VARIABLE SPEED DRIVE
SD500

- **Ranging from 0.75kW to 90kW, 200-230Vac and 380-480Vac**
- **Intuitive control and comprehensive setting menu**
- **High performance motor control**
- **EMC and harmonic filters integrated across the range, optional dV/dt filter**
- **Reliable and robust, electronics conformally coated and an operation temperature of up to 50°C**
- **Multiple modular accessories: Encoder, PLC, Ethernet, CAN open, DeviceNet, LonWorks, I/O**
- **3 year warranty and 24h service and replacement commitment**

Power Electronics' experience in heavy duty industries is transferred to the lower power motor segment by offering competitive and rugged designs. The SD500 VSD covers a power range from 0.75kW to 90kW and it is available in four frame sizes that make it compatible with a wide range of applications.

Smarter and more flexible than ever, with supreme software control, the SD500 saves time and achieves superior results. The unit offers high precision and powerful control, with multiple communication protocols, maximum efficiency and motor protection. The SD500 series surpassed all expectations and is compatible with all budgets and industrial applications.

ITS MULTIPLE ACCESSORIES GIVE SD500 THE MOST ADVANCED FEATURES FOR PUMP AND MOTOR CONTROL

MAXIMUM SAVINGS

EASY TO USE

MAX. MOTOR CARE

RELIABILITY

WARRANTY

FOR INDUSTRIAL DIVISION
3
YEARS

IMMEDIATE DELIVERY

EXPRESS

CONFORMAL COATING

All our modules are conformally coated according to IEC61086-1: 2004,-3-1, protecting the micro components that are vulnerable to dust, moisture, pollution (PD3) and corrosive gases (3C3).

NEW MODULAR DESIGN FOR ACCESSORIES

PLC module with additional I/O, Encoder Module, Ethernet Communication Module, CanOpen, DeviceNet and Lonworks, I/O Extension Module and Dynamic Brake Unit.

EMC/RFI FILTERS AND HARMONIC FILTERS BUILT-IN
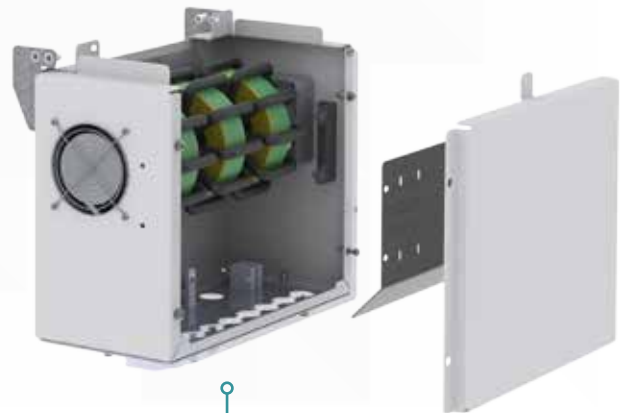
HIGH OVERLOAD CAPACITY

150% Overload capacity at 50°C or 110% at 40°C.

OPTIONAL dV/dt FILTER

The optional dV/dt filter 500-800V/µs allows installation with up to 300m of unscreened output cable.

REMOVABLE KEYBOARD

SD500 offers the possibility to install the display up to 3m away from the drive. Install the SD500 IP54 display in the front door of the cabinet and you can safely operate the unit.

BACKLIT
LCD SCREEN

MEMBRANE
KEYPAD

INDEPENDENT
MEMORY

STATUS INDICATION
LEDS

EASY SETUP AND PROGRAMMING

SD500 is featured with a graphic display illustrating 4 lines and 16 characters, and a membrane keypad that allows the user to move across an intuitive set of parameters that enhance programming during commissioning and maintenance tasks.

✳	Give access to parameters groups and subgroups.
✳ + ⊕	Pressed together increases the value or rolls up the available options.
✳ + ⊖	Pressed together decreases the value or rolls down the available options.
⊕	Allows the user to roll up in the list of parameters.
⊖	Allows the user to roll down in the list of parameters.
ESC / ↕	Pressed during 3 seconds allows the user to move from one row to another. Pressed fast allows the user to escape the menu.
START	Allows the user to start the motor in local control mode.
STOP RESET	Allows the user to stop the motor when it is running and to reset the failures.
LOCAL REMOTE	Allows the user to shift from local control mode to remote control mode.

PARAMETER READING, COPYING AND WRITING FUNCTIONS ALLOW A QUICK AND EASY PROGRAMMING OF MULTIPLE UNITS

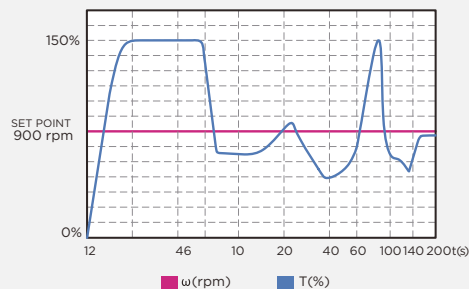LOW VOLTAGE / **POWER ELECTRONICS**

SD 500
Series

One step ahead

The SD500 is best in class by offering a precise control, operation temperature up to 50°C, 150% overload capacity and built-in filters that assure you the best performance and motor lifetime.
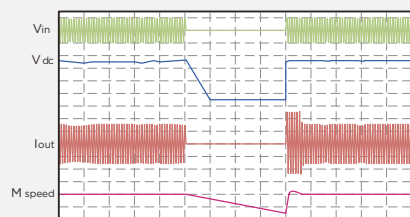
## ACCURATE, EFFICIENT AND FLEXIBLE CONTROL

POWERFUL CONTROL

GREATER PRECISSION IN TORQUE/SPEED CONTROL
The encoder module allows you to run a powerful and accurate close loop control across the whole speed range, even considering zero speed.

LOW VOLTAGE RIDETHROUGH FOR TEMPORALLY SHUTDOWNS
The SD500 will keep the motor and application under control under low voltage ride through events without stopping the system.
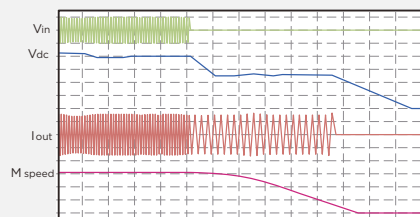
KINETIC ENERGY CONTROL
This function allows the drive to perform a controlled stop if the input power is lost.

MULTIPLE PROGRAMMABLE I/O
The drive offers as standard 2 analogue inputs, 8 digital inputs, 2 output relays and 1 digital output. Additionally, the I/O can be extended by installing the I/O module or the PLC module, and can be programmed by the PLC software. It is suitable for applications such as: pump control, irrigation scheduling, motorized valves operation...

SD500 allow the user to select the connection scheme of the digital inputs (NPN / PNP), the connection to the thermistor sensor (PTC) and the termination resistor for RS485 communications (TR).

ELECTRICAL SAFETY

MOTOR AND DRIVE PROTECTIONS
The SD500 provides a full set of motor and drive protections: Over-voltage, low voltage, motor thermal protection, overload and underload, phase loss, IGBT overtemperature, hardware failure, motor phase loss, external brake module failure, communications failure, reference signal loss, cooling fan failure and encoder error.
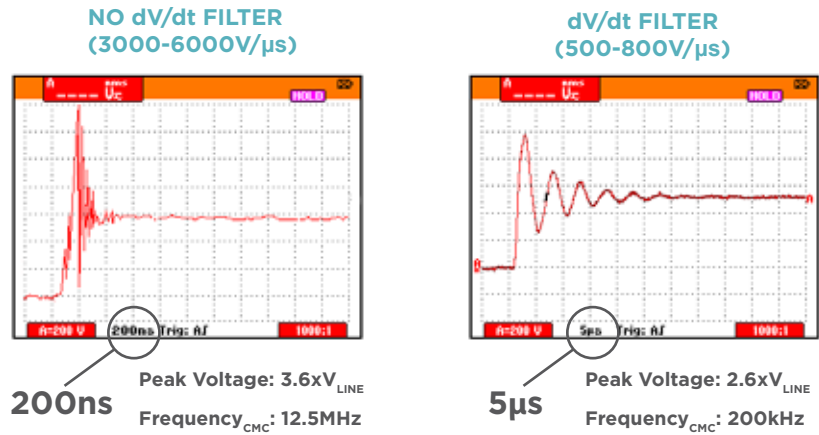
ACCURATE CONTROL, HIGH RELIABILITY AND MAXIMUM MOTOR CARE

MAX. MOTOR CARE

DV/DT FILTERS

The optional dV/dt filters reduces the voltage peaks and common mode currents (CMC) to the motor. The SD500 dV/dt filters allows the user to install the motor with unscreened cable up to 300m or screened cable up to 150m.

NO dV/dt FILTER
(3000-6000V/µs)

dV/dt FILTER
(500-800V/µs)

200ns

Peak Voltage: 3.6xV_{LINE}

Frequency$_{CMC}$: 12.5MHz

5µs

Peak Voltage: 2.6xV_{LINE}

Frequency$_{CMC}$: 200kHz

NOTE: 200m motor cable, 400 V_{AC}

HARMONICS FILTERS

DC reactor built-in into the DC bus to reduce harmonics and improve the power factor.
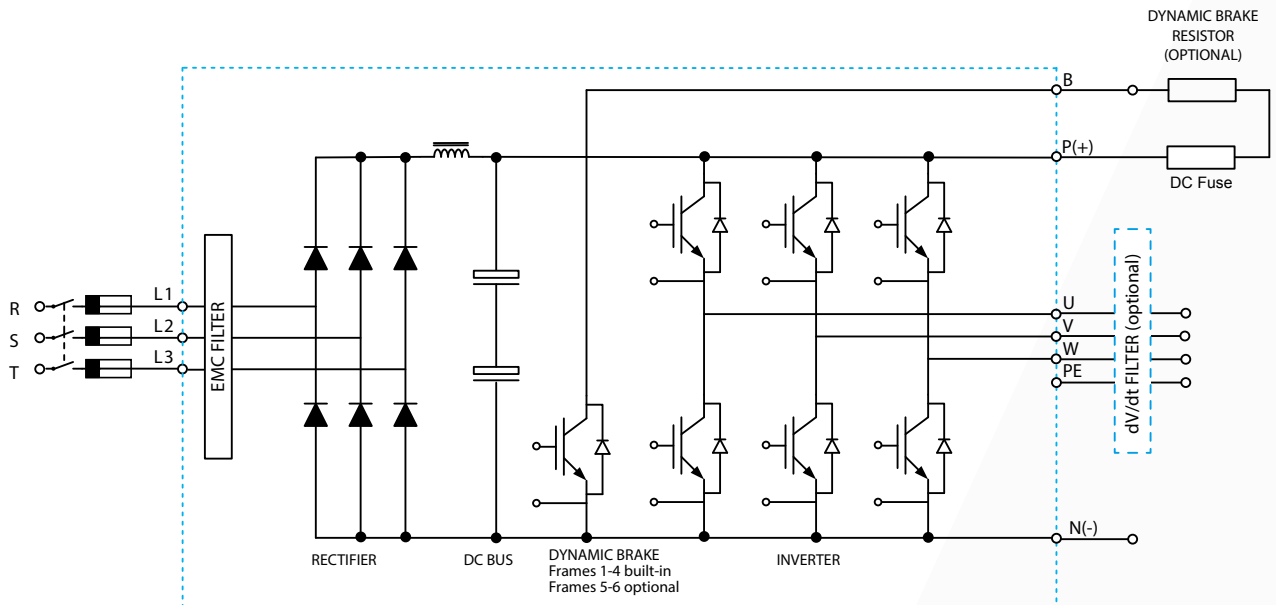
EMC/RFI FILTER

SD500 integrates built-in EMC filter Class 2 up to 22kW and Class 3 up to 90kW. For other EMC classes, optional external filters can be installed. (According to EN 61800-3).
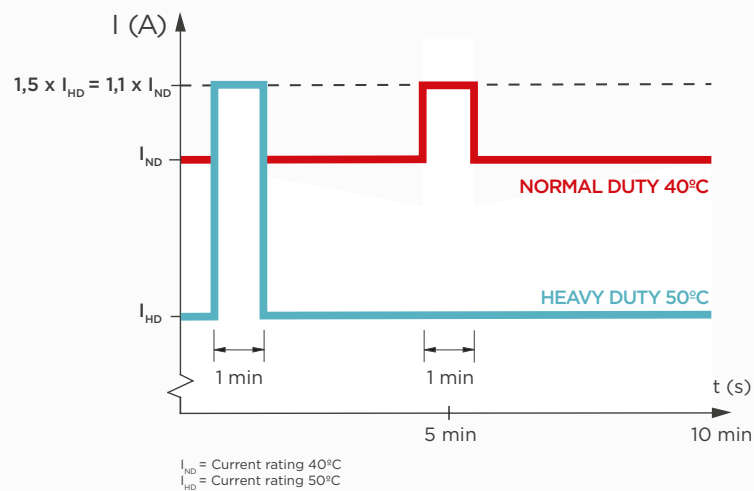
OPERATION TEMPERATURE UP TO 50°C

Power Electronics' SD500 series can operate at temperatures up to 50°C, without derating, enabling its use inside industrial cabinets or technical rooms under hot conditions.

OPERATION TEMPERATURE

+50$^{\circ}C$

HEAVY 150% OR LIGHT 110% OVERLOAD

The SD500 match your application. Available with 150% overload for conveyors or mills (heavy duty) and 110% overload for pumps and fans (light duty).

I (A)

$1,5 \times I_{HD} = 1,1 \times I_{ND}$

I_{ND}

NORMAL DUTY 40ºC

HEAVY DUTY 50ºC

I_{HD}

1 min   1 min

t (s)

5 min   10 min

I_{ND} = Current rating 40ºC
I_{HD} = Current rating 50ºC

DYNAMIC BRAKE

SD500 drives offers built-in dynamic braking circuit for frames 1 to 4 and optional external braking units for frames 5 and 6. Check our accessories list for external braking resistors or external dynamic braking modules.
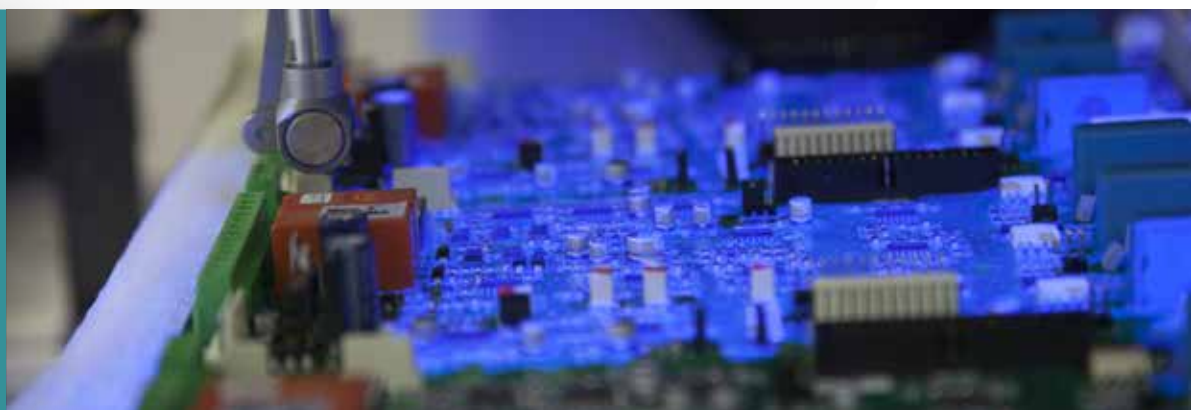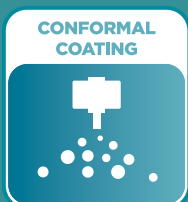
CONFORMAL COATING

CONFORMAL COATING

The PCB coating protects the micro lead components that are vulnerable to dust, moisture, pollution (PD3) and corrosive gases 3C3 build up, which can produce conductive paths resulting in short circuiting. Power Electronics designs are dedicated to harsh environments thus PCBs modules are fully coated with the latest military and aerospace technology specifications (IEC61086-1:2004,-3-1).

Energy saving

The Variable speed drive modifies the frequency delivered to the motor adjusting the motor load speed to the instantaneous process demands. This leads to high energy savings and superior process control.

ENERGY SAVING

Depending on the type of load, the energy savings provided by the drive will vary significantly. The following charts describe the most common load types, their application and the relationship between the torque or power required.

MAXIMUM SAVINGS

QUADRATIC TORQUE APPLICATIONS

The highest savings are experienced in quadratic torque applications such as fans and centrifugal pumps. In these applications the required power is proportional to the cubic of speed following the affinity laws.
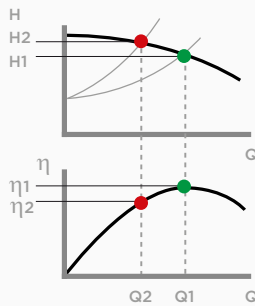
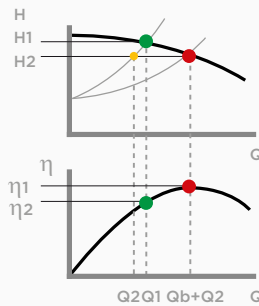$$\frac{Q_1}{Q_2}=\frac{n_1}{n_2} \qquad \frac{H_1}{H_2}=\left(\frac{n_1}{n_2}\right)^2 \qquad \frac{P_1}{P_2}=\left(\frac{n_1}{n_2}\right)^3$$

Q_1, Q_2: Fluid flow at operating points 1 and 2
H_1, H_2: Head at operating points 1 and 2
P_1, P_2: Power demand at operating points 1 and 2
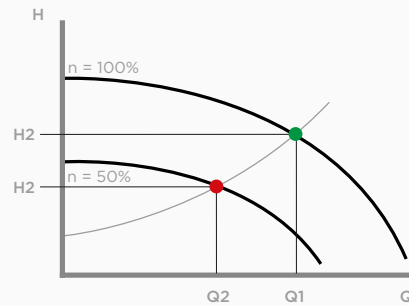*n_1, n_2: Motor speed at operating points 1 and 2*

THROTTLING CONTROL **BYPASS CONTROL** **VSD CONTROL**

As shown in the graphs, the throttling control and bypass control modify hydraulic losses to obtain a different operation point for the desired flow. Typically they reduce the power absorbed by the motor but if the pump's hydraulic efficiency is reduced at low speed, it could be insignificant. However, variable speed drives modify the performance curve of the pump, providing higher savings and better hydraulic response.

CONSTANT TORQUE APPLICATIONS

In case of constant torque applications such as compressors or conveyors, the power demand is proportional to the speed. To illustrate that, we can focus on the example of a screw compressor regulated with a slide valve control or with a variable speed drive control.

SLIDE VALVE CONTROL **VSD CONTROL**
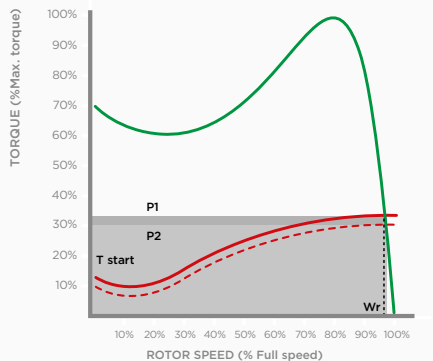
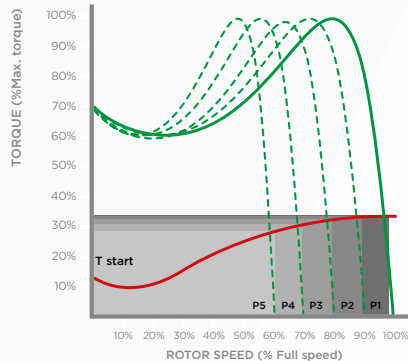# Pumping and Ventilation

As an alternative to mechanical flow control, the use of variable speed drives in variable flow systems, allows operators to dynamically change the operating range of their equipment, in order to match their flow demand, at any time. Variable speed control provides the minimum power consumption with minimum wear and tear of the hydraulic and pneumatic components.

SD500 is designed for indoor operation under the harshest environments due to its conformally coated electronics and high operating temperature range. Its design is suitable for sewage treatment plants, water treatment plants, desalination plants, pumping stations, tunnels and mines ventilating fans, etc...

SD500 offers a wide range of communication accessories and EMC filters that make it compatible with all application worldwide and eliminates the restrictions on motor cable length. The PLC module allows unlimited intelligence and provide multiple I/O that allow the user to run multi-pump systems, set irrigation schedules, set PID control by pressure, flow, level or any compatible sensor, set remote alarms, enable self-diagnostic functions, control a jockey pump, and much more thanks to intuitive programming software.

PUMPING

VENTILATION
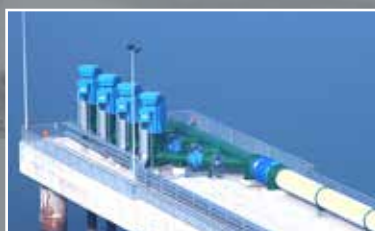
Motion

When accurate motion control is required, the SD500 offers the highest control features thanks to its ultimate closed loop motor control with the optional encoder module. You are able to perform a precise start, stop, back spin, spin control or shaft position control that can accelerate the production process with maximum energy savings.

By using the SD500, you not only improve the production process but you will also reduce mechanical wear and tear and the associated maintenance costs in your facility. Precise control provides better product transportation removing product damage or undesirable product spillage.

For processes that require accurate and powerful control, our variable speed drives can manage high torque with exceptional dynamic response in milliseconds.

MOTION

INPUT	Power range	0,75kW - 90kW	
	Voltage power	200-230Vac (-15% a +10%), 380-480Vac Three phase (-15% a +10%)	
	Input frequency	50-60 Hz ±5%	
	Power factor (cos φ)	>96%	
	Input EMC/RFI Filter	0,75 to 22kW - C2 standard / 30kW or more - C3 standard[1]	
	Input rectifier technology	Diode	
	Harmonics filter	DC Reactance	
	Current THDi (%)	<37%	
OUTPUT	Overload capacity	Constant torque: 150% during 60 sec at 50ºC Variable torque: 110% during 60 sec at 40ºC	
	Output frequency	0 to 400Hz [2]	
	Resolution of frequency set	Operation with digital signals: 0.01Hz Operation with analogue signals: 0.06Hz (Maximum frequency: 60Hz)	
	Modulation frequency	Maximum 15kHz [3]	
	Control Method	V/F Control, Slip compensation, Open Loop Vector Control (sensorless), Closed Loop Vector Control	
		Lineal V/F, Quadratic, defined by the user	
	Output cable length	USC 50m [4] SC 25m	
	Optional dV/dt filter	500-800V/μs - USC 300m, SC 150m	
	Dynamic brake	Built-in frames 1 to 4. Optionl frames 5 and 6	
ENVIRONMENTAL CONDITIONS	Degree of protection	IP21, Display IP54	
	Operation temperature	Minimum -10°C, Maximum +50°C	
	Storage temperature	Minimum -20°C, Maximum +70°C	
	Relative humidity	<90%, non-condensing	
	Altitude	1000m	
	Power altitude derating (> 1000m)	1% per 100m; maximum 3000m	
	Vibration	5,9m/sec² (=0,6G)	
	Ventilation	Air forced refrigeration	
PROTECTIONS	Overvoltage	Low Voltage	Overcurrent
	Overcurrent detection	Overtemperature of the inverter	Motor thermal Protection
	Phase loss protection	Overload Protection	Communication Error
	Reference Signal Loss	Hardware Failure	Cooling Fan Fault
	Pre-PID failure	Absence of motor Trip	External brake failure
	Current Limitation	Overload	Underload
	Encoder failure	Fan failure	Loss of keyboard commands
	Loss of speed commands		
INPUTS /OUTPUTS	Analogue inputs	1 input 0-10Vdc, ±10Vdc / 1 input 4-20mA / 0-20mA	
	Digital inputs	8 configurable inputs	
	PTC connection	Yes. With analogue or digital specific setup for PTC	
	Analogue outputs	1 0-10V output (Max. Output Voltage 10V, Max. Output Current 10mA) 1 0-20mA / 4-20mA output (Max. Output Current 20mA)	
	Relay output	1 Changeover programmable relay (250VAC, 5A; 30VDC, 5A) 1 Programmable normally open relay (250VAC, 5A; 30VDC,5A) 1 Programmable open collector transistor output (24VDC, 50mA)	
	I/O Extension module (optional)	3 digital outputs NO (250Vac/30Vdc, 5A), 3 digital inputs (selection of PNP/NPN, 0-25V), 1 voltage analogue input, 1 current analogue input (0-20mA) Internal Impedance: 249Ω, 1 voltage analogue output (±10V, 10mA, 11 bits resolution), 1 current analogue output (0-20mA, 12 bits resolution)	
	PLC module	6 digital configurable inputs, 4 realy outputs expandable to 14	
	Encoder module	Liner driver or open collector, pulse train reference. 5/12/15V Isolated power supply	
COMMUNICATION	Standard Hardware	RS485 port	
	Standard Protocol	Modbus-RTU	
	Optional Hardware	Profibus-DP board, Ethernet board, LonWorks board, DeviceNet/CANopen board	
	Optional Protocols	Profibus, Modbus TCP, LonWorks, CANopen, DeviceNet	

Wiring control

CONTROL	Alphanumeric display	4 Lines of 16 characters. Arrows to adjust parameters. Independent memory.
	Removable	Optional 1 m, 2m y 3m
	Connection	RJ45
	Status leds	LED ON: Power on the control board LED RUN: Power on, the motor is powered by the SD500 LED FAULT: Flashing indicates the equipment is in fault
	Display information	Status, DC Bus voltage, Motor current, Motor frequency, Motor speed, Motor voltage, Torque, Temperature, Input/output, Signals status, PID reference, Number of pumps
REGULATIONS	CE, cTick, UL[5], cUL[5]	

NOTES
[1] For other application categories, an optional external filter will be used. For additional information ask Power Electronics.
[2] The maximum frequency is 300Hz when selecting the open loop control in the programming parameters.
[3] The maximum allowable depends directly on the power of the drive.
Consult the SD500 Software and Programming manual for additional information.
[4] Motors with reinforced insulation withstand greater cable lengths. Consult Power Electronics.
[5] On process.

WIRING CONTROLS

FRAMES 1, 2, 3 AND 4 (0.75kW-22kW)
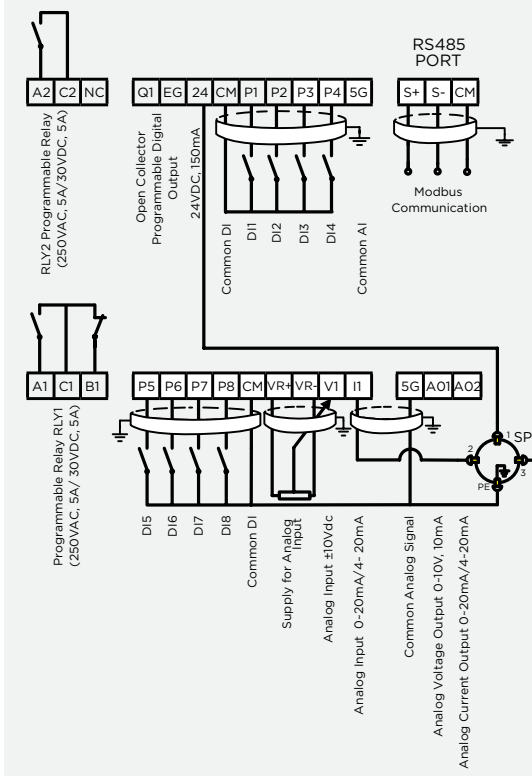
FRAMES 5 AND 6 (30kW-75kW)
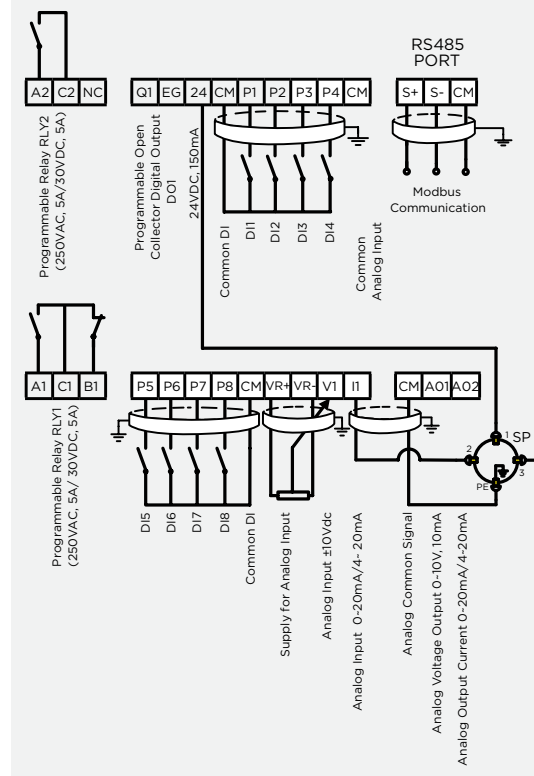
NOTE   Control cables must be shielded and grounded.

CONFIGURATION TABLE

SD5	016		2		2	
SD500 series	Output current[1]		Rated Voltage		Protection degree	
SD5	002	2A	2	200-230V	2	IP21
	005	5A	4	380-480V		
	...	...				
	150	150A				

[1] Verify the rated current of the motor nameplate to guarantee the compatibility with the selected drive.

DIMENSIONS (mm) and WEIGHTS (kg)

FRAME 1

FRAME 2

FRAME 3

FRAME 4

FRAME 5

FRAME 6
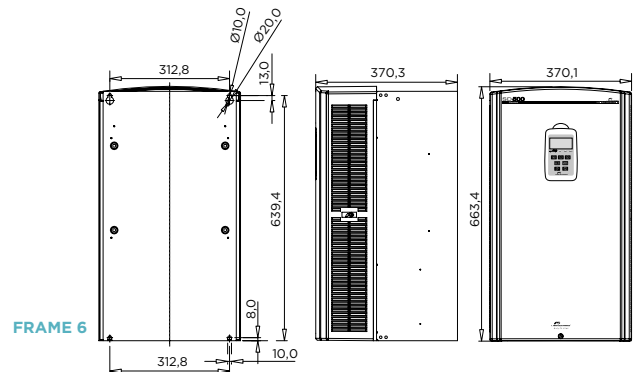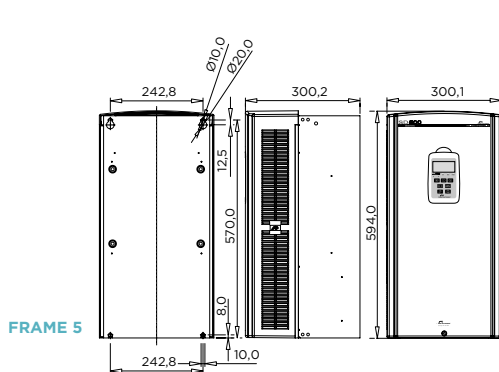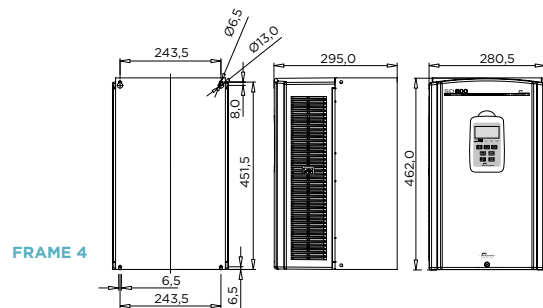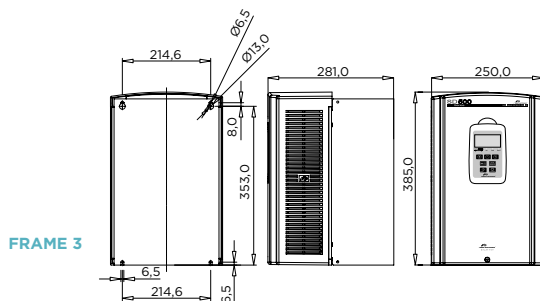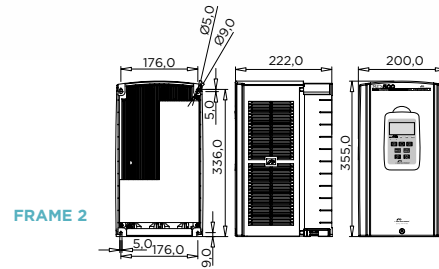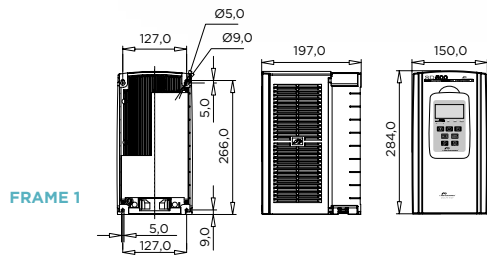
Frame	Weight (kg)		Frame	Weight (kg)
1	5.5		4	30
2	10		5	41
3	20		6	63

Standard ratings

STANDARD RATINGS

FRAME	CODE	200Vac - 230Vac (-15% a +10%)							
		Operation temperature 50°C HEAVY DUTY				Operation temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power 230Vca		150% Overload (60s)	I(A) Rated	Motor Power 230Vca		110% Overload (60s)
			kW	HP			kW	HP	
1	SD5005 2 2	5	0.75	1	7.5	6.8	1.5	2	7.5
	SD5008 2 2	8	1.5	2	12	11	2.2	3	12
	SD5012 2 2	12	2.2	3	18	16	3.7	5	18
	SD5016 2 2	16	3.7	5	24	22	5.5	7.5	24
2	SD5024 2 2	24	5.5	7.5	36	33	7.5	10	36
	SD5030 2 2	32	7.5	10	48	44	11	15	48
3	SD5045 2 2	46	11	15	69	60	15	20	69
	SD5060 2 2	60	15	20	90	74	18.5	25	90
4	SD5075 2 2	74	18.5	25	111	90	22	30	111
	SD5090 2 2	88	22	30	132	120	30	40	132

FRAME	CODE	380Vac - 480Vac (-15% a +10%)							
		Operation temperature 50°C HEAVY DUTY				Operation temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power 400Vca		150% Overload (60s)	I(A) Rated	Motor Power 400Vca		110% Overload (60s)
			kW	HP			kW	HP	
1	SD5002 4 2	2.8	0.75	1	4.4	4	1.5	2	4.4
	SD5004 4 2	4	1.5	2	6	5.4	2.2	3	6
	SD5006 4 2	6	2.2	3	9	8	3.7	5	9
	SD5008 4 2	8.5	3.7	5	13.2	12	5.5	7.5	13.2
2	SD5012 4 2	12	5.5	7.5	18	16	7.5	10	18
	SD5018 4 2	16.5	7.5	10	25	23	11	15	25
3	SD5024 4 2	24	11	15	36	32	15	20	36
	SD5030 4 2	30	15	20	45	40	18.5	25	45
4	SD5039 4 2	39	18.5	25	58	48	22	30	58
	SD5045 4 2	45	22	30	67	61	30	40	67
5	SD5060 4 2	61	30	40	91	78	37	50	91
	SD5075 4 2	75	37	50	112	100	45	60	112
	SD5090 4 2	91	45	60	136	115	55	75	136
6	SD5110 4 2	110	55	75	165	150	75	100	165
	SD5150 4 2	152	75	100	228	180	90	125	228

NOTES Rated power for standard AC 4 pole motors (1500rpm).
For other configurations contact Power Electronics.
Check the rated current of the motor plate to ensure compatibility with the chosen frequency converter.

dV/dt FILTERS

INPUT		
	Voltage power	200Vac-480Vac
	dV/dt value	500V/µs - 800V/µs
	Overload capacity	150% 60 sec
	Ventilation power supply	Frames 1 and 2, no ventilation. Frames 3, 4, 5 y 6, 230Vca Max. 18W
ENVIRONMENTAL CONDITIONS	Temperature	-10°C to +50°C
	Degree of protection	IP20
	Class of protection	Class I
	Relative humidity	<90%, non-condensing

230Vac (-15% a +10%)

FRAME	VSD	dV/dt FILTER	TOTAL HEIGHT (mm)
1	SD500522	SD50F0522	412
	SD500822	SD50F0822	
	SD501222	SD50F1222	
	SD501622	SD50F1622	
2	SD502422	SD50F2422	495
	SD503022	SD50F3022	
3	SD504522	SD50F4522	511
	SD506022	SD50F6022	
4	SD507522	SD50F7522	625
	SD509022	SD50F9022	

380Vac - 480Vac (-15% a +10%)

FRAME	VSD	dV/dt FILTER	TOTAL HEIGHT (mm)
1	SD500242	SD50F0024	412
	SD500442	SD50F0044	
	SD500642	SD50F0064	
	SD500842	SD50F0084	
2	SD501242	SD50F0124	495
	SD501842	SD50F0184	
3	SD502442	SD50F0244	511
	SD503042	SD50F0304	
4	SD503942	SD50F0394	625
	SD504542	SD50F0454	
5	SD506042	SD50F0604	819
	SD507542	SD50F0754	
	SD5O9042	SD50F0904	
6	SD511042	SD50F1104	896.4
	SD515042	SD50F1504	

CONNECTIONS BOX

FRAME	FILTER				
	REFERENCE	DIMENSIONS			
		W	D	H	Total height
1	SD5EB1	147	85	132	416
2	SD5EB2	195	100	145	500
3	SD5EB3	250	165	135	520
4	SD5EB4	280	205	135	597
5	SD5EB5	300	205	130	724
6	SD5EB6	370	205	138	801
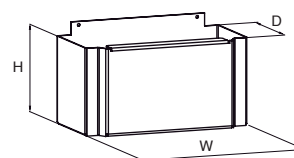
DYNAMIC BRAKE UNIT

380-480Vac - FRAMES 5 y 6		
VSD	DBU	DIMENSIONS (WxDxH)
SD506042,SD507542	DBSD4075	
SD509042, SD511042	DBSD4145	123x130x258
SD515042		

DISPLAY EXTENSION KIT

CODE	ACCESSORIES DESCRIPTION
SD5RC2	Display extender kit (2 meters)
SD5RC3	Display extender kit (3 meters)

CODE	ACCESSORIES DESCRIPTION
SD5IO	Extension module Input/Output
SD5EC	Encoder module
SD5PLC	PLC module
SD5ET	Ethernet communication module
SD5DN	DeviceNet communication module
SD5DP	Profibus – DP communication module
SD5CO	CANopen communication module
SD5LW	Lonworks communication module
SD5STO	Safe Torque Off

STO - SAFE TORQUE OFF

STO - Safe Torque Off board allows to stop supplying alternating power to the stator stopping the motor by its own inertia.

- 2 inputs (24Vdc, max. 10mA)
- 1 input (24Vdc)
- Feedback terminals
- VIEC/EN G1800-5-2
- Safety level SIL2

EXTENSION MODULE INPUT/OUTPUT

Extension module allows increase standard analogics I/O, multiplying their benefits of multipump applications:

- 3 digital outputs NO (250Vac/30Vdc, 5A)
- 3 digital inputs (selection of PNP/NPN, 0-25V)
- 1 voltage analogue input
- 1 current analogue input (0-20mA) Internal Impedance: 249Ω
- 1 voltage analogue output (±10V, 10mA, 11 bits resolution)
- 1 current analogue output (0-20mA, 12 bits resolution)
- Scan time:
- Digital outputs: 1.5ms minimum
- Analogue output: Minimum 3ms
- Protection: IP20
- Cooling method: Self cooled

ENCODER MODULE

Encoder module allows closed loop control for applications that request:

- Closed loop control
- Pulse train reference
- 5/12/15V insulated power supply
- Line driver open collector
- 200kHz Maximum input frequency
- Signal loss detection

PLC MODULE

PLC module allows programming and expansion of digital and analogical inputs and outputs.

- Operation method:
- Stored program cyclic operation
- Role of Task Interruption
- Method of I/O control:
- Number of instructions: Basic: 29; Rev: 223
- Processor time: Basic instruction: 0.4µs/operation
- Program memory capacity: 2k
- 6 digital inputs
- 4 relay outputs
- Operating modes: RUN, STOP, PAUSE
- Self-diagnosis Functions: Watchdog timer, memory error detection, I/O error detection
- Recovery of memory after shutdown
- PID Control
- RS485 Communication: MODBUS protocol support
- External interrupts: 6
- Input filter: 0 ~ 1000ms
- RTC (Real Time Clock): year / month / day / hour / minute / second using KGLWIN
- Operating system KGL WIN

COMMUNICATION MODULES

Ethernet, Devicenet, Profibus, CANopen and Lonworks communication modules allow the user to easily integrate the SD500 in multiple networks.

ETHERNET COMMUNICATION MODULE

- Transmission Speed: 10Mbps, 100Mbps
- Transmission Method: Baseband
- Maximum distance between nodes: 100m
- Maximum number of nodes: Hub Connection
- Auto negotiation
- Maximum frame size: 1500 bytes
- Access Method to communications area: CSMA / CD
- Checking Method for error frames: CRC32
- Recommended Channel Connection: 3 channels

DEVICENET COMMUNICATION MODULE

- Power supply:
- Powered from the drive
- External power supply: 11-25VDC, 60mA
- Network topology: Free, Bus
- Transmission speed: 125kbps, 250kbps, 500kbps
- Maximum number of nodes: 64 (including the master)
- Supported media type: Explicit Peer to Peer Messaging
- Faulted Node Recovery (Off-Line), Master / Scanner, Polling
- Terminating resistor: 120Ω 1/4W Lead Type

PROFIBUS COMMUNICATION MODULE

- Device Type: Profibus DP Slave
- Auto baud rate
- Sync mode
- Freeze mode
- Maximum input length: 8 words
- Maximum output length: 8 words
- Maximum data length: 16 words
- Transmission speeds: 9.6K, 19.2K,
- 93.75K, 187.5K, 500K, 1.5M, 3M, 6M, 12M
- Modular station
- Maximum number of modules: 2

CANOPEN COMMUNICATION MODULE

- Power supply: Supplied from the inverter
- Network Topology: Bus
- Baud rate: 20kbps, 50kbps, 100kbps, 125kbps, 250kbps, 500kbps, 800kbps, 1Mbps
- Maximum number of nodes: 64 (including the master)
- Supported media type: PDO, SDO, Sync, NMT
- Terminating resistor: 120Ω 1/2W Lead Type
- PDO available: PDO1 (CiA 402 Drive control and Motion device profile)
- Maximum Transmission Distance: 2500m (20kbps) - 500m (125kbps)

LONWORKS COMMUNICATION MODULE

- 78kbps communication speed
- Free/bus topology
- Resistance built-in per topology
- Max. 2700m (8858ft) connection distance (bus topology)