

# 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](http://www.power-electronics.com)

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# 01 SD700

## > 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<sup>(1)</sup> unshielded. Compliance for  
radiated and conducted emissions.

Power Range

from 2,2kW to 1,8MW

Operation temperature

from -30°C to +50°C

Protection degree

IP00<sup>(2)</sup>, IP20 and IP54

Easy maintenance

FFA<sup>(3)</sup> (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, UL<sup>(4)</sup>, cUL<sup>(4)</sup>

(1) For 400VAC, whenever the cable installation is done in accordance with the recommendations given in the SD700 manual.

(2) SD700 KOMPAKT Series

(3) Patent pending

(4) On process

0 2,000 mi  
0 2,000 km

# 02 SD700

> the definitive solution

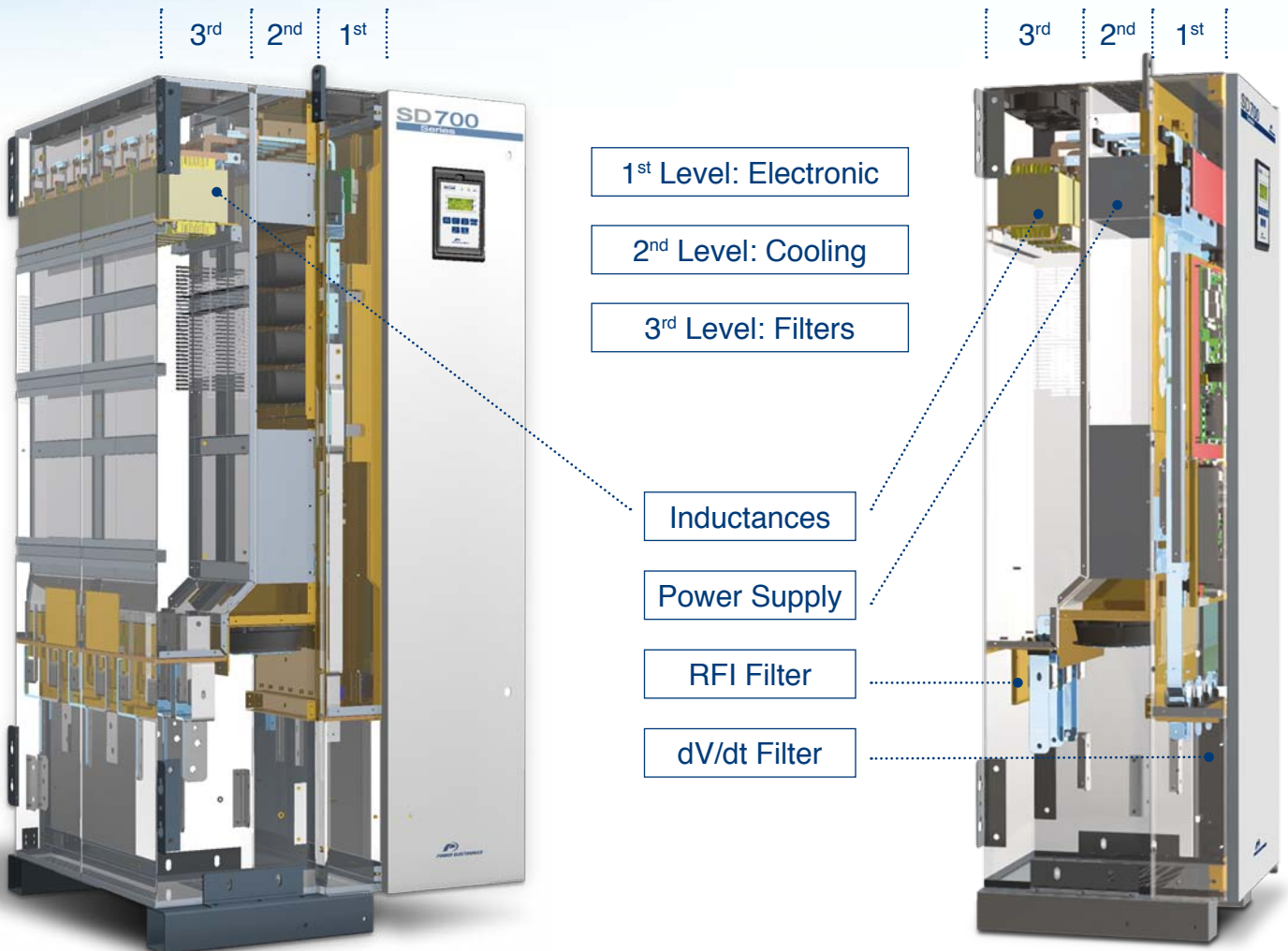
Easy to drive

## 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.



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

(\*) Patent pending

# FPA

# MCA

# FEA

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.

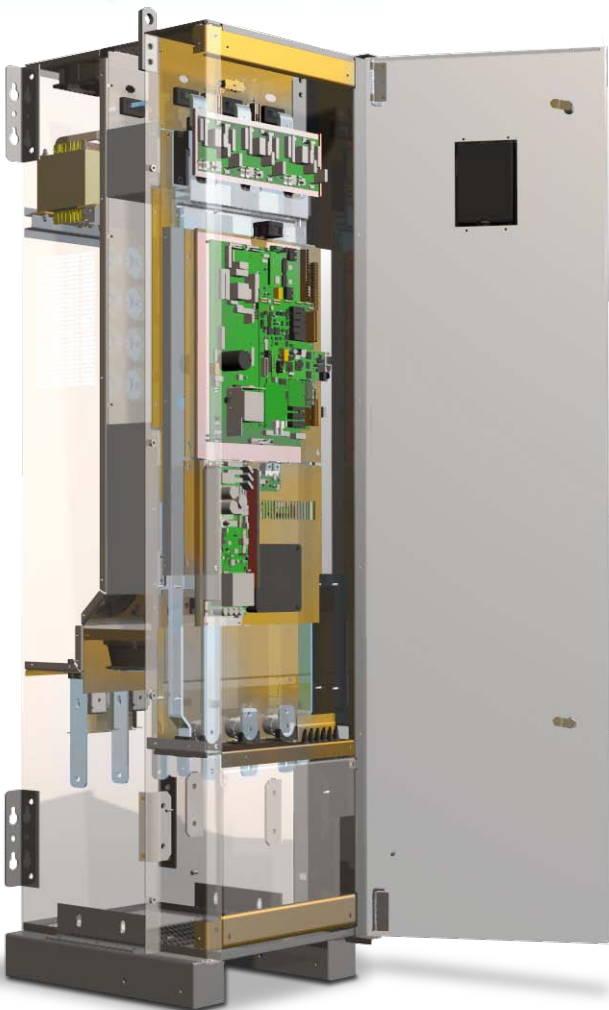
With this concept we have obtained the strength and the stability of V/Hz control plus the dynamic response of vector control under transient conditions, minimising the dependence between the motor characteristics and drive stability.

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



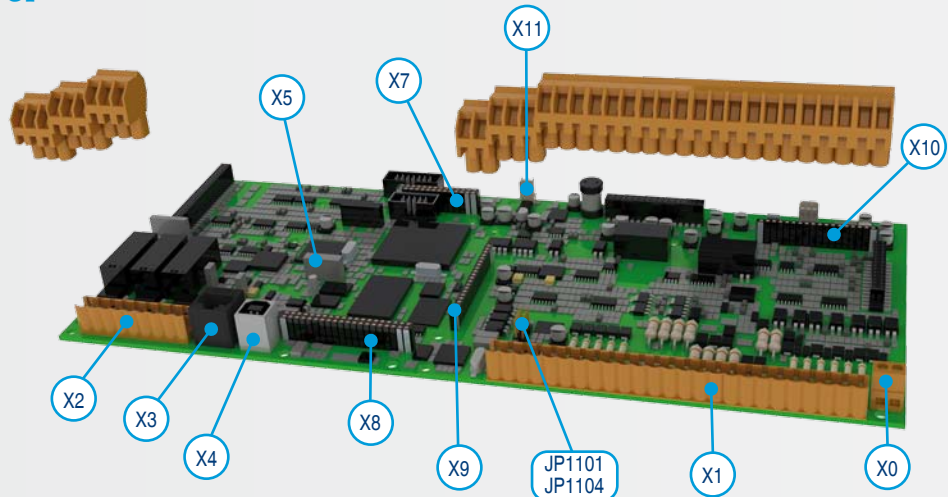
# O3 SD700

## > standard features

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

### Unplug terminals for user

- X0 Safety Stop connection
- 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.
- X7 - X8 Serial Bus options connection.
- X9 Connection for optional inputs and outputs board.
- X10 Connection for optional encoders board.
- X11 Connector for Brake in Slave Mode
- JP1101/ JP1104 To select communication port between RS232/RS485 or USB.



SD70ITC0002JE

#### ■ 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 (SD700 Kompakt), 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 of SD700.

#### ■ 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

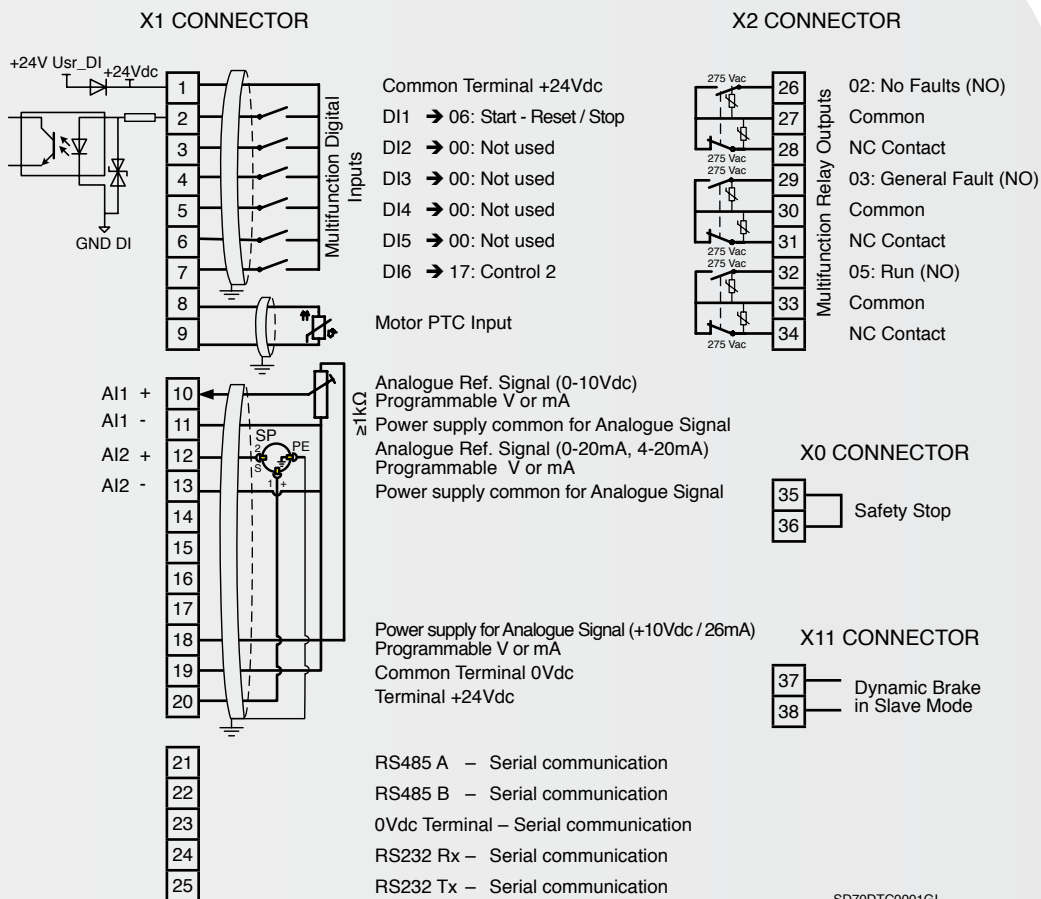
There are 6 multifunction digital inputs and 1 motor PTC input. The digital inputs can be programmed all together according to pre-fixed configurations or they can be programmed individually. They are optically isolated.

## 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.



SD70DTC0001GI

## Auxiliary tools:

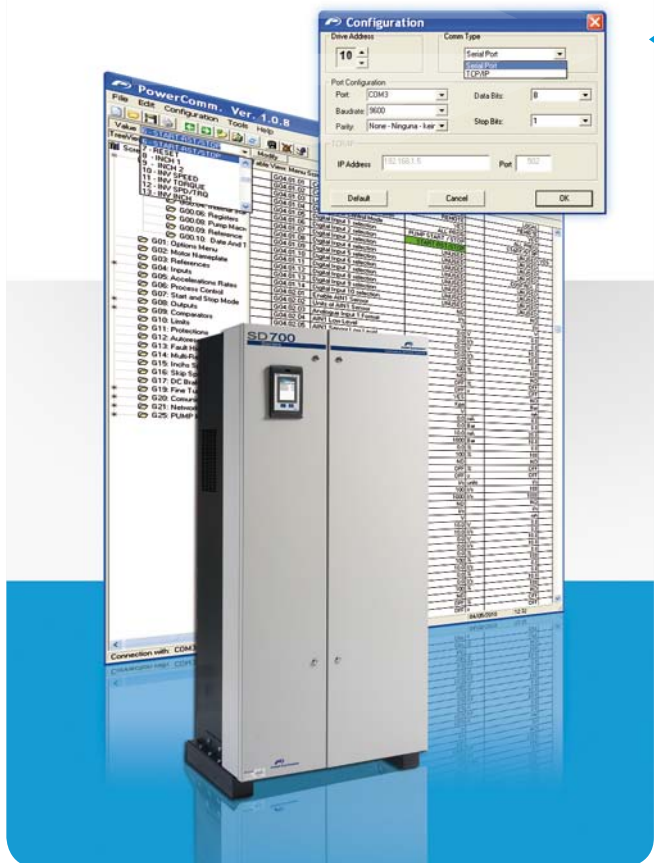
Monitoring tool **PowerCOMS** offers maximum flexibility for parameter monitoring and parameter saving. With this tool we can configure the drive in remote mode in the very most comfortable way.

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.



## Application macros

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



# 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.



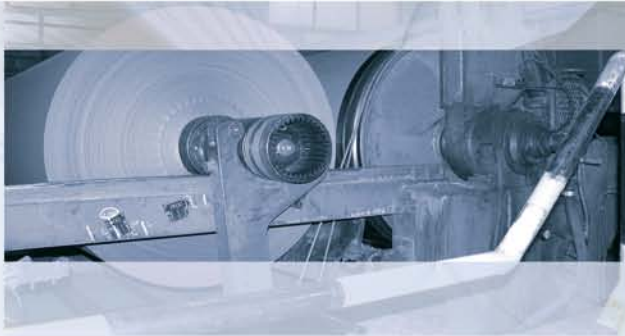
### Elevation systems

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, m<sup>3</sup>/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...

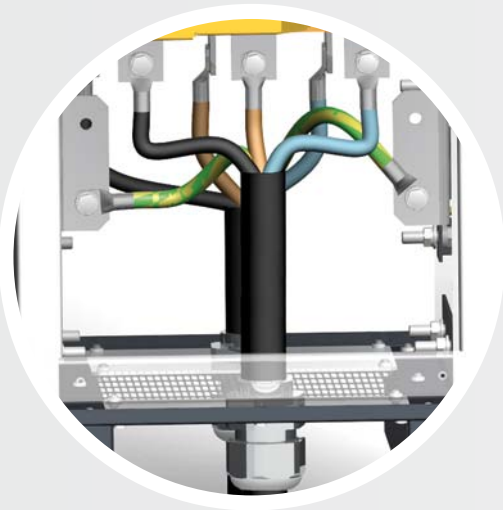


# 07 SD700

## > 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

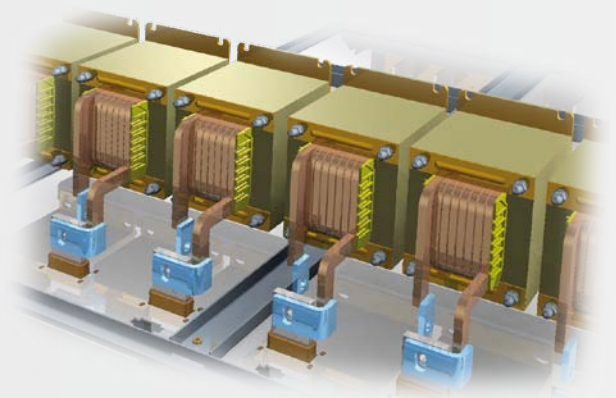
The SD700 series meets EMC compliance thanks to:

- Input chokes (as standard)
- Output dV/dt filters (as standard)
- Electronic control of the dV/dt of the IGBT
- Exceptional 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).

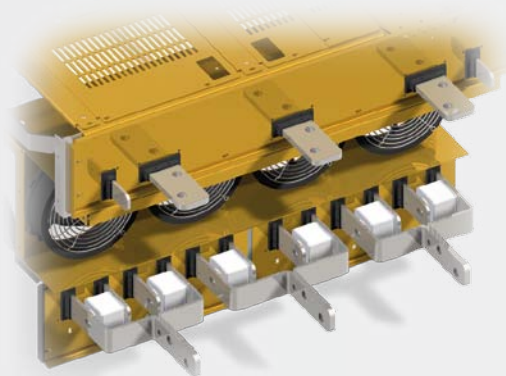
All the above mentioned ensures a continuous operation at 50°C under full load conditions.

(\*) 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.



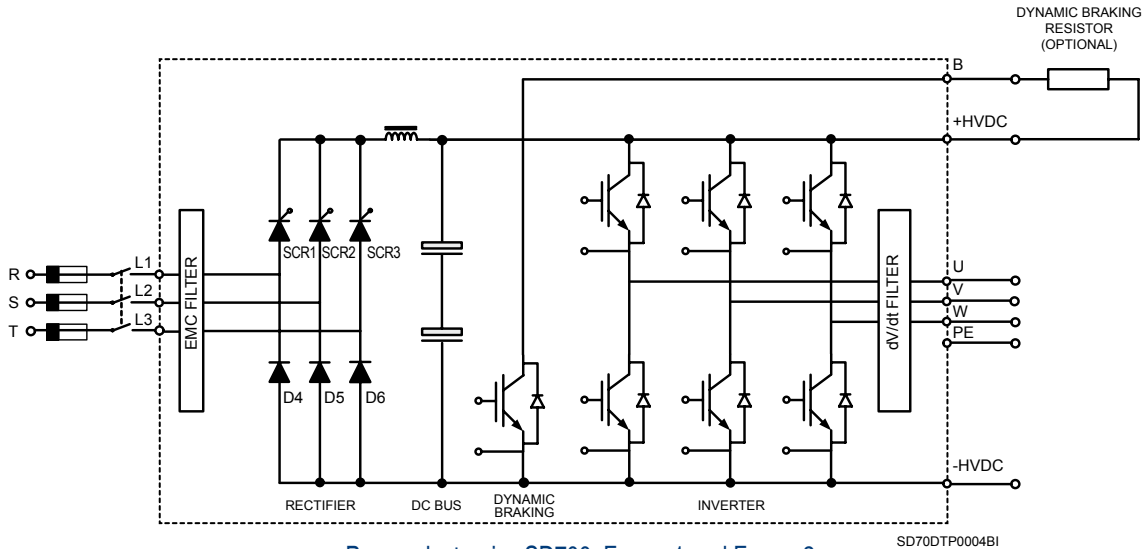
### Temperature control

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

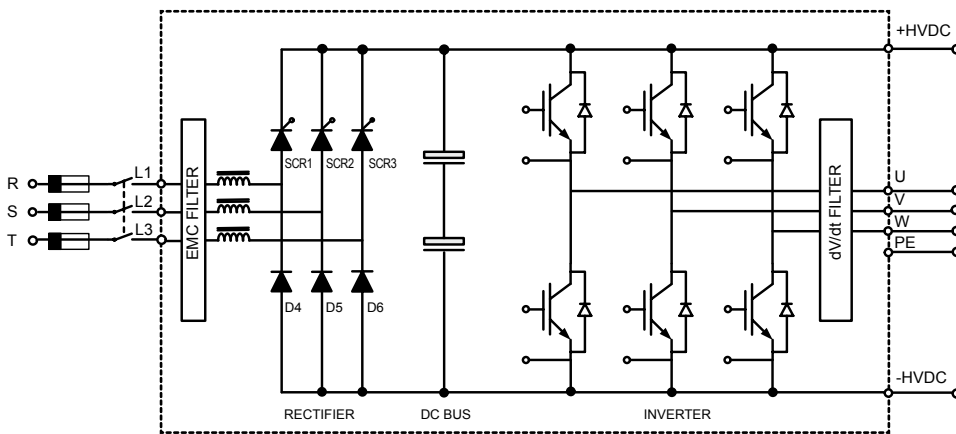
We have used integral power modules incorporating new generation IGBT's.  
 The drives are provided with a very high overload capacity and high carrier frequencies to provide silent motor operation and to achieve a low output current distortion.

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.



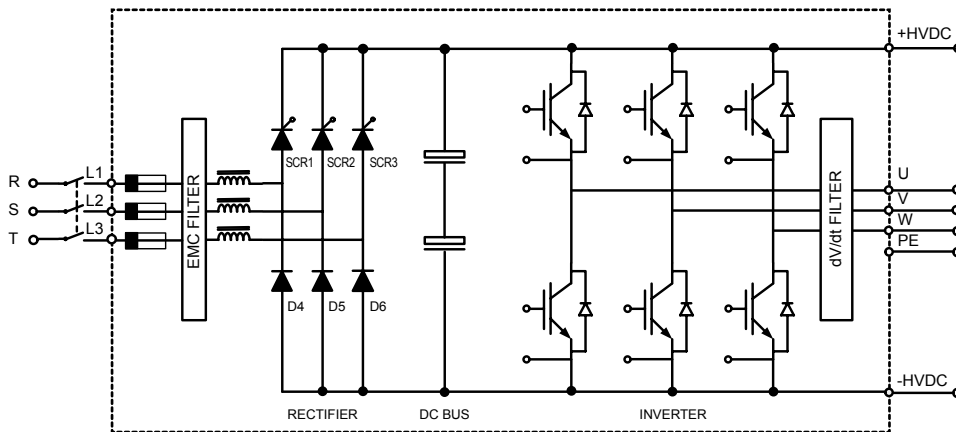
Power electronics SD700: Frame 1 and Frame 2

SD70DTP0004BI



Power electronics SD700: Frame 3 and Frame 4

SD70DTP0001AI



Power electronics SD700: from Frame 5 to Frame 11

SD70DTP0002AI

<b>INPUT</b>	Power supply	230Vac, 380-500Vac, 525Vac, 690Vac. For different voltages consult to Power Electronics.
	Input frequency	48 - 62Hz
	Input Current	≤ Output current
	Fundamental power factor (cosφ)	≥ 0,98
	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
<b>OUTPUT</b>	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	
<b>ENVIRONMENTAL CONDITIONS</b>	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
<b>MOTOR PROTECTIONS</b>	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	
<b>DRIVE PROTECTIONS</b>	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.

(\*\*) SD700 Kompakt Series.





<b>DIGITAL INPUTS</b>	6 programmable inputs, active high (24Vdc) 1 PTC input	
<b>ANALOGUE INPUTS</b>	2 programmable and differential inputs Operation rates:	Current signal: 0-20mA, 4-20mA. Voltage signal: 0-10Vdc, ±10Vdc, diferencial full duplex
<b>DIGITAL OUTPUTS</b>	3 programmable changeover relays: Factory setting:	250Vac, 8A; 30Vdc, 8A Relay output 1: No Faults Relay output 2: General Fault Relay output 3: Run
<b>ANALOGUE OUTPUTS</b>	2 analogue outputs programmable for voltage or current:	0-20mA, 4-20mA, 0-10Vdc and ±10Vdc
<b>COMMUNICATIONS</b>	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
<b>CONTROL PANEL</b>	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
<b>INFORMATION DISPLAY</b>	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	
<b>OTHERS</b>	Real time clock Perpetual calendar	
<b>CERTIFICATION</b>	CE, cTick, UL*, cUL*	

(\*) On process



# SD700

> standard ratings



## CONFIGURATION TABLE

Code: SD7037052121

SD7		0370		5		2		12		1	
Series		Output Current		Input Voltage		Protection Degree		Pulses Number		Filters	
-	SD700	0370	370A	2	230V	0	IP00	-	6 Pulses	-	Second Environmental
K	SD700 Kompakt	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						

## 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 "SD700 Kompakt Series", IP20 and IP54 respectively).

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

Reference: SD7K037052

SD700 Kompakt, 370A, 400Vac, Protection Degree IP20, 6 pulse, Environment 2

- 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 NON-STANDARD CONFIGURATIONS CONSULT WITH 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	1388	1156	630	1388
	SD70990 5X 24 Y	990	560	1485	1238	710	1485
11	SD72200 5X 24 Y	2200	1200	3300	2750	1500	3300

**440Vac (-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 440Vac		150% Overload	I(A) Rated	Power Motor (kW) at 440Vac		120% Overload
			kW	HP			kW	HP	
1	SD70006 5X Y	5,5	2,2	3	8,2	6,8	3	4	8,2
	SD70009 5X Y	8	4	5	12	10	5,5	7-1/2	12
	SD70012 5X Y	11	5,5	7-1/2	16,5	13,75	7,5	10	16,5
	SD70018 5X Y	16	7,5	10	24	20	11	15	24
	SD70024 5X Y	22	11	15	33	27,5	15	20	33
2	SD70032 5X Y	29	15	20	43,5	36,25	18,5	25	43,5
	SD70038 5X Y	34,5	18,5	25	51,7	43,1	22	30	51,7
	SD70048 5X Y	43,6	22	30	65,4	54,5	30	40	65,4
3	SD70060 5X Y	54,5	30	40	81,7	68,1	37	50	81,7
	SD70075 5X Y	68	37	50	102	85	45	60	102
	SD70090 5X Y	82	45	60	123	102,5	55	75	123
	SD70115 5X Y	104,5	55	75	156,7	130,6	75	100	156,7
4	SD70150 5X Y	136	75	100	204	170	90	125	204
	SD70170 5X Y	154,5	90	125	231,6	193	110	150	231,6
5	SD70210 5X Y	191	110	150	286,5	238,7	132	180	286,5
	SD70250 5X Y	227	132	180	340,5	283,7	160	240	340,5
	SD70275 5X Y	250	150	200	375	312,5	200	275	375
6	SD70330 5X Y	300	160	240	450	375	220	300	450
	SD70370 5X Y	336	200	275	504	420	250	340	504
	SD70460 5X Y	418	250	340	627	522,5	315	400	627
7	SD70580 5X Y	527	315	400	790,5	658,7	400	500	790,5
	SD70650 5X Y	591	355	450	886,5	738,7	450	600	886,5
	SD70720 5X Y	654,5	400	500	981,7	818,1	500	650	981,7
8	SD70840 5X Y	764	450	600	1146	955	560	750	1146
	SD70925 5X Y	841	500	650	1261,5	1051,2	630	850	1261,5
	SD70990 5X Y	900	560	750	1350	1125	710	900	1350
9	SD71150 5X Y	1045,5	630	850	1568	1306,8	800	1000	1568
	SD71260 5X Y	1145,5	710	900	1718	1431,8	900	1250	1718
	SD71440 5X Y	1309	800	1000	1963,5	1636,2	1000	1400	1963,5
10	SD71580 5X Y	1436	900	1250	2154	1795	1100	1500	2154
	SD71800 5X Y	1636	1000	1400	2454	2045	1200	1600	2454
11	SD72200 5X Y	2000	1200	1600	3000	2500	1500	1800	3000

**440Vac (-20% to +10%) - 12 pulses**

6	SD70330 5X 12 Y	300	160	240	450	375	220	300	450
	SD70370 5X 12 Y	336	200	275	504	420	250	340	504
	SD70460 5X 12 Y	418	250	340	627	522,5	315	400	627
8	SD70840 5X 12 Y	764	450	600	1146	955	560	750	1146
	SD70925 5X 12 Y	841	500	650	1261,5	1051,2	630	850	1261,5
	SD70990 5X 12 Y	900	560	750	1350	1125	710	900	1350
9	SD71150 5X 12 Y	1045,5	630	850	1568	1306,8	800	1000	1568
	SD71260 5X 12 Y	1145,5	710	900	1718	1431,8	900	1250	1718
	SD71440 5X 12 Y	1309	800	1000	1963,5	1636,2	1000	1400	1963,5
11	SD72200 5X 12 Y	2000	1200	1600	3000	2500	1500	1800	3000

**440Vac (-20% to +10%) - 18 pulses**

7	SD70580 5X 18 Y	527	315	400	790,5	658,7	400	500	790,5
	SD70650 5X 18 Y	591	355	450	886,5	738,7	450	600	886,5
	SD70720 5X 18 Y	654,5	400	500	981,7	818,1	500	650	981,7
9	SD71150 5X 18 Y	1045,5	630	850	1568	1306,8	800	1000	1568
	SD71260 5X 18 Y	1145,5	710	900	1718	1431,8	900	1250	1718
	SD71440 5X 18 Y	1309	800	1000	1963,5	1636,2	1000	1400	1963,5
10	SD71580 5X 18 Y	1436	900	1250	2154	1795	1100	1500	2154
	SD71800 5X 18 Y	1636	1000	1400	2454	2045	1200	1600	2454
11	SD72200 5X 18 Y	2000	1200	1600	3000	2500	1500	1800	3000

**440Vac (-20% to +10%) - 24 pulses**

8	SD70840 5X 24 Y	764	450	600	1146	955	560	750	1146
	SD70925 5X 24 Y	841	500	650	1261,5	1051,2	630	850	1261,5
	SD70990 5X 24 Y	900	560	750	1350	1125	710	900	1350
11	SD72200 5X 24 Y	2000	1200	1600	3000	2500	1500	1800	3000

**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	767	560	1151	959	630	1151
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	767	560	1151	959	630	1151
11	SD72200 5X 24 Y	1760	1200	2640	2200	1500	2640

**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

**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

**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

**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%) - 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

### 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

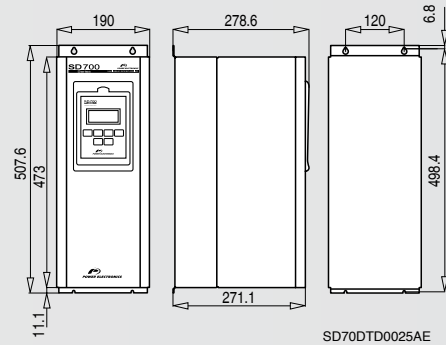
### 690Vac (-15% to +10%) - 18 pulses

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

### 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

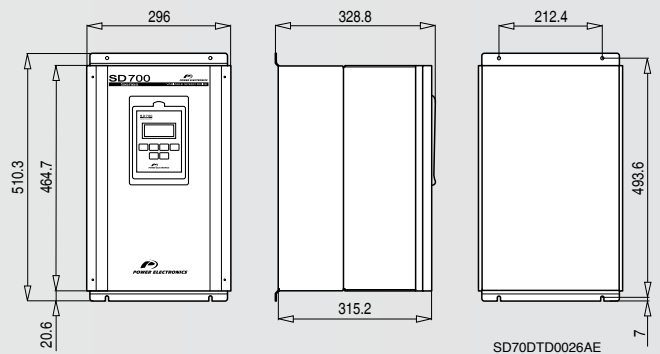
# 10 SD700 > dimensions



SD70DTD0025AE

## FRAME 1

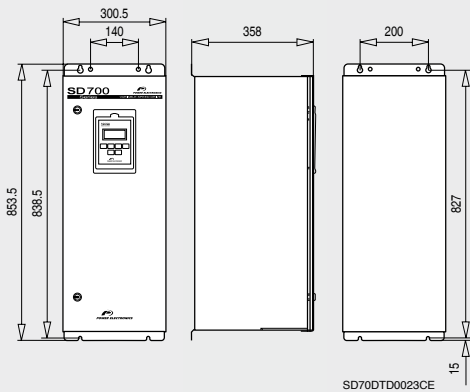
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70006 2X Y SD70009 2X Y SD70012 2X Y SD70020 2X Y SD70026 2X Y	SD70006 5X Y SD70009 5X Y SD70012 5X Y SD70018 5X Y SD70024 5X Y	-	-	15



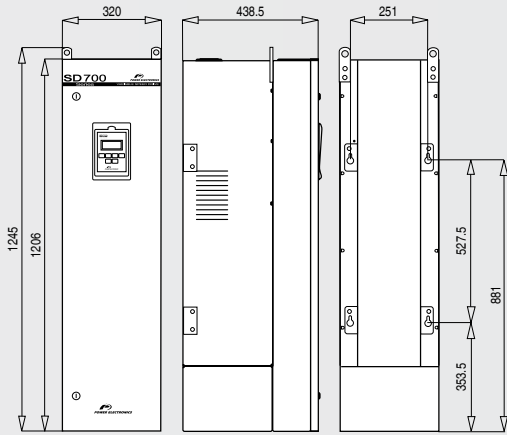
SD70DTD0026AE

## FRAME 2

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



SD70DTD0023CE



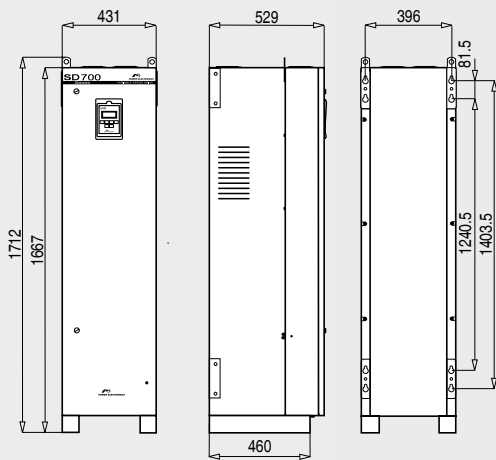
SD70DTD0001DE

### FRAME 3

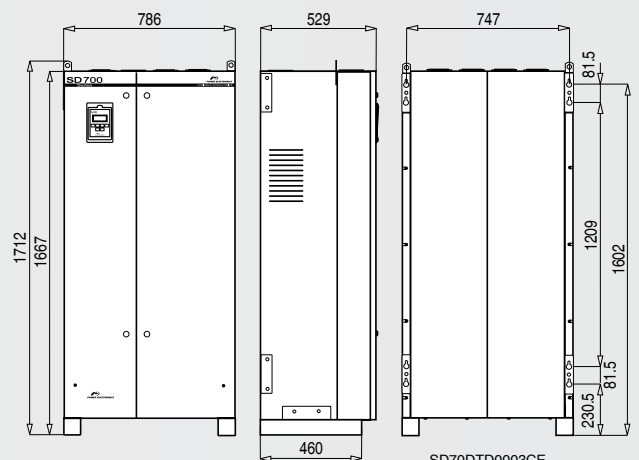
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380 – 500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD70064 2X Y	SD70060 5X Y		SD70052 6X Y	67.5
SD70075 2X Y	SD70075 5X Y		SD70062 6X Y	
SD70090 2X Y	SD70090 5X Y	-	-	
SD70115 2X Y	SD70115 5X Y		-	

### 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	-	



SD70DTD0002DE



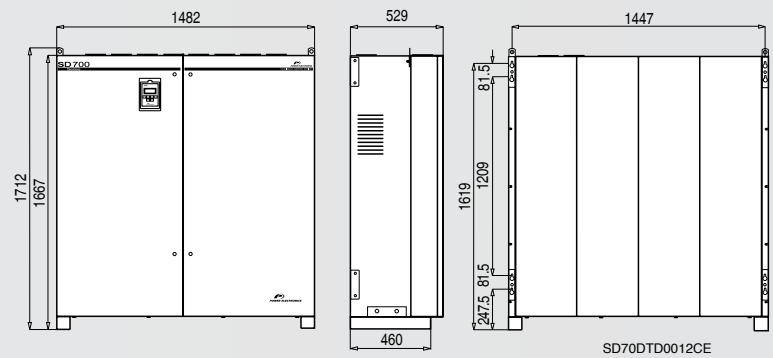
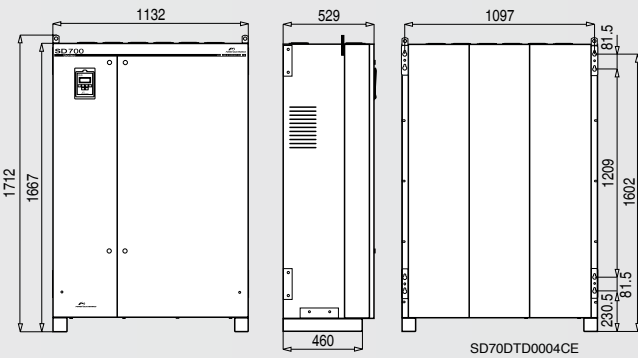
SD70DTD0003CE

### 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	

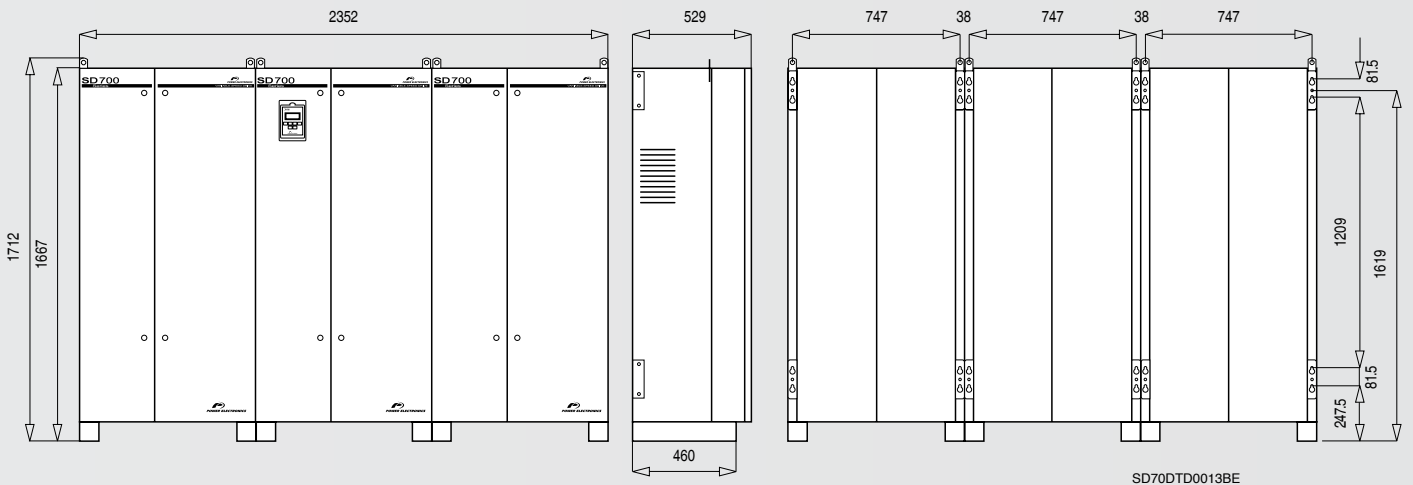


### FRAME 7

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	-	

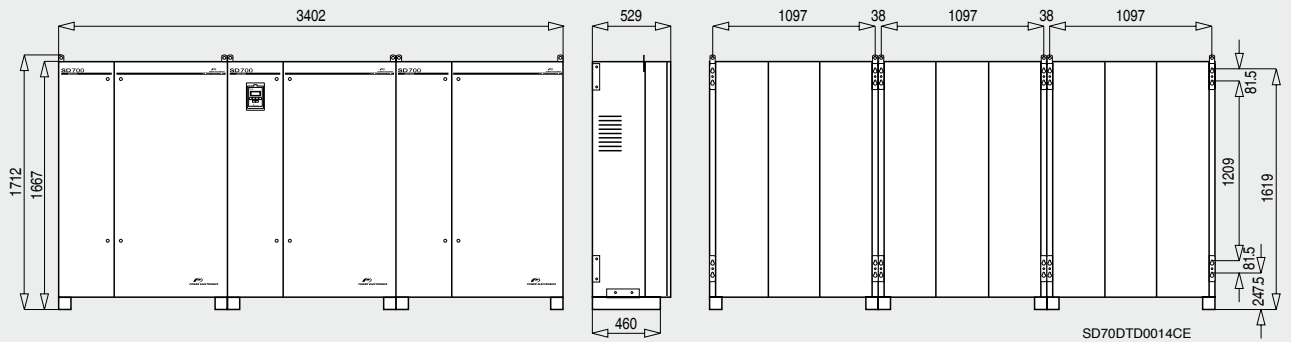
### FRAME 8

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	-	-	
-	SD70990 5X 12 Y	-	-	



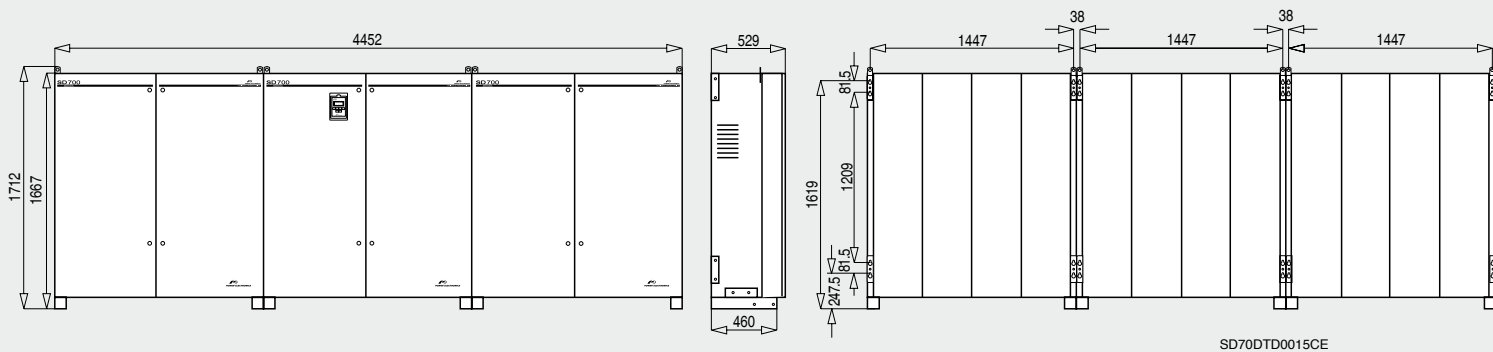
### FRAME 9

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



### 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



### 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 - - -	SD72005 7X Y SD72005 7X 12 Y SD72005 7X 18 Y - - -	SD71500 6X Y SD71800 6X Y SD71500 6X 12 Y SD71800 6X 12 Y SD71500 6X 18 Y SD71800 6X 18 Y	1755



# 11 SD700 KOMPAKT

> Our most compact drive

Our most compact SD700 series still offers the best control and power features.

Its design allows its installation inside cabinets and control rooms in the easiest possible way, offering the same wiring concept than a contactor, the user will access to the power input terminals on the top while the output power terminals are located in the bottom.



Simple wiring

Operation at 50°C

dV/dt Filters (300m...)

Built-in RFI Filters

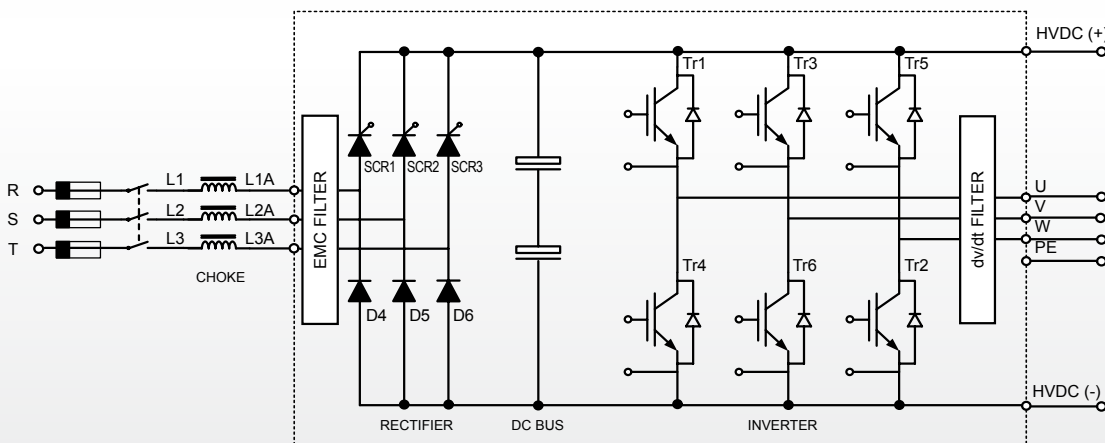
software and hardware unified with standard SD700

Installation space optimization



## Input inductances (CHOKE)

SD700 Kompakt series offers input inductances, connected externally in series, in order to reduce the current and voltage harmonic distortion. This aspect makes its features equivalent to SD700.



SD70DTP0001BI

SD700 Kompakt Power Electronics

# 12 SD700 KOMPAKT

> standard ratings

## 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	SD7K0210 2X Y	210	63	315	263	75	315
	SD7K0250 2X Y	250	75	375	313	75	375
	SD7K0275 2X Y	275	75	413	344	100	413
2	SD7K0330 2X Y	330	100	495	413	110	495
	SD7K0370 2X Y	370	110	555	463	140	555
	SD7K0460 2X Y	460	140	690	575	185	690
3	SD7K0580 2X Y	580	185	870	725	200	870
	SD7K0650 2X Y	650	200	975	813	220	975
	SD7K0720 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	SD7K0210 5X Y	210	110	315	263	132	315
	SD7K0250 5X Y	250	132	375	313	160	375
	SD7K0275 5X Y	275	150	413	344	200	413
2	SD7K0330 5X Y	330	160	495	413	220	495
	SD7K0370 5X Y	370	200	555	463	250	555
	SD7K0460 5X Y	460	250	690	575	315	690
3	SD7K0580 5X Y	580	315	870	725	400	870
	SD7K0650 5X Y	650	355	975	813	450	975
	SD7K0720 5X Y	720	400	1080	900	500	1080
4	SD7K0840 5X Y	840	450	1260	1050	560	1260
	SD7K0925 5X Y	925	500	1388	1156	630	1388
	SD7K0990 5X Y	990	560	1485	1238	710	1485

## 400Vac (-20% to +10%) - 12 pulses

4	SD7K0840 5X 12 Y	840	450	1260	1050	560	1260
	SD7K0925 5X 12 Y	925	500	1388	1156	630	1388
	SD7K0990 5X 12 Y	990	560	1485	1238	710	1485

## 440Vac (-20% to +10%) - 6 pulsos

FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY				OPERATION TEMPERATURE 40°C NORMAL DUTY			
		I(A) Rated	Power Motor (kW) at 440Vac		150% Overload	I(A) Rated	Power Motor (kW) at 440Vac		120% Overload
			kW	HP			kW	HP	
1	SD7K0210 5X Y	191	110	150	286,5	238,7	132	180	286,5
	SD7K0250 5X Y	227	132	180	340,5	283,7	160	240	340,5
	SD7K0275 5X Y	250	150	200	375	312,5	200	275	375
2	SD7K0330 5X Y	300	160	240	450	375	220	300	450
	SD7K0370 5X Y	336	200	275	504	420	250	340	504
	SD7K0460 5X Y	418	250	340	627	522,5	315	400	627
3	SD7K0580 5X Y	527	315	400	790,5	658,7	400	500	790,5
	SD7K0650 5X Y	591	355	450	886,5	738,7	450	600	886,5
	SD7K0720 5X Y	654,5	400	500	981,7	818,1	500	650	981,7
4	SD7K0840 5X Y	764	450	600	1146	955	560	750	1146
	SD7K0925 5X Y	841	500	650	1261,5	1051,2	630	850	1261,5
	SD7K0990 5X Y	900	560	750	1350	1125	710	900	1350

## 440Vac (-20% to +10%) - 12 pulsos

4	SD7K0840 5X 12 Y	764	450	600	1146	955	560	750	1146
	SD7K0925 5X 12 Y	841	500	650	1261,5	1051,2	630	850	1261,5
	SD7K0990 5X 12 Y	900	560	750	1350	1125	710	900	1350

## 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	SD7K0210 5X Y	168	110	252	210	132	252
	SD7K0250 5X Y	200	132	300	250	150	300
	SD7K0275 5X Y	212	150	318	265	160	318
2	SD7K0330 5X Y	264	160	396	330	200	396
	SD7K0370 5X Y	296	200	444	370	250	444
	SD7K0460 5X Y	368	250	552	460	315	552
3	SD7K0580 5X Y	464	315	696	580	355	696
	SD7K0650 5X Y	520	355	780	650	400	780
	SD7K0720 5X Y	576	400	864	720	450	864
4	SD7K0840 5X Y	672	450	1008	840	500	1008
	SD7K0925 5X Y	740	500	1110	925	560	1110
	SD7K0990 5X Y	767	560	1151	959	630	1151

## 500Vac (-20% to +10%) - 12 pulses

4	SD7K0840 5X 12 Y	672	450	1008	840	500	1008
	SD7K0925 5X 12 Y	740	500	1110	925	560	1110
	SD7K0990 5X 12 Y	767	560	1151	959	630	1151

## 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
1	SD7K0180 7X Y	180	132	270	222	150	270
	SD7K0205 7X Y	205	150	308	254	185	308
2	SD7K0270 7X Y	270	200	405	334	250	405
	SD7K0295 7X Y	295	220	443	360	280	443
	SD7K0340 7X Y	340	250	510	417	315	510
3	SD7K0425 7X Y	425	315	638	526	400	638
	SD7K0470 7X Y	470	355	705	586	450	705
	SD7K0535 7X Y	535	400	803	666	500	803
4	SD7K0660 7X Y	660	500	990	824	600	990
	SD7K0750 7X Y	750	560	1125	936	700	1125

## 525Vac (-20% to +10%) - 12 pulses

4	SD7K0660 7X 12 Y	660	500	990	824	600	990
	SD7K0750 7X 12 Y	750	560	1125	936	700	1125

## 690Vac (-20% to +10%) - 6 pulses

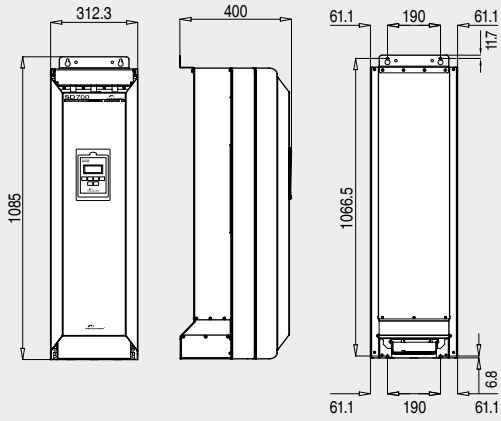
FRAME	CODE	OPERATION TEMPERATURE 50°C HEAVY DUTY			OPERATION TEMPERATURE 40°C NORMAL DUTY		
		I(A) Rated	Power Motor (kW) at 690Vac	150% Overload	I(A) Rated	Power Motor (kW) at 690Vac	120% Overload
1	SD7K0130 6X Y	130	110	195	163	132	195
	SD7K0150 6X Y	150	132	225	188	160	225
	SD7K0170 6X Y	170	160	255	213	200	255
2	SD7K0210 6X Y	210	200	315	263	250	315
	SD7K0260 6X Y	260	250	390	325	315	390
	SD7K0320 6X Y	320	315	480	400	355	480
3	SD7K0385 6X Y	385	355	578	481	450	578
	SD7K0460 6X Y	460	450	690	575	500	690
4	SD7K0550 6X Y	550	500	825	688	630	825
	SD7K0660 6X Y	660	630	990	825	800	990

## 690Vac (-20% to +10%) - 12 pulses

4	SD7K0550 6X 12 Y	550	500	825	688	630	825
	SD7K0660 6X 12 Y	660	630	990	825	800	990

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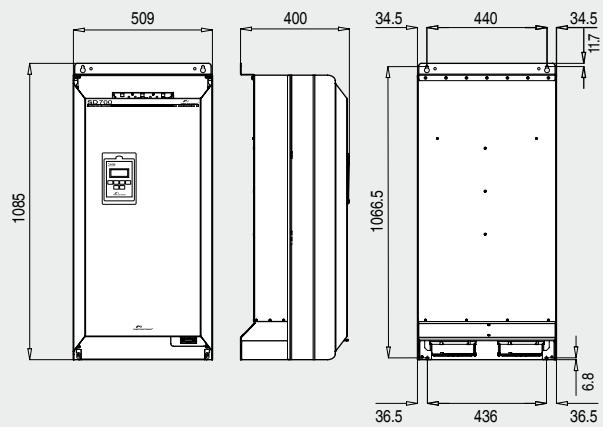
## > dimensions IP00



SD7KTD0001AE

### FRAME 1 - IP00

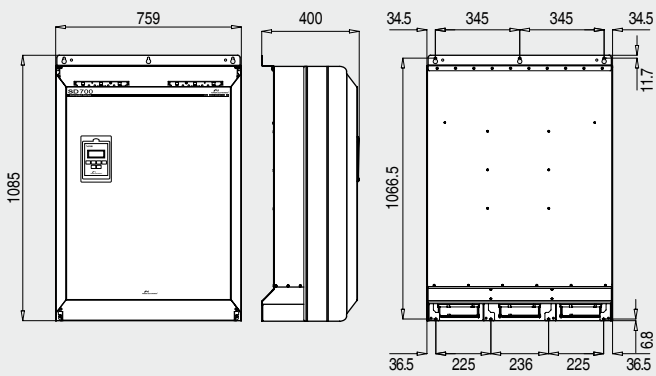
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD7K0210 20 Y	SD7K0210 50 Y	SD7K0180 70 Y	SD7K0130 60 Y	78,2
SD7K0250 20 Y	SD7K0250 50 Y	SD7K0205 70 Y	SD7K0150 60 Y	
SD7K0275 20 Y	SD7K0275 50 Y	SD7K0170 60 Y		



SD7KTD0002AE

### FRAME 2 - IP00

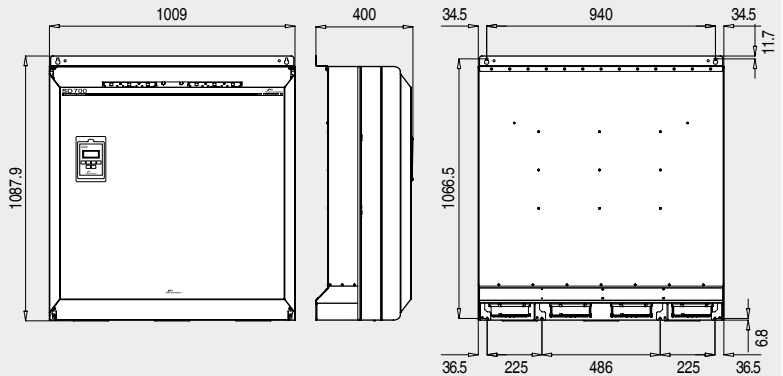
INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD7K0330 20 Y	SD7K0330 50 Y	SD7K0270 70 Y	SD7K0210 60 Y	148
SD7K0370 20 Y	SD7K0370 50 Y	SD7K0295 70 Y	SD7K0260 60 Y	
SD7K0460 20 Y	SD7K0460 50 Y	SD7K0340 70 Y	SD7K0320 60 Y	



SD7KTD0003AE

### FRAME 3 - IP00

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD7K0580 20 Y	SD7K0580 50 Y	SD7K0425 70 Y	SD7K0385 60 Y	200
SD7K0650 20 Y	SD7K0650 50 Y	SD7K0470 70 Y	SD7K0460 60 Y	
SD7K0720 20 Y	SD7K0720 50 Y	SD7K0535 70 Y		

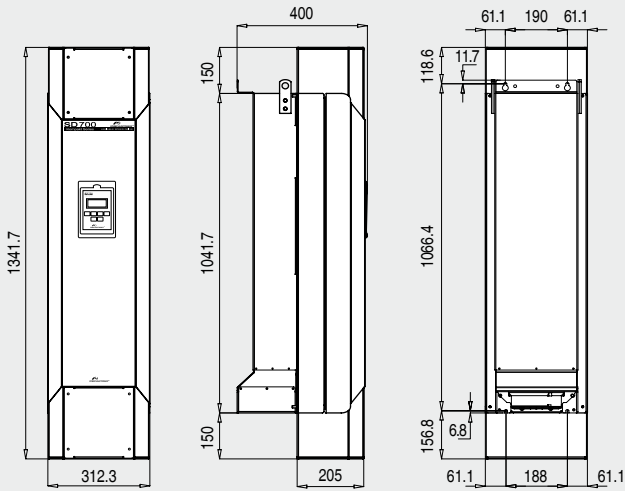


SD7KTD0004AE

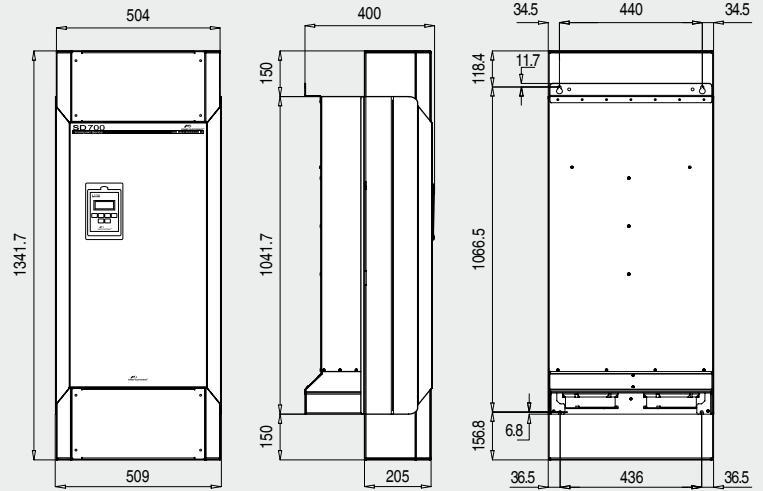
### FRAME 4 - IP00

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
	SD7K0840 50 Y	SD7K0660 70 Y	SD7K0550 60 Y	280
	SD7K0925 50 Y	SD7K0750 70 Y	SD7K0660 60 Y	
	SD7K0990 50 Y	SD7K0660 70 12 Y	SD7K0550 60 12 Y	
	SD7K0840 50 12 Y	SD7K0750 70 12 Y	SD7K0660 60 12 Y	
	SD7K0925 50 12 Y			
	SD7K0990 50 12 Y			

## > dimensions IP20



SD7KDTD0005AE



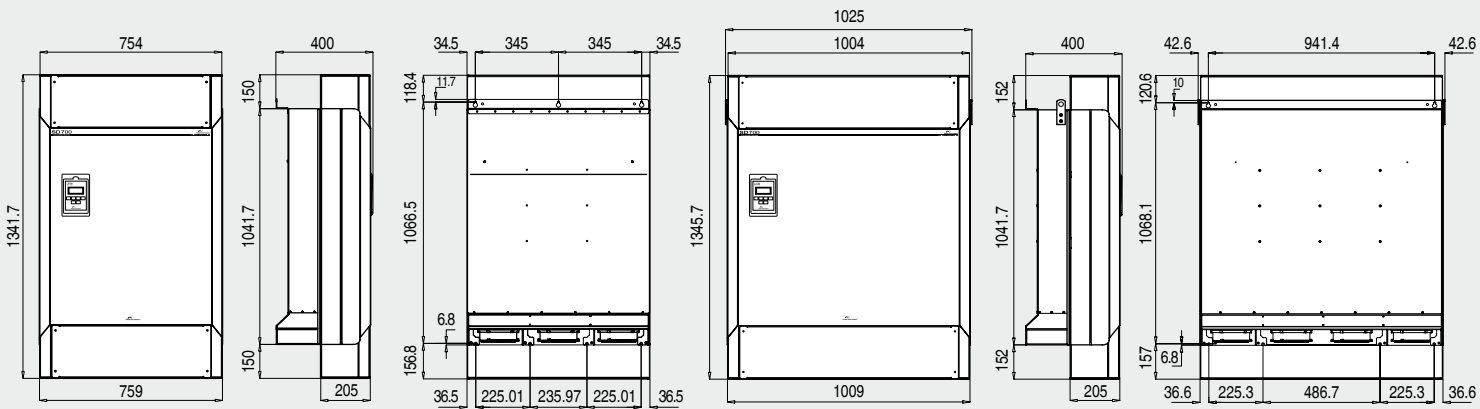
SD7KDTD0006AE

### FRAME 1 - IP20

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD7K0210 22 Y	SD7K0210 52 Y	SD7K0180 72 Y	SD7K0130 62 Y	85,5
SD7K0250 22 Y	SD7K0250 52 Y	SD7K0205 72 Y	SD7K0150 62 Y	
SD7K0275 22 Y	SD7K0275 52 Y		SD7K0170 62 Y	

### FRAME 2 - IP20

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD7K0330 22 Y	SD7K0330 52 Y	SD7K0270 72 Y	SD7K0210 62 Y	159
SD7K0370 22 Y	SD7K0370 52 Y	SD7K0295 72 Y	SD7K0260 62 Y	
SD7K0460 22 Y	SD7K0460 52 Y	SD7K0340 72 Y	SD7K0320 62 Y	



SD7KDTD0007AE

SD7KDTD0008AE

### FRAME 3 - IP20

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
SD7K0580 22 Y	SD7K0580 52 Y	SD7K0425 72 Y	SD7K0385 62 Y	215,3
SD7K0650 22 Y	SD7K0650 52 Y	SD7K0470 72 Y	SD7K0460 62 Y	
SD7K0720 22 Y	SD7K0720 52 Y	SD7K0535 72 Y		

### FRAME 4 - IP20

INPUT VOLTAGE				WEIGHT kg
230Vac (±20%)	380-500Vac (-20% to +10%)	525Vac (-20% to +10%)	690Vac (-15% to +10%)	
	SD7K0840 52 Y	SD7K0660 72 Y	SD7K0550 62 Y	299,7
	SD7K0925 52 Y	SD7K0750 72 Y	SD7K0660 62 Y	
	SD7K0990 52 Y	SD7K0660 72 12 Y	SD7K0550 62 12 Y	
	SD7K0840 52 12 Y	SD7K0750 72 12 Y	SD7K0660 62 12 Y	
	SD7K0925 52 12 Y			
	SD7K0990 52 12 Y			

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## > inductances connection and dimensions

230Vac EQUIPMENTS						
DRIVE		INDUCTANCE				
FRAME	REFERENCE	REFERENCE	I(A)	QUANT.	CONNECTION	WEIGHT (kg)
1	SD7K0210 2X Y	P246B	250	1	Type A	33
	SD7K0250 2X Y					
	SD7K0275 2X Y					
2	SD7K0330 2X Y	P256A	370	1	Type A	65
	SD7K0370 2X Y					
	SD7K0460 2X Y	P233A	500	1	Type A	53
3	SD7K0580 2X Y	P297A	290	2	Type B	48
	SD7K0650 2X Y	P298A	360	2	Type B	43
	SD7K0720 2X Y					

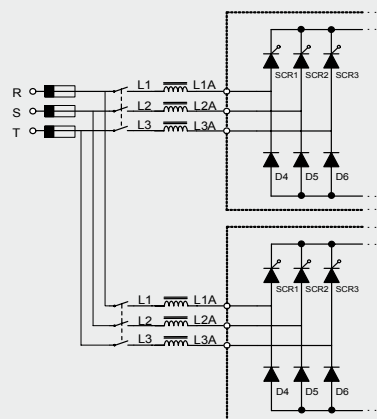
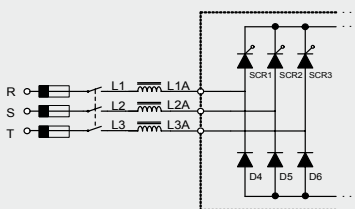
400-500Vac EQUIPMENTS						
DRIVE		INDUCTANCE				
FRAME	REFERENCE	REFERENCE	I(A)	QUANT.	CONNECTION	WEIGHT (kg)
1	SD7K0210 5X Y	P246B	250	1	Type A	33
	SD7K0250 5X Y					
	SD7K0275 5X Y					
2	SD7K0330 5X Y	P256A	370	1	Type A	65
	SD7K0370 5X Y					
	SD7K0460 5X Y	P233A	500	1	Type A	53
3	SD7K0580 5X Y	P297A	290	2	Type B	48
	SD7K0650 5X Y	P298A	360	2	Type B	43
	SD7K0720 5X Y					
4	SD7K0840 5X Y	P233A	500	2	Type B	53
	SD7K0925 5X Y					
	SD7K0990 5X Y					
	SD7K0840 5X 12 Y					
	SD7K0925 5X 12 Y					
	SD7K0990 5X 12 Y					

525Vac EQUIPMENTS						
DRIVE		INDUCTANCE				
FRAME	REFERENCE	REFERENCE	I(A)	QUANT.	CONNECTION	WEIGHT (kg)
1	SD7K0180 7X Y	P317A	210	1	Type A	40
	SD7K0205 7X Y	P246B	250	1	Type A	33
2	SD7K0270 7X Y	P233A	500	1	Type A	53
	SD7K0295 7X Y					
	SD7K0340 7X Y					
3	SD7K0425 7X Y	P298A	360	2	Type B	43
	SD7K0470 7X Y					
	SD7K0535 7X Y	P297A	290	2	Type B	48
4	SD7K0660 7X Y	P233A	500	2	Type B	53
	SD7K0750 7X Y					
	SD7K0660 7X 12 Y					
	SD7K0750 7X 12 Y					

690Vac EQUIPMENTS						
DRIVE		INDUCTANCE				
FRAME	REFERENCE	REFERENCE	I(A)	QUANT.	CONNECTION	WEIGHT (kg)
1	SD7K0130 6X Y	P316A	170	1	Type A	33
	SD7K0150 6X Y					
	SD7K0170 6X Y					
2	SD7K0210 6X Y	P317A	210	1	Type A	40
	SD7K0260 6X Y					
	SD7K0320 6X Y	P318A	330	1	Type A	62
3	SD7K0385 6X Y	P319A	230	2	Type B	42
	SD7K0460 6X Y					
4	SD7K0550 6X Y	P318A	330	2	Type B	62
	SD7K0660 6X Y					
	SD7K0550 6X 12 Y					
	SD7K0660 6X 12 Y					

connection TYPE A

connection TYPE B

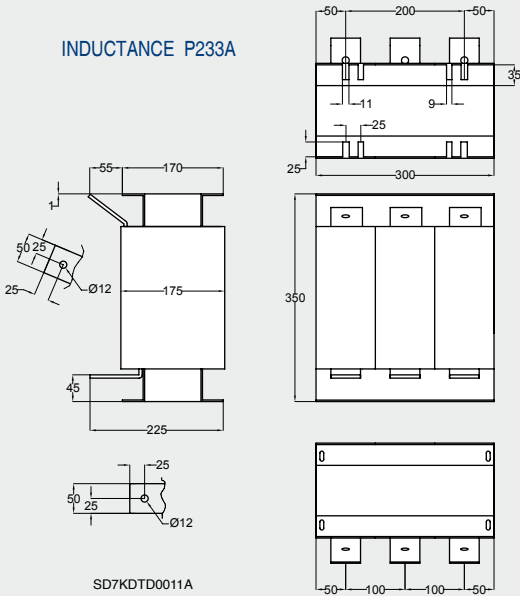




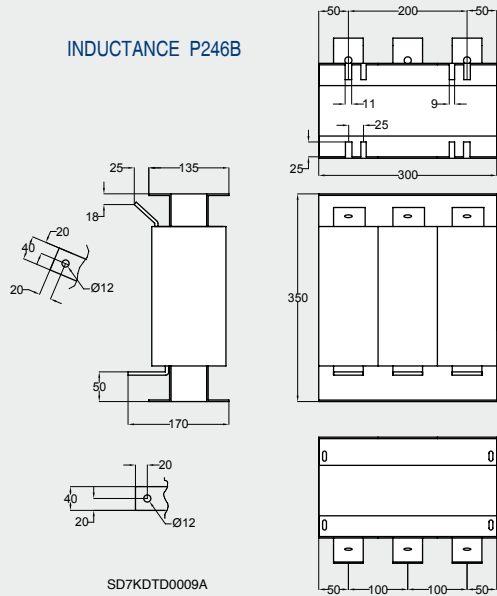
# > inductances

## connection and dimensions

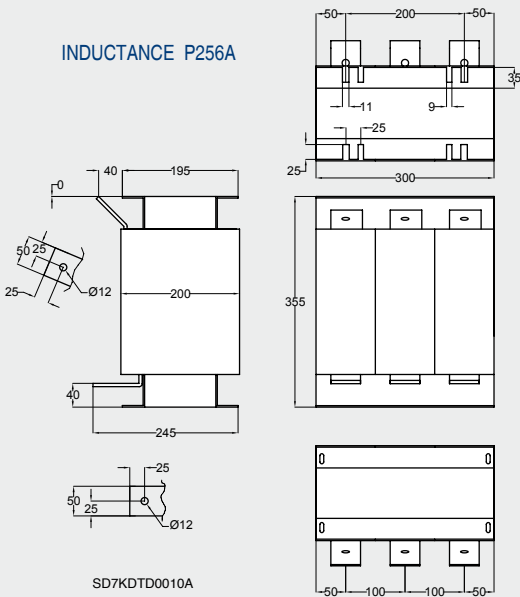
INDUCTANCE P233A



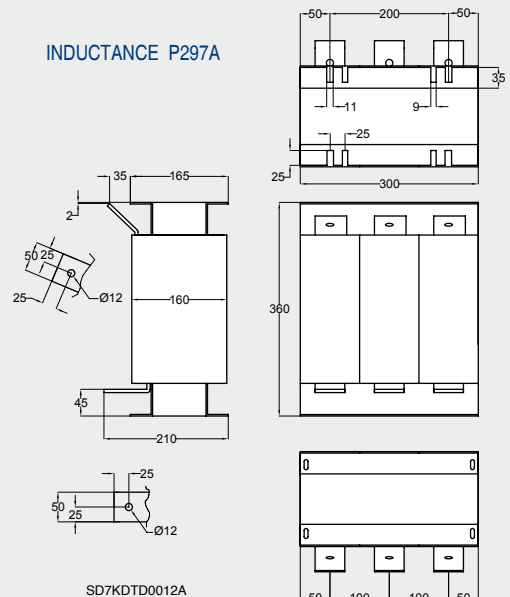
INDUCTANCE P246B



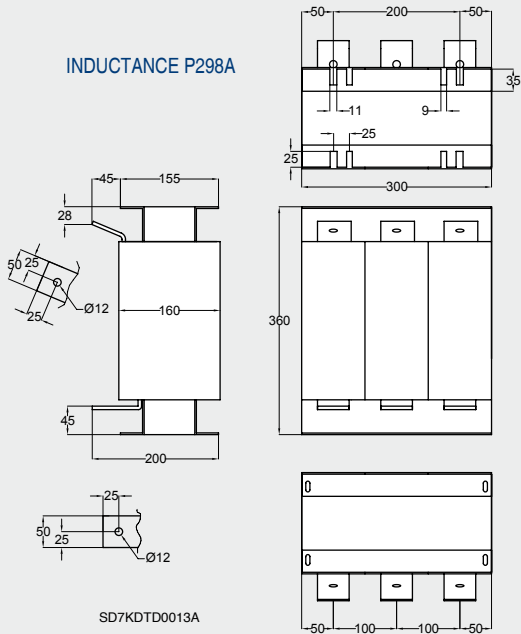
INDUCTANCE P256A



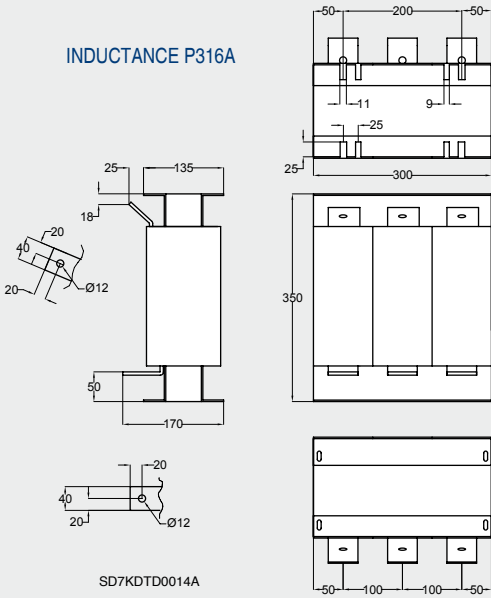
INDUCTANCE P297A



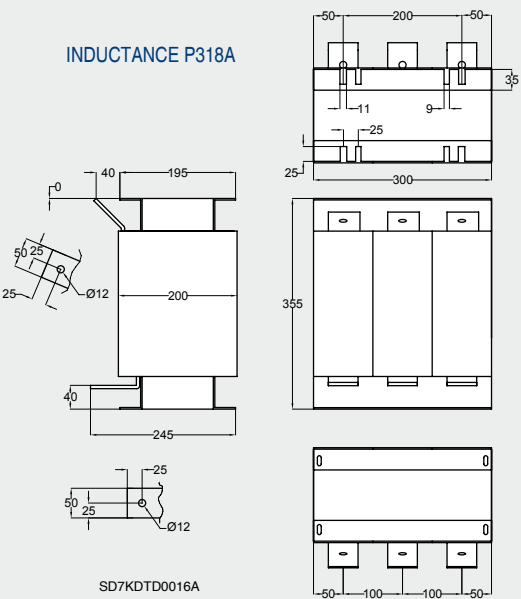
INDUCTANCE P298A



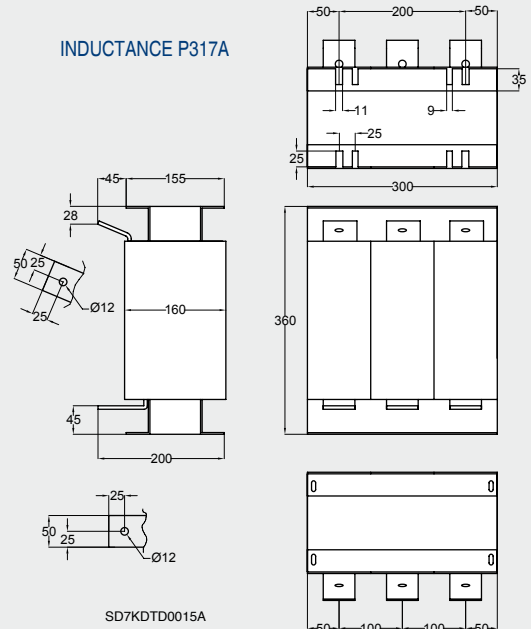
INDUCTANCE P316A



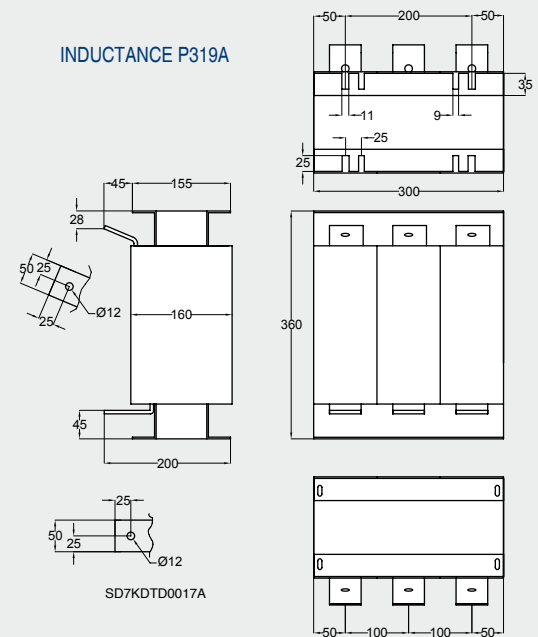
INDUCTANCE P318A



INDUCTANCE P317A



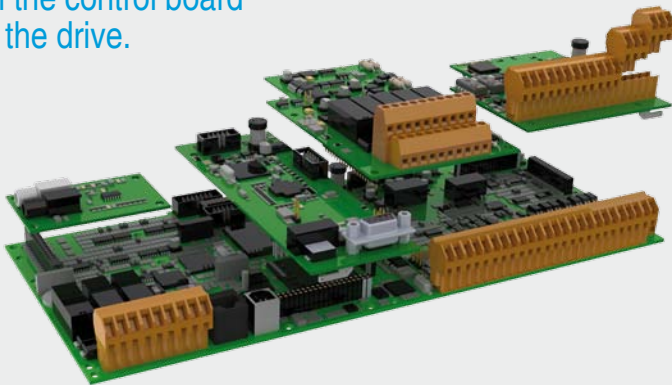
INDUCTANCE P319A



# 15 SD700 AND KOMPAKT > options

Integrated filters, options and accessories provide additional capabilities without increasing the enclosure size and minimizing the installation space.

Communication boards (Profibus, Ethernet, ...) optional I/O, encoder, fibre optic and several options are directly plugged on the control board of the drive.

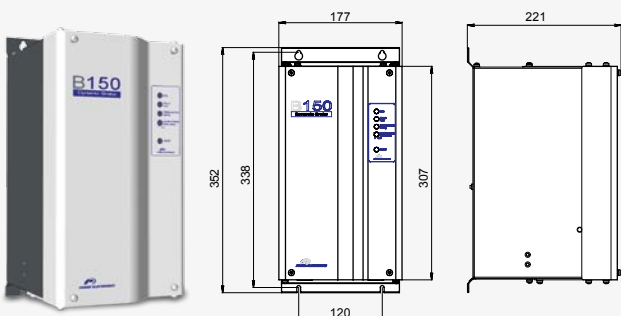


## Dynamic Braking Unit B150

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.



## ACCESSORIES

REFERENCE	DESCRIPTION
SD7PD	Profibus Communication Module
SD7ET	Ethernet Communication Module
SD7DN	DeviceNet Communication Board
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
N2 Metasys Communication Module*	

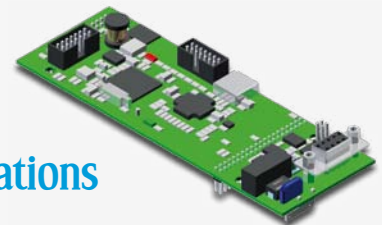
(\*) Consult availability with Power Electronics



## 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:

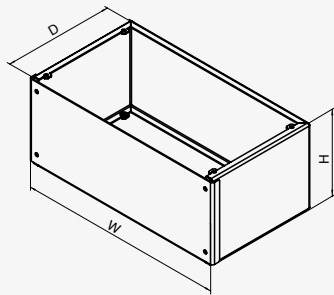
- 4 Programmable digital inputs optically isolated.
- 1 Programmable analogue input.
- 5 Digital outputs
- 1 Programmable analogue output.



## 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.



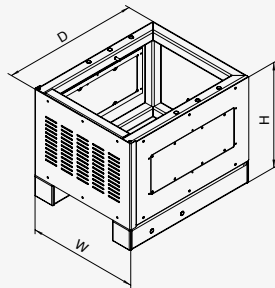


### EXTENSION BOX SD700

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

Code explanation: **SD7PL0520**

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

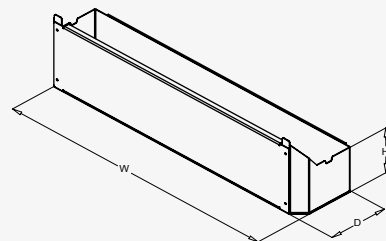
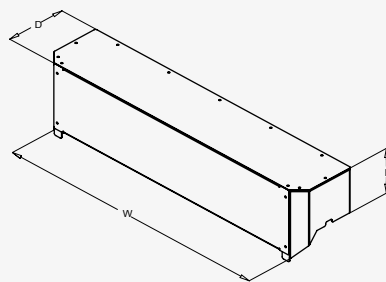


### PLINTH FOR SD700

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

### EXTENSION BOX KOMPAKT

FRAME	CODE	DIMENSIONS (mm)		
		W	H	D
T1	SD7KEB1	303	150	202
T2	SD7KEB2	501	150	202
T3	SD7KEB3	751	150	202
T4	SD7KEB4	1001	150	202





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