

# Galaxy 5500

20–120 kVA 400 V

## Technical Specifications

05/2016



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As standards, specifications, and designs change from time to time, please ask for confirmation of the information given in this publication.

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# Important Safety Instructions — SAVE THESE INSTRUCTIONS

Read these instructions carefully and look at the equipment to become familiar with it before trying to install, operate, service or maintain it. The following safety messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety message indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages with this symbol to avoid possible injury or death.

## **DANGER**

**DANGER** indicates a hazardous situation which, if not avoided, **will result in death or serious injury**.

**Failure to follow these instructions will result in death or serious injury.**

## **WARNING**

**WARNING** indicates a hazardous situation which, if not avoided, **could result in death or serious injury**.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

## **CAUTION**

**CAUTION** indicates a hazardous situation which, if not avoided, **could result in minor or moderate injury**.

**Failure to follow these instructions can result in injury or equipment damage.**

## **NOTICE**

**NOTICE** is used to address practices not related to physical injury. The safety alert symbol shall not be used with this type of safety message.

**Failure to follow these instructions can result in equipment damage.**

## Please Note

Electrical equipment should only be installed, operated, serviced, and maintained by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

## Safety Precautions

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH**

- The product must be installed according to the specifications and requirements as defined by Schneider Electric. It concerns in particular the external and internal protections (upstream circuit breakers, battery circuit breakers, cabling, etc.) and environmental requirements. No responsibility is assumed by Schneider Electric if these requirements are not respected.
- After the UPS system has been electrically wired, do not start up the system. Start-up must only be performed by Schneider Electric.

**Failure to follow these instructions will result in death or serious injury.**

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH**

The UPS System must be installed according to local and national regulations. Install the UPS according to:

- IEC 60364 (including 60364–4–41- protection against electric shock, 60364–4–42 - protection against thermal effect, and 60364–4–43 - protection against overcurrent), **or**
- NEC NFPA 70

depending on which one of the standards apply in your local area.

**Failure to follow these instructions will result in death or serious injury.**

### **⚠ DANGER**

#### **HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH**

- Install the UPS system in a temperature controlled area free of conductive contaminants and humidity.
- Install the UPS system on a non-inflammable, level and solid surface (e.g. concrete) that can support the weight of the system.

**Failure to follow these instructions will result in death or serious injury.**

## **⚠ DANGER**

### **HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH**

The UPS is not designed for and must therefore not be installed in the following unusual operating environments:

- Damaging fumes
- Explosive mixtures of dust or gases, corrosive gases, or conductive or radiant heat from other sources
- Moisture, abrasive dust, steam or in an excessively damp environment
- Fungus, insects, vermin
- Salt-laden air or contaminated cooling refrigerant
- Pollution degree higher than 2 according to IEC 60664-1
- Exposure to abnormal vibrations, shocks, and tilting
- Exposure to direct sunlight, heat sources, or strong electromagnetic fields

**Failure to follow these instructions will result in death or serious injury.**

## **NOTICE**

### **RISK OF OVERHEATING**

Respect the space requirements around the UPS system and do not cover the product's ventilation openings when the UPS system is in operation.

**Failure to follow these instructions can result in equipment damage.**

## **NOTICE**

### **RISK OF EQUIPMENT DAMAGE**

Do not connect the UPS output to regenerative load systems including photovoltaic systems and speed drives.

**Failure to follow these instructions can result in equipment damage.**

# Technical Data

## Model List

### Single UPS

- Galaxy 5500 20 kVA 400 V
- Galaxy 5500 30 kVA 400 V
- Galaxy 5500 40 kVA 400 V
- Galaxy 5500 60 kVA 400 V
- Galaxy 5500 80 kVA 400 V
- Galaxy 5500 100 kVA 400 V
- Galaxy 5500 120 kVA 400 V

### Integrated Parallel UPSs

- Galaxy 5500 20 kVA 400 V
- Galaxy 5500 30 kVA 400 V
- Galaxy 5500 40 kVA 400 V
- Galaxy 5500 60 kVA 400 V
- Galaxy 5500 80 kVA 400 V
- Galaxy 5500 100 kVA 400 V
- Galaxy 5500 120 kVA 400 V

For India a rodent mesh is added to the UPS.



## Input Power Factor

Measurements: Vin = 400 V and Vout = 400V

	25% load		50% load		75% load		100% load	
	Linear load	Non-linear load	Linear load	Non-linear load	Linear load	Non-linear load	Linear load	Non-linear load
60 kVA	0.94	0.93	0.999	0.999	0.999	0.999	0.999	0.999
120 kVA	0.87	0.88	0.992	0.993	0.998	0.999	0.998	0.998

## Efficiency

### Efficiency for a Single System in Double-Conversion Mode

Measurements: Vin = 400 V and Vout = 400V; Load used → RL

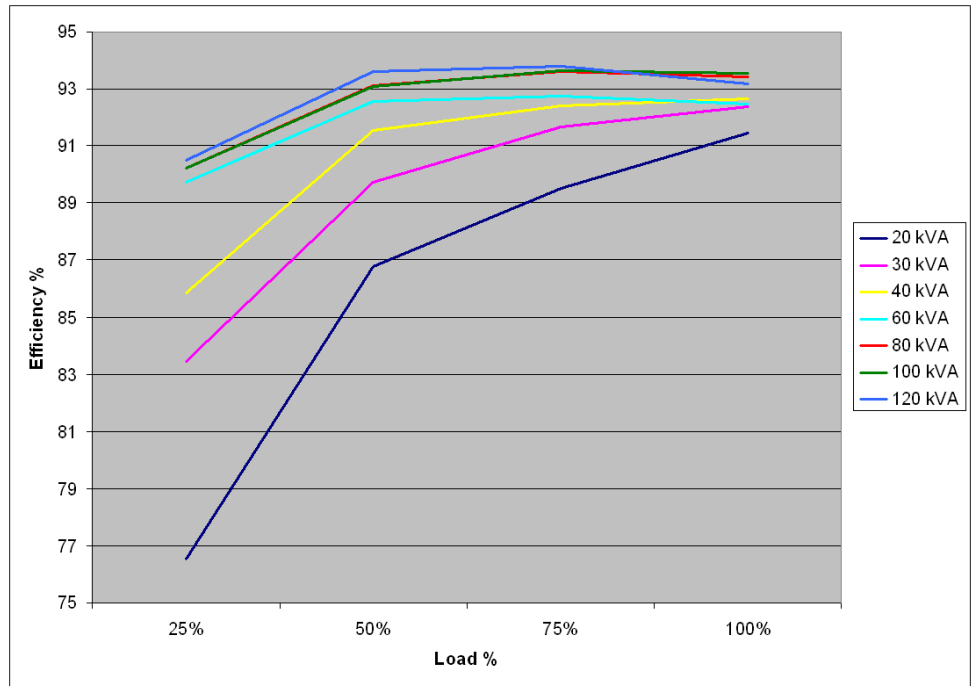
The table below shows the average system efficiencies with a balanced linear load and power factor = 0.8

System	25% load	50% load	75% load	100% load
20 kVA	77.74	86.51	89.66	91.22
30 kVA	83.45	89.73	91.84	92.08
40 kVA	85.86	91.46	92.48	92.59
60 kVA	89.8	92.64	92.7	92.53
80 kVA	90.22	92.14	93.33	93.41
100 kVA	90.25	93.33	93.76	93.56
120 kVA	91.24	93.41	93.79	93.07

### Efficiency in ECO Mode

System	25% load	50% load	75% load	100% load
20 kVA	92.89	96.45	97.45	97.65
30 kVA	95.09	97.17	97.99	98.32
40 kVA	96.21	97.81	98.42	98.54
60 kVA	97.15	98.18	98.61	98.75
80 kVA	97.19	98.21	98.52	98.64
100 kVA	97.54	98.48	98.67	98.81
120 kVA	97.88	98.58	98.77	98.33

### Efficiency Curves



### Derating Due to Load Power Factor

20 kVA	Derating in kVA as a function of the load cos phi	kVA (in kW) 400 V
inductive	0,6	20 (11.99)
	0,7	20 (14.09)
	0,8	20 (16.07)
	0,9	20 (18.08)
resistive	1	20 (20)

30 kVA	Derating in kVA as a function of the load cos phi	kVA (in kW) 400 V
inductive	0,6	30 (17.94)
	0,7	30 (20.90)
	0,8	30 (23.98)
	0,9	30 (26.99)
resistive	1	30 (30.00)

40 kVA	Derating in kVA as a function of the load cos phi	kVA (in kW) 400 V
inductive	0,6	40 (24.21)
	0,7	40 (28.07)
	0,8	40 (31.99)
	0,9	40 (36.10)
resistive	1	36.10 (36.10)

60 kVA	Derating in kVA as a function of the load cos phi	kVA (in kW) 400 V
inductive	0,6	60 (36.08)
	0,7	60 (42.07)
	0,8	60 (48.02)
	0,9	60 (54.04)
resistive	1	54.04 (54.04)

80 kVA	Derating in kVA as a function of the load cos phi	kVA (in kW) 400 V
inductive	0,6	80 (48.36)
	0,7	80 (56.00)
	0,8	80 (64.07)
	0,9	80 (72.00)
resistive	1	72 (72.00)

100 kVA	Derating in kVA as a function of the load cos phi	kVA (in kW) 400 V
inductive	0,6	100 (59.96)
	0,7	100 (69.46)
	0,8	100 (79.80)
	0,9	100 (89.62)
resistive	1	100 (100.00)

120 kVA	Derating in kVA as a function of the load cos phi	kVA (in kW) 400 V
inductive	0,6	120 (72.06)
	0,7	120 (84.07)
	0,8	120 (96.60)
	0,9	120 (108.26)
resistive	1	108.26 (108.26)

## Batteries

### Battery Runtimes

**NOTE:** The below battery runtimes are based on high quality batteries from approved manufacturers.

**NOTE:** The battery runtimes are based on high-rate batteries designed for UPS systems.

**NOTE:** The battery runtimes are intended as a guide only, and Schneider Electric assumes no responsibility for the accuracy of these runtimes.

Measured with RL cosφ = 0.8

#### 20 kVA

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
5	Yuasa	SWL750	23.4	1	30	Built-in	732

**20 kVA**

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
	Exide	P12V600	24	1	30	Built-in	738
10	Yuasa	SWL750	23.4	1	30	Built-in	732
	Exide	P12V600	24	1	30	Built-in	738
15	Yuasa	SWL750	23.4	1	30	Built-in	732
	Exide	P12V600	24	1	30	Built-in	738
30	Yuasa	SWL1100	40.2	1	30	Built-in	888
	Exide	P12V875	41	1	30	Built-in	888

**30 kVA**

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
5	Yuasa	SWL750	23.4	1	30	Built-in	732
	Exide	P12V600	24	1	30	Built-in	738
10	Yuasa	SWL1100	40.2	1	30	Built-in	888
	Exide	P12V875	41	1	30	Built-in	888
15	Yuasa	SWL1100	40.2	1	30	Built-in	888
	Exide	P12V875	41	1	30	Built-in	888
30	Yuasa	SWL1800	55	1	30	Narrow	870
	Exide	XP12V1800	56.4	1	34	Narrow	945

**40 kVA**

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
5	Yuasa	SWL750	23.4	1	30	Built-in	732
	Exide	P12V600	24	1	30	Built-in	738
10	Yuasa	SWL1100	40.2	1	30	Built-in	888
	Exide	P12V875	41	1	30	Built-in	888
15	Yuasa	SWL1100	40.2	1	36	Built-in	888
	Exide	P12V875	41	1	36	Built-in	888
30	Yuasa	SWL1800	55	1	34	Narrow	965
	Exide	XP12V1800	56.4	1	36	Narrow	990

**60 kVA**

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
5	Yuasa	SWL1100	40.2	1	36	Built-in	975
	Exide	P12V875	41	1	36	Built-in	975
10	Yuasa	SWL1800	55	1	30	Narrow	870
	Exide	XP12V1800	56.4	1	34	Narrow	945
15	Yuasa	SWL1800	55	1	34	Narrow	965
	Exide	XP12V1800	56.4	1	36	Narrow	990
30	Yuasa	SWL2500	90	1	36	Wide	1395
	Exide	XP12V3000	92.8	1	36	Wide	1415

**80 kVA**

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
5	Yuasa	SWL1800	55	1	30	Narrow	870
	Exide	XP12V1800	56.4	1	34	Narrow	945
10	Yuasa	SWL1800	55	1	34	Narrow	965
	Exide	XP12V1800	56.4	1	36	Narrow	990
15	Yuasa	SWL2500	90	1	30	Wide	1200
	Exide	XP12V3000	92.8	1	30	Wide	1205
30	Yuasa	SWL1800	55	2	32	2 x narrow	2 x 915
	Exide	XP12V1800	56.4	2	36	2 x narrow	2 x 990

**100 kVA**

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
5	Yuasa	SWL1800	55	1	30	Narrow	870
	Exide	XP12V1800	56.4	1	34	Narrow	945
10	Yuasa	SWL2500	90	1	30	Wide	1200
	Exide	XP12V3000	92.8	1	30	Wide	1205
30	Yuasa	SWL2500	90	2	30	1 narrow 1 wide	970 + 1400
	Exide	XP12V3000	92.8	2	30	1 narrow 1 wide	970 + 1400

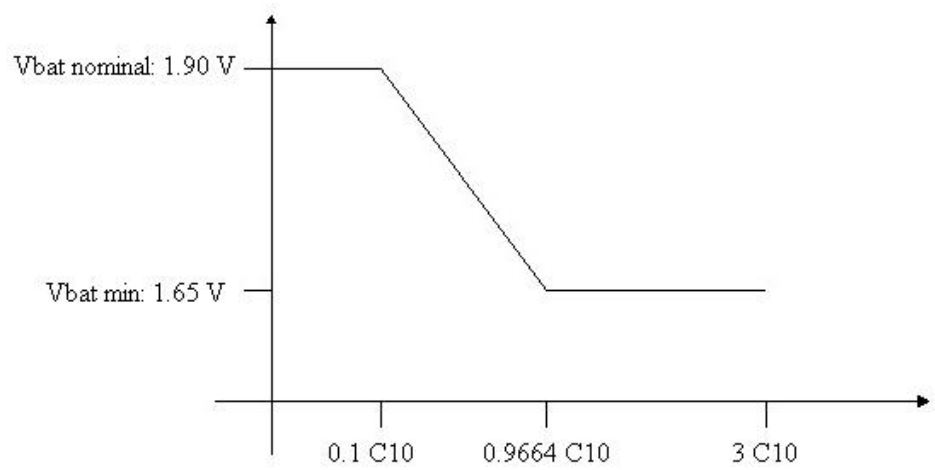
**120 kVA**

Run-time	Manufacturer	Type of monobloc	Capacity 10 Ah	Proposed number of strings	Proposed number of blocks	Type of cabinet	Weight (kg)
5	Yuasa	SWL2500	90	1	30	Wide	1200
	Exide	XP12V3000	92.8	1	30	Wide	1205
10	Yuasa	SWL2500	90	1	36	Wide	1395
	Exide	XP12V3000	92.8	1	36	Wide	1415
15	Yuasa	SWL1800	55	2	32	2 x narrow	2 x 915
	Exide	XP12V1800	56.4	2	36	2 x narrow	2 x 990
30	Yuasa	SWL3300	105	2	32	2 x wide	2 x 1435
	Exide	XP12V3000	92.8	2	36	2 x wide	2 x 1400

**Battery Discharge Current**

	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
I <sub>bat</sub> at rated V <sub>bat</sub> , 100% load (A)	55	84	112	170	226	282	347
I <sub>bat</sub> at V <sub>bat</sub> min, 100% load (A)	68	101	134	201	268	338	402

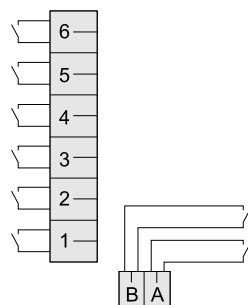
## End of Discharge Voltage



## Communication and Management

### Relay Communication Card

#### Output Contacts



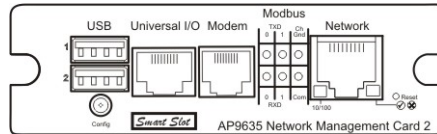
Pin	Description
1	General alarm
2	Battery is not working correctly
3	Load on UPS
4	Load on automatic bypass
5	Load on battery power
6	Low battery warning

## Input Contacts

Pin	Description
A	UPS OFF
B	UPS ON

## Network Management Card

This UPS is equipped with one Smart Slot which enables the use of one network management card. By default, the UPS is shipped with the AP9635 network management card.



This network management card provides the following features:

### Browser accessibility

- View the user interface with a browser

### Notifications

- Be notified of problems to ensure that crucial situations are dealt with in a timely manner

### Data logging

- Identify problematic trends before they escalate or export the data log for analysis

### Event logging

- Pinpoint the timing and sequence of events leading up to an incident with the event log

### PowerChute Network Shutdown compatible

- Reliable network-based shutdown of multiple servers on single or parallel UPS installation

### InfraStruXure Central compatible

- An IT-ready, scalable monitoring system that collects, organizes, and distributes critical alerts, surveillance video and key information, providing a unified view of complex physical infrastructure environments from anywhere on the network
- Modbus RTU over RS485
- Remote monitoring via Modem with Teleservice system
- One universal input/output port, to which you can connect:
  - Temperature (AP9335T) or temperature/humidity sensors (AP9335TH)
  - Relay input/output connectors that support two input contacts and one output relay (using AP9810 Dry Contact I/O Accessory)

## EPO Options

An optional emergency power off (EPO) or remote emergency power off (REPO) can be connected to the UPS system.

The EPO button causes UPS shutdown and opening of the battery circuit breaker. When the opening of the bypass static switch is disabled through customization settings, then the installer must make sure that the source disconnection will be managed at upstream level. The REPO option is applicable to installations where pressing the button also causes the upstream utility/mains source and bypass source circuit breakers to open. In parallel systems, there must be a single EPO button with a separate contact for each UPS unit.



## Compliance

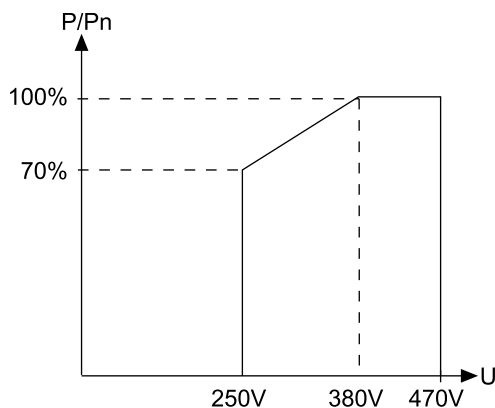
Regulatory approvals	EN/IEC 62040–3 EN/IEC 62040–1 EN/IEC 62040–2
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# Facility Planning

## Input

UPS rating	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
Input voltage (V)	380 - 400 - 415						
Input voltage range permitted by the standard according to the curve below (V)	250 to 470 for a standard UPS 342 to 470 for a UPS with backfeed protection						
Input frequency (Hz)	45 to 65						
Rated current <sup>1</sup> Normal AC input (A)	32	45	57	87	115	143	171
Maximum input current (A) for 400 V	33	46	58	88	116	145	173
Input current (A) for 400V, overload=1.25 In limited to 10 min.	39	56	72	108	145	181	217
Input current (A) for 400V, overload=1.5 In limited to 1 min.	47	68	87	130	174	217	260
THDI	< 6% at full load < 8% at 25–75% load						
Maximum short circuit withstand (kA)	20				30		
Input fuse ratings (A)	80	80	80	125	160	315	315

## Power Supplied as a Function of Input Voltage



## Bypass

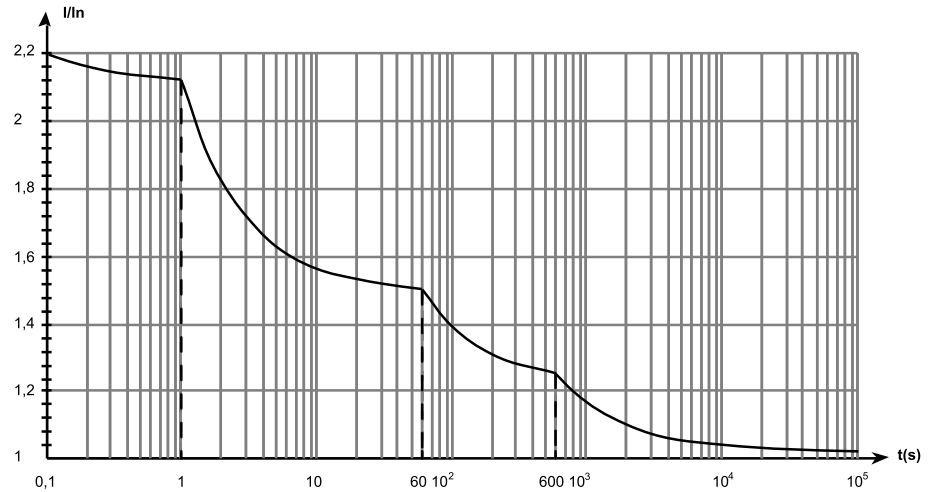
UPS rating	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
Connection type	3PH+N						
Input voltage (V)	380 to 443						
Input frequency (Hz)	46 to 54						

1. Rated currents with battery float charging. normal AC input voltage = U, AC bypass input = U, load = 400 V / P  
load = PN / load cos phi = 0.9

## Output

UPS rating	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
Overload capacity	125% for 10 minutes 150% for 1 minute 220% for 0.1 second						
Voltage tolerance (V)	380, 400, 415 ± 3%						
Rated output current	29	44	58	87	116	145	174
Output current limitation (A)	190			240	360	480	
Output frequency	50 Hz or 60 Hz						
THDU	≤ 1% phase to phase, ≤ 1.5% phase to neutral for linear loads ≤ 2.5% phase to phase, ≤ 3.5% phase to neutral for non-linear loads						
Output fuse rating	80	80	80	125	160	315	315
Crest factor	6.55	4.41	3.27	2.75	3.12	3.33	2.77

## Permissible UPS Overloads as a Function of Time



## Batteries

Battery type: Sealed lead-acid or vented lead acid.

### DC Power Levels for Battery Sizing with Output Power Factor = 0.9

UPS rating		20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
DC power in KW	Load 25 %	6.3	8.6	10.9	15.6	20.6	25.2	29.8
	Load 50 %	10.9	15.6	20.3	29.7	34.9	48.5	58.1
	Load 75 %	15.6	22.6	29.7	44.2	58.9	72.5	87.1
	Load 100 %	20.3	29.7	39.4	58.6	78.4	97	116.8

### DC Power Levels for Battery Sizing with Output Power Factor = 0.8

UPS rating		20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
DC power in KW	Load 25 %	5.8	7.8	9.9	14.1	18.5	22.6	26.8
	Load 50 %	9.9	14.1	18.2	26.6	33.1	43.4	51.7
	Load 75 %	14.1	20.3	26.6	39.4	52.4	64.5	77.3

UPS rating		20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
	Load 100 %	18.2	26.6	35.0	52.2	69.6	86.0	103.5

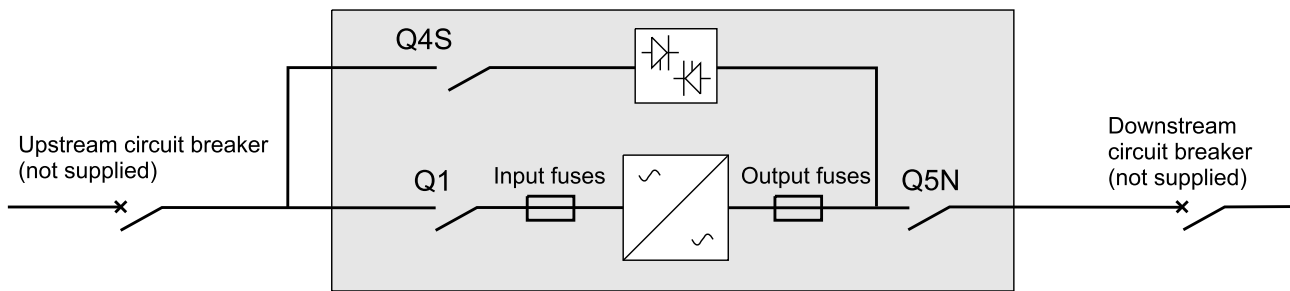
### Maximum Current at End of Discharge

UPS rating	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
Battery (A)	68	101	134	201	268	338	402
Load (A)	29	44	58	87	116	145	174

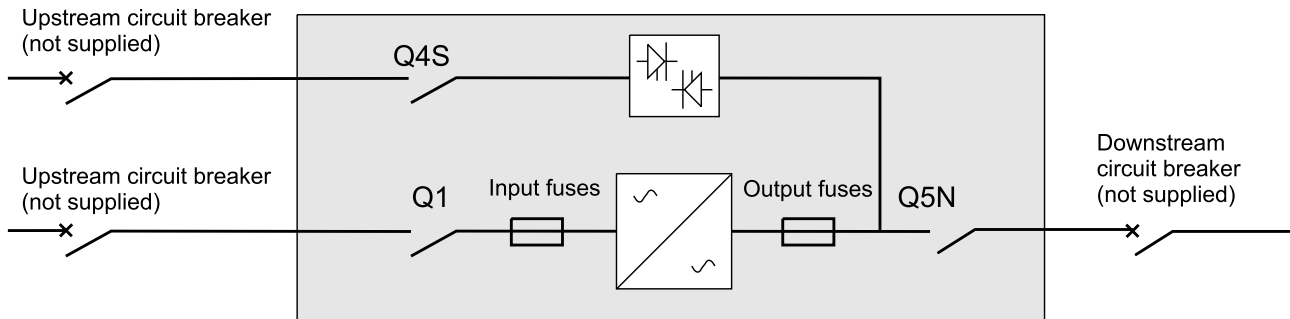
## Recommended Circuit Breakers and Cable Sizes

### Selection of Circuit Breakers

#### UPS in Single Utility/Mains System



#### UPS in Dual Utility/Mains System



### Recommended Upstream Circuit Breaker

UPS Rating	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
Dual utility/ mains system – Input	C60L - 50A	C60L - 63A	NSX 100F 3P- TM80D	NSX 160F 3P- TM125D	NSX 160F 3P- TM160D	NSX 250F 3P- TM200D	NSX 250F 3P- TM250D
Dual utility/ mains system – Bypass	NSX 100F 4P- TM100D	NSX 100F 4P- TM100D	NSX 100F 4P- TM100D	NSX 160F 4P- TM125D	NSX 160F 4P- TM160D	NSX 250F 4P- TM250D	NSX 250F 4P- TM250D
Single utility/ mains system	NSX 100F 4P- TM100D	NSX 100F 4P- TM100D	NSX 100F 4P- TM100D	NSX 160F 4P- TM125D	NSX 160F 4P- TM160D	NSX 250F 4P- TM250D	NSX 250F 4P- TM250D

**⚠ WARNING**

**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

Place a label with the following text on each upstream circuit breaker: **“Isolate the Uninterruptible Power Supply (UPS) before working on this circuit”**.

**Failure to follow these instructions can result in death, serious injury, or equipment damage.**

**NOTICE**

**RISK OF EXPLOSION, ARC FLASH OR VOLTAGE OUTAGE**

For Installation design, consider:

- the above recommended upstream circuit breaker for discrimination with the UPS internal fuses.
- I<sub>cw</sub> = 20 kA for 20 to 60 kVA UPS when using the recommended upstream circuit breaker.
- I<sub>cw</sub> = 30 kA for 80 to 120 kVA UPS when using the recommended upstream circuit breaker.

**Failure to follow these instructions can result in equipment damage.**

### Recommended Downstream Circuit Breaker

UPS rating	20-30-40 kVA			60 kVA		80 kVA		100-120 kVA	
Downstream circuit breaker	C60N						C120N	NSX100	
Trip unit	C 16A	B 25A	C 20A	B 32A	C 25A	B 50A	C 32A	B 63A	TMG 63A

N type curve for the downstream circuit breaker can be replaced by H or L type curve, depending on the installation. The indicated protection ensures discrimination for each output circuit downstream of the UPS, whether supplied via the input or the bypass source.

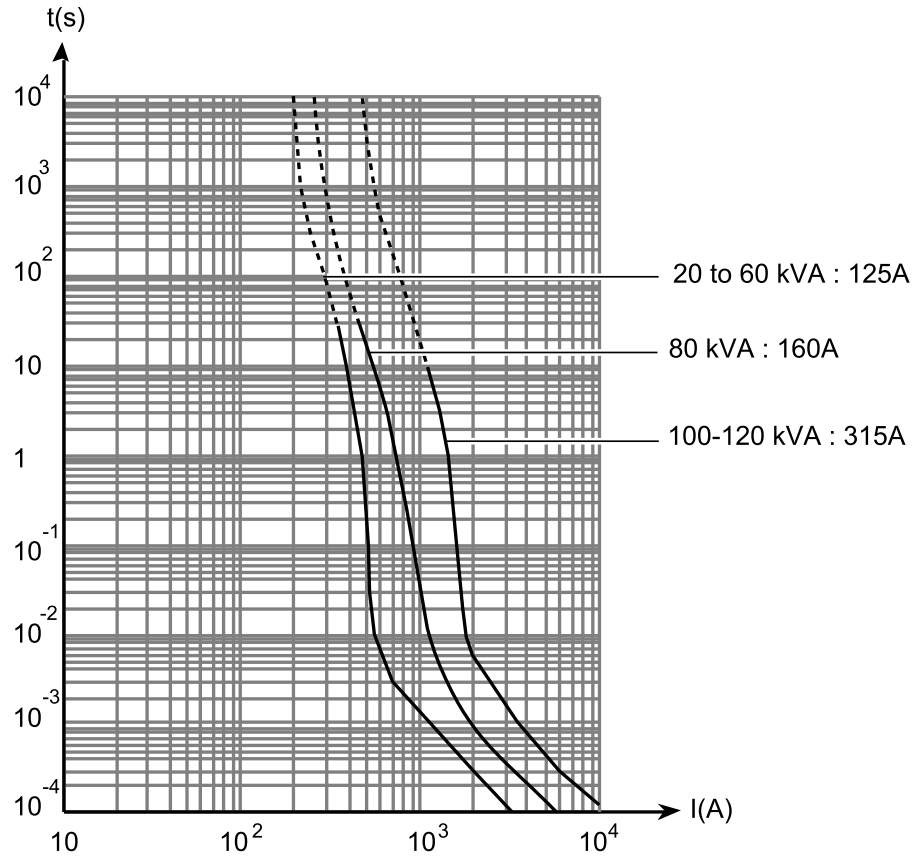
**NOTE:** If these downstream protection recommendations are not followed, it can result in a break in power longer than 20 ms in all the output circuits if a short circuit occurs on an output circuit.

### Earth-Leakage Current

UPS earth-leakage current is 1A.

## Fuses

Time/Current Curves for UPS Input and Output Fuses



## Recommended Cable Sizes

**NOTE:** Cables length must be less than 100 meters.

UPS rating	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
Dual utility/ mains system – Input (mm <sup>2</sup> )	10	16	16	25	50	50	70
Dual utility/ mains system – Bypass (mm <sup>2</sup> )	16	16	16	25	50	70	70
Single utility/ mains system – Input & bypass (mm <sup>2</sup> )	16	16	16	25	50	70	70
Output (mm <sup>2</sup> )	16	16	16	25	50	70	70
Battery (<15 m) (mm <sup>2</sup> )	16	25	35	70	95	2 x 50	2 x 70

### **⚠ DANGER**

**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

Use power cables of equal resistance, equal length, and equal size for the same function.

**Failure to follow these instructions will result in death or serious injury.**

**NOTE:** Cable sizes are determined for copper conductors (for aluminium conductors, increase the size by 30%). Size calculations also take into account a voltage of 400 V and grouping of four cables.

Terminal hole diameter: 6.5 mm (8.5 mm for 120 kVA).

PE cables (Protective Earth) cables connect to the earthing terminal. Hole diameter: 6.5 mm (8.5 mm for 120 kVA).

## Physical

### Weights and Dimensions

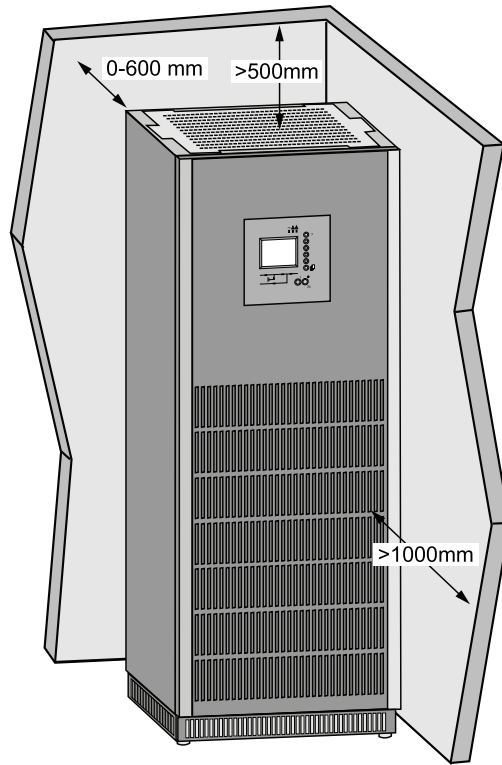
Cabinet	Min weight kg <sup>2</sup>	Max weight kg <sup>3</sup>	Max weight kg <sup>4</sup>	Height mm	Width mm	Depth mm
UPS 20–60 kVA	400			1900	712	848
UPS 80–120 kVA	520			1900	712	848
UPS 20–60 kVA with internal battery <sup>5</sup>	550	1045		1900	1112	848
Battery cabinet (narrow)	180	951		1900	712	848
Battery cabinet (wide)	220	1350		1900	1012	848
Isolation transformer cabinet (40 kVA)	105		305	1900	487	848
Isolation transformer cabinet (60–120 kVA)	115		525	1900	512	848
Auxiliary cabinet (narrow)	135		1100	1900	712	848
Auxiliary cabinet (wide)	150			1900	1012	848

**NOTE:** The final weight of the cabinet with batteries depend on chosen runtime, number of battery blocks and battery brand and type. The weights given here are only approximate weights measured with an Schneider Electric battery solution and must only be used as an indication of an approximate final weight.

2. Without batteries or transformer.
3. With batteries.
4. With transformer.
5. Minimum weight: empty UPS cabinet (without batteries). Maximum weight: battery runtime up to 30 minutes.

## Clearance

**NOTE:** Clearance dimensions are published for airflow and service access only. Consult with the local safety codes and standards for additional requirements in your local area.





## Environment

		Operating	Storage
Temperature	without overload	0 to 40 °C	-25 to 45 °C
	with overload	0 to 30 °C	
Relative humidity		20 - 95% non-condensing	
Elevation	0-1000 m	100% load	0-12000 meters
	1500 m	85% load	
	2000 m	79% load	
	2300 m	75% load	
	3000 m	69% load	
	4000 m	59% load	
Audible noise at 100% load <sup>6</sup>	20–60 kVA	56 dBA	
	80–100 kVA	62 dBA	
	120 kVA	61 dBA	
Protection class		IP20	
Color		Charcoal gray	

## Operating Temperatures

The operating temperature range is 0 to 40 °C, however optimal operation temperature is 20 to 25 °C.

Battery runtime is affected by high and low temperatures. Battery runtime is significantly reduced at temperatures under 10 °C.

Above 25 °C, battery service life is reduced by 50% for every 10 °C temperature increase. Above 40 °C, battery manufacturers no longer guarantee operation.

## Heat Dissipation

UPS rating	20 kVA	30 kVA	40 kVA	60 kVA	80 kVA	100 kVA	120 kVA
Losses (kW)	1.61	2.03	2.68	4.26	4.86	6.90	8.41
Heat dissipation (BTU/hr)	5493	6928	9146	14539	16587	23549	28362
Recommended air throughput (m <sup>3</sup> /h)	1332				2556		

Losses calculated with maximum current → V=380 and RL load; cosφ: 0.9 at 100% load.

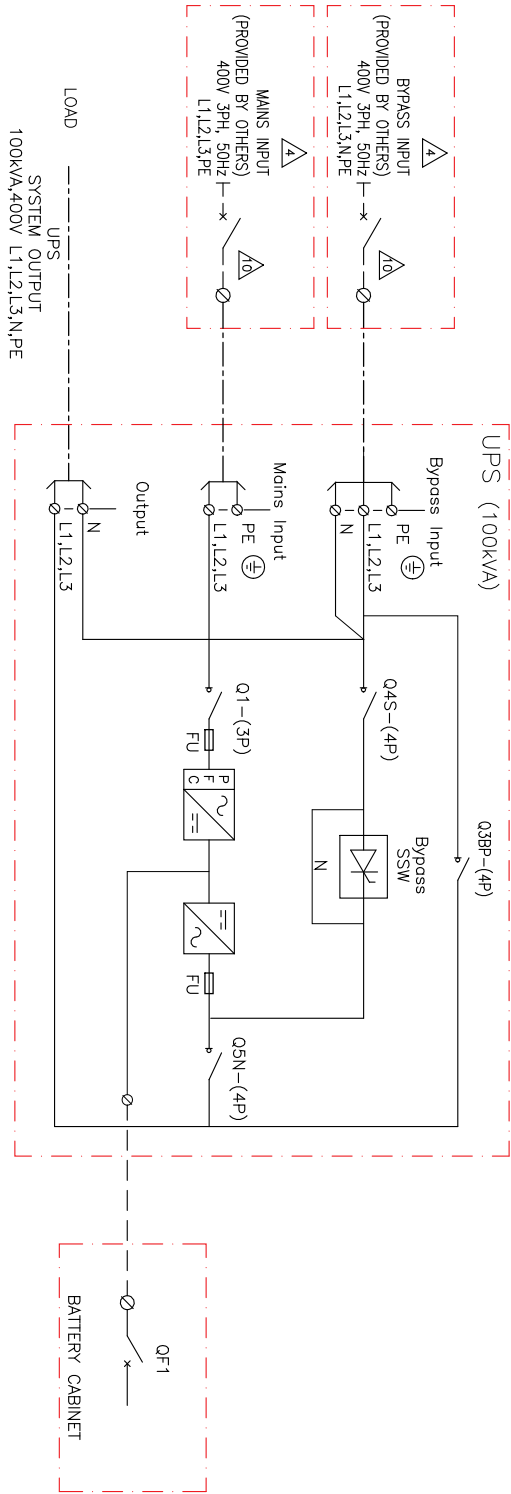
6. 1 meter from surface of unit

# Drawings

**NOTE:** A comprehensive set of drawings is available on the engineering website at [engineer.apc.com](http://engineer.apc.com).

**NOTE:** These drawings are for reference ONLY — subject to change without notice.

# Galaxy 5500 Single UPS



- NOTES:**
1. INSTALLATION MUST COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
  2. PLEASE REFER TO PRODUCT MANUALS FOR DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK.
  3. DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT. PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
  - Δ 4. 3x400/230V TN-S (PROVIDED BY OTHERS) FOR OTHER (TN-C, TN-C-S, TT, IT) EARTHING PRINCIPLES. PLEASE CONTACT Schneider Electric. RECOMMENDED UPSTREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT WITHOUT SELECTIVITY. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT Schneider Electric.
  5. ALL AC POWER CABLING IS L1, L2, L3, N, PE.
  6. DUAL MAINS CONFIGURATION IS A DEFAULT.
  7. DC CABLING TO BE 600V RATED. 2 WIRE + PE. EACH CIRCUIT TO BE RUN IN SEPARATE CONDUITS. POSITIVE, NEGATIVE + PE.
  8. UPS INPUT AND OUTPUT CABLES SHOULD BE SEGREGATED.
  9. POWER WIRING AND CONTROL WIRING SHOULD BE SEGREGATED.
  - Δ 10. FOR SYSTEM INPUT OVER CURRENT PROTECTION REFER TO SHEET-10.

RATED SHORT CIRCUIT CURRENT - UPS	
WITH INPUT FUSES	WITH INPUT BREAKERS
30kA SYMMETRICAL	30kA SYMMETRICAL

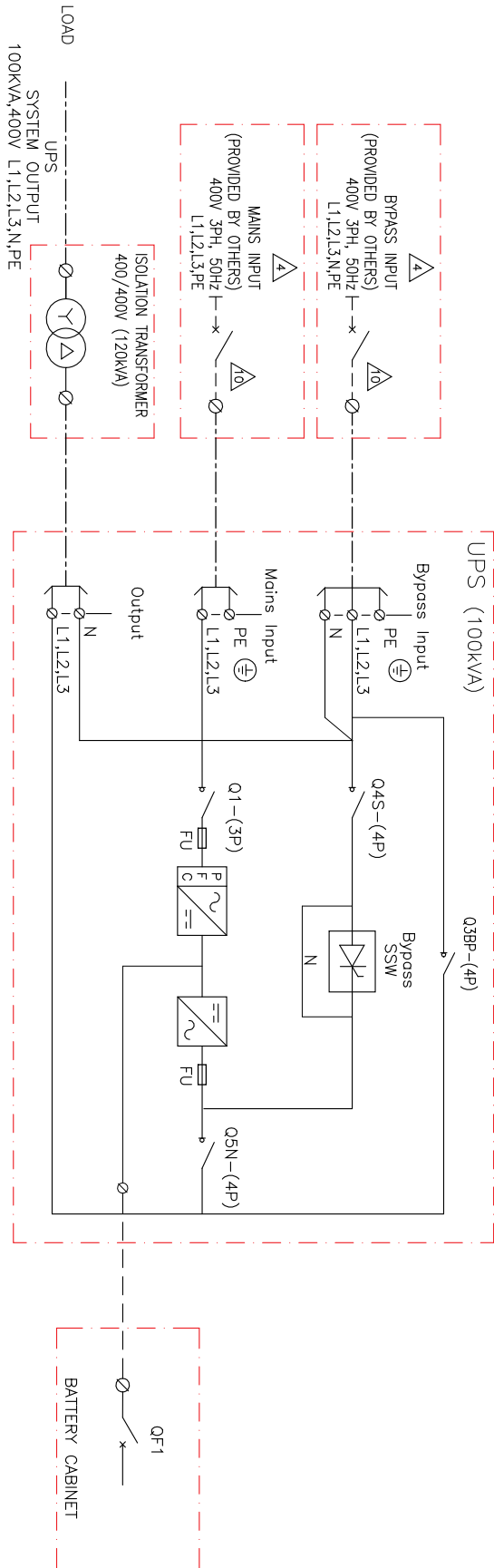
-----	AC CABLE - PROVIDED BY OTHERS.
-----	DC CABLE - PROVIDED BY OTHERS.

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<b>TITLE:</b>	AGE GALAXY 5500 MANS	<b>DWG NO:</b>	C55T100KH10MC1	<b>REV:</b>	0
<b>Input:</b>	400V AC 3PH DUAL MAINS	<b>DATE:</b>	15-JUN-12	<b>PROJECT:</b>	ANGIE
<b>Output:</b>	400V AC 3PH DUAL MAINS	<b>ENGINEER:</b>	ANJUL CHAVAN	<b>APPROVED:</b>	ANJUL CHAVAN
<b>DUAL MAINS-SYSTEM ONE LINE DIAGRAM</b>		<b>DATE:</b>	15-JUN-12	<b>PROJECT:</b>	ANGIE
<b>PROJECT DRAWINGS</b>	<b>SHEET 8 OF 11</b>	<b>APPROVED:</b>	ANJUL CHAVAN	<b>PROJECT:</b>	ANGIE

# Galaxy 5500 Single UPS with Transformer



- NOTES:**
1. INSTALLATION MUST COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL ELECTRICAL REGULATIONS.
  2. PLEASE REFER TO Schneider Electric PRODUCT MANUALS FOR DETAILS PRIOR TO INSTALLATION AND SITE PREPARATION WORK
  3. DRAWING DEPICTS POWER SYSTEM CONNECTIONS AND IS NOT REPRESENTATIVE OF PHYSICAL LAYOUT. PLEASE REFER TO MECHANICAL DRAWINGS FOR PHYSICAL LAYOUT.
  - Δ 4. 3x400/230V TN-S (PROVIDED BY OTHERS). FOR OTHER (TN-C, TN-C-S, TT, IT) EARTHING PRINCIPLES, PLEASE CONTACT Schneider Electric.
  - RECOMMENDED UPS/STREAM PROTECTION IS A MINIMUM RATING TO SUPPORT MAXIMUM CURRENT, WITHOUT SELECTIVITY. IF SELECTIVITY IS REQUIRED, PLEASE CONTACT Schneider Electric.
  5. ALL AC POWER CABLING IS L1, L2, L3, N, PE.
  6. DUAL MAINS CONFIGURATION IS A DEFAULT.
  7. DC CABLING TO BE 600V RATED, 2 WIRE + PE. EACH CIRCUIT TO BE RUN IN SEPARATE CONDUITS, POSITIVE, NEGATIVE + PE.
  8. UPS INPUT AND OUTPUT CABLES SHOULD BE SEGREGATED.
  9. POWER WIRING AND CONTROL WIRING SHOULD BE SEGREGATED.
  - Δ 10. FOR SYSTEM INPUT OVER CURRENT PROTECTION REFER TO SHEET-11.

RATED SHORT CIRCUIT CURRENT - UPS	
WITH INPUT FUSES	WITH INPUT BREAKERS
300A SYMMETRICAL	300A SYMMETRICAL

**LEGEND:**

- AC CABLE - PROVIDED BY OTHERS.
- - - DC CABLE - PROVIDED BY OTHERS.

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<b>TITLE:</b>	AGE GALAXY 5500	<b>DWG NO.:</b>	C55T100KHOT10MC1	<b>REV:</b>	0
<b>PROJECT:</b>	DRAWINGS	<b>DRAWN:</b>	MAJESH S	<b>DATE:</b>	15-JUN-12
<b>SHEET:</b>	9 OF 12	<b>ENGINEER:</b>	ANJAL CHATUR	<b>DATE:</b>	15-JUN-12
<b>APPROVED:</b>	RAJAL CHATUR/ANJAL CHATUR	<b>PROJECT:</b>	AGE GALAXY 5500	<b>PROJECTION:</b>	N/A

# Options

## Hardware Options

### Battery Cabinets

Battery cabinet L700A	(G55TBATL7A)
Battery cabinet L700B	(G55TBATL7B)
Battery cabinet L1000A	(G55TBATL10A)
Battery cabinet L1000B	(G55TBATL10B)
Battery cabinet L2 x 700C	(G55TBAT2L7C)
Battery cabinet L2 x 700D	(G55TBAT2L7D)
Battery cabinet L700L1000E	(G55TBATL7L10E)
Battery cabinet L2X1000C	(G55TBAT2L10C)

### Empty Cabinets

Narrow battery cabinet	(G55TAB1)
Wide battery cabinet	(G55TAB2)
Narrow auxiliary cabinet	(G55TAA1)
Wide auxiliary cabinet	(G55TAA2)

### Isolation Transformers

20 to 40 kVA isolation transformer in a stand-alone cabinet	(G55TTC40RH)
60 kVA isolation transformer in a stand-alone cabinet	(G55TTC60RH)
80 to 120 kVA isolation transformer in a stand-alone cabinet	(G55TTC120RH)

### External Bypass

150 kVA 400 V external bypass (TNS)	(G55TH150H)
150 kVA 400 V external bypass and grounded neutral (TNC)	(G55TH150HN)
400 kVA 400 V external bypass (TNS)	(G55TH400H)
400 kVA 400 V external bypass and grounded neutral (TNC)	(G55TH400HN)

## Communication

Galaxy External Synchronisation Box  
Galaxy Temperature Monitor  
Alarm Relay Card  
Environment Sensor for Network Management Cable  
JBus/Modbus Card  
SNMP/Web Card

## Configuration Options

- Parallel system bypass cabinets
- ECO mode that reduces the consumption of electrical power while the UPS is in use
- IP32 rated UPS and auxiliary cabinets
- External bypass
- Seismic anchors
- Top cable entry cabinet
- Communication cards
- Advanced power management software
- Parallel capability for capacity or redundancy

# Limited Factory Warranty

## One-Year Factory Warranty

The limited warranty provided by Schneider Electric in this Statement of Limited Factory Warranty applies only to products you purchase for your commercial or industrial use in the ordinary course of your business.

## Terms of Warranty

Schneider Electric warrants that the product shall be free from defects in materials and workmanship for a period of one year from the date of product start-up when start-up is performed by Schneider Electric-authorized service personnel and occurs within six months of the Schneider Electric shipment date. This warranty covers repairing or replacing any defective parts including on-site labor and travel. In the event that the product fails to meet the foregoing warranty criteria, the warranty covers repairing or replacing defective parts at the sole discretion of Schneider Electric for a period of one year from the shipment date. For Schneider Electric cooling solutions, this warranty does not cover circuit breaker resetting, loss of refrigerant, consumables, or preventive maintenance items. Repair or replacement of a defective product or part thereof does not extend the original warranty period. Any parts furnished under this warranty may be new or factory-remanufactured.

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This warranty is extended to the first person, firm, association or corporation (herein referred to by “You” or “Your”) for whom the Schneider Electric product specified herein has been purchased. This warranty is not transferable or assignable without the prior written permission of Schneider Electric.

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990-5544D-001