19	095777652
	883	16	48	G7/5/TR19	095777660
	1130	20	60	G7/7/TR19	095777678
	1340	24	80	G7/8/TR19	095777686

Modular equipment panels for Rack 19"



Characteristics

Complete with DIN 46 277/3 profile and a pair of slotted fixing brackets for 24 modules of 17,5mm. Overall height 4 units HE

Materials

Made with metal sheet, grey RAL7035 color

Enclosures series	Dimension buttonhole	External dimension	No. unit HE	Model	Code
Grafi 7	423x46	490x177	4	ACV/PM/RACK	095759247

Closing blind panels for Rack 19"

Materials

Made in steel sheet, grey RAL 7032 color.

Enclosures series	External dimensions	Size	Model	Code
Grafì 7	490x44	n. 1 HE unit	ACV/PC1/RACK	095759114
	490x88	n. 2 HE unit	ACV/PC2/RACK	095759122
	490x177	n. 4 HE unit	ACV/PC4/RACK	095759148
	490x355	n. 8 HE unit	ACV/PC8/RACK	095759139

Shelves for deep equipment support for Rack 19"

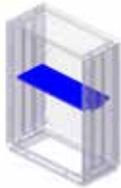

Characteristics

To be used with the RACK19" to frontally set and to support heavy and deep equipment.

Materials: Galvanized steel

Enclosures series	Shelves (2 pieces)	
	Model	Code
Grafì 7	G/M/TR19	095770806

Pre-galvanized sheet metal equipments holding shelves


Characteristics

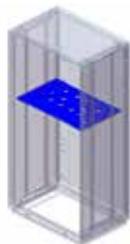
To be installed using 2 upright kits G-../MT (selected based on the overall height) and 1 brackets kit G/SM or GH/SM.

These are complete with 2 brackets for application of shelves. To be selected based on enclosure depth.

Material: in pre-galvanized sheet metal

Enclosures series	Enclosure depth mm	Overall shelves dimension, mm			Shelves	
		Height	Width	Depth	Model	Code
Grafì5	330	225	485	17	G5/RP	095775631
	460	355	485	17	GH5/RP	095775649
Grafì7	330	225	590	17	G7/RP	095777561
	460	355	590	17	GH7/RP	095777579
Grafì9	330	225	815	17	G9/RP	095779633
	460	355	815	17	GH9/RP	095779641

Fiberglass equipments holding shelves


Characteristics

To be installed using 2 G-../MT uprights (selected based on the overall height), 1 GH/SM brackets kit and 1 GH/SRP/A-L brackets kit.

To be chosen in width to the depth of the enclosure.

Material: In fiberglass

Enclosures series	Enclosure depth mm	Overall shelves dimension, mm			Max capacity, kg	Shelf		Combination with bracket (2 PCS)	
		Height	Width	Depth		Model	Code	Model	Code
Grafì7	460	360	575	12	20	RPA/CVL	095751202	GH/SRP/A-L	095777397
Garfi9	460	360	675	12	20	RPL/CVL	095751251	GH/SRP/A-L	095777397

Hinge uprights kit



Enclosure with 2 compartments with reversed door opening

Enclosure with 4 compartments with diversified door opening

Characteristics

Enclosures in the Grafi series are designed with the option to reverse the side on which the doors open. In the case of enclosures with one or multiple compartments, it is possible to reverse the side of door opening using the standard hinge uprights kit on the enclosure.

On the other hand, to diversify opening of the individual compartments, it is necessary to install an additional upright kit to support hinges, selected based on the overall height of the enclosure.

The kit includes hinge upright + fixing screws.

Materials

Made from electrolytically galvanised steel.

Enclosure series	Hinge uprights kit		Overall height, mm
	Model	Code	
Grafi5-Grafi7-Grafi9-Grafi12	G-5/KM-CRN	095774055	940
	G-6/KM-CRN	095774063	1120
	G-8/KM-CRN	095774089	1390
	G-9/KM-CRN	095774097	1840

Floor fixing frame



Characteristics

AISI 304 stainless steel fasteners to guarantee accessibility over time.

Complete with brackets for masonry on concrete bases.

The selection must be made based on the enclosure series (Grafi5 - Grafi7 - Grafi9 - Grafi12) and relative depth (330 - 460mm).

Materials

Made in steel with 18/24 micron black cataphoresis treatment.

Enclosures series	Depth, mm	Anchor frame	
		Model	Code
Grafi5	330	G5/TA	095775300
	460	GH5/TA	095775359
Grafi7	330	G7/TA	095777306
	460	GH7/TA	095777355
Grafi9	330	G9/TA	095779302
	460	GH9/TA	095779351
Grafi12	330	G12/TA	095771309
	460	GH12/TA	095771358

Pole anchor frame



Characteristics

Grafi top units 5-7-9 (height 400-490-580-715-940 mm) can be post mounted using the fixing frame made up of 4 brackets, 2 profiles and 2 collars. Minimum post diameter for application: 100 mm. Fixing to post using adjustable metal clamps or band-it tape with size up to 3/4".

Materials

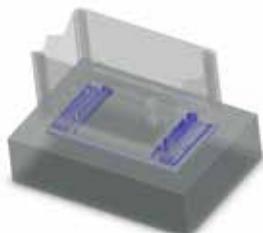
Steel profiles and brackets with 18-24 micron black cataphoresis treatment.

AISI 304 stainless steel fasteners.

Post adapter collars made from die cast aluminium alloy UNI EN 1706 AC46100DF.

Enclosures series	Model	Code
Grafi5	G5/TAP	095770970
Grafi7	G7/TAP	095770988
Grafi9	G9/TAP	095770996

Interface brackets for fixing Grafi enclosures on CV series frame


Characteristics

The Grafi enclosures can be installed on the frame that is already in the plinth of the CV series enclosures using 2 interface brackets to be positioned on the frame.
The brackets has different configuration in relation to the different types of CV series enclosure.

Materials

Made of 10/15 micron hot pre-galvanized sheet metal.

CV series enclosure	Min dimension Plinth		Enclosure	Enclosure depth, mm	Interface brackets	
	Width	Height			Model	Code
CVT	590	350	Grafi5	330	G-SIFT/5	095776506
CVL	860	460	Grafi9	460	G-SIFT/H9	095776514
CVBL	860	350	Grafi9	330	G-SIFT/7-9	095776530
CVBP	720	350	Grafi7	330		
CVHT	590	460	Grafi5	460	G-SIFT/H5-H7	095776522
CVHP	720	460	Grafi7	460		
CVF	1130	460	Grafi12	460	G-SIFT/H12	095776548

Ventilation units


Characteristics

Air diffusion area: 6500 mm²
Protection degree IP44 according to CEI EN 60529, IK10 according to CEI EN 62262.

Materials

External grille made of polycarbonate, intermediate and internal grid in injection molded polypropylene. Grey RAL7035 color. An anti-insects aluminum mesh was applied to the intermediate grid.

Hole, mm	Dimensions	Loose version		Applied version	
		Model	Code	Model	Code
146	160x160	G-BAF/145	095770855	G-EA/BAF/145	097770200

Axial fan for ventilation units


Characteristics

Axial fan for forced aeration pre-engineered to ventilation units type G-BAF/145.
220/240 V AC power supply voltage
Frequency 50Hz
Current 0.09A
Power 19 W
Air flow rate 28 l/s; 100 m³/h

Dimensions (mm)	Model	Code
120x120x25	G-VENTIL/BAF/145	095770863

Drawings/documents slipcase



Characteristics

For drawings and documents. Fixing by adhesive.

Material:

Plastic. RAL 7035 color

Enclosures series	Drawing/document slipcase	
	Model	Code
Grafi5 - Grafi7 - Grafi9 - Grafi12	G-PSK/A4-A	095777389

Complete lock with handle cover



G-SSMG/Y21

Characteristics

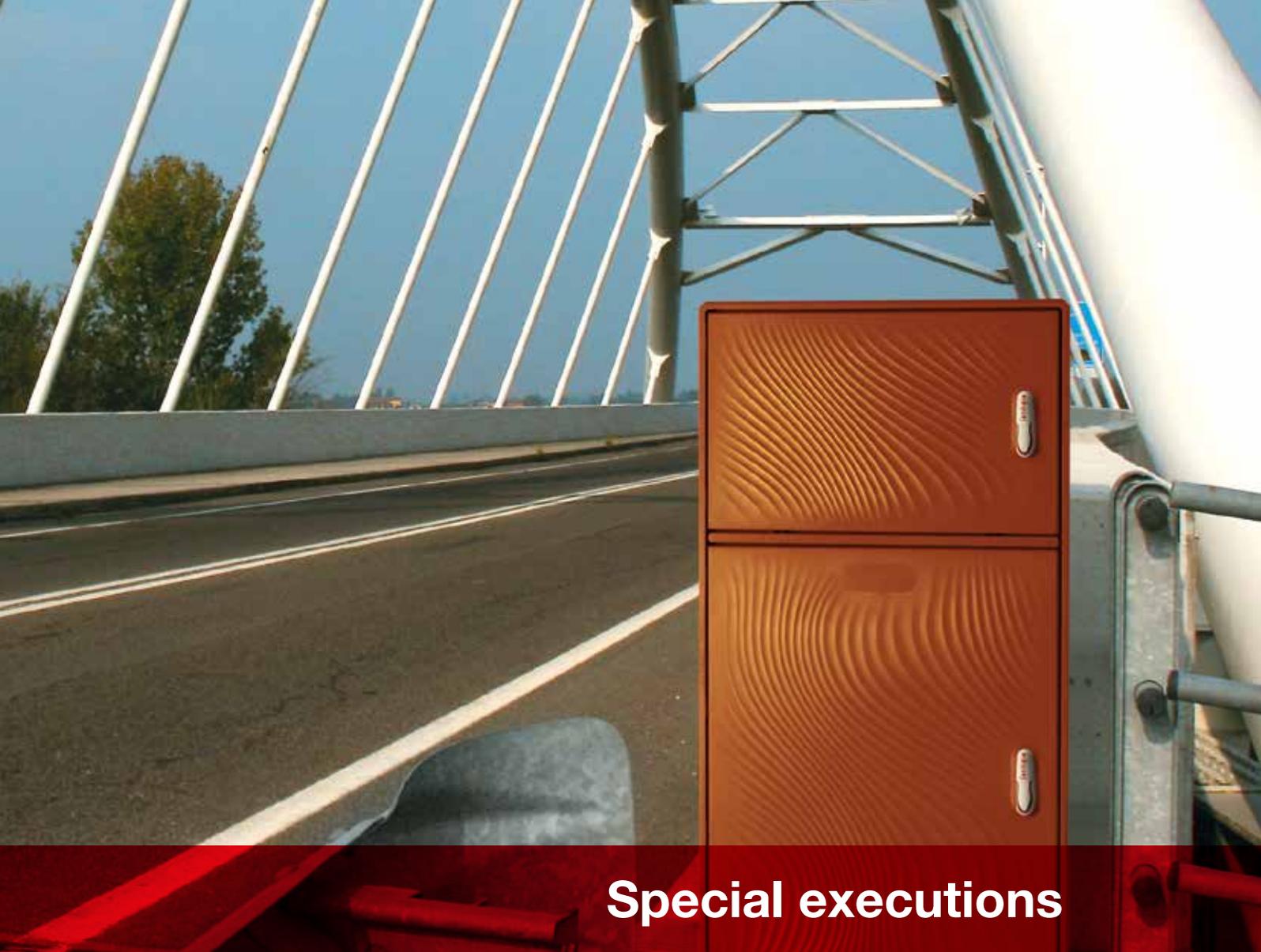
Handle predisposed for DIN 18252 profile cylinder. Each lock is equipped with its own standard key.

Materials

Thermoplastic resin handle. Operating tenon in galvanized steel.

Description / Application	Key	Enclosure	Model	Code
Controlled by retractable handle with Y21 encrypted security key	CS/21	Grafi5 - Grafi7 - Grafi9 - Grafi12	G-SSMG/Y21	095770210
Controlled by retractable handle with Y12 encrypted security key	CS/12		G-SSMG/Y12	095770129





Special executions

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Two-sided access to the compartments



Characteristics

Thanks to their optimized structure, the bottom wall and door of the GRAFI enclosures are the same component since they only differ because of the lock and hinge on the door. This allows Grafi5 - Grafi7 and Grafi9 enclosure sizes to be equipped with hinged doors complete with locks on both the front and rear sides.

This version can be obtained with enclosure with:

- 1 compartment/1 compartment with plinth
 - 2 compartments/2 compartments with plinth
- with the doors on the front of the standard version also applied to the back.

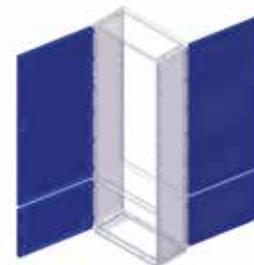
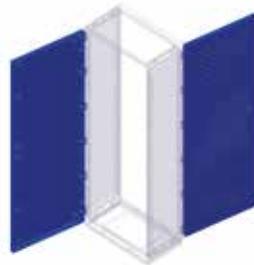
Description	Enclosure series	Model	Code
Double-sided with 1 compartment/ 1 compartment + plinth	Grafi5-Grafi7-Grafi9- Grafi12	G-EA/A2/1	097770069
Double-sided with 2 compartments/ 2 compartments + plinth	Grafi5-Grafi7-Grafi9- Grafi12	G-EA/A2/2	097770077

How to order

To order the executions described above, it will be sufficient to combine the selected enclosure with the corresponding execution code. Example:

1. Double-sided enclosure with 1 compartment: **G5-8/8/T+G-EA A2/1**

2. Double-sided enclosure with 2 compartments: **G7-9/82/T-4+G-EA/A2/2**



Executions with combinations of different openings, in particular on enclosures with multiple compartments, can be evaluated on request.

Compositions with deep development



Characteristics

This version can only be obtained on enclosures with 1 compartment, 1 compartment + plinth and includes 2 compartments of the same height but even different depth measurements, which are joined together to form the required overall depth.

The assembled enclosures are fully communicating. They can be accessed from the two fronts or just one front and can be equipped with a bottom wall for equipment fixing.

The version can be achieved with Grafi 5 - Grafi 7 and Grafi 9 enclosures.

There are 2 combinations available:

- With front hinged door and blank bottom wall onto which a mounting plate can be fixed if required.
- With two doors, one on the front and one on the back. In this case, the equipment inside the enclosures can be installed on accessories for modular apparatus or on uprights and brackets complete with shelves (accessories to be ordered separately).

Enclosure series	Description	Model	Code
Grafi5-Grafi7-Grafi9- Grafi12	front hinged door and blank bottom wall	G-EA/DP/A1	097770085
Grafi5-Grafi7-Grafi9- Grafi12	two doors, one on the front and one on the back	G-EA/DP/A2	097770093

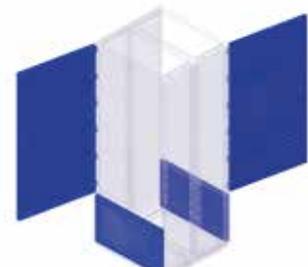
How to order

To order the executions described above, add the relative execution code to the 2 enclosures to be matched.

Example:

1. 790mm depth enclosure with 1 door and blank bottom wall: **G5-8/8/T+GH5-8/8/T+G-EA/DP/A1**

2. 660mm overall depth enclosure with 2 opposing doors: **G7-9/28/ZT-4+G7-9/28/ZT-4+G-EA/DP/A2**



Any further requests for compositions with in-depth development can be evaluated on request.

Compositions with horizontal development



Characteristics

In installations requiring separate compartments for different equipment where limited space or difficult access prevent the enclosures from being stacked, the Grafi enclosures can be arranged side by side so long as they are of the same height and depth. On request, slots or holes can be made in the two sides that stand against each other, so as to route cables from one compartment to the next. Side by side compositions are only available on request and must be assessed, as they depend on the composition required.



Description	Model	Code
Arrangement for side by side enclosure - left	G-EA/AA/SX	097770150
Arrangement for side by side enclosure - right	G-EA/AA/DX	097770168

Type of buttonholes or holes on the two coinciding walls

Description	Model	Code
Execution of maximum opening between side-by-side enclosures	G-EA/AM/AA	097770176
Drilling (135 mm diameter) between side-by-side enclosures	G-EA/FT/AA	097770184

How to order

To order the performances described above, it will be sufficient to integrate the relative preparation and execution codes into the composition of horizontal enclosures.

Example:

Horizontal composition of 1 G7-8/44/T and 1 G7-8/222/T with maximum opening between side-by-side enclosures:

G7-8/44/T+G7-8/222/T+G-EA/AA/SX+G-EA/AA/DX+G-EA/AM/AA

Special paints

Characteristics

Particular attention has been paid to the visual appearance of the Grafi series. Even in their standard versions, the linear shape of the external profiles and the pattering on the doors and bottom walls of the enclosures blend perfectly with the surrounding urban design criterias. This line of products can be very easily treated with paints if the design features need to be underscored to a greater extent.

The enclosures can be supplied in the following colors on request: **BLACK**, **COPPER** and **RUST**.

Requests of specific paint colors can be assessed and estimates given for large quantities only.



Black



Copper



Rust

Painting description	Model	Code
Black	G-EA/VRN/NE	097776025
Copper	G-EA/VRN/RA	097776017
Rust	G-EA/VRN/RU	097776009

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