

SD 700 Series

VARIABLE SPEED DRIVE

Easy to drive





We had always dreamt about an integral service that included, commissioning support, 24 hour technical assistance, rapid workshop response with less than 1 day repair or replacement commitment. Three year warranty, immediate delivery, customized training and professional application engineering.

A dream
a promise,
the commitment.



POWER ELECTRONICS®

Further information at
www.power-electronics.com

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01

> easy to drive

Some times it is difficult to do things simply. With the SD700 we have focused all our technological research into making life easy for the user.

The definitive

- 12, 18, 24 pulses operation
- Ultra-fast input fuses (Frames 5 to 11)
- Isolated control inputs and outputs
- Dynamic Braking chopper up to 22kW
- AC line voltage 230V to 690V
- High starting torque 200%
- Application specific macro's (pumping, crusher, etc... programmable)
- Communication interface Modbus as a standard (options as Profibus, DeviceNet, TCP/IP, etc...)
- Electronic PCB unification
- FPA* (Fault Preventing Algorithms) to detect and to correct critical situations
- Torque time response less than 15msec
- Electrical safety standard (IEC 22G/109/NP de IEC 61800-5)

A drive manufactured with respect for the environment that complies with the RoHS Directive 2002/95/EC (Restriction of Hazardous Substances Directive).

*Conformal coating for the whole range.
Standard IEC 61086-1:2004, IEC 61086-3-1:2004.*

**Output dV/dt filters (300m...) and RFI built in filters
Harmonic filters, Choke coils 3% impedance**

Compliance with Standard
IEC 61800-3:2004

with cable motor distance up to 300m
unscreened. Compliance for radiated
and conducted emissions.

Power Range
from 2,2kW to 1,8MW

Operation temperature
from -30°C to +50°C

Protection degree
IP00¹, IP20 and IP54

WARRANTY
3
YEARS
for the whole series

Easy maintenance
FFA² (Full Frontal Access)

24 hours technical service
365 days a year

Graphic Display with touch screen
GSM and GPRS
Direct communication with the Drive



cTick



COMPLIES WITH INTERNATIONAL
STANDARDS CE, cTick, UL³, cUL³

(1) Ask for availability
(2) Patent pending
(3) On process

0 2,000 mi
0 2,000 km

02 SD700

> the definitive solution

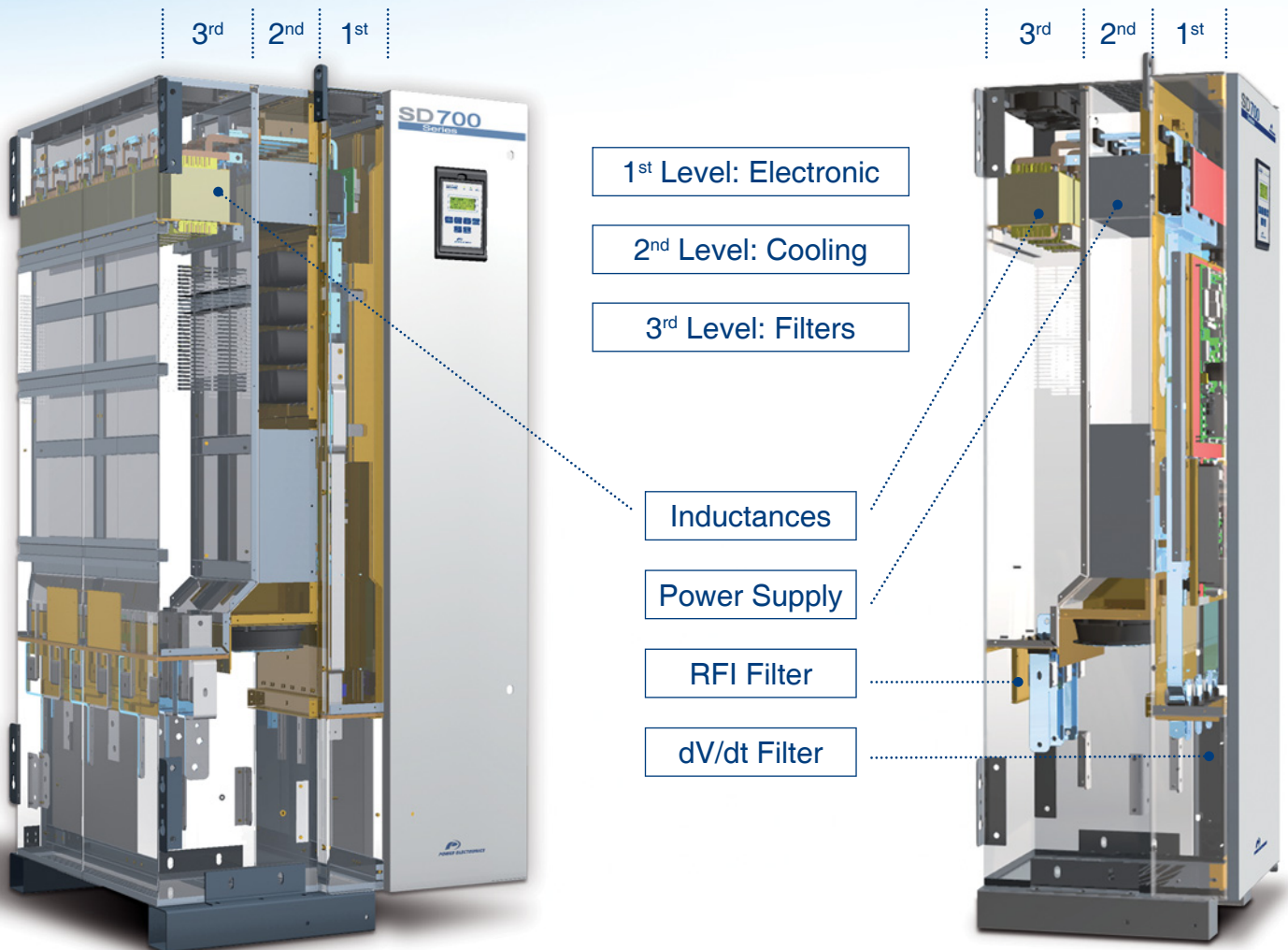
Advanced mechanical design

From this point of view, the SD700 has been designed and built with a clear objective: TO MAKE EASY, in a significant way, its installation and maintenance.

Its three main modules: the rectifier, the power capacitors and the inverter, are mechanically separate, allowing frontal access to all drive parts immediately.

This **FFA*** (Full Frontal Access) approach was always in our designers minds with the aim of achieving modular independence.

Easy to drive



SUCH AN EFFICIENT INTERNAL DISTRIBUTION HAS ALLOWED TO US TO OPTIMIZE THE MECHANICAL STRUCTURE TO THE MAXIMUM AS WELL AS ENSURING INHERENT RELIABILITY OF THE SD700.

(*) Patent pending

FPA

MCA

FFA

Another concept reinforced the internal location of modules for the SD700: **Temperature Sensitivity**. Based on this concept we determined the proximity of the cooling fan for all the elements susceptible to this aspect. This new objective was achieved with no sacrifice to module interconnection. The modules layout is simple and logical, allowing the most efficient use of the available space in the drive.

Innovative features

As a complement to such an advanced mechanical design, Power Electronics has chosen a new control strategy: **MCA** (Motion Combined Algorithms), combining all the advantages of different traditional motor control.

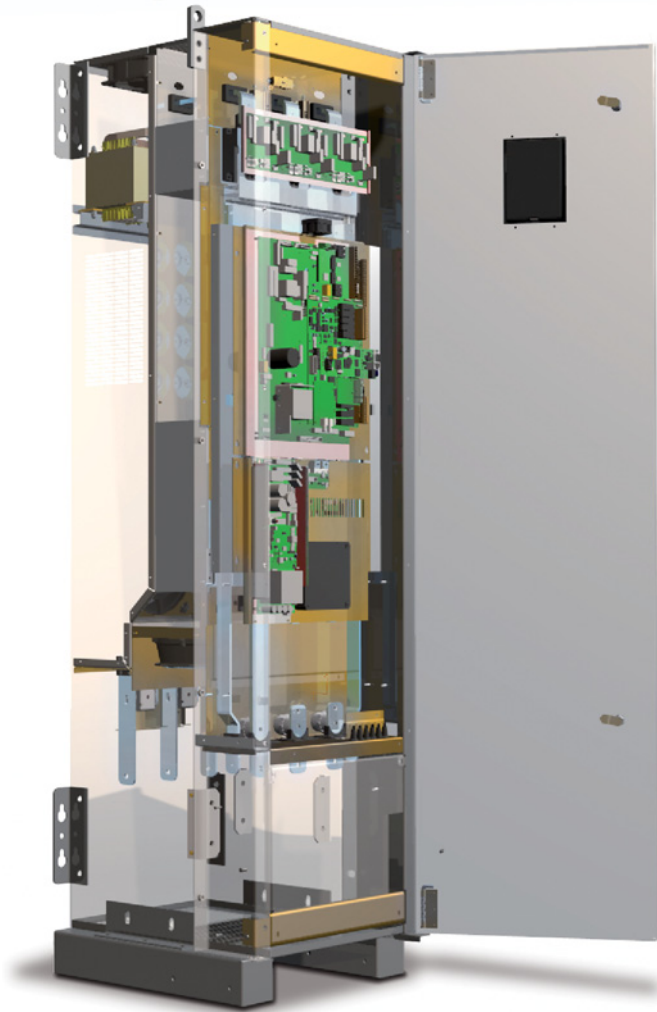
With this concept we have obtained the strength and the stability of V/Hz control plus the dynamic response of vector control under transient conditions, minimising the dependence between the motor characteristics and drive stability.

The SD700 incorporates an intelligent operational control, but beyond this, we have implemented a group of innovate algorithms: **FPA*** (Fault Preventing Algorithms). This system allows to the SD700 to overcome extreme conditions without activating its own protections. These powerful monitoring algorithms can prevent some situations where the drive would activate its internal protections.

A PRE-EMPTIVE DETECTION ALSO ALLOWS PRE-EMPTIVE CORRECTIVE ACTIONS PREVENTING NON DESIRABLE STOPPING OF PRODUCTION LINES.

The combination of all these concepts has developed the SD700 into a **ROBUST** drive **UNIQUE** in features, making it possible to realize "in situ" all maintenance and commissioning operations, no matter how complex they are.

(*) Patent de pending



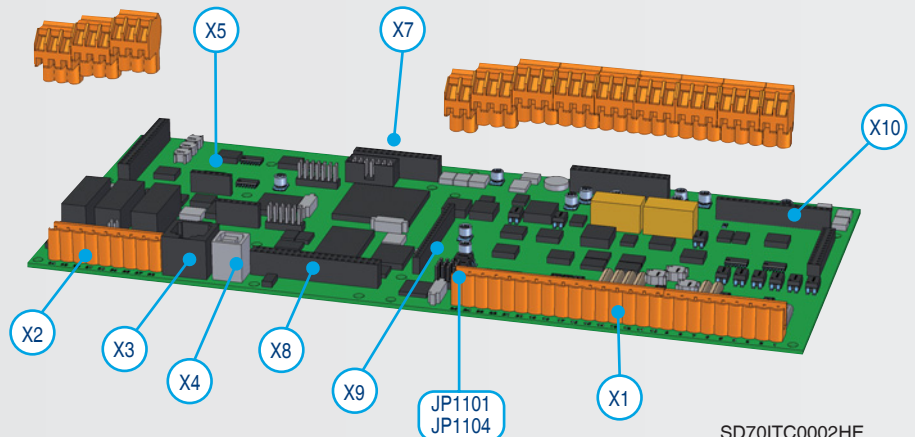
SD700

> standard features

This equipment provides the required features to cover a vast range of most demanding market applications.

Unplug terminals for user

- X1 Digital inputs, PTC connection, analogue programmable inputs and outputs and serial communication. Plug and unplug terminals.
- X2 Programmable digital outputs. Plug and unplug terminals.
- X3 Display connection. RJ45 connector.
- X4 USB port.
- X5 Fibre Optic, drives communication.
- X6 Reserve.
- X7 - X8 Serial Bus options connection.
- X9 Connection for optional inputs and outputs board.
- X10 Connection for optional encoders board.
- JP1101/JP1104 To select communication port between RS232/RS485 or USB.



SD70ITC0002HE

ENCLOSURE

Manufactured in metal cabinet to improve RFI immunity. Depending on the environmental conditions of each installation, it is possible to use one of the three configurations: IP00 (ask for availability), IP20 and IP54.

WIRING

Large space for power cables connection. Availability of "Conduit box" for frames 1 and 2. Simply unplug the terminal blocks to disconnect control signal wires.

POWER SUPPLY

User power supply +24Vdc, 100mA. 10Vdc Potentiometer power supply. Both are regulated and short-circuit protected. External 24Vdc power supply board, to keep the drive logically alive in situations when the AC power supply has been removed.

FILTERS

Standard built in RFI filters. Standard built in filters for harmonics reduction (DC Chokes for frames 1 and 2, AC Chokes for the rest). Standard built in dV/dt filters to minimise overvoltage in cables and motor terminals.

INPUT SECTION

Semi-conductor input fuses built in for 210 – 2200A models. Built in braking unit for frames 1 and 2.

OPTIMIZING AND EFFICIENCY

The design and construction of the SD700 ensures optimal operation in aggressive atmospheres, giving you guaranteed performance at 50°C.

The use of advanced-high efficiency heat-sink, high quality components and the upgraded structure allow us to get more than 97% efficiency at full load.

SAFETY

All SD700 drives provide the safety stop function suitable for category 3 installations according to EN 954-1. In this way, this feature prevents the drive from starting unintentionally.

ELECTRONIC

Same control board and same power board for the whole range. Just 2 IGBT models for the whole series. Same fan power supply board for all SD700, with modular connection for higher inverters capacity.

Availability of USB port for communication and software upload. Fibre Optic ports to synchronize several drives.

USER INTERFACE

Provided with several control modes, it is possible to control the drive from the keypad (Local Mode), Remote Mode (through inputs / outputs terminals) and via buses and communication networks.

Real-time clock and perpetual calendar.

First drive offering optionally a graphic display with touch screen for graphic data presentation and communication via GSM and GPRS.

Factory Settings

Through the control terminals, the user can access:

DIGITAL INPUTS

There are 6 multifunction digital inputs and 1 motor PTC input. The digital inputs can be programmed all together according to pre-fixed configurations or they can be programmed individually. They are optically isolated.

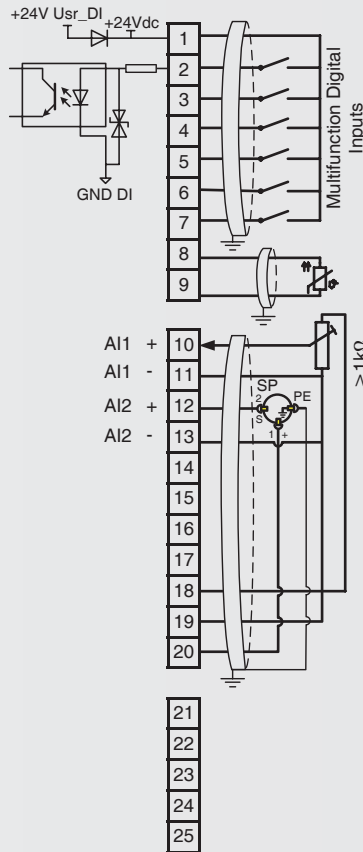
ANALOGUE INPUTS

They are optically and galvanically isolated. They can be programmed for different uses.

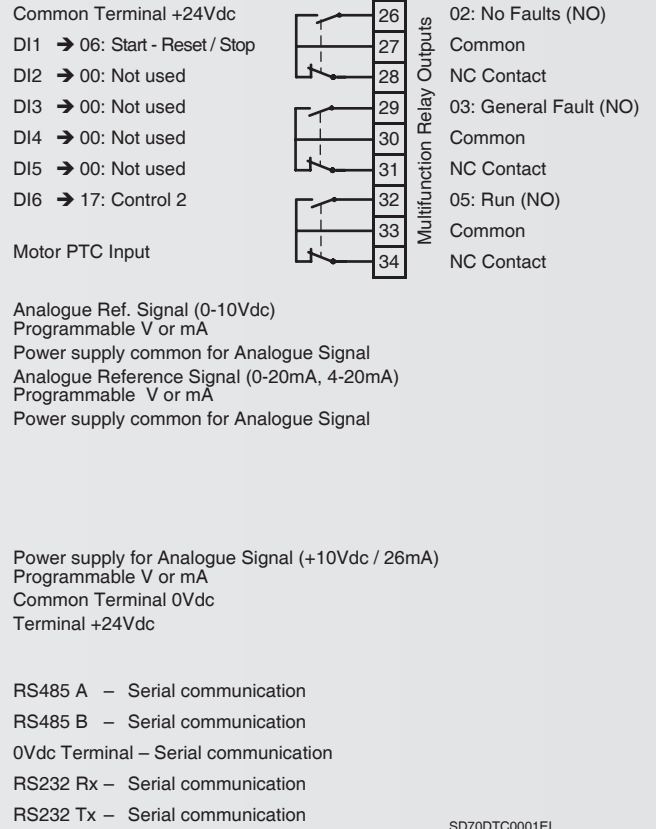
COMPARATORS

It is provided with timer comparators which allow the comparison of a number of internal and external variables. The result of this action can be the activation of digital outputs or allows direct control of the drive without using the inputs or the outputs and without additional external wiring.

X1 CONNECTOR



X2 CONNECTOR



SD70DTC0001EI



Application macros

- Multiple pump control (extensive control and functionality).
- Position control.
- Crane control.
- For others applications contact Power Electronics.

Auxiliary tools:

Monitoring tool **PowerCOMS** offers maximum flexibility for parameter monitoring and parameter saving.

Programming tool **PowerPLC**, executed from a PC, allows configuration of the drive as a PLC. In this way it is possible to control auxiliary programmes that will be downloaded to the microcontroller.

04 SD700

> alphanumeric display

✓ Touch

✓ Customized Visualization

✓ GSM and GPRS communication

✓ Built in Help System

✓ Fault History (Logs)

✓ Language Selection

Status indicating
Leds



Backlit LCD
display

Membrane
keypad

Independent
memory

Removable
keypad

Fault status Register

It is possible to access to the visualization parameter groups SV.1 and SV.2 (motor speed, motor frequency, average input voltage, DC Bus Voltage, ...) at fault instant. For additional details, consult the SD700 manual.



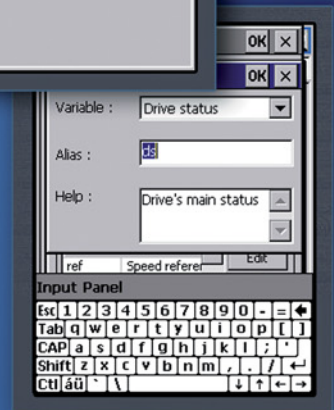
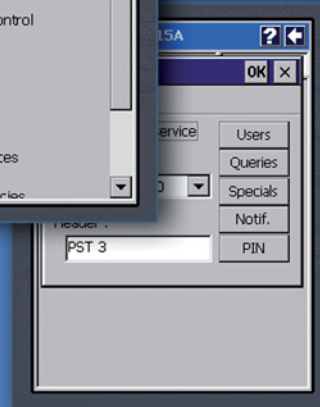
05 SD700

>touch screen display

Screen

✓ 3,5 inches size

✓ 240x320 pixels



Direct communication with your Drive

The graphic display provides a much more intuitive data presentation, offers an easy navigation through the control parameters and allows saving thousands of customized configurations defined by the user.

SMS Service

(Query, Notification and Special messages)

06 SD700

one drive for all applications

The SD700 offers an easy solution for each installation at 230Vac, 380-500Vac, 525Vac and 690Vac, with a spectacular adaptation to a vast range of industries.

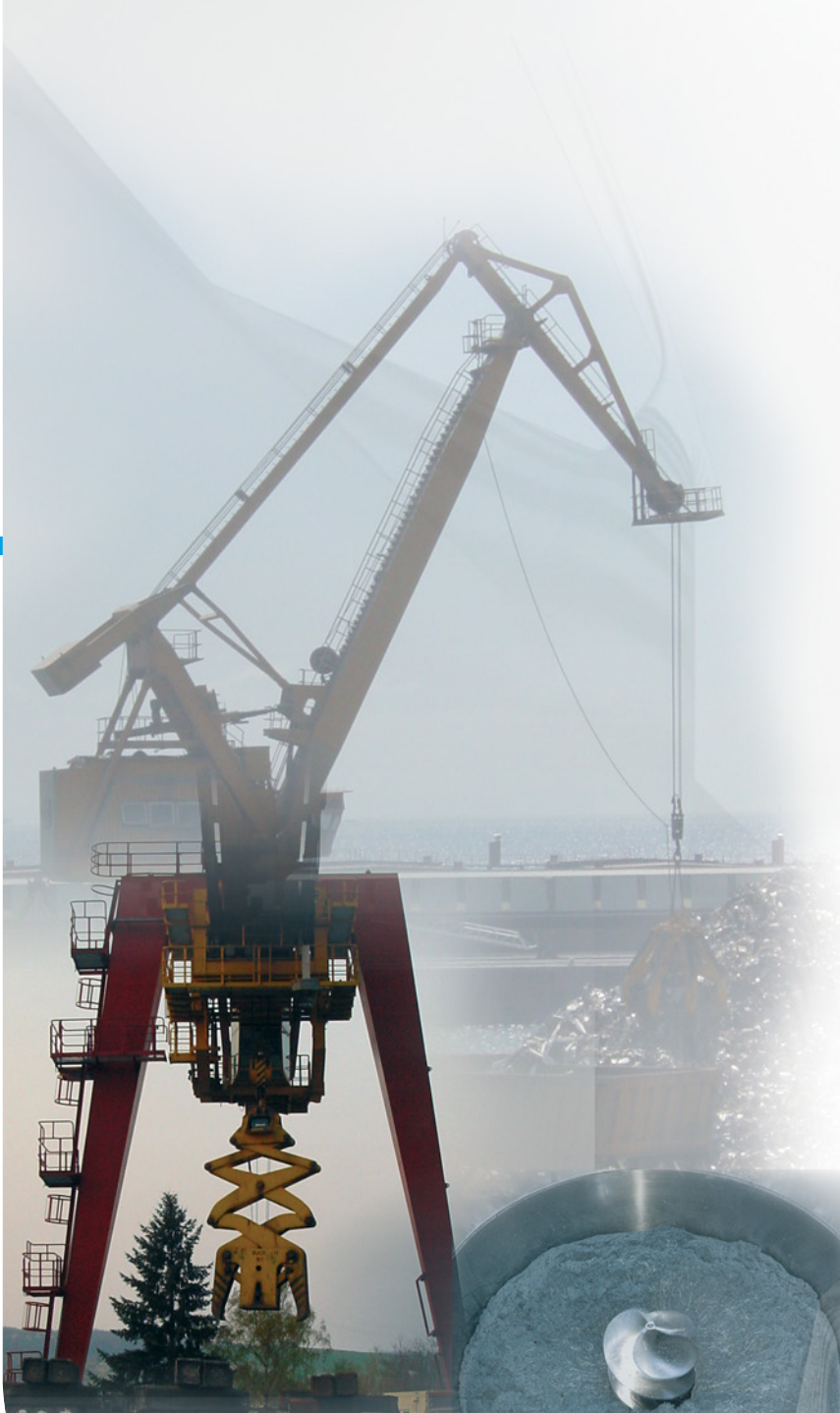


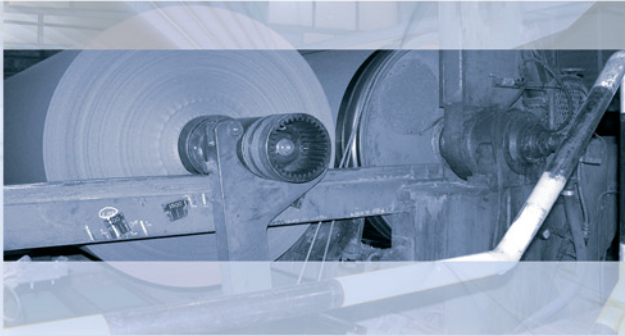
Elevation systems

Cranes and elevators require the drive to give maximum torque at zero speed. The SD700 offers the possibility of specific software designed for controlling cranes in both transverse and elevation movements. The control of the final lifting implement of the crane is built into the software whether the tool is a hook, a grapple or a scoop.

Tooling machine

Our product is very useful in millers, mixers, packing machines... wherever you need a highly dynamic response and high torque. The SD700 shows its diverse functionality in applications where the quality of the final product is the key.





Paper machines and lamination machines

In this kind of machine the SD700 shows its high performance, offering functions such as:

- Master-Slave operation mode.
- Communication between slaves through fibre optics for increased response time and accuracy.
- Lineal speed (m/min) setting.
- Tension setting.
- Operation in torque mode or 'Helper' mode.
- Possibility of distributing the load at presses...

Pumping systems

The SD700 Series permits the change of the rotational speed of the pump impeller, modifying the characteristics of the pump curve, and as result adapting the pump flow to suit requirements at any moment.

The comprehensive Pumping Control Program allows exceptional control of the pumping system.

Some of the main features are:

- Regulation of pressure, flow, temperature..., thanks to PID control.
- Sleep and Wake functionality.
- Direct programming in engineering units (l/s, m³/s, %, °C, ...).
- Operation in manual or automatic mode.
- Several Pump alternation modes (No Alternation, Sequential Alternation and Alternation by working time).
- Visualization of working time per pump and start number.
- Under-pressure and Over-pressure compensation.
- Pipe fill function.
- Monitoring of motor operational status, detecting those out of service.
- Flow measurement by pulses.
- Protections:
 - Cavitation, with reset activation time.
 - Minimum pressure detection.
 - Over-pressure control.
 - Zero-flow detection...

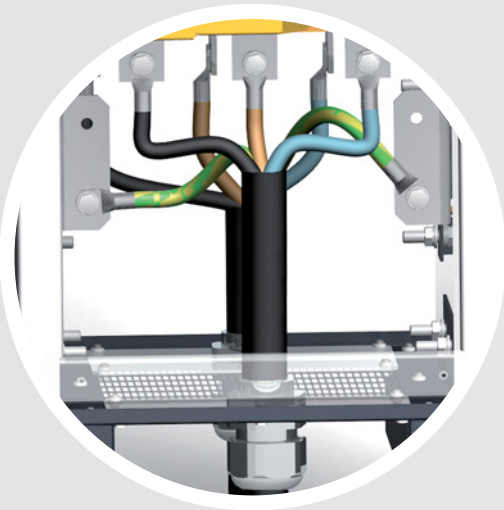


07 SD700

> power electronics

Motor connection

Output cables distances up to 300m with unscreened cables and compliance with standard IEC 61800-3:2004 for radiated and conducted emissions.



Power terminals

The power terminals has been over-sized to allow better connection of input power supply, motor supply, dynamic braking connection and allow the use of higher cross section cables in the case of longer distances.

Electromagnetic compatibility

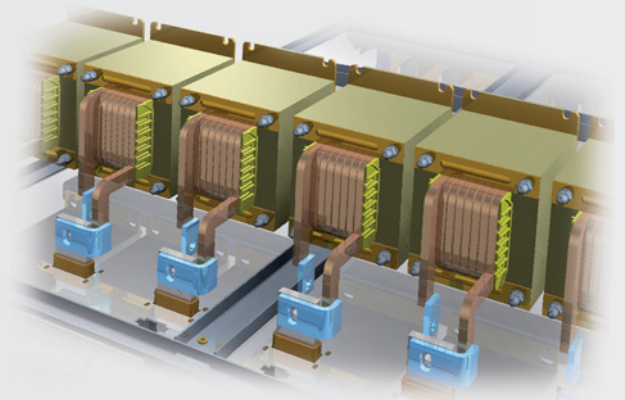
The SD700 series meets EMC compliance thanks to:

- Input chokes (as standard)
- Output dV/dt filters (as standard)
- Electronic control of the dV/dt of the IGBT
- Mechanical construction
- Design of PCBs

The SD700 series stands out due to its innovative features such as the exclusive mechanical design of its power stage, latest generation IGBTs, inductors for harmonic reduction, input and output filters, and of course, our special mechanical design FFA* (Full Frontal Access).

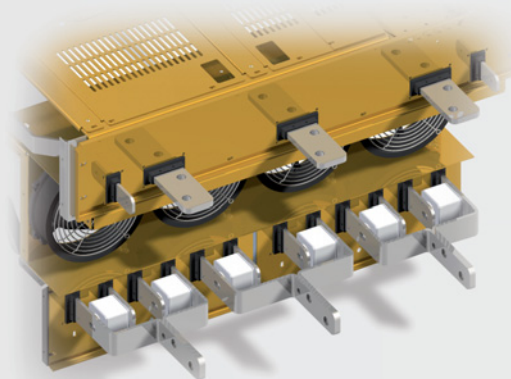
All the above mentioned ensures a continuous operation at 50°C under full load conditions.

(*) Patent pending



Power input elements-rectifier

The input inductance (CHOKE) reduces the current and voltage harmonic distortion, protects the drive from mains disturbances decreasing the risk of damage due to over-voltages.



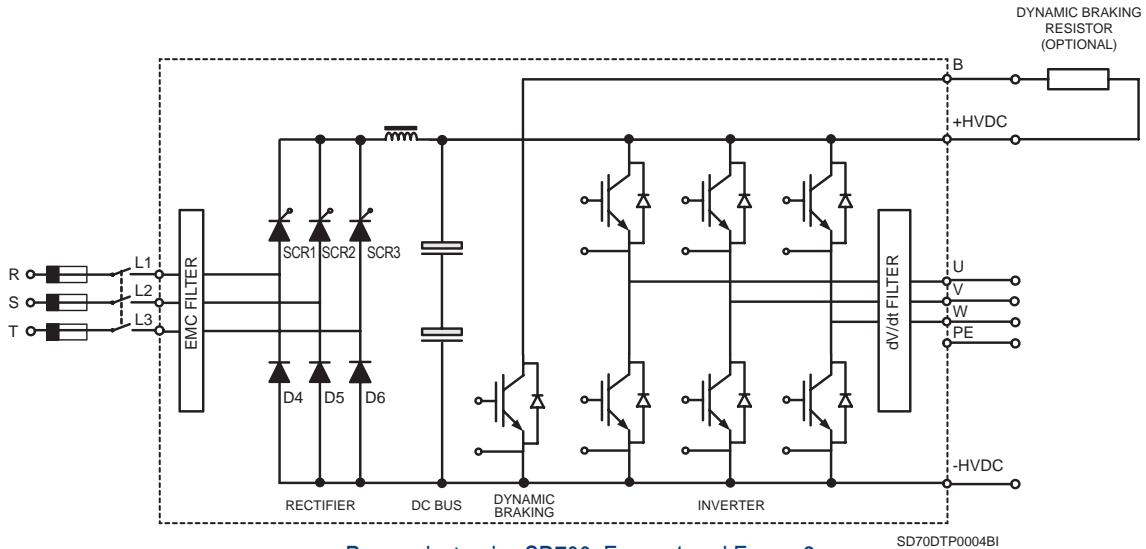
Temperature control

The high efficiency heatsink built in the SD700 allows the dissipation of generated heat thanks to its cooling fins, achieving continuous operation at full load at 50°C ambient temperature. Its conformal coating and perfect isolation means IP54 degree protection, ideal for installing and working in industrial environments.

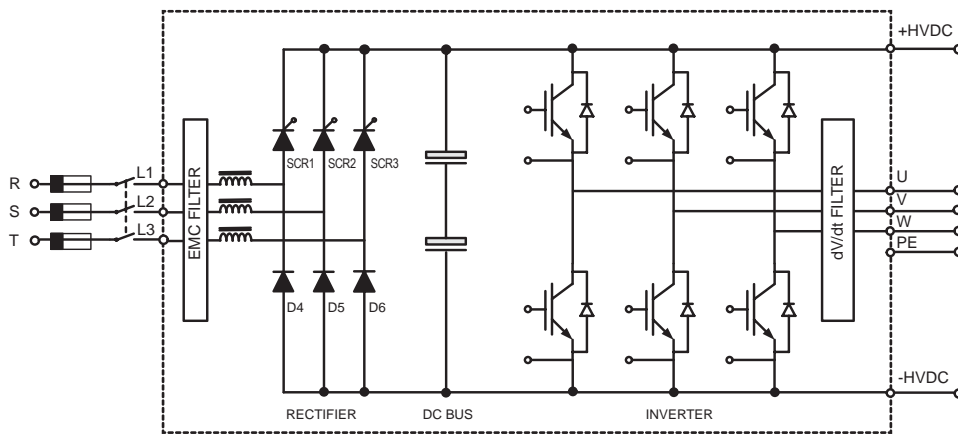
Inverter bridge

We have used integral power modules incorporating new generation IGBT's. The drives are provided with a very high overload capacity and high carrier frequencies to provide silent motor operation and to achieve a low output current distortion.

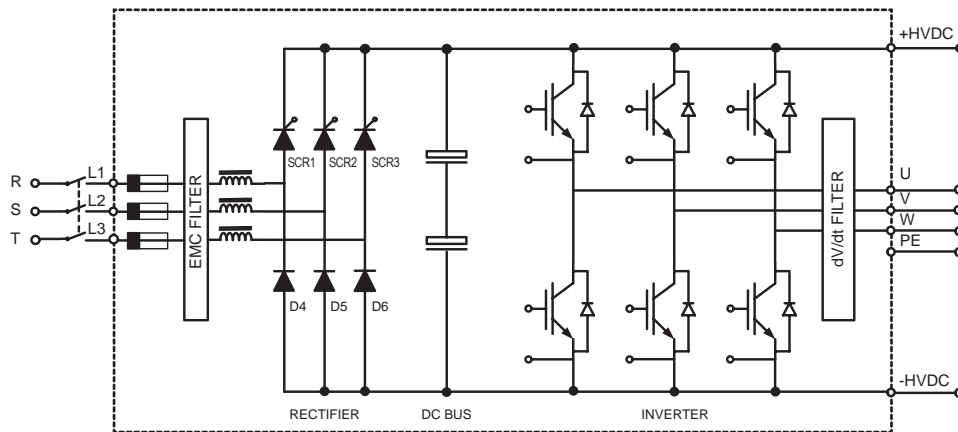
Output filters reduce motor cable capacitance and decrease the dV/dt factor, allowing increased cable length between motor and drive. Stress in the output cables and motor windings are reduced. Radiated and conducted emission of Radio Frequency Interferences (RFI) is reduced.



Power electronics SD700: Frame 1 and Frame 2



Power electronics SD700: Frame 3 and Frame 4



Power electronics SD700: from Frame 5 to Frame 11

INPUT	Power supply	230Vac, 380-500Vac, 525Vac, 690Vac. For different voltages consult to Power Electronics.
	Input frequency	48 - 62Hz
	Input Current	≤ Output current
	Input power factor	≥ 0,98 (of fundamental)
	Power factor	≤ 0,91
	Momentary power loss	> 2s (depending on the load)
	EMC input filter	Second environment, limits 3 and 4
	Harmonics filter	First environment, limits 1 and 2 optional built-in. Choke coils 3% impedance
OUTPUT	Motor output voltage	0V to Vinut - 0.75% @100% load (Frames 1 and 2) 0V to Vinut - 3% @100% load (Frames 3 to 11)
	Frequency ratings	0 to ± 250%
	Overload capacity	150% for 60 sec at 50°C
	Efficiency (at full load)	> 97%
	Motor power (kW)	50 to 150% of SD700
	Motor voltage	5 to 500Vac
	Control method	V/Hz control, Vector control (Sensorless) Space vector technology
	Carrier Frequency	4 to 8kHz - PEWave
	Output dV/dt filter	500 to 800V/μs
	Output cable length	Up to 300m*
	Dynamic braking unit	Built in for frames 1 and 2
ENVIRONMENTAL CONDITIONS	Ambient temperature	-30°C to +50°C
	Altitude	1000m
	Altitude de-rating	>1000m, -1% per 100m; maximum 3000m
	Degree Protection	IP00**, IP20 and IP54
	Ambient humidity	< 95%, non-condensing
	Display degree protection	IP54
MOTOR PROTECTIONS	Rotor locked	
	Motor Overload (thermal model)	
	Phase current imbalance. Phase voltage imbalance	
	Motor over-temperature (PTC, normal status 85R-2K Ω)	
	Speed limit	
	Torque limit	
DRIVE PROTECTIONS	Output current limit	
	Overload	
	IGBTs overload	
	Input phase loss	
	High input voltage	
	Low input voltage	
	DC Bus voltage limit	
	Low DC Bus voltage	
	High input frequency	
	Low input frequency	
	IGBT temperature	
	Heatsink over-temperature	
	Power supply fault	
	Drive thermal model	
	Software and Hardware fault	
	Ground fault	
	Analogue input signal loss	

Additional features see Technical Manual of SD700 series.

(*) Cable length could be increased depending on cable type.

(**) Consult availability with Power Electronics.



DIGITAL INPUTS	6 programmable inputs, active high (24Vdc) 1 PTC input	
ANALOGUE INPUTS	2 programmable and differential inputs Operation rates:	Current signal: 0-20mA, 4-20mA. Voltage signal: 0-10Vdc, ±10Vdc, diferencial full duplex
DIGITAL OUTPUTS	3 programmable changeover relays: Factory setting:	250Vac, 8A; 30Vdc, 8A Relay output 1: No Faults Relay output 2: General Fault Relay output 3: Run
ANALOGUE OUTPUTS	2 analogue outputs programmable for voltage or current:	0-20mA, 4-20mA, 0-10Vdc and ±10Vdc
COMMUNICATIONS	Standard Hardware: Optional Hardware Standard Protocol: Optional Protocol:	USB port RS232 port RS485 port Fibre optic Ethernet Modbus-RTU Profibus-DP DeviceNet Ethernet (Modbus TCP/IP) Ethernet IP N2 Metasys
CONTROL PANEL	Type Distance Connection Alphanumeric display Visualization Leds Keypad Graphic display	Removable 3 meters (for higher cable lenght contact with Power Electronics) RJ45 4 lines of 16 characters each one LED1 ON, control board is energized LED2 RUN, motor receiving power supply from SD700 LED3 FAULT, flashing displays that a fault has occurred 6 keys to control and configure the drive, start/stop and reset Independent memory Graphic display optional with TFT touch screen 3.5 inches Independent memory
INFORMATION DISPLAY	Average current and 3-phase motor current Average voltage and 3-phase motor voltage Average voltage and 3-phases power supply voltage Speed, Torque, Power, Power factor of the motor Relay status Digital inputs / PTC status Output comparator status Analogue inputs and sensor value Analogue outputs value Motor overload and equipment status IGBT Temperature Motor output frequency Fault history	
OTHERS	Real time clock Perpetual calendar	
CERTIFICATION	CE, cTick, UL*, cUL*	

(*) On process



SD700

> standard ratings



CONFIGURATION TABLE

Code: SD7037052121

SD7	0370		5		2		12		1	
SD700 Series	Output Current		Input Voltage		Protection Degree		Pulses Number		Filters	
	0370	370A	2	230V	0	IP00*	-	6 Pulses	-	Second Environmental
	0460	460A	5	380-500V	2	IP20	12	12 Pulses	1	First Environmental
	7	525V	5	IP54	18	18 Pulses		
	2200	2200A	6	550-690V						

(*) Ask for availability.

General considerations

- To select a drive with First Environment Filter, replace Y by 1.
- To indicate the Protection Degree, replace X by 0, 2 or 5 (IP00, IP20 and IP54 respectively). In case of IP00, ask for availability).

Examples:

Reference: SD718006212

SD700, 1800A, 690Vac, Protection Degree IP20, 12 pulse, Environment 2

Reference: SD7180062121

SD700, 1800A, 690Vac, Protection Degree IP20, 12 pulse, Environment 1

- Rated power for standard A.C. motors of 4-pole (1500rpm).
- Verify the rated current of the motor nameplate to guarantee the compatibility with the selected drive.

FOR THOSE CONFIGURATIONS NON STANDARD ASK FOR AVAILABILITY TO POWER ELECTRONICS.



230Vac (±20%) - 6 pulses

FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY			OPERATION TEMPERATURE 40°C NORMAL DUTY		
		I(A) Rated	Power Motor (kW) at 230Vac	150% Overload	I(A) Rated	Power Motor (kW) at 230Vac	120% Overload
1	SD70006 2X Y	6	1,5	9	7,5	2,2	9
	SD70009 2X Y	9	2,2	14	11	3	14
	SD70012 2X Y	12	3	18	15	5,5	18
	SD70020 2X Y	20	5,5	30	25	7,5	30
	SD70026 2X Y	26	7,5	39	33	9	39
2	SD70032 2X Y	32	9	48	40	11	48
	SD70039 2X Y	39	11	59	49	15	59
	SD70050 2X Y	50	15	75	63	18,5	75
3	SD70064 2X Y	64	18,5	96	80	22	96
	SD70075 2X Y	75	22	113	94	25	113
	SD70090 2X Y	90	25	135	113	33	135
	SD70115 2X Y	115	33	173	144	45	173
4	SD70150 2X Y	150	45	225	188	51	225
	SD70170 2X Y	170	51	255	213	63	255
5	SD70210 2X Y	210	63	315	263	75	315
	SD70250 2X Y	250	75	375	313	75	375
	SD70275 2X Y	275	75	413	344	100	413
6	SD70330 2X Y	330	100	495	413	110	495
	SD70370 2X Y	370	110	555	463	140	555
	SD70460 2X Y	460	140	690	575	185	690
7	SD70580 2X Y	580	185	870	725	200	870
	SD70650 2X Y	650	200	975	813	220	975
	SD70720 2X Y	720	220	1080	900	250	1080

400Vac (-20% to +10%) - 6 pulses							
FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY			OPERATION TEMPERATURE 40°C NORMAL DUTY		
		I(A) Rated	Power Motor (kW) at 400Vac	150% Overload	I(A) Rated	Power Motor (kW) at 400Vac	120% Overload
1	SD70006 5X Y	6	2,2	9	7,5	3	9
	SD70009 5X Y	9	4	14	11	5,5	14
	SD70012 5X Y	12	5,5	18	15	7,5	18
	SD70018 5X Y	18	7,5	27	23	11	27
	SD70024 5X Y	24	11	36	30	15	36
2	SD70032 5X Y	32	15	48	40	18,5	48
	SD70038 5X Y	38	18,5	57	48	22	57
	SD70048 5X Y	48	22	72	60	30	72
3	SD70060 5X Y	60	30	90	75	37	90
	SD70075 5X Y	75	37	113	94	45	113
	SD70090 5X Y	90	45	135	113	55	135
	SD70115 5X Y	115	55	173	144	75	173
4	SD70150 5X Y	150	75	225	188	90	225
	SD70170 5X Y	170	90	255	213	110	255
5	SD70210 5X Y	210	110	315	263	132	315
	SD70250 5X Y	250	132	375	313	160	375
	SD70275 5X Y	275	150	413	344	200	413
6	SD70330 5X Y	330	160	495	413	220	495
	SD70370 5X Y	370	200	555	463	250	555
	SD70460 5X Y	460	250	690	575	315	690
7	SD70580 5X Y	580	315	870	725	400	870
	SD70650 5X Y	650	355	975	813	450	975
	SD70720 5X Y	720	400	1080	900	500	1080
8	SD70840 5X Y	840	450	1260	1050	560	1260
	SD70925 5X Y	925	500	1388	1156	630	1388
	SD70990 5X Y	990	560	1485	1238	710	1485
9	SD71150 5X Y	1150	630	1725	1438	800	1725
	SD71260 5X Y	1260	710	1890	1575	900	1890
	SD71440 5X Y	1440	800	2160	1800	1000	2160
10	SD71580 5X Y	1580	900	2370	1975	1100	2370
	SD71800 5X Y	1800	1000	2700	2250	1200	2700
11	SD72200 5X Y	2200	1200	3300	2750	1500	3300

400Vac (-20% to +10%) - 12 pulses							
6	SD70330 5X 12 Y	330	160	495	413	220	495
	SD70370 5X 12 Y	370	200	555	463	250	555
	SD70460 5X 12 Y	460	250	690	575	315	690
8	SD70840 5X 12 Y	840	450	1260	1050	560	1260
	SD70925 5X 12 Y	925	500	1388	1156	630	1388
	SD70990 5X 12 Y	990	560	1485	1238	710	1485
9	SD71150 5X 12 Y	1150	630	1725	1438	800	1725
	SD71260 5X 12 Y	1260	710	1890	1575	900	1890
	SD71440 5X 12 Y	1440	800	2160	1800	1000	2160
11	SD72200 5X 12 Y	2200	1200	3300	2750	1500	3300

400Vac (-20% to +10%) - 18 pulses							
7	SD70580 5X 18 Y	580	315	870	725	400	870
	SD70650 5X 18 Y	650	355	975	813	450	975
	SD70720 5X 18 Y	720	400	1080	900	500	1080
9	SD71150 5X 18 Y	1150	630	1725	1438	800	1725
	SD71260 5X 18 Y	1260	710	1890	1575	900	1890
	SD71440 5X 18 Y	1440	800	2160	1800	1000	2160
10	SD71580 5X 18 Y	1580	900	2370	1975	1100	2370
	SD71800 5X 18 Y	1800	1000	2700	2250	1200	2700
11	SD72200 5X 18 Y	2200	1200	3300	2750	1500	3300

400Vac (-20% to +10%) - 24 pulses							
8	SD70840 5X 24 Y	840	450	1260	1050	560	1260
	SD70925 5X 24 Y	925	500	1156	1156	630	1388
	SD70990 5X 24 Y	990	600	1485	1238	710	1485
11	SD72200 5X 24 Y	2200	1200	3300	2750	1500	3300

500Vac (-20% to +10%) - 6 pulses							
FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY			OPERATION TEMPERATURE 40°C NORMAL DUTY		
		I(A) Rated	Power Motor (kW) at 500Vac	150% Overload	I(A) Rated	Power Motor (kW) at 500Vac	120% Overload
1	SD70006 5X Y	4,8	2,2	7,2	6	4	7,2
	SD70009 5X Y	7	4	10	9	5,5	10
	SD70012 5X Y	9,5	5,5	14	12	7,5	14
	SD70018 5X Y	14	7,5	21	18	11	21
	SD70024 5X Y	19	11	28	24	15	28
2	SD70032 5X Y	25	15	38	32	18,5	38
	SD70038 5X Y	30	18,5	45	38	22	45
	SD70048 5X Y	38	22	57	48	30	57
3	SD70060 5X Y	48	30	72	60	37	72
	SD70075 5X Y	60	37	90	75	45	90
	SD70090 5X Y	72	45	108	90	55	108
	SD70115 5X Y	92	55	138	115	75	138
4	SD70150 5X Y	120	75	180	150	90	180
	SD70170 5X Y	136	90	204	170	110	204
5	SD70210 5X Y	168	110	252	210	132	252
	SD70250 5X Y	200	132	300	250	150	300
	SD70275 5X Y	212	150	318	265	160	318
6	SD70330 5X Y	264	160	396	330	200	396
	SD70370 5X Y	296	200	444	370	250	444
	SD70460 5X Y	368	250	552	460	315	552
7	SD70580 5X Y	464	315	696	580	355	696
	SD70650 5X Y	520	355	780	650	400	780
	SD70720 5X Y	576	400	864	720	450	864
8	SD70840 5X Y	672	450	1008	840	500	1008
	SD70925 5X Y	740	500	1110	925	560	1110
	SD70990 5X Y	767	560	1151	959	630	1151
9	SD71150 5X Y	920	630	1380	1150	710	1380
	SD71260 5X Y	1008	710	1512	1260	800	1512
	SD71440 5X Y	1152	800	1728	1440	900	1728
10	SD71580 5X Y	1264	900	1896	1580	1000	1896
	SD71800 5X Y	1440	1000	2160	1800	1200	2160
11	SD72200 5X Y	1760	1200	2640	2200	1500	2640

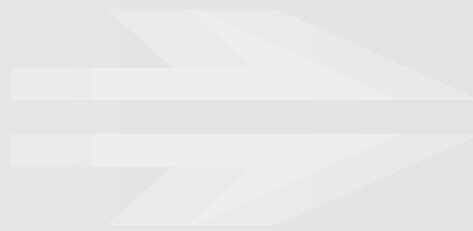
500Vac (-20% to +10%) - 12 pulses							
6	SD70330 5X 12 Y	264	160	396	330	200	396
	SD70370 5X 12 Y	296	200	444	370	250	444
	SD70460 5X 12 Y	368	250	552	460	315	552
8	SD70840 5X 12 Y	672	450	1008	840	500	1008
	SD70925 5X 12 Y	740	500	1110	925	560	1110
	SD70990 5X 12 Y	743	500	1110	929	560	1110
9	SD71150 5X 12 Y	920	630	1380	1150	710	1380
	SD71260 5X 12 Y	1008	710	1512	1260	800	1512
	SD71440 5X 12 Y	1152	800	1728	1440	900	1728
11	SD72200 5X 12 Y	1760	1200	2640	2200	1500	2640

500Vac (-20% to +10%) - 18 pulses							
7	SD70580 5X 18 Y	464	315	696	580	355	696
	SD70650 5X 18 Y	520	355	780	650	400	780
	SD70720 5X 18 Y	576	400	864	720	450	864
9	SD71150 5X 18 Y	920	630	1380	1150	710	1380
	SD71260 5X 18 Y	1008	710	1512	1260	800	1512
	SD71440 5X 18 Y	1152	800	1728	1440	900	1728
10	SD71580 5X 18 Y	1264	900	1896	1580	1000	1896
	SD71800 5X 18 Y	1440	1000	2160	1800	1200	2160
11	SD72200 5X 18 Y	1760	1200	2640	2200	1500	2640

500Vac (-20% to +10%) - 24 pulses							
8	SD70840 5X 24 Y	672	450	1008	840	500	1008
	SD70925 5X 24 Y	740	500	1110	925	560	1110
	SD70990 5X 24 Y	743	500	1110	929	560	1110
11	SD72200 5X 24 Y	1760	1200	2640	2200	1500	2640

SD700

> standard ratings



525Vac (-20% to +10%) - 6 pulses							
FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY			OPERATION TEMPERATURE 40°C NORMAL DUTY		
		I(A) Rated	Power Motor (kW) at 525Vac	150% Overload	I(A) Rated	Power Motor (kW) at 525Vac	120% Overload
4	SD70100 7X Y	100	75	150	122	90	150
	SD70120 7X Y	120	90	180	147	110	180
	SD70145 7X Y	145	110	218	176	132	218
5	SD70180 7X Y	180	132	270	222	150	270
	SD70205 7X Y	205	150	308	254	185	308
6	SD70270 7X Y	270	200	405	334	250	405
	SD70295 7X Y	295	220	443	360	280	443
	SD70340 7X Y	340	250	510	417	315	510
7	SD70425 7X Y	425	315	638	526	400	638
	SD70470 7X Y	470	355	705	586	450	705
	SD70535 7X Y	535	400	803	666	500	803
8	SD70660 7X Y	660	500	990	824	600	990
	SD70750 7X Y	750	560	1125	936	700	1125
9	SD70845 7X Y	845	630	1268	1052	800	1268
	SD70950 7X Y	950	710	1425	1157	900	1425
10	SD71070 7X Y	1070	800	1605	1337	1000	1605
	SD71205 7X Y	1205	900	1808	1504	1100	1808
	SD71340 7X Y	1340	1000	2010	1672	1250	2010
	SD71605 7X Y	1605	1200	2408	2006	1500	2408
11	SD72005 7X Y	2005	1500	3008	2507	1900	3008

690Vac (-15% to +10%) - 6 pulses							
FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY			OPERATION TEMPERATURE 40°C NORMAL DUTY		
		I(A) Rated	Power Motor (kW) at 690Vac	150% Overload	I(A) Rated	Power Motor (kW) at 690Vac	120% Overload
3	SD70052 6X Y	52	45	78	65	55	78
	SD70062 6X Y	62	55	93	78	75	93
4	SD70080 6X Y	80	75	120	100	90	120
	SD70105 6X Y	105	90	157	131	110	157
5	SD70130 6X Y	130	110	195	163	132	195
	SD70150 6X Y	150	132	225	188	160	225
	SD70170 6X Y	170	160	255	213	200	255
6	SD70210 6X Y	210	200	315	263	250	315
	SD70260 6X Y	260	250	390	325	315	390
	SD70320 6X Y	320	315	480	400	355	480
7	SD70385 6X Y	385	355	578	481	450	578
	SD70460 6X Y	460	450	690	575	500	690
8	SD70550 6X Y	550	500	825	688	630	825
	SD70660 6X Y	660	630	990	825	800	990
9	SD70750 6X Y	750	710	1125	938	900	1125
	SD70840 6X Y	840	800	1260	1050	1000	1260
	SD70950 6X Y	950	900	1425	1188	1100	1425
10	SD71140 6X Y	1140	1000	1710	1425	1300	1710
	SD71270 6X Y	1270	1200	1905	1588	1600	1905
	SD71420 6X Y	1420	1400	2130	1775	1700	2130
11	SD71500 6X Y	1500	1500	2250	1875	1800	2250
	SD71800 6X Y	1800	1800	2700	2250	2000	2700

525Vac (-20% to +10%) - 12 pulses							
6	SD70270 7X 12 Y	270	200	405	334	250	405
	SD70295 7X 12 Y	295	220	443	360	280	443
	SD70340 7X 12 Y	340	250	510	417	315	510
8	SD70660 7X 12 Y	660	500	990	824	600	990
	SD70750 7X 12 Y	750	560	1125	936	700	1125
9	SD70845 7X 12 Y	845	630	1268	1052	800	1268
	SD70950 7X 12 Y	950	710	1425	1157	900	1425
11	SD72005 7X 12 Y	2005	1500	3008	2507	1900	3008

690Vac (-15% to +10%) - 12 pulses							
6	SD70210 6X 12 Y	210	200	315	263	250	315
	SD70260 6X 12 Y	260	250	390	325	315	390
	SD70320 6X 12 Y	320	315	480	400	355	480
8	SD70550 6X 12 Y	550	500	825	688	630	825
	SD70660 6X 12 Y	660	630	990	825	800	990
9	SD70750 6X 12 Y	750	710	1125	938	900	1125
	SD70840 6X 12 Y	840	800	1260	1050	1000	1260
	SD70950 6X 12 Y	950	900	1425	1188	1100	1425
11	SD71500 6X 12 Y	1500	1500	2250	1875	1800	2250
	SD71800 6X 12 Y	1800	1800	2700	2250	2000	2700

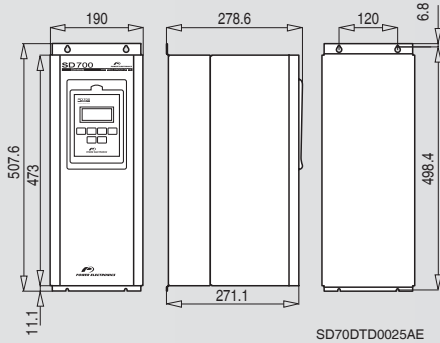
525Vac (-20% to +10%) - 18 pulses							
7	SD70425 7X 18 Y	425	315	638	526	400	638
	SD70470 7X 18 Y	470	355	705	586	450	705
	SD70535 7X 18 Y	535	400	803	666	500	803
9	SD70845 7X 18 Y	845	630	1268	1052	800	1268
	SD70950 7X 18 Y	950	710	1425	1157	900	1425
10	SD71070 7X 18 Y	1070	800	1605	1337	1000	1605
	SD71205 7X 18 Y	1205	900	1808	1504	1100	1808
	SD71340 7X 18 Y	1340	1000	2010	1672	1250	2010
	SD71605 7X 18 Y	1605	1200	2408	2006	1500	2408
11	SD72005 7X 18 Y	2005	1500	3008	2507	1900	3008

690Vac (-15% to +10%) - 18 pulses							
7	SD70385 6X 18 Y	385	355	578	481	450	578
	SD70460 6X 18 Y	460	450	690	575	500	690
9	SD70750 6X 18 Y	750	710	1125	938	900	1125
	SD70840 6X 18 Y	840	800	1260	1050	1000	1260
	SD70950 6X 18 Y	950	900	1425	1188	1100	1425
10	SD71140 6X 18 Y	1140	1000	1710	1425	1300	1710
	SD71270 6X 18 Y	1270	1200	1905	1588	1600	1905
	SD71420 6X 18 Y	1420	1400	2130	1775	1700	2130
11	SD71500 6X 18 Y	1500	1500	2250	1875	1800	2250
	SD71800 6X 18 Y	1800	1800	2700	2250	2000	2700

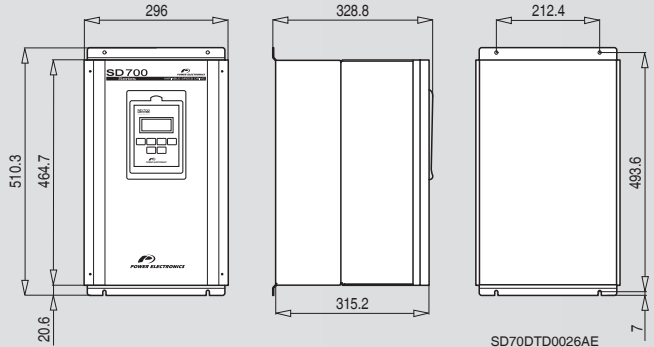
525Vac (-20% to +10%) - 24 pulses							
8	SD70660 7X 24 Y	660	500	990	824	600	990
	SD70750 7X 24 Y	750	560	1125	936	700	1125
11	SD72005 7X 24 Y	2005	1500	3008	2507	1900	3008

690Vac (-15% to +10%) - 24 pulses							
8	SD70550 6X 24 Y	550	500	825	680	630	825
	SD70660 6X 24 Y	660	630	990	825	800	990
11	SD71500 6X 24 Y	1500	1500	2250	1875	1800	2250
	SD71800 6X 24 Y	1800	1800	2700	2250	2000	2700

10 SD700 > dimensions



SD700TD0025AE



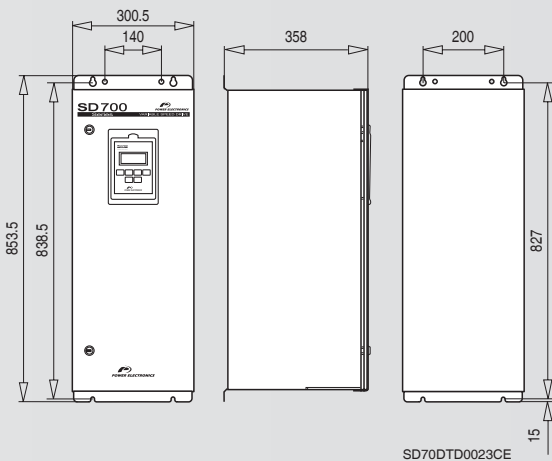
SD700TD0026AE

FRAME 1

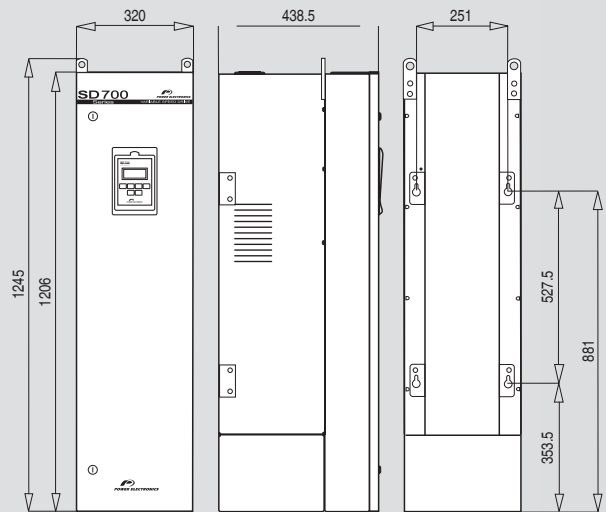
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70006 2X Y	SD70006 5X Y			15
SD70009 2X Y	SD70009 5X Y			
SD70012 2X Y	SD70012 5X Y	-	-	
SD70020 2X Y	SD70018 5X Y			
SD70026 2X Y	SD70024 5X Y			

FRAME 2

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70032 2X Y	SD70032 5X Y			26
SD70039 2X Y	SD70038 5X Y	-	-	
SD70050 2X Y	SD70048 5X Y			



SD700TD0023CE



SD700TD0001DE

FRAME 3

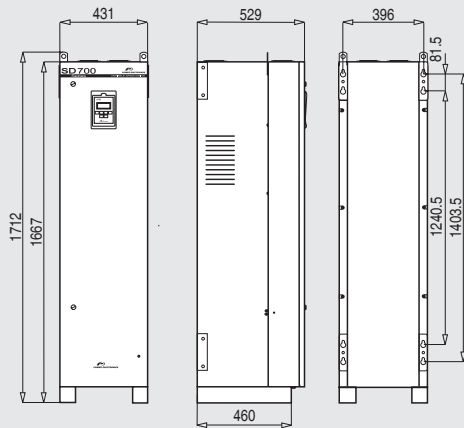
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70064 2X Y	SD70060 5X Y		SD70052 6X Y	67.5
SD70075 2X Y	SD70075 5X Y		SD70062 6X Y	
SD70090 2X Y	SD70090 5X Y	-	-	
SD70115 2X Y	SD70115 5X Y		-	

FRAME 4

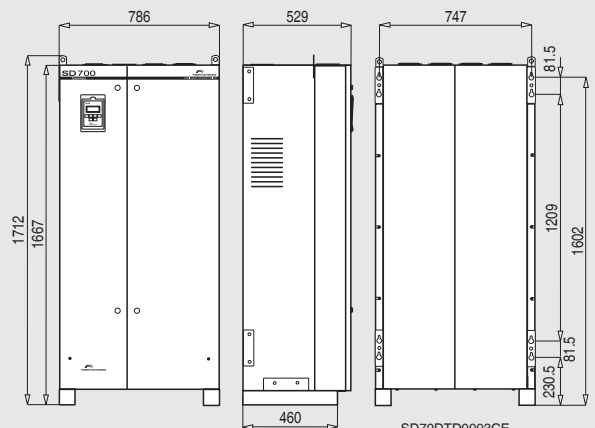
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70150 2X Y	SD70150 5X Y	SD70100 7X Y	SD70080 6X Y	100
SD70170 2X Y	SD70170 5X Y	SD70120 7X Y	SD70105 6X Y	
		SD70145 7X Y	-	

Dimensions in mm for IP20 and IP54

For IP00 dimensions consult with Power Electronics



SD70DTD0002DE



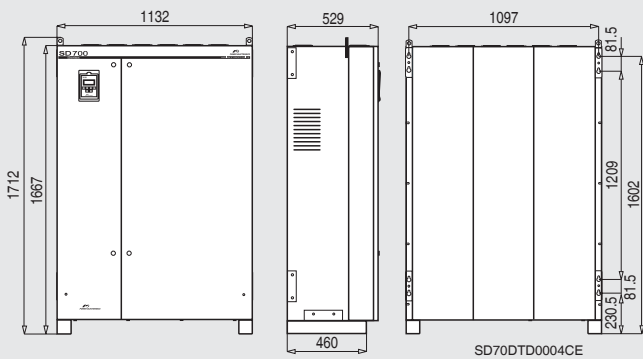
SD70DTD0003CE

FRAME 5

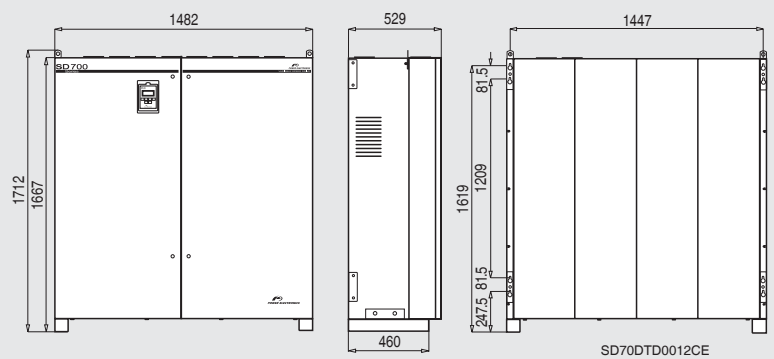
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70210 2X Y	SD70210 5X Y	SD70180 7X Y	SD70130 6X Y	180
SD70250 2X Y	SD70250 5X Y	SD70205 7X Y	SD70150 6X Y	
SD70275 2X Y	SD70275 5X Y	-	SD70170 6X Y	

FRAME 6

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70330 2X Y	SD70330 5X Y	SD70270 7X Y	SD70210 6X Y	340
SD70370 2X Y	SD70370 5X Y	SD70295 7X Y	SD70260 6X Y	
SD70460 2X Y	SD70460 5X Y	SD70340 7X Y	SD70320 6X Y	
-	SD70330 5X 12 Y	SD70270 7X 12 Y	SD70210 6X 12 Y	
-	SD70370 5X 12 Y	SD70295 7X 12 Y	SD70260 6X 12 Y	
-	SD70460 5X 12 Y	SD70340 7X 12 Y	SD70320 6X 12 Y	
-				



SD70DTD0004CE



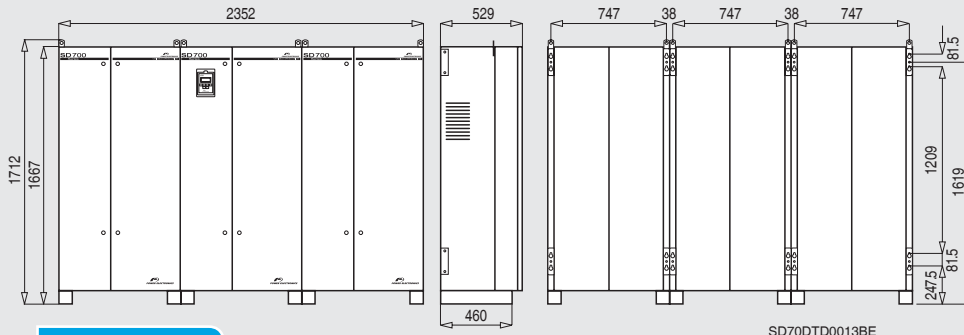
SD70DTD0012CE

FRAME 7

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70580 2X Y	SD70580 5X Y	SD70425 7X Y	SD70385 6X Y	470
SD70650 2X Y	SD70650 5X Y	SD70470 7X Y	SD70460 6X Y	
SD70720 2X Y	SD70720 5X Y	SD70535 7X Y	SD70385 6X 18 Y	
-	SD70580 5X 18 Y	SD70425 7X 18 Y	SD70460 6X 18 Y	
-	SD70650 5X 18 Y	SD70470 7X 18 Y	-	
-	SD70720 5X 18 Y	SD70535 7X 18 Y	-	

FRAME 8

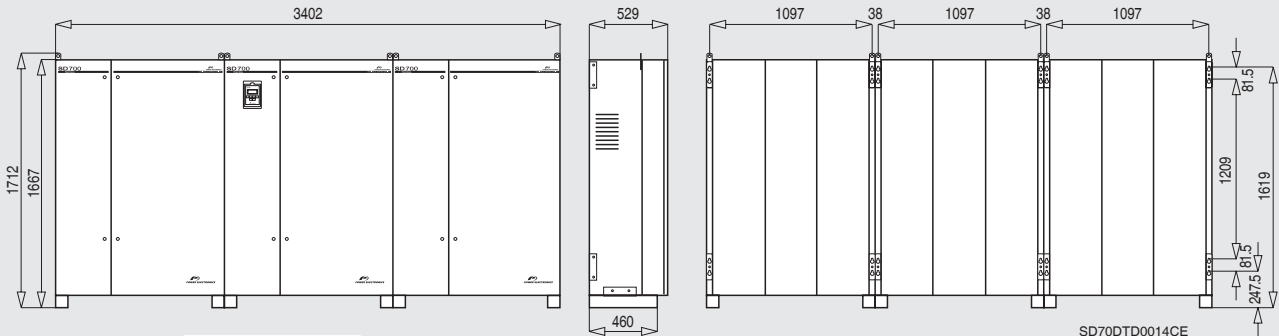
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
-	SD70840 5X Y	SD70660 7X Y	SD70550 6X Y	585
-	SD70925 5X Y	SD70750 7X Y	SD70660 6X Y	
-	SD70990 5X Y	SD70660 7X 12 Y	SD70550 6X 12 Y	
-	SD70840 5X 12 Y	SD70750 7X 12 Y	SD70660 6X 12 Y	
-	SD70925 5X 12 Y	SD70660 7X 24 Y	SD70550 6X 24 Y	
-	SD70990 5X 12 Y	SD70750 7X 24 Y	SD70660 6X 24 Y	
-	SD70840 5X 24 Y	-	-	
-	SD70925 5X 24 Y	-	-	
-	SD70990 5X 24 Y	-	-	
-				



SD70DTD0013BE

FRAME 9

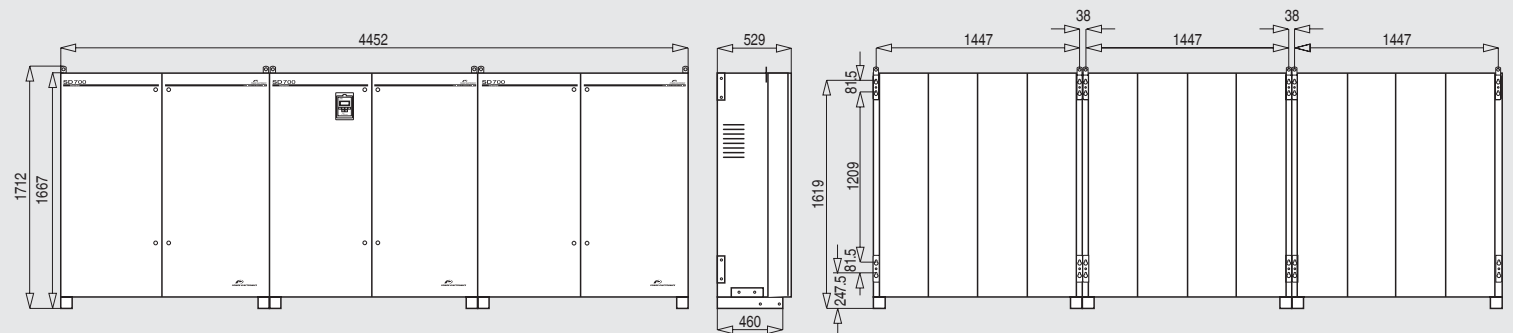
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
-	SD71150 5X Y SD71260 5X Y SD71440 5X Y SD71150 5X 12 Y SD71260 5X 12 Y SD71440 5X 12 Y SD71150 5X 18 Y SD71260 5X 18 Y SD71440 5X 18 Y	SD70845 7X Y SD70950 7X Y SD70845 7X 12 Y SD70950 7X 12 Y SD70845 7X 18 Y SD70950 7X 18 Y -	SD70750 6X Y SD70840 6X Y SD70950 6X Y SD70750 6X 12 Y SD70840 6X 12 Y SD70950 6X 12 Y SD70750 6X 18 Y SD70840 6X 18 Y SD70950 6X 18 Y	1005



SD70DTD0014CE

FRAME 10

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
-	SD71580 5X Y SD71800 5X Y SD71580 5X 18 Y SD71800 5X 18 Y -	SD71070 7X Y SD71205 7X Y SD71340 7X Y SD71605 7X Y SD71070 7X 18 Y SD71205 7X 18 Y SD71340 7X 18 Y SD71605 7X 18 Y	SD71140 6X Y SD71270 6X Y SD71420 6X Y SD71140 6X 18 Y SD71270 6X 18 Y SD71420 6X 18 Y -	1437



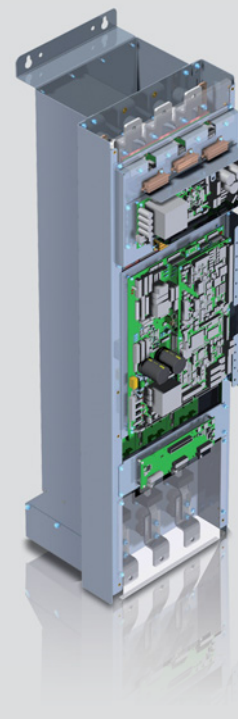
SD70DTD0015CE

FRAME 11

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
-	SD72200 5X Y SD72200 5X 12 Y SD72200 5X 18 Y SD72200 5X 24 Y -	SD72005 7X Y SD72005 7X 12 Y SD72005 7X 18 Y SD72005 7X 24 Y -	SD71500 6X Y SD71800 6X Y SD71500 6X 12 Y SD71800 6X 12 Y SD71500 6X 18 Y SD71800 6X 18 Y SD71500 6X 24 Y SD71800 6X 24 Y	1755

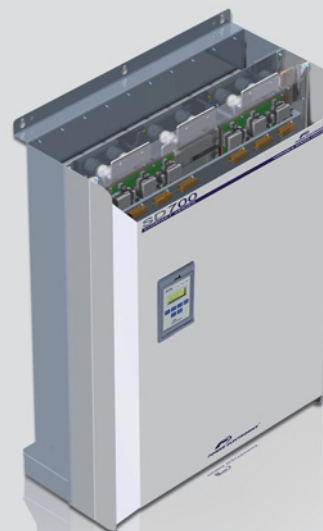
INPUT	Power supply	230Vac, 380-500Vac, 525Vac, 690Vac. For different voltages consult to Power Electronics.
	Input frequency	48 - 62Hz
	Input Current	≤ Output current
	Input power factor	≥ 0,98 (of fundamental)
	Power factor	≤ 0,91
	Momentary power loss	> 2s (depending on the load)
	EMC input filter	Second environment, limits 3 and 4
	Harmonics filter	Choke coils 3% impedance external assembly
OUTPUT	Motor output voltage	0V to Vinput - 3% @ 100% load (Frames 1 to 4)
	Frequency ratings	0 to ± 250%
	Overload capacity	150% for 60 sec at 50°C
	Efficiency (at full load)	> 97%
	Motor power (kW)	50 to 150% of SD700
	Motor voltage	5 to 500Vac
	Control method	V/Hz control, Vector control (Sensorless) Space vector technology
	Carrier Frequency	4 to 8kHz - PEWave
	Output dV/dt filter	500 to 800V/μs (optional)
	Output cable length	Up to 300m* with optional dV/dt filters
ENVIRONMENTAL CONDITIONS	Ambient temperature	-30°C to +50°C
	Altitude	1000m
	Altitude de-rating	>1000m, -1% per 100m; maximum 3000m
	Degree Protection	IP00 and IP20
	Ambient humidity	< 95%, non-condensing
	Display degree protection	IP54
MOTOR PROTECTIONS	Rotor locked	
	Motor Overload (thermal model)	
	Phase current imbalance. Phase voltage imbalance	
	Motor over-temperature (PTC, normal status 85R-2K Ω)	
	Speed limit	
	Torque limit	
DRIVE PROTECTIONS	Output current limit	
	Overload	
	IGBTs overload	
	Input phase loss	
	High input voltage	
	Low input voltage	
	DC Bus voltage limit	
	Low DC Bus voltage	
	High input frequency	
	Low input frequency	
	IGBT temperature	
	Heatsink over-temperature	
	Power supply fault	
	Drive thermal model	
	Software and Hardware fault	
	Ground fault	
	Analogue input signal loss	

Additional features see Technical Manual of SD700 series.



(*) Cable length could be increased depending on cable type.

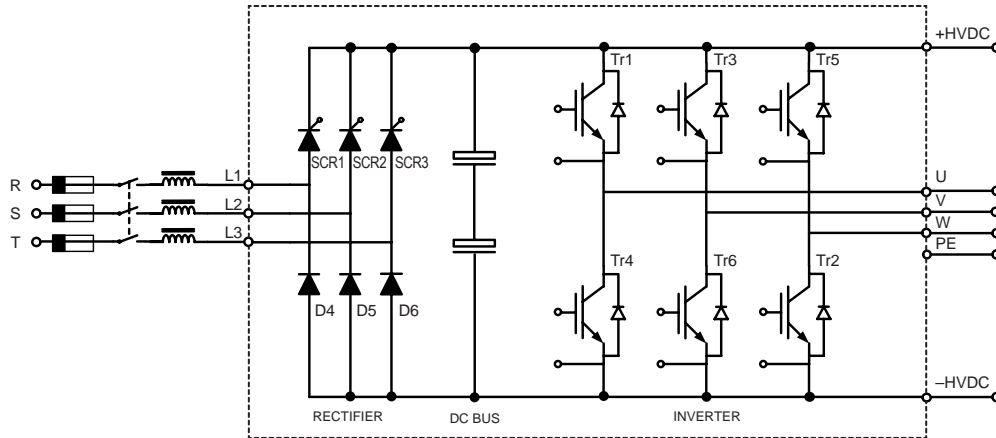
DIGITAL INPUTS	6 programmable inputs, active high (24Vdc) 1 PTC input	
ANALOGUE INPUTS	2 programmable and differential inputs Operation rates:	Current signal: 0-20mA, 4-20mA. Voltage signal: 0-10Vdc, ±10Vdc, diferencial full duplex
DIGITAL OUTPUTS	3 programmable changeover relays: Factory setting:	250Vac, 8A; 30Vdc, 8A Relay output 1: No Faults Relay output 2: General Fault Relay output 3: Run
ANALOGUE OUTPUTS	2 analogue outputs programmable for voltage or current:	0-20mA, 4-20mA, 0-10Vdc and ±10Vdc
COMMUNICATIONS	Standard Hardware: Optional Hardware Standard Protocol: Optional Protocol:	USB port RS232 port RS485 port Fibre optic Ethernet Modbus-RTU Profibus-DP DeviceNet Ethernet (Modbus TCP/IP) Ethernet IP N2 Metasys
CONTROL PANEL	Type Distance Connection Alphanumeric display Visualization Leds Keypad Graphic display	Removable 3 meters (for higher cable lenght contact with Power Electronics) RJ45 4 lines of 16 characters each one LED1 ON, control board is energized LED2 RUN, motor receiving power supply from SD700 LED3 FAULT, flashing displays that a fault has occurred 6 keys to control and configure the drive, start/stop and reset Independent memory Graphic display optional with TFT touch screen 3.5 inches Independent memory
INFORMATION DISPLAY	Average current and 3-phase motor current Average voltage and 3-phase motor voltage Average voltage and 3-phases power supply voltage Speed, Torque, Power, Power factor of the motor Relay status Digital inputs / PTC status Output comparator status Analogue inputs and sensor value Analogue outputs value Motor overload and equipment status IGBT Temperature Motor output frequency Fault history	
OTHERS	Real time clock Perpetual calendar	
CERTIFICATION	CE, cTick, UL*, cUL*	



(*) On process

SD700 kompakt

> standard ratings



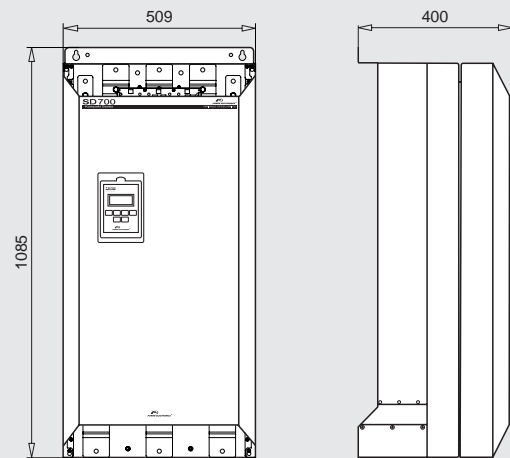
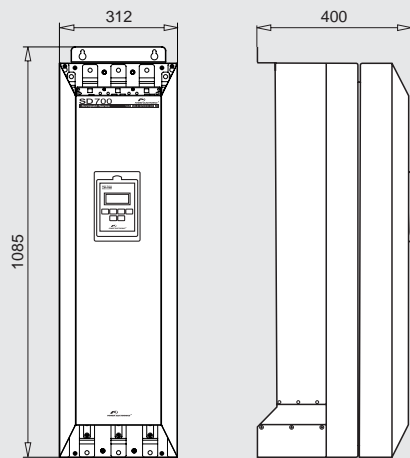
SD70DTP0009AI

Power electronics SD700 Kompakt

400Vac					
FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY		OPERATION TEMPERATURE 40°C NORMAL DUTY	
		I(A) Rated	Power Motor (kW) at 400Vac	I(A) Rated	Power Motor (kW) at 400Vac
1	SD7K021050	210	110	263	132
	SD7K025050	250	132	313	160
	SD7K027550	275	150	344	200
2	SD7K033050	330	160	413	220
	SD7K037050	370	200	463	250
	SD7K046050	460	250	575	315
3	SD7K058050	580	315	725	400
	SD7K065050	650	355	813	450
	SD7K072050	720	400	900	500
4	SD7K084050	840	450	1050	560
	SD7K092550	925	500	1156	630
	SD7K099050	990	560	1238	710

690Vac					
FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY		OPERATION TEMPERATURE 40°C NORMAL DUTY	
		I(A) Rated	Power Motor (kW) at 690Vac	I(A) Rated	Power Motor (kW) at 690Vac
1	SD7K013060	130	110	163	132
	SD7K015060	150	132	188	160
	SD7K017060	170	160	213	200
2	SD7K021060	210	200	263	250
	SD7K026060	260	250	325	315
	SD7K032060	320	315	400	355
3	SD7K038560	385	355	481	450
	SD7K046060	460	450	575	500
4	SD7K055060	550	500	688	630
	SD7K066060	660	630	825	800

SD700 kompakt > dimensions

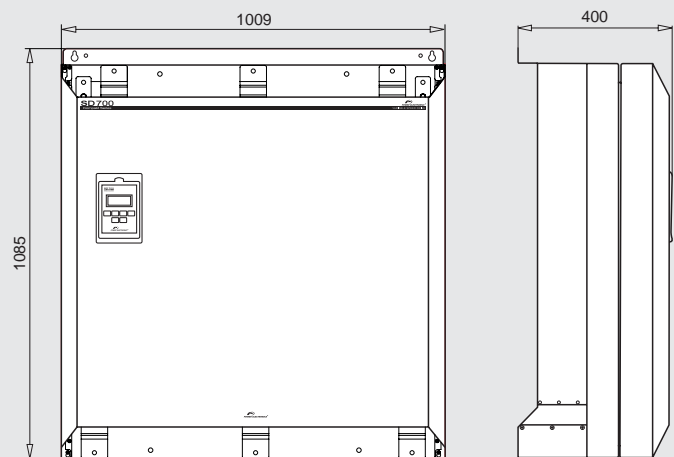
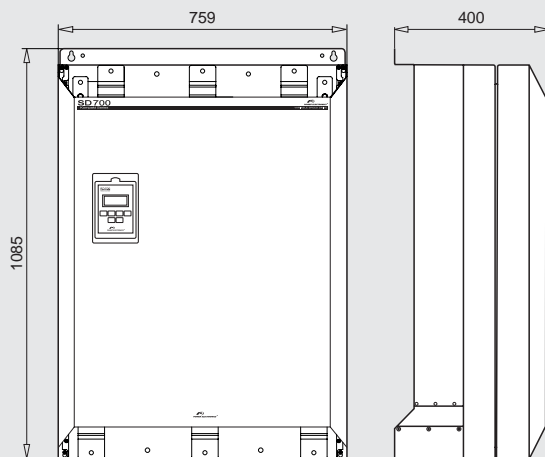


FRAME 1

INPUT VOLTAGE		WEIGHT kg
400Vac	690Vac	
SD7K021050	SD7K013060	78,2
SD7K025050	SD7K015060	78,2
SD7K027550	SD7K017060	78,2

FRAME 2

INPUT VOLTAGE		WEIGHT kg
400Vac	690Vac	
SD7K033050	SD7K021060	148
SD7K037050	SD7K026060	148
SD7K046050	SD7K032060	148



FRAME 3

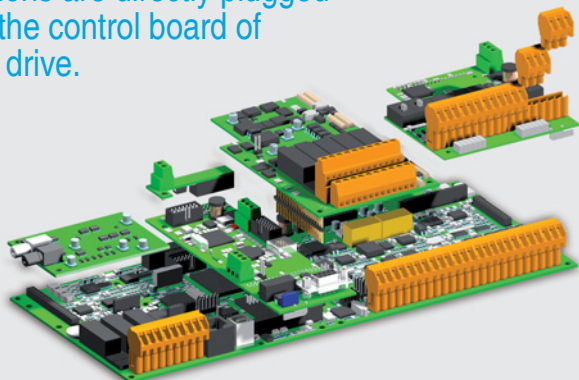
INPUT VOLTAGE		WEIGHT kg
400Vac	690Vac	
SD7K058050	SD7K038560	200
SD7K065050	SD7K046060	200
SD7K072050	—	200

FRAME 4

INPUT VOLTAGE		WEIGHT kg
400Vac	690Vac	
SD7K084050	SD7K055060	260
SD7K092550	SD7K066060	260
SD7K099050	—	260

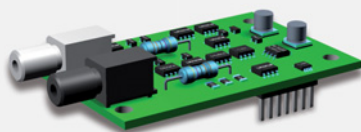
12 SD700 > options

Integrated filters, options and accessories provide additional capabilities without increasing the enclosure size. Communication boards (Profibus, Ethernet, ...) optional I/O, encoder, fibre optic and several options are directly plugged on the control board of the drive.



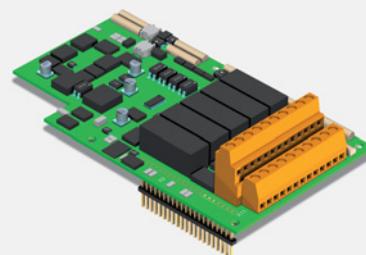
ACCESSORIES

REFERENCE	DESCRIPTION
SD7PD	Profibus Communication Module
SD7ET	Ethernet Communication Module
SD7EC	Encoder Board
SD7IO	Inputs / Outputs Board
SD7ES01E	External 24V Power Supply - Frames 1, 2 and 3 - Exterior
SD7ES04I	External 24V Power Supply - Frame 4 - Interior
SD7ES05I	External 24V Power Supply - Frame 5 - Interior
SD7ES06I	External 24V Power Supply - Frames 6, 7, 9 and 10 - Interior
SD7ES08I	External 24V Power Supply - Frames 8 and 11 - Interior
SD7FO	Fibre Optic Board
SD7TD	Graphic Display with Touch Screen
V11	Kit 3m extender for display
V12	Kit 5m extender for display
GSM01	GSM Module
B150	Dynamic Braking Unit
SD7DB	Optional Board for Slave Mode Brake
DeviceNet Communication Module*	
N2 Metasys Communication Module*	



Fibre Optic Board

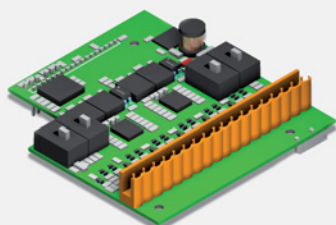
Optional board with input and output connectors to improve communication between drives. This option is perfect to connect and synchronize drives minimizing the risk of interference. The possibility of transferring data between all connected drives, improves functions such as speed monitoring, torque control (extremely useful in applications such as paper factories, textile industries...).



Inputs/Outputs Board

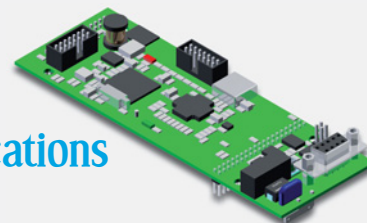
Always considering constant improvement, the SD700 offers the possibility of increasing the number of inputs and outputs. To achieve this an optional board is available with:

- 4 Programmable digital inputs optically isolated.
- 1 Programmable analogue input.
- 5 Digital outputs
- 1 Programmable analogue output.



Encoder Board

The SD700 series is provided with optional Encoder boards, allowing connection of up to 2 differential Encoders (one of them for the user and the other one for vector control) working from 5 to 24Vdc, according to requirements.



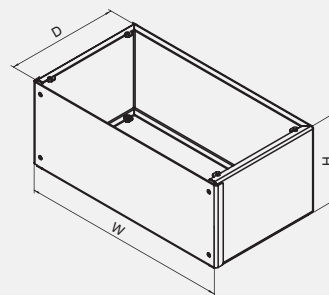
Communications Boards

The SD700 Series offers interfaces to some of the most important communication networks such as Modbus-RTU, Profibus-DP, Ethernet, DeviceNet, N2 Metasys,... From a technical perspective, the SD700 gains an improvement of installation performance by its integration into these networks. It allows for complete control and simple integration of new equipment into the network.

(*) Consult availability with Power Electronics.

EXTENSION BOX SD700

FRAME	CODE	DIMENSIONS (mm)		
		W	H	D
T1	SD7EB1	189	122	161
T2	SD7EB2	295	122	161
T3	SD7EB3	300	151	168

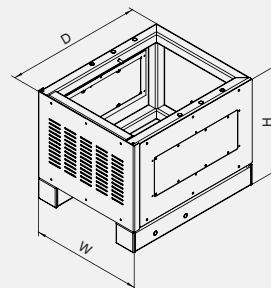
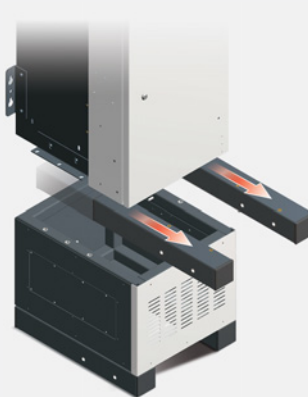


PLINTH FOR SD700

FRAME	CODE	DIMENSIONS (mm)			TOTAL DRIVE HEIGHT
		W	H	D	
5	SD7PL0520	425	413,5	529	2000
	SD7PL0522	425	613,5	529	2200
6	SD7PL0620	780	413,5	529	2000
	SD7PL0622	780	613,5	529	2200
7	SD7PL0720	1126	413,5	529	2000
	SD7PL0722	1126	613,5	529	2200
8	SD7PL0820	1476	413,5	529	2000
	SD7PL0822	1476	613,5	529	2200
9	SD7PL0920	3 X SD7PL0620			2000
	SD7PL0922	3 X SD7PL0622			2200
10	SD7PL1020	3 X SD7PL0720			2000
	SD7PL1022	3 X SD7PL0722			2200
11	SD7PL1120	3 X SD7PL0820			2000
	SD7PL1122	3 X SD7PL0822			2200

Code explanation: **SD7PL0520**

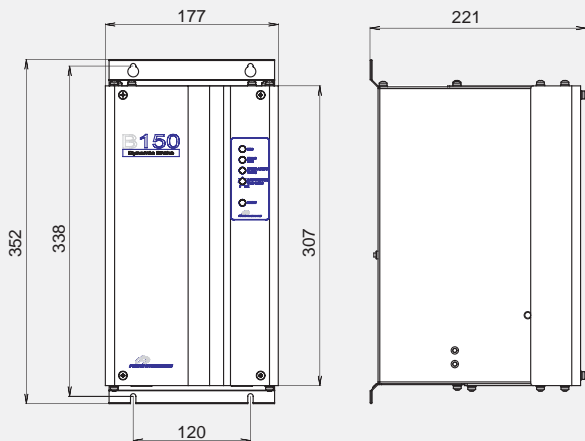
SD7	PL05	20
SD700 Series	Frame 5 Plinth	Total height 2000mm



Dynamic Braking Unit B150

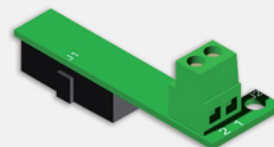
Utilisation of a dynamic brake unit provides the SD700 drives with the capability of coping with regeneration as may be experienced during the deceleration of a high inertia load (e.g. a large fan or centrifuge), or a regenerative load (as the descending movement in a crane).

The dynamic braking module transform this regenerative energy to heat in the dynamic brake resistors, maintaining in this way the control of the motor. The B150 with reduced dimensions and high reliability, is one of the main power switching device of such a dynamic braking systems.



Optional Board for Slave Mode Brake

The SD700 is able of controlling the activation of the braking unit B150. To do that, the optional board SD7DB must be used, allowing the drive to control the dynamic braking unit B150 which will operate in Slave Mode. It will not be required in case of the unit B150 operates in Master mode.





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