

# SD 700

Series

VARIABLE SPEED DRIVE

*Easy to drive*



  
**POWER ELECTRONICS®**





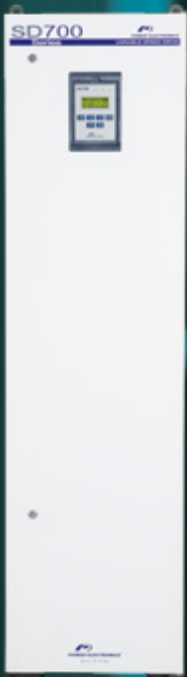
# SD700 Series

# SD700 Series

## THE MOST ADVANCED VARIABLE SPEED DRIVE

Our experience over the years developing and manufacturing high power Variable Speed Drives, Soft starters and Inverters, have allowed us to make the most robust, reliable and efficient equipment of the market.

SD700 SERIES



SD700 KOMPAKT SERIES



SD700 FL SERIES



SD700 FR SERIES



# SD700

Series



**POWER ELECTRONICS®**

Power Electronics is a family-owned multinational who began manufacturing and selling variable speed drives and soft starters 25 years ago, with our delegations in over 20 countries that allow us to sell our products all over the world.



## Our know-how at your disposal

Our expertise is divided into two main fields, the solar business, where we manufacture Solar inverters, and the industrial one, where we manufacture VSD (Variable Speed Drives) and Soft Starters, both in low and medium voltage. The SD700 series covers any possible requirement for the most demanding applications.

Since our birth back in 1987 we haven't ceased to grow and compete against worldwide corporations, however our philosophy of giving service where others fail to do so, has brought us to where we are now. We continue to grow at great speed every year, and we hope that the near future will be of growth and expansion, consolidating more than 40 markets where we already are and adding some new horizons to our future.



# SAVING ENERGY FOR THINGS THAT MATTER

In Power Electronics we know that the modern world is getting faster and more complicated by the day, and that often our priorities in life get confused. When we design and create our products, we don't only think about numbers and graphics, we think about our clients, their companies and the surrounding environment, like we would think about our own.

And that is exactly why we understand that there are more things in life, not only work. We don't want our clients to worry about our products, we want to save their energy so that they can invest it in the things that really matter, their families, their friends, their hobbies...

We will take care of the rest: we will set up free technical seminars and courses so that our clients and their technicians can get to know the products as well as we do, we will go to the commissioning with no additional cost because we believe in work well done, we will offer you a 24h phone line so that you can always ask what you want to know no matter the time of day or night, and we will never let our clients down if they have a problem... We will take care of all these things so that you can save your energy for things that really matter...

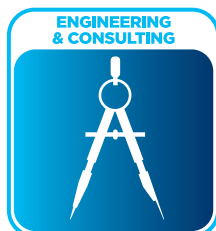
## Power on Support customer oriented strategy implemented by Power Electronics



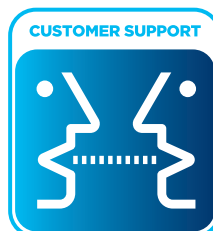
POWER ON SUPPORT is a new concept which explains the customer oriented strategy implemented by Power Electronics since its origins more than 25 years ago. We do not simply consider ourselves an advanced power electronics manufacturer, but a services company in the market to take care of all our customers' needs and adapt to their requirements.

Therefore, flexibility and specialization play a key role. We are flexible to be able to supply advanced products delivered in very short lead times, service our product ranges in any market where we have a branch within 24 hours, commission our devices worldwide, offer a worldwide hotline 24/7...

We are ready to give technical advice and support about our products and the applications in which they are installed. Our clients also have at their disposal our engineering and consulting department, which comprise a wide number of highly skilled and experienced engineers in the development of tailor-made solutions.



ENGINEERING AND CONSULTING  
24/7 HOTLINE  
24/7 ONSITE ASSISTANCE



FREE COMISSIONING  
TRAINING  
3 YEARS WARRANTY





## Vertical integration for customers satisfaction

Vertical integration of the whole production process allows us to offer a fully flexibility, outstanding quality and immediate delivery time, thanks to complete production supervision and scheduling of the electronics, frames and cabins, assembly and testing.



RELIABLE ENGINEERING  
DESIGN FLEXIBILITY  
HIGH QUALITY COMPONENTS



VALUE CHAIN SUPERVISION  
FACTORY TESTED  
IMMEDIATE DELIVERY



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# Discovering SD700

SD700 series by POWERELECTRONICS is divided in 4 product series of low voltage drives with a power range from 1.5kW to 2200kW and voltages from 230VAC to 690 VAC.

SD700 FREEMAQ FR



SD700



**TOTALLY SEALED  
ELECTRONICS IP54  
WITHOUT DUST FILTERS**



**BUILT-IN  
HARMONICS  
AND RFI FILTERS**



**CONFORMAL COATING WITH  
MILITARY AND AEROSPACE  
TECHNOLOGY**



**MODU  
100kV**



**MAXIMUM MOTOR CARE  
AND INSTALLATION COST  
REDUCTION**



**INTEGRATED FUNCTIONAL  
AND ELECTRICAL SAFETY**



**ACCURATE, POWERFUL  
AND FLEXIBLE CONTROL**



**MULTIPLE APPLICATIONS AND  
COMMUNICATION SYSTEMS**

# SD700 FREEMAQ FL



KOMPAKT

SD700 SERIES

OPERATION TEMPERATURE

**+50°C**

**50°C OPERATION WITHOUT POWER DERATING**

FFA FRONTAL ACCESS

**(FFA) EASY FRONT ACCESS TO THE MAIN COMPONENTS**

**AVAILABILITY FROM 100kW TO 2200kW**

LOW dV/dt

**BUILT-IN dV/dt FILTER 400V/μs-800V/μs (unscreened cable up to 300m)**

CALIDAD / LARGA DURACIÓN

**HIGH QUALITY AND OVERSIZED COMPONENTS**

DISPLAY TÁCTIL GRÁFICO

**EASY TO USE COLOR-TOUCH SCREEN DISPLAY**

FÁCIL MANTENIMIENTO

**EASY MAINTENANCE**

MÁXIMO AHORRO

**ENERGY SAVING**

# SD700

Series

## Maximum motor care and installation cost reduction

SD700 includes built-in as standard  $dV/dt$  filter that reduces the  $dV/dt$  value to  $400V/\mu s$ - $800V/\mu s$  depending on the drive size and rated voltage, minimizing the voltage peaks at the motor winding. Additionally SD700 has a unique CLAMP electronic system that smartly absorbs high frequency currents caused by the reflection phenomena in long motor cables.



## dV/dt FILTERS WITH CLAMP INTEGRATED AS STANDARD

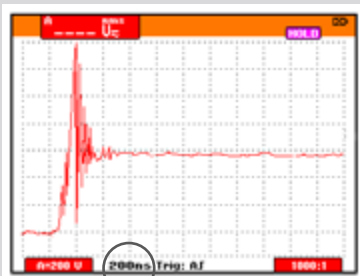


These features reduce the transferred Electromagnetic Energy and the voltage peaks seen by the first turn of the winding. Consequently SD700 low voltage drive portfolio can be installed following Power Electronics recommendations with:

- greater cable distances (unscreened cable up to 300m)
- standard unscreened cable
- non isolated bearings
- no special motor insulation

It is the unique drive in the market focused on the customer's needs such as wiring and motor cost reduction.

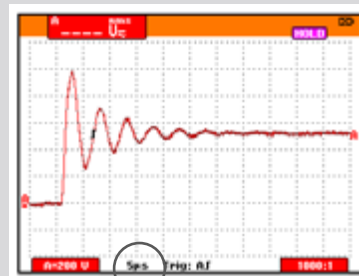
NO dV/dt FILTER



200ns

Peak voltage:  $3.6 \times V_{LINE}$   
Frequency<sub>CMC</sub>: 12.5MHz

dV/dt FILTER  
(400-800V/μs)



5μs

Peak voltage:  $2.6 \times V_{LINE}$   
Frequency<sub>CMC</sub>: 200kHz

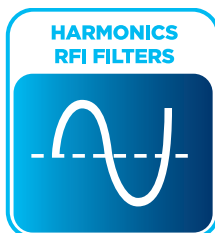
dV/dt FILTER + CLAMP



5μs

Peak voltage:  $2.1 \times V_{LINE}$   
Frequency<sub>CMC</sub>: negligible

NOTE: 200m Motor cable, 400 VAC



- High input impedance given by the input chokes 3% protects the drive against any grid anomaly and enhances its THDi performance in weak grids.

**BUILT-IN FILTERS ELIMINATE  
HIDDEN COSTS THAT REDUCE  
YOUR RETROFIT INVESTMENTS**



**SD700**

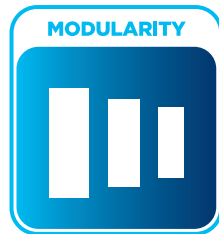
Series

# Quality and oversized critical components to provide reliability

We are aware of continuous operation applications and the cost of process shutdown that could cause a high reduction of income for your company. A selection of critical components of the SD700 have been oversized to ensure continuous operation under the most adverse situations.



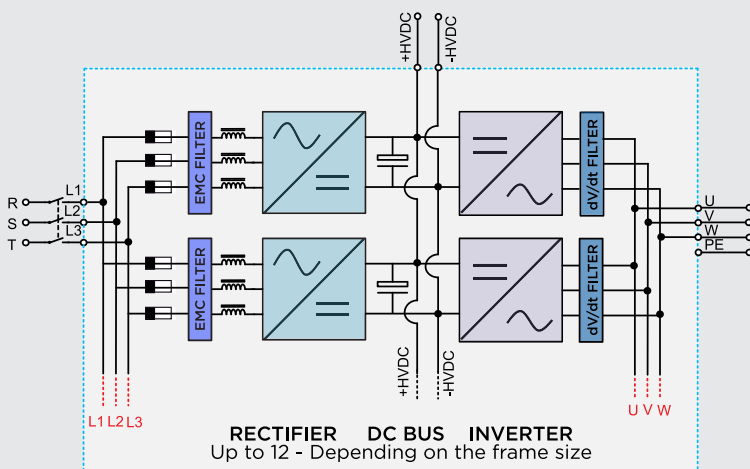
## MODULARITY from 100kW to 2200kW



- Oversized and simplified semiconductors increase reliability, and reduce investment and maintenance costs.



- Long life high quality electrolytic capacitors and optimized cooling increase DC bus lifetime, consequently allowing an increase of the drive's running hours.



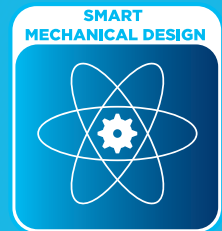
UNIFIED ELECTRONIC  
BOARDS PERMIT NOT  
ONLY AN EASY AND QUICK  
MAINTENANCE BUT ALSO  
A REDUCED AMOUNT OF  
SPARE PARTS WORLDWIDE

SD700

Series

# Smart mechanical design to reduce maintenance and increase drive lifetime

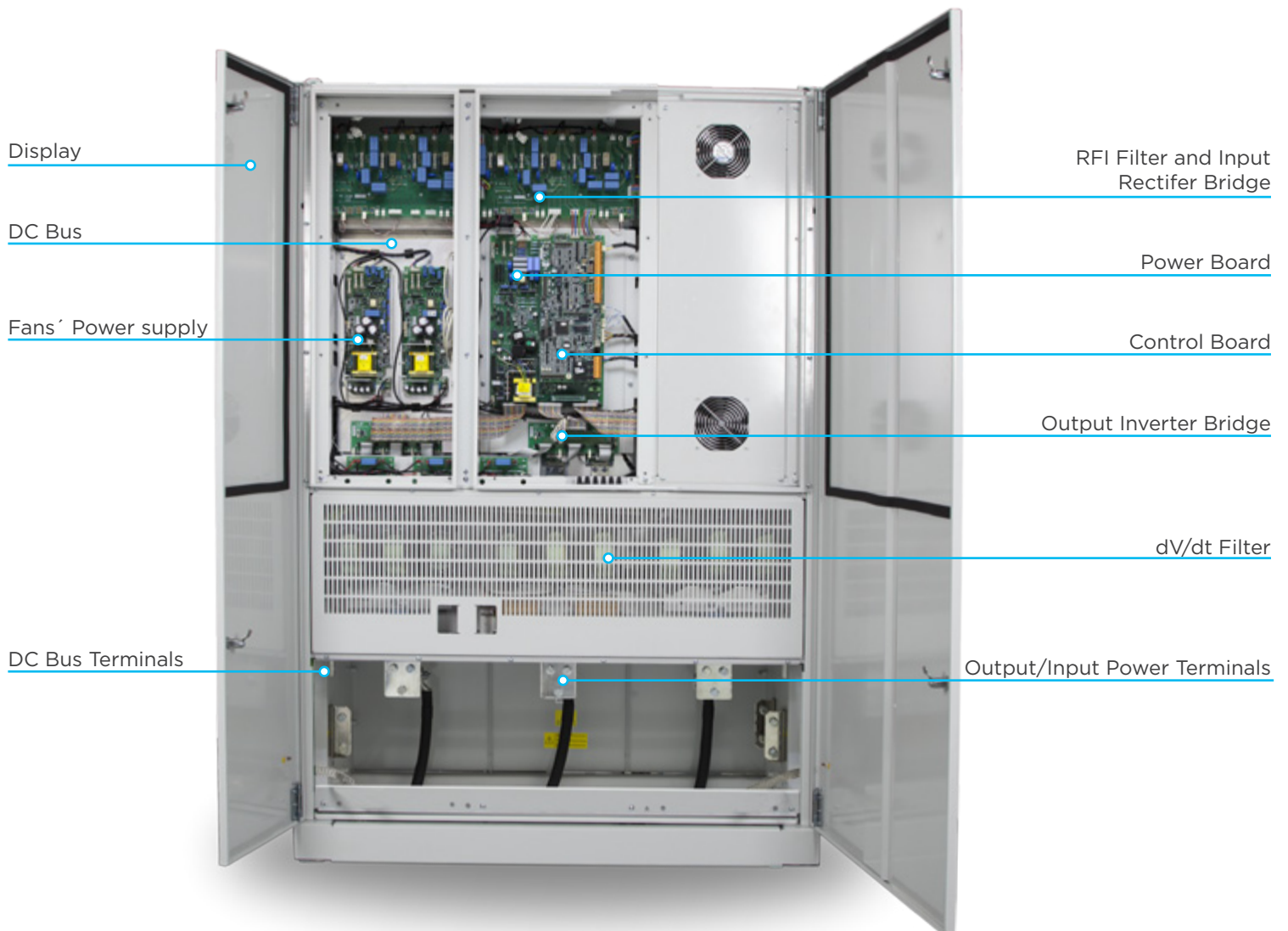
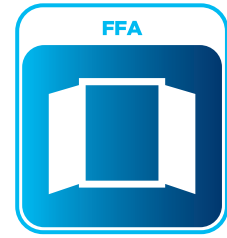
Power Electronics' maintenance service experience in demanding applications results in a sophisticated mechanical design that provides the maximum care and protection for electronics components.



## FULL FRONTAL ACCESS

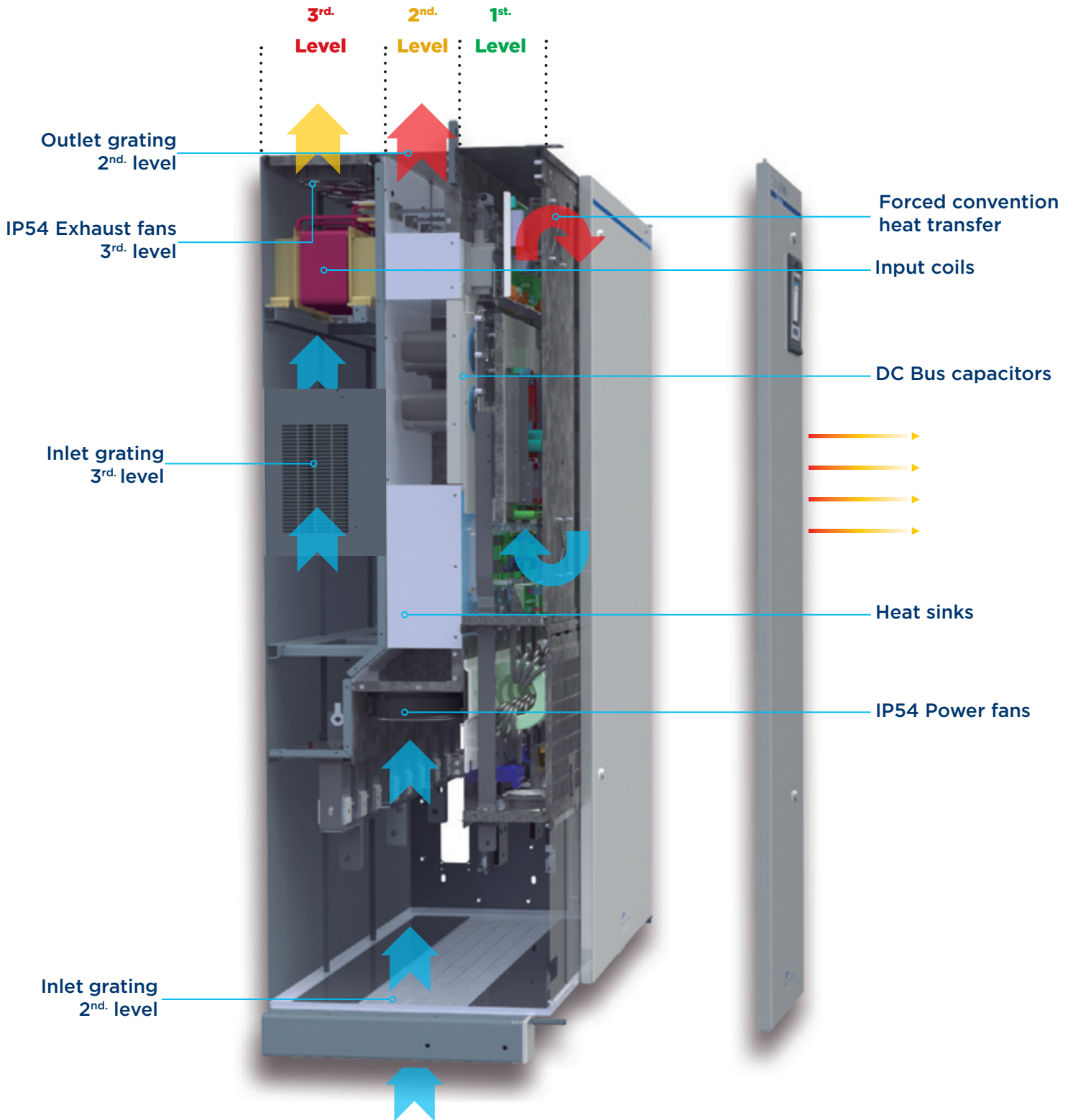
Maintenance and cleaning reduce company yield, therefore SD700 has been designed with the latest engineering good practices to reduce time, spare parts cost and to increase availability. In addition the frame design provides visual access to the critical components, and the input and output power terminals, DC bus terminals and user interconnection are accessible.

SD700 are focused on technical servicing and motor care. Hence dV/dt and RFI filters are built-in as standard without additional adjoining cabinets that will increase its size and cost.





# TOTALLY SEALED ELECTRONICS IP54 WITHOUT DUST FILTERS



## THREE INDEPENDENT LEVELS OFFER MAXIMUM PROTECTION AND EFFICIENT COOLING FEATURES



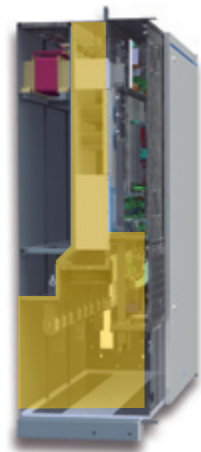
### 1<sup>st</sup> LEVEL: ELECTRONICS

SD700 IP54 versions have totally sealed electronics. The internal heat generated is evacuated through forced convection without dust filters. Competitors integrate dust filters that in adverse situations are frequently obstructed causing electronics overheating and regular maintenance.

### 2<sup>nd</sup> LEVEL: COOLING

SD700 cooling system uses efficient axial fans at low speed which provide three main benefits.

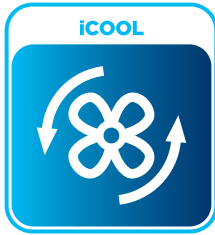
- The internal dust deposition ratio in polluted environments (cement, mining, minerals, metal industry, etc) is significantly decreased at low air speeds, therefore the maintenance frequency is reduced.
- The internal air pressure losses are reduced exponentially, increasing cooling system efficiency.
- The sound levels are reduced in order to favour a comfortable operation.



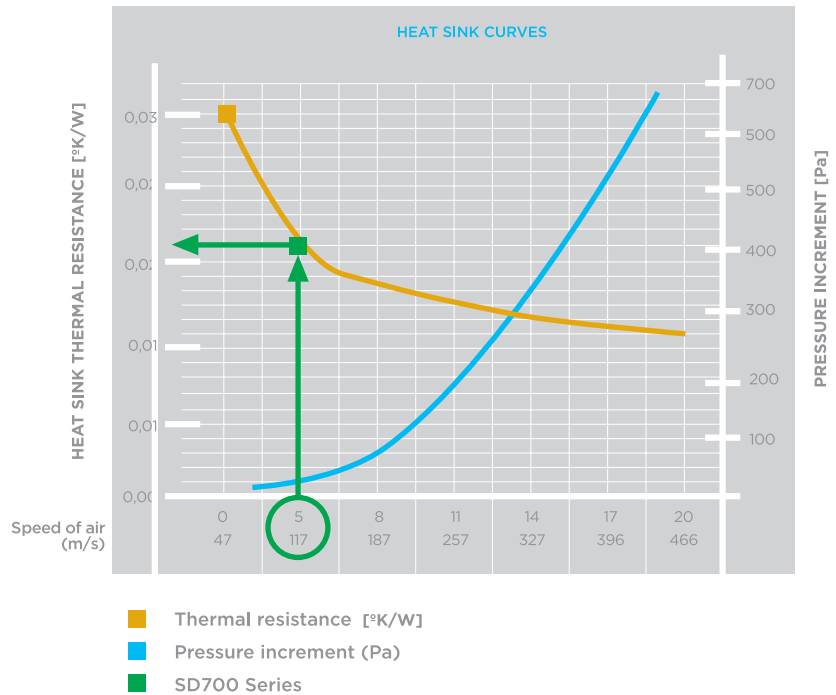
### 3<sup>rd</sup> LEVEL: INPUT FILTER

The input filters are enclosed separately, optimizing their cooling capacity, degree of protection and increasing their long life operation.



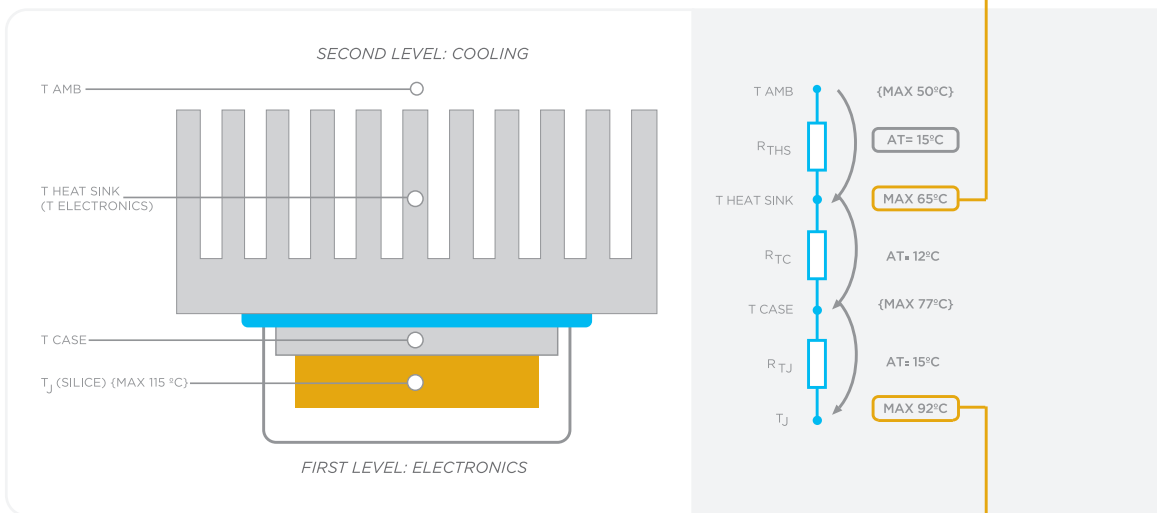


The chart shows the influence of air speed in pressure losses and heat sink thermal resistance.

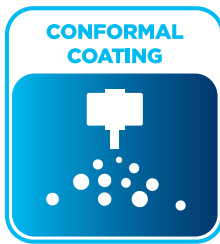


SD700 truly offers operation up to 50°C due to oversized heat sinks with a junction temperature below 100°C and no power derating. Moreover, we adapt our products to worldwide operation under the most adverse conditions without supervision. We achieve this due to multiple internal temperature sensors and oversized heatsinks.

**Total enclosed electronics IP54.  
No open cooling with dust filters system needed.**



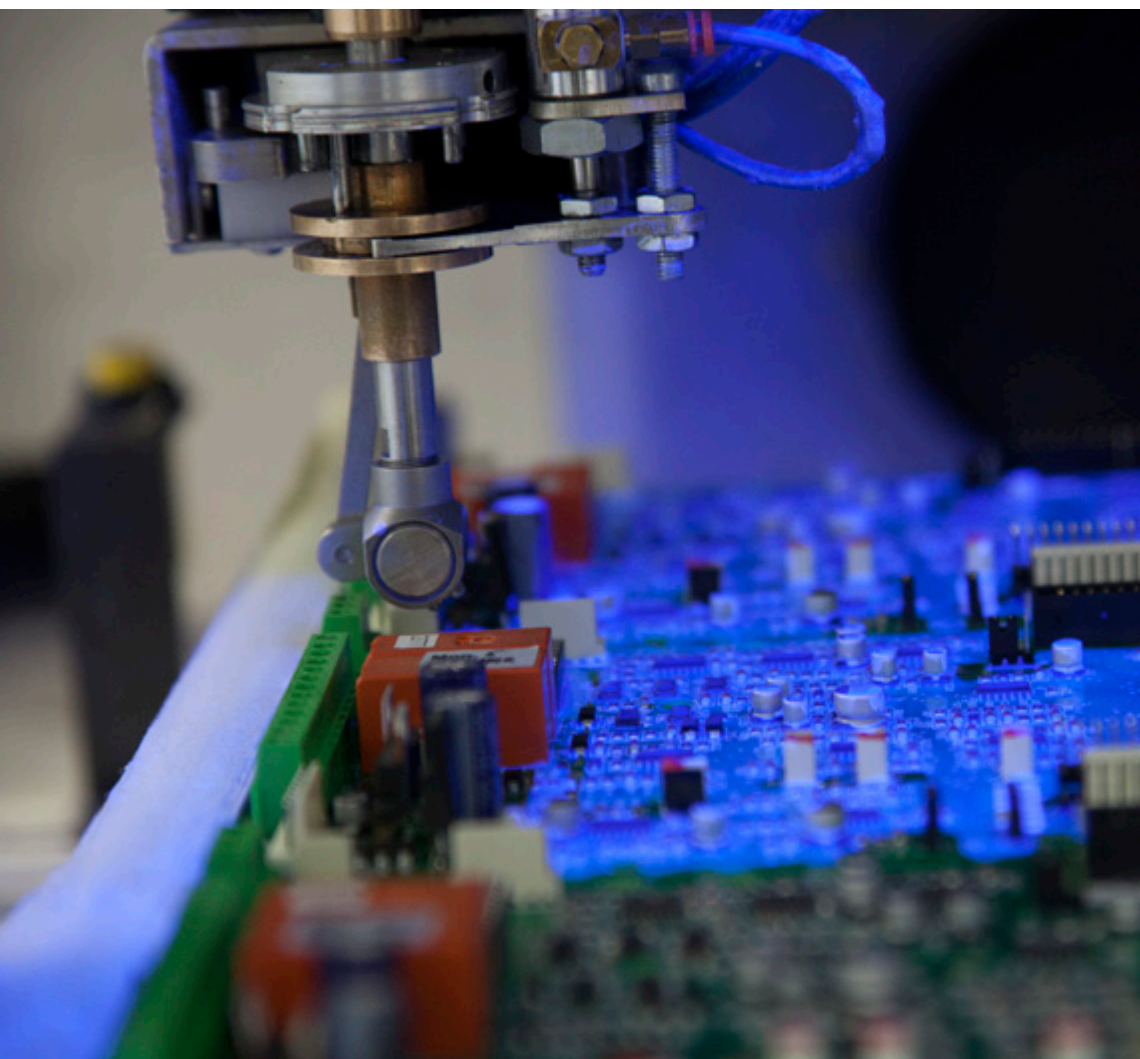
**Semiconductors care with extended life.**



The demand for robust drives and high reliability continues to increase. A unique mechanical design together with a conformal coating on the printed circuit boards (PCBs), allow the drive to be installed in the most adverse environments.

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

## HIGH MILITARY AND AEROSPACE TECHNOLOGY CONFORMAL COATING ON ALL ELECTRONIC BOARDS (IEC61086-1:2004,-3-1)



# SD700

Series

## Accurate, powerful and flexible motor control

Power Electronics' success is measured by our customer's satisfaction so the motor control systems developed by Power Electronics have been designed to meet the most demanding features. It integrates the V/f control and two vector controls: the Power Motor Control (PMC) and the Advanced Vector Control (AVC) as standard.







## Quick and powerful response

PMC and AVC allow its integration in high starting torque, dynamic or precise applications. The SD700 is suitable for all existing applications.

## No auto tuning need

PMC factory settings and motor nameplate parameters ensure perfect performance without enabling the auto tuning function during commissioning. We have invested in new control methods to simplify settings. A fast and reliable commissioning saves time and money.

## Invariable response due to motor parameters variation

Suitable for environments with a wide temperature operation range. Summer and winter motor performance under any load condition will be the same!

## Start and Stop maximum control

Thanks to the MBC (Mechanical Brake Control), the Pre-Magnetization and Delay off IGBT, the loaded process will have a smooth start and stop.

## Multiple drive's synchronization

PMC-OLTC is the unique master-slave motor control that allows the synchronization of multiple drives and motors without encoder. The result is a smooth, powerful and fast response with the least maintenance and supervision. Every motor will provide the same torque under any circumstance, therefore ageing all the motors homogeneously. Moreover, its reduced starting in-rush current peaks allow the reduction of the drive and motor oversizing in demanding conveyors and mills.

## Additional functionalities

Thermal motor protection, motor overload prediction, motor stall, fly start, automatic restart, etc... complete the wide control features.



# SD700 Series

POWER ELECTRONICS  
VARIABLE SPEED DRIVE

## SD700 Series

POWER ELECTRONICS  
VARIABLE SPEED DRIVE

# Integrated functional and electrical safety

Motor relay features built in as standard. SD700 hardware offers continuously monitoring of the motor electric values and its temperature (PTC sensor). As a result, the highly advanced software provides full motor and drive protection.



## Motor protections

Rotor locked, Motor overload (thermal model), Underload, Output current limit, Phase current imbalance, Phase voltage imbalance, Motor over-temperature (PTC signal), Speed limit, Torque limit.

## Drive protections

IGBT's overload, Input phase loss, Low input voltage, High input voltage, DC Bus voltage limit, Low DC Bus voltage, High input frequency, Low input frequency, IGBT temperature, Heat-sink over-temperature, Power supply fault, Drive thermal model, Ground fault, Software and Hardware fault, Analogue input signal loss (speed reference loss).



## Safety Torque Off (STO)

Compliance with IEC/EN 61800-5-2 (SIL1 o SIL3). It allows the drive's output to be disabled so that the drive cannot generate torque in the motor. By using this function, cleaning, emergencies or maintenance work on non-electrical parts of the machinery can be performed with high reliability without switching off the input power supply to the drive.



## Atex Motors

Drive your Atex motor safely with SD700 series, using an Atex relay in addition to the STO Safety function. Moreover SD700 series are built in as standard with dV/dt filter and a unique CLAMP system that reduce the dV/dt and voltage peaks at the motor windings. Therefore the risk of winding sparks, motor overheating and bearing currents is significantly reduced.

HIGHLY ADVANCED  
HARDWARE AND SOFTWARE  
PROVIDE FULL MOTOR AND  
DRIVE PROTECTION

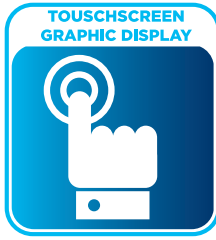
# SD700

Series



## Easy to drive

In Power Electronics, we have developed the SD700 focused on a user-friendly interface that leads into a comfortable workflow. Intuitive screens and buttons enhance user's control and learning.



SD700 is available with two user friendly interfaces, alphanumeric Display or Touch-Graphic Display, both are removable, multilanguage, integrate status indications with LEDs, and include optional extender and protection kits. SD700 interface options simplify drive monitoring and operation.

### Colour Touch-Screen Display

- 3,5 " Touch Screen (240x320 pixels) with pen
- Built-in Help System
- 4Gb MicroSD card | Faults and events log and notification
- Save and Copy the parameter configuration for fast commissioning
- Quad Band GSM modem integrated to remote start, stop and notification by SMS
- Ethernet switch with double connection RJ45
- Optional 5Vdc external power supply or batteries

### Alphanumeric Display

- 4 lines x 16 characters
- 6 keys membrane keypad
- Independent memory



# Dedicated software tools and Macros

Real performance information about motor and drive status. The SD700 integrates an accurate power grid analyzer and drive diagnosis.



## PowerCOMMS

The PowerCOMMS tool offers real performance information about motor and drive status. The SD700 integrates an accurate power grid analyzer and drive's diagnosis. This tool executed from a PC, and communicated with the drives through Ethernet or RS485/RS232, registers, plots and exports all the drive visualization parameters: energy consumption, regenerated energy, motor voltage, PTC signal, IGBT temperature, motor overload, etc.

Not only can you monitor both drive and motor, you can also remotely control and commission multiple drives. User-friendly and flexible tool to copy and save SD700 parameters remotely to speed up the commissioning or configuration, saving time and money.



## PowerPLC

- PowerPLC tool will enhance SD700 performance implementing multiple functions without additional hardware. Dedicated software for customers' application.
- Multiple motor control, automatic pump and crusher unclogging, compressor regulation, cranes driving, petrol pump softstart, paper and cable rolling control, biogas digesters mixers, temporization, calendar functions, and much more... The user establishes the limits for the SD700.

WE HAVE INVESTED  
IN NEW SOFTWARE  
TOOLS TO SIMPLIFY  
SETTINGS AND  
OPERATION

# SD700

Series

# Multiple communications systems compatible

SD700 is compatible with multiple industrial protocols. It integrates as standard Modbus RTU protocol over RS232, RS485 and USB hardware. Optionally Profibus -DP, DeviceNet, CAN Open, Ethernet Modbus TCP, Ethernet IP and N2 Metasys protocols are available.

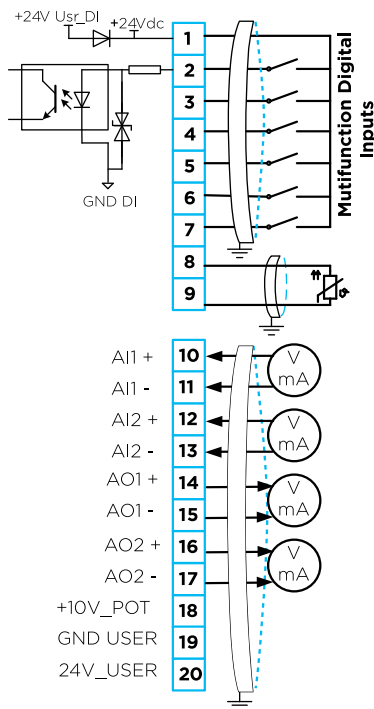
### **Multiple drives synchronization applications**

Fibre optics board is your reliable solution. Fibre optics provide functional reliability and safety. Immune to noise and interferences, long communication distances and high speed communication rate. Fibre optics board makes SD700 suitable for OEM manufacturers.

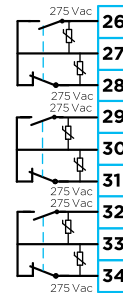


**X1 CONNECTOR**

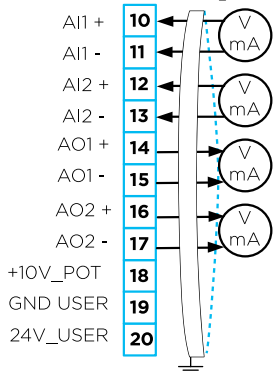
**X2 CONNECTOR**



Common Terminal +24Vdc  
 DI1 → 06: Start- Reset/ Stop  
 DI2 → 00: Not used  
 DI3 → 00: Not used  
 DI4 → 00: Not used  
 DI5 → 00: Not used  
 DI6 → 17 : Control 2  
 Motor PTC Input



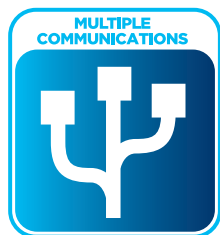
02: No Faults (NO)  
 Common  
 NC Contact  
 03: General Fault (NO)  
 Common  
 NC Contact  
 05: Run (NO)  
 Common  
 NC Contact



Analogue Input 1 Configurable V ó mA  
 (0-20mA, 4-20mA, 0-10Vdc)  
 Analogue Input 2 Configurable V ó mA  
 (0-20mA, 4-20mA, 0-10Vdc)  
 Analogue Output 1 Configurable V ó mA  
 (0-20mA, 4-20mA, 0-10Vdc)  
 Analogue Output 2 Configurable V ó mA  
 (0-20mA, 4-20mA, 0-10Vdc)  
 +10Vdc User Power Supply  
 GND User +0Vdc  
 +24Vdc User Power Supply



RS485A - Serial communication  
 RS485B - Serial communication  
 0Vdc Terminal - Serial communication  
 RS232 Rx - Serial communication  
 RS232 Tx - Serial communication



**Communications**

SD700 integrates as standard Modbus RTU protocol over RS232, RS485 and USB hardware. Optionally fibre optic and the communication protocols Profibus -DP, DeviceNet, CAN Open, Ethernet Modbus TCP, Ethernet IP and N2 Metasys are available.

**Digital inputs and outputs**

There are 6 built-in and 4 optional multifunction digital inputs optically isolated and 1 motor PTC input standard built-in. The digital inputs can be programmed all together to get up to 7 different speed or torque references or they can be programmed individually to set commands such as start, stop, reverse, set acceleration and deceleration ramps, speed limit, alternative control, DC braking, pulse flow meter, ...

**Analogue inputs**

There are 2 built-in and 1 optional analogue inputs and outputs. They are optically and galvanically isolated. External sensors or potentiometers are easily programmable as a voltage or current analogue signal in engineering units (% ,l/s, m<sup>3</sup>/s ,l/m, m<sup>3</sup>/m, l/h, m<sup>3</sup>/h, m/s, m/m, m/h, Bar, kPa, Psi, m, °C, °F, °K, Hz, rpm). Additionally if the sensor is damaged or with noise coupling problems, the drive is able to filter, detect the failure and stop the application.

**Output relays**

There are 3 built-in and 5 optional digital outputs. Feel free to configure built-in as standard output relays to set alarms (current, speed, torque, power, DC bus voltage, reference, acceleration and deceleration ramps, etc), control external mechanical brakes, control DC braking units, pipe filling,...

**Comparators**

3 built-in timer comparators standard that are able to compare internal and external variables to modify the drive's performance or provide external information through the output relay. You don't have to use external hardware or sensors to establish safety or operation conditions.

# SD700

Series



## Energy Saving

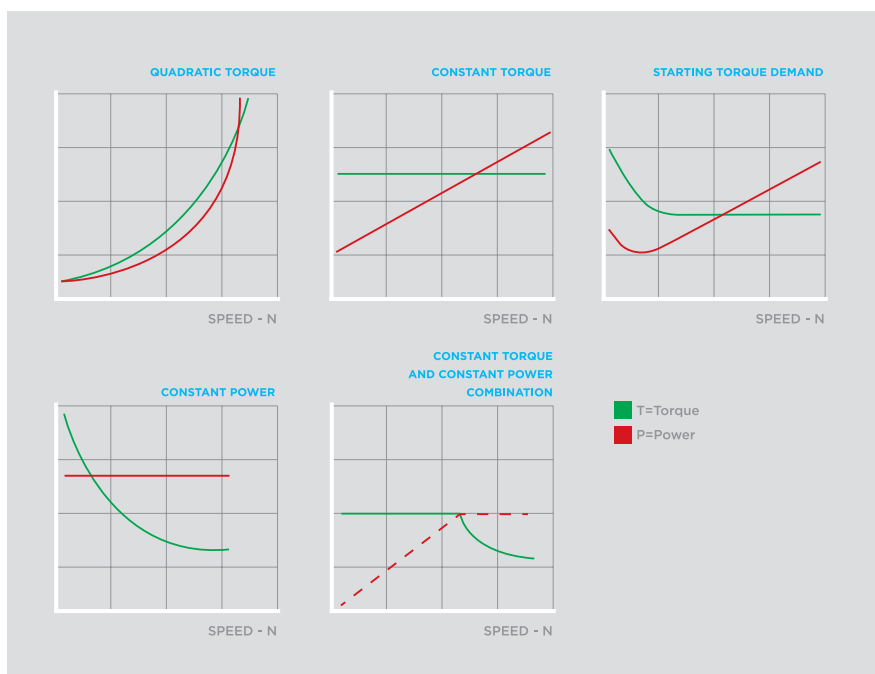
Traditional flow system controls such as valve control, bypass, slide valve, mechanical brake, etc. add losses to the overall system changing the load's demand curve.

But variable speed drives modify the motor's performance curve to adapt the process production to the required value. The drive varies the motor input frequency which causes a motor speed variation. In other words the power demanded by the motor is significantly reduced, saving energy and increasing durability and performance.



Energy savings depend on multiple parameters such as the torque and power response of the load, the process and motor sizing, running hours per year, etc. Nevertheless Power Electronics can tell you the expected savings on your new and retrofit projects.

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



#### QUADRATIC TORQUE

- Most common load type typical in air and water movement applications
- Fans, centrifugal pumps
- $T \propto N^2$ ,  $P \propto N^3$

#### CONSTANT TORQUE

- Typical when the system is constantly working with fixed volumes.
- Screw compressors, feeders and conveyors.
- $T = \text{constant}$ ,  $P \propto N$

#### STARTING TORQUE DEMAND

- Same as above but with high torque at low speed. The starting overload establishes the drive selection.
- Extruders, screw pumps, Mills.
- $T = \text{constant}$ ,  $P \propto N$

#### CONSTANT POWER

- When material is being rolled and the diameter changes during rolling.
- Paper reel, cable drum.
- $T \propto N^{1/2}$ ,  $P = \text{constant}$

#### CONSTANT TORQUE AND CONSTANT POWER COMBINATION

- Special case that depends on the system dimensioning.
- Paper reel and rolls, cable drum.
- $T = \text{constant}$ ,  $P \propto N$  &  $T \propto N^{1/2}$ ,  $P = \text{constant}$

#### OTHERS

- Torque depending on load typical in cranes
- Torque depending on motor angle.
- Etc..

## Quadratic torque applications

The highest savings are experienced in quadratic torque applications such as fans and centrifugal pumps. In these cases the demanded power is proportional to the cubic of speed following the affinity laws.

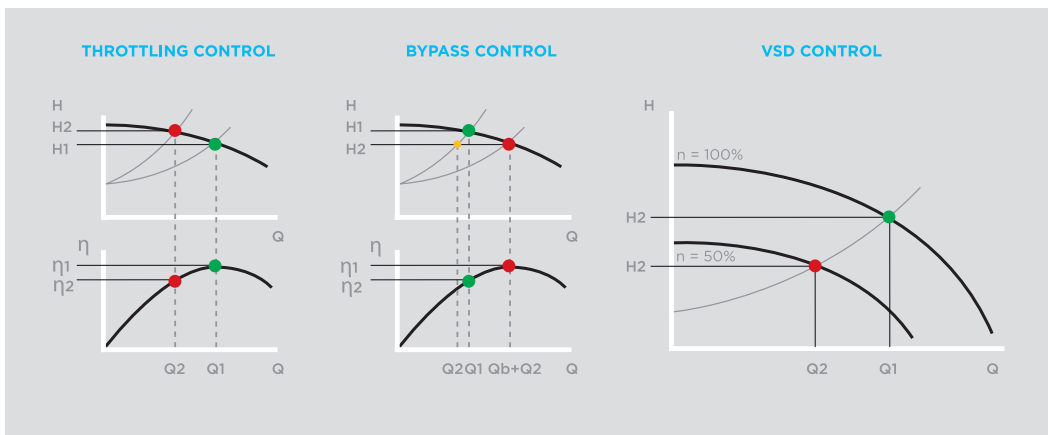
$$\frac{Q_1}{Q_2} = \frac{n_1}{n_2} \quad \frac{H_1}{H_2} = \left(\frac{n_1}{n_2}\right)^2 \quad \frac{P_1}{P_2} = \left(\frac{n_1}{n_2}\right)^3$$

*Q1, Q2: fluid flow at operating points 1 and 2  
H1, H2: Head at operating points 1 and 2  
P1, P2: Power demand at operating points 1 and 2  
n1, n2: Motor speed at operating points 1 and 2.*



There are several different methods to meet flow requirements. The most extensively used flow control methods for pumps are throttling, bypassing, on-off control and VSD control. Throttling and bypassing control modify the performance curve of the pipeline, adding further losses to the hydraulic system, to meet the flow requirements.

The following charts show examples which illustrate different hydraulic behaviours with a throttling control, a bypass control and a variable speed flow control.



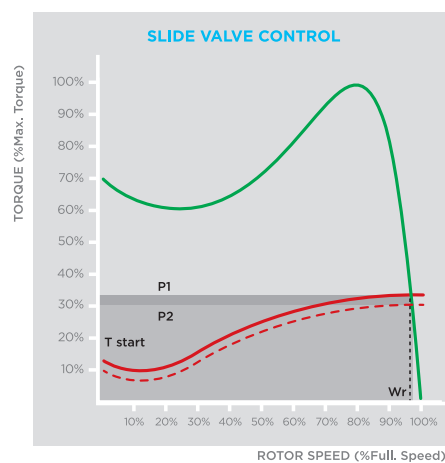
As shown in the graphs, the throttling control and bypass control modify hydraulic losses to obtain a different operation point with the desired flow.

Typically they reduce the power absorbed by the motor but if the pump's hydraulic efficiency is reduced at low speed, it could be insignificant. On the contrary, the variable speed drives modify the performance curve of the pump, providing high savings and better hydraulic response.

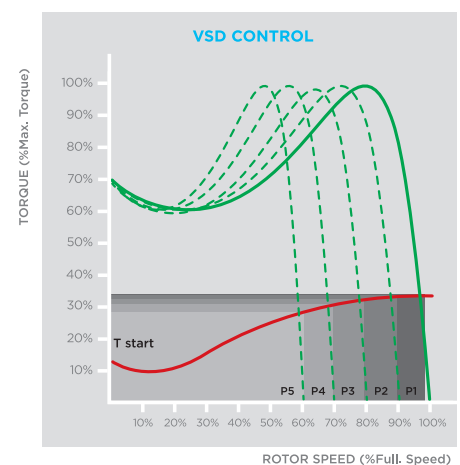


## Constant torque applications

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



■ T compressor 100%  
■ T motor  
■ T compressor 60%



■ T compressor 100%  
■ T motor

# SD700

Series

## INDUSTRIES

# Water

The SD700 Series provides reliability and multiple functionalities for saving energy in water applications. The drive modifies pump impeller rotational speed; consequently it modifies the pump's performance curve adapting the water flow to the process requirements without additional losses.



## Specific features:

- Accurate direct and reverse action of the PID control regulation of pressure, flow, level.
- Sleep and wake up functionality for extra energy saving depending on pressure and flow.
- Water Hammer control to prevent catastrophic breakdowns.
- Direct programming in engineering units (l/s, m<sup>3</sup>/s, %, °C, ...).
- Operation in manual or automatic mode is up to you.
- Several Pump alternation modes for homogeneous ageing.
- Visualization of working time per pump and number of starts.
- Under-pressure and Over-pressure compensation.
- Head or pressure compensation depending on flow rate.
- Pipe fill function.
- Out of service Motor monitoring
- Pulse measurement of the flow.
- Pump safety protections: cavitation with reset activation time, minimum pressure detection, over-pressure control, zero-flow detection...

## Typical applications:

Water distribution networks  
Pumping stations  
Irrigation networks  
Desalination plants  
Municipal Treatment and Recycling  
Industrial Treatment and Recycling  
Thermo solar plants



Souk Tleta Desalination plant  
Location: Souk Tleta-Tlemcen (Algeria)  
Capacity: 200.000 m<sup>3</sup>/day

## INDUSTRIES

# Cement, Minerals & Mining

Copper, gold, aluminium, iron, uranium and coal world leader mining companies already trust SD700 drives by Power Electronics due to their reliability, performance and quality. Its unique mechanical and hardware design fit perfectly in adverse situations and demanding applications. Altitude, dust, pollution, moisture or hazardous environments are easy challenges for SD700.



## Specific features:

- Automatic crusher unclogging.
- Totally sealed electronics with PCB Conformal coating varnish. Sensitive components are fully protected IP54 without dust filters regular maintenance.
- PMC-OLTQ (Power Motor Control-Open Loop Torque Control) over fibre optics communications provides unique master-slave performance in the most demanding applications, and guaranties a perfect torque distribution.
- Precise and high starting torque features dedicated to loaded lifting systems.
- Fast commissioning and invariable control response due to motor or belt parameters variation.



Ministro Hales / Codelco North Division  
Location: Calama, Antofagasta (Chile)  
Capacity: 200 kton copper

# SD700

Series

INDUSTRIES

## Metal and Paper

On the one hand, accuracy and quick response are necessary features for precise applications with multiple motors controlled by electronic line shafting such as rolling systems, printing and stamping machines in paper industries, on the other hand high torque at low speed, overload capacity and torque distribution control make SD700 suitable for metal and general industry applications such as compressors, plastic injection machines, conveyors, mills, mixers, etc.



## Original Equipment Manufacturers

Power Electronics works closely with OEM manufacturers to integrate SD700 in multiple complex machines. SD700 not only provides manufacturers a high reliability and flexibility, but also a 24h- 365days a year service to your customers.



## Hoisting

SD700 has specific safety and performance features for cranes, elevators, conveyor belts that ensure long life operation.

- Mechanical brake control MBC to avoid load regression.
- High torque response at low speed through the induction and permanent magnet motor control.



## INDUSTRIES

# Oil and Gas

Power Electronics has been present for more than 15 years in a wide number of applications within the oil and gas industry. When safety, availability, flexibility and customized equipment are the main issues, our variable speed drives and soft starters offer highly proven software and hardware protections that make them suitable for extraction plants, refineries, treatment plants, storage and distribution plants, and chemical industries based on petroleum derivatives. Power Electronics offers custom made solutions for long cable distances, redundant systems, master-slave configurations, ATEX motors driving, and safety functions STO (Safe Torque Off) that enhance plants' reliability.



# Power Generation

Industrial excellence and quality, together with solar competitiveness, availability rates and harsh conditions, led us to develop suitable products for power generation plants (Gas, Coal and biomass), CSP plants, hydraulic plants, ...

In fact, Power Electronics is the world leading company in MV and LV drives supply for CSP plants, by producing over 1300MW. We continue growing due to our custom made solutions, unique service conditions, cooling system effectiveness and a 50°C operation without power derating.

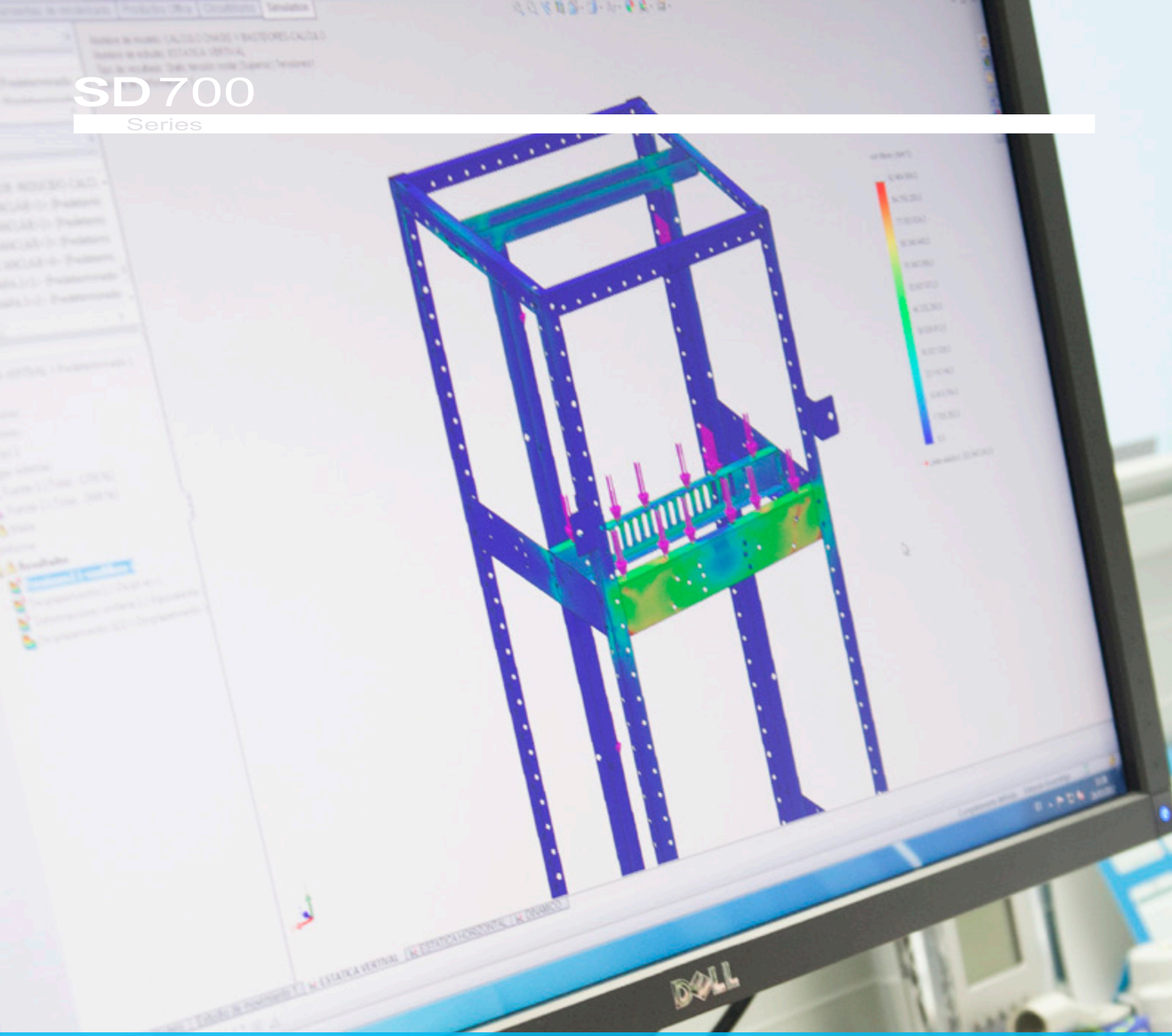


# Marine

Vessels, shuttle tankers, cruise ships and ferries can now enjoy the greatest features of the SD700 such as flexibility, reliability and low maintenance. SD700 has been certified by Germanischer Lloyd to comply with the offshore requirements.



# SD700 Series



## Customized solutions

Power Electronics' engineering department offers a wide variety of tailor made solution to comply with your specific requirements. Factory tested solutions that provide flexibility and reliability.

### Customized input and output wiring:

- Top and bottom connections
- Size and number of conductors
- EMC requirements

### Disconnection and Protection:

- Fuses
- On-load disconnectors
- Circuit breakers
- ...

### Customized control and push buttons:

- Selectors and pushbuttons
- Customized user terminal strip
- PTC and PT100 relays
- Redundant external Power Supply (UPS)
- ...

### Documentation:

- Dimensions and electrics drawings
- ITP reports
- FAT - Factory Acceptance Test
- ...

### Cabinet features:

- Transport and elevation plinths
- Painting requirements
- Special cooling system (altitude, humidity, dust...)
- Structural design and test
- ...





## Disconnection and Protection

Built in solutions or adjoining cabinets can be delivered with: general line fuses, on-load disconnect with and without fuses, earthing switch, mechanical interlocks, end-of-strokes, automatic circuit breakers, ground fault monitoring protection or isolation monitoring for IT grids.



## Customized control and push buttons

Request for special and customized local and remote control suitable for your installation. Emergency push buttons, start and stop selectors and push buttons, local and remote control selector, potentiometers, Pilot-LED status indicator, user terminal strip, DCS report and control, door mounted display, especial communication modules, external power supply, power supply redundancy, UPS; standard and ATEX certified PTC and PT100 relay....



TAILOR MADE  
SOLUTIONS CAME OUT  
FROM OUR INDUSTRIAL  
EXPERTISE AND OUR  
CUSTOMER ORIENTED  
PHILOSOPHY POWER  
ON SUPPORT



## Cabinet features

Power Electronics offers the complete integration of our drives in special cabinets: degree of protection (IP20, IP42 and IP54), cooling, motor and VSD heating resistors control by temperature and humidity, interior lighting, power connections and busbars, special EMC cabinet design, structural and transport design, high altitude requirements, RAL and special painting requirements.....

All are part of the wide variety of equipment that Power Electronics offers to fulfill your specific project requirements.

## Output filters and equipment.

Isolated systems or with variable frequency supply, and installation with long motor cables or special grid quality, require special equipment such as sinusoidal filters and auto- transformers. Consult Power Electronics for further information.



# SD700

## Series



- **IP54** without dust filters
- **50°C** operation without power derating
- **(FFA)** Full frontal access
- Built-in harmonics and RFI filters
- Built-in  $dV/dt$  filter 400V/ $\mu$ s-800V/ $\mu$ s (unscreened cable up to 300m)
- Modularity
- Conformally coated electronics with militar and aerospace technology

SD700 SERIES is the core of the family, available from 1.5kW to 2200kW <sup>[1]</sup>, a voltage range from 230VAC to 690VAC and available 6, 12, 18 and 24 pulses. IP20 and IP54 mechanical designs cover all general industry applications, making it the most flexible and extensive series.

The whole series integrates unique features such as low dV/dt, smart mechanical design and accurate control. It is divided in 11 frame sizes to cover the whole power range. SD700 has been certified by Germanischer Lloyd.

Continuous operation  
under the most demanding  
applications ensures your  
investment on new and  
retrofit projects



[1] Higher power drives, consult Power Electronics.

## SD700 SERIES

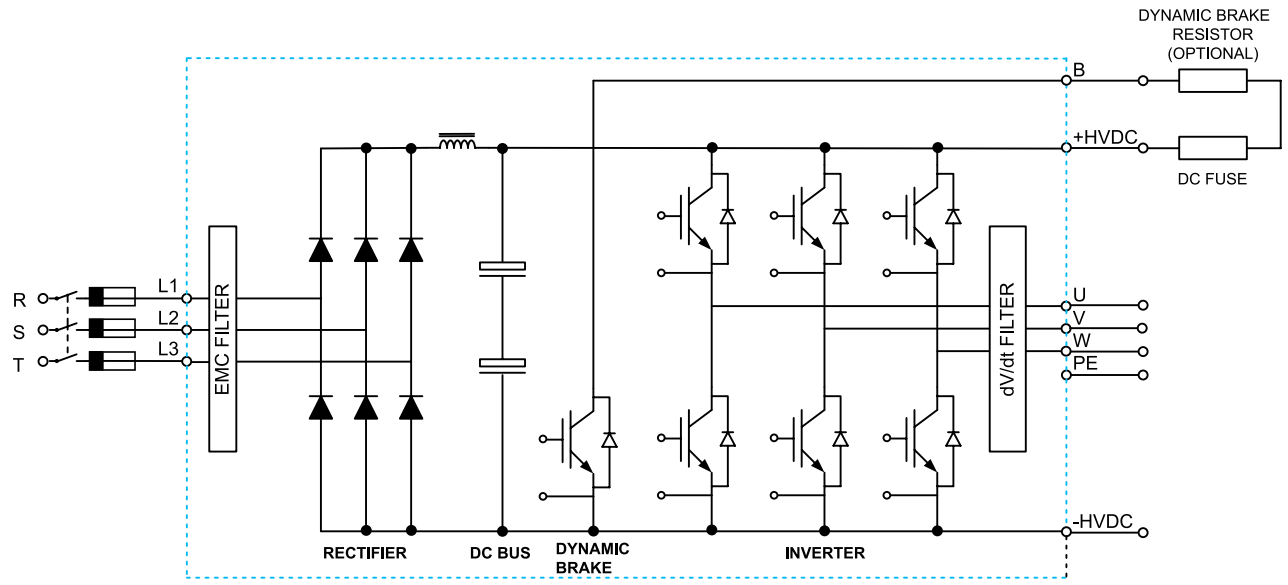
# Standard features

- Extensive power range. Fully on site tested hardware ensures a perfect performance for small and MW motors. SD700 offers quality for all motor range.
- Built-in  $dV/dt$  filter  $400V/\mu s$ - $800V/\mu s$  allows its installation with up to 300m unipolar cable following Power Electronics recommendations.
- $50^{\circ}C$  operation without derating.
- Wide voltage range (230Vac, 380Vac-500Vac, 525Vac and 690Vac). Suitable for weak electrical grids and places with variable voltage range operations. The drive keeps running!
- IP20 & IP54 Electronics enclosure – wherever the drive is installed we ensure a long life electronics operation.
- 6/12/18/24 Multipulse system selects the best drive that fits with your THDi requirements.
- Input chokes built-in as standard. Grid anomalies are filtered by efficient input chokes (3% impedance) reducing the THDi and protecting the drive in weak grids.
- EMC input filter as standard. EMC filter reduces the electric perturbation generated in the inverter and rectifier bridges achieving compliance with C3 according to IEC/EN61800-3.
- Internal and external braking units. When the drive absorbs the regenerated energy during braking cycles, the B150 accessory or the integrated dynamic brake will dissipate it.
- Ultra fast fuses. Frames 5 on integrate built-in as standard fast fuses which protect against unexpected overcurrents.
- GL certification. Germanischer Lloyd has certified SD700 assuring your investment in marine projects.



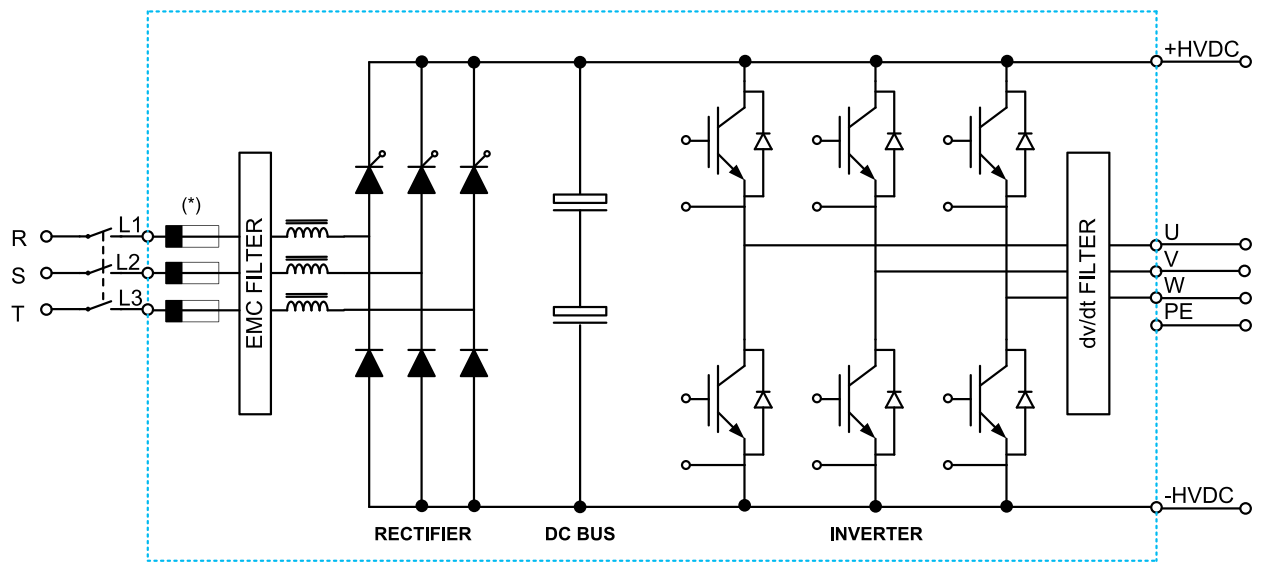
# SD700 SERIES | Functional Diagram

## FRAMES 1 & 2



SD70DTP0004BI

## FRAMES 3, 4 & 5

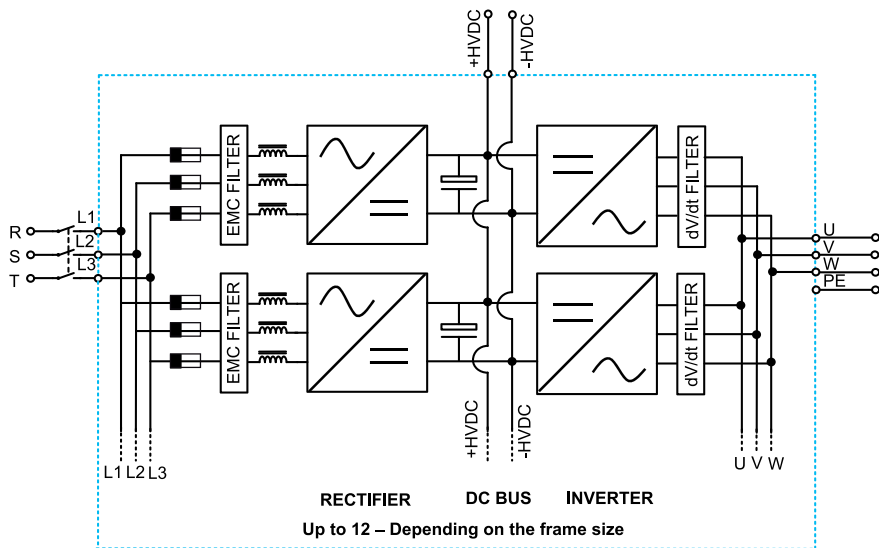


(\*): Fuses not integrated for frames 3 and 4.

SD70DTP0002CI

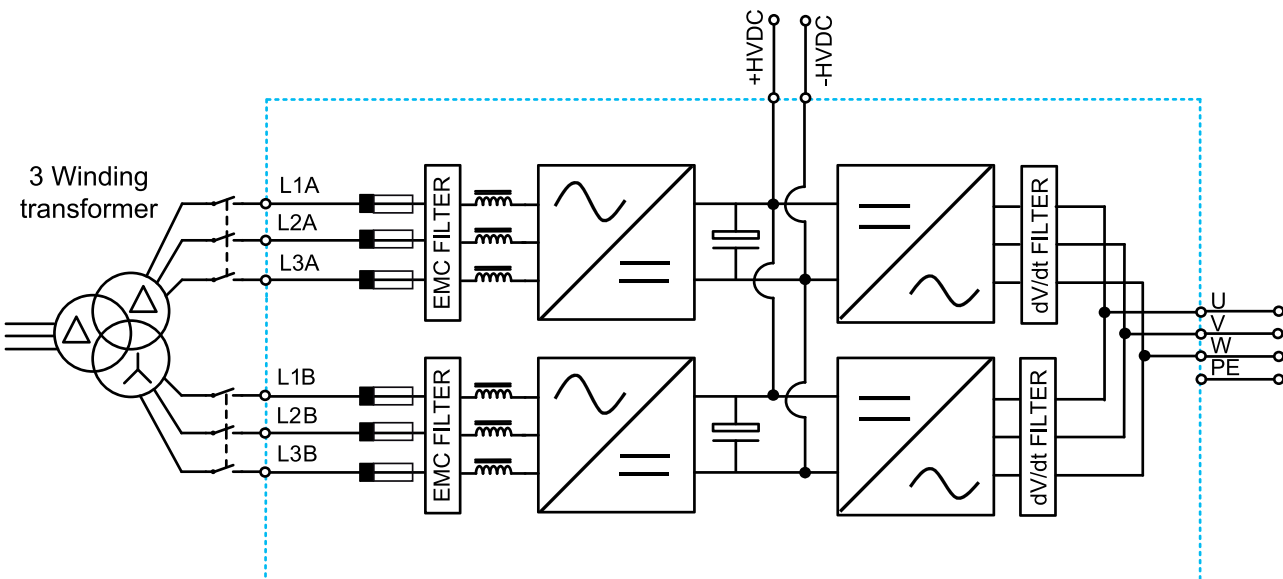
# SD700 SERIES | Functional Diagram

FRAMES 6 to 11



SD70DTP0009AI

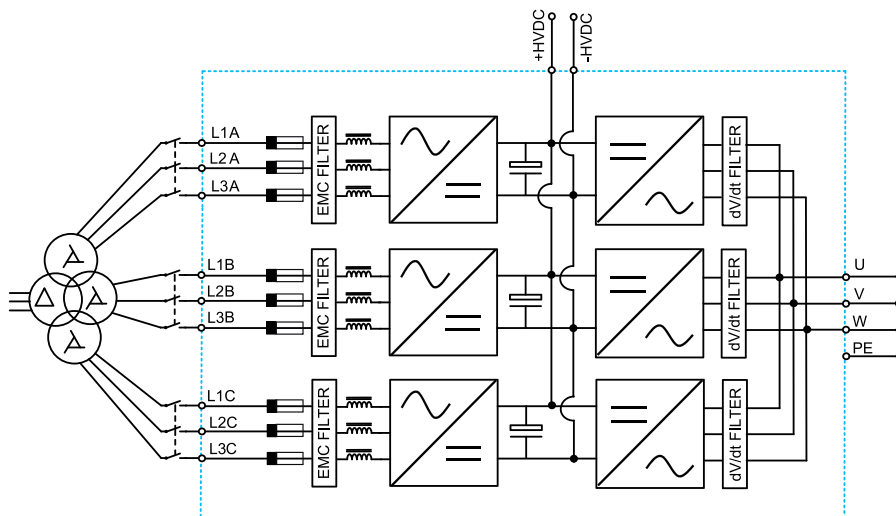
12 PULSES



SD70DTP00010AI

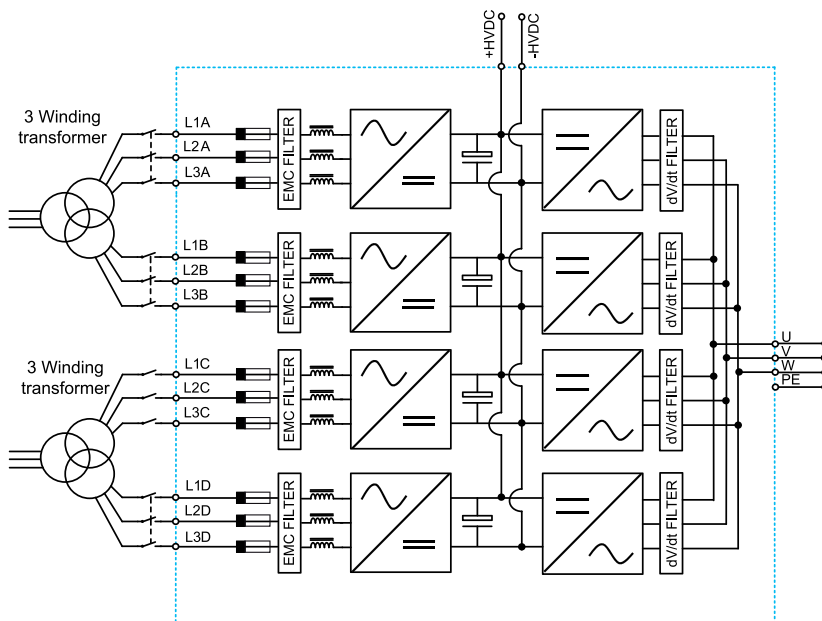
# SD700 SERIES | Functional Diagram

## 18 PULSES



SD70DTP0011AI

## 24 PULSES



SD70DTP00012AI

## SD700 SERIES | Technical Characteristics

### SD700 SERIES

<b>INPUT</b>	Power range	1,5kW - 2000 kW <sup>[1]</sup>
	Voltage power	230Vac, 380-500Vac, 525Vac, 690Vac , 3 phases (±10%)
	Multipulse	6, 12, 18, 24
	Input frequency	50Hz/60Hz ± 6%
	Input rectifier technology	Thyristor-Diode
	Displacement power factor (DPF = cos Φ)	≥ 0.98
	Power factor (PF= I <sub>p</sub> /I <sub>rms</sub> ·cos Φ)	≥ 0.91
	Momentary power loss	> 2sec (depending on the load inertia)
	EMC input filter	Frames 1 & 2: First environment (C2 standard) Frames 3 to 11: Second environment (Industrial) (C3 Standard) First environment (C2 Optional). C1 consult Power Electronics. Optional IT filter
	Harmonics filter	Choke coils 3% impedance
	Current THDi (%)	≤ 40%
	Regenerative	NO
<b>OUTPUT</b>	Output frequency <sup>[2]</sup>	0... 200Hz
	Overload capacity	Constant torque/heavy duty: 150% during 60 sec at 50°C Variable torque/normal duty: 120% during 60 sec at 40°C.
	Efficiency (at rated current and rated voltage)	≥ 98%
	Control method	V/Hz VECTOR CONTROL Open Loop: PMC: speed (OLSP)/torque control (OLTQ), AVC: speed(OLSP) / torque control (OLTQ) Close Loop (Encoder): PMC: speed (CLSP)/torque control (CLTQ), AVC: speed(CLSP)/torque control (CLTQ)
	Switching frequency	4 to 8kHz - PEWave
	Output dv/dt filter	500 to 800V/μs <sup>[3]</sup>
	Output cable length <sup>[4]</sup>	USC 300m SC 150m
	Dynamic brake	External B150 Dynamic Brake (Frames 1 and 2 Integrated)
<b>ENVIRONMENTAL CONDITIONS</b>	Operation ambient temperature	Minimum: -20°C Maximum: +50°C
	Storage temperature	Minimum: -40°C Maximum: +70°C
	Altitude	1000m
	Power altitude derating <sup>[1]</sup>	>1000m, 1% P <sub>N</sub> (kW) per 100m; 4000m maximum
	Ambient humidity	<95%, non-condensing
	Degree of protection	IP20, IP54
	Vibration <sup>[5]</sup>	Deflection: ± 1mm ( 2Hz-13.2Hz), ± 0.075mm (13.2Hz-57Hz) Acceleration: 6.86m/s <sup>2</sup> (13.2Hz-57Hz), 9.8m/s <sup>2</sup> (57Hz-150Hz)
Heating resistors	Optional	
<b>PROTECTIONS</b>	Motor protections	Rotor locked, Motor overload (thermal model), Output current limit, Phase current imbalance, Phase voltage imbalance, Motor over-temperature (PTC signal), Speed limit, Torque limit.
	Drive protections	IGBT's overload, Input phase loss, Low input voltage, High input voltage, DC Bus voltage limit, Low DC Bus voltage, High input frequency, Low input frequency, IGBT temperature, Heat-sink over-temperature, Power supply fault, Drive thermal model, Ground fault, Software and Hardware fault, Analogue input signal loss (speed reference loss), Safe stop / Emergency stop.
<b>INPUTS/OUTPUTS</b>	Digital inputs	6 programmable active high (24Vdc), Isolated power supply 1 PTC input
	Digital outputs	3 Programmable changeover relays (250Vac, 8A or 30Vdc, 8A)
	Analogue input	2 Programmable differential inputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc. (Optically isolated)
	Analogue outputs	2 Isolated programmable outputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc
	Encoder inputs (optional)	Two differential encoders input. Voltages inputs from 5 to 24Vdc
	User power supply	+24Vdc user power supply ( Max 180mA) regulated and short-circuit protected +10Vdc user power supply (Max 2 potentiometers R= 1 kΩ) regulated and short-circuit protected
	I/O Extension board (optional)	4 Digital Inputs: Programmable inputs and active high (24Vdc). Optically isolated. 1 Analogue Input: Programmable and differential input. 5 Digital Outputs: Programmable multi-function relays.
	External power supply (optional)	1 Analogue Output: Programmable outputs in voltage / current. 24V External Power Supply, Fault Relay integrated

#### NOTES

[1] Other configuration, consult Power Electronics.  
[2]: For operation frequencies higher than 100Hz consult Power Electronics.

[3] Valid for frames 3 to 11, depending on the rated power, the input voltage and under Power Electronics' installation recommendations. For frames 1 and 2 it is available optional filters.

[4] SC: Shielded cable, USC: Unshielded Cable. Follow Power Electronics installation recommendations.  
For greater cable lengths and first environment (C2) consult Power Electronics.

# SD700 SERIES | Technical Characteristics

## SD700 SERIES

COMMUNICATION	Standard hardware	USB port RS232 port RS485 port
	Standard protocol	Modbus-RTU
	Optional protocol	Profibus-DP DeviceNet Ethernet (Modbus TCP) Ethernet IP CAN Open N2 Metasys Gateway
CONTROL PANEL	Type	Removable
	Length	3 meters and 5 meters (optional)
	Connection	RJ45
	Visualization leds	LED ON: Control board is energized LED RUN: Motor receiving power supply LED FAULT: Flashing displays that a fault has occurred
	Alphanumeric display	4 lines x 16 characters Keypad with 6 keys to control and configure the drive, start and stop/reset Independent memory
	Colour Touch-Screen Display	3,5" Touch Screen (240x320 pixels) with pen 4Gb MicroSD card   Faults and events log and notification. Quad Band GSM modem integrated to remote start, stop and notification by SMS Ethernet Switch with two RJ45 connections Optional 5Vdc external power supply or batteries.
	Display information	Average current and 3-phase motor current Average voltage and 3-phase motor voltage Average input voltage and 3-phase input voltage 3-phase input and output frequency DC Bus Voltage Drive Status Speed, Torque, Power, Power factor of motor Register of total and partial drive running time with reset function. (hours) Register of total and partial drive energy consumption with reset function (kWh) Relay status Digital inputs / PTC status Output comparator status Analogue inputs and sensor values Analogue output value Motor overload and equipment status Drive and rectifier temperature Fault history (last 6 faults)
	Others	Real time clock Perpetual calendar
REGULATIONS	Certifications	CE, cTick, UL <sup>[5]</sup> , cUL <sup>[5]</sup> , GL <sup>[6]</sup>
	Electromagnetic compatibility	EMC Directive (2004/108/CE) IEC/EN 61800-3
	Design and construction	LVD Directive (2006/95/CE) IEC/EN 61800-2 General requirements IEC/EN 61800-5-1 Safety IEC/EN 60146-1-1 Semiconductor converters IEC60068-2-6 - Vibration
	Functional Safety	IEC/EN 61800-5-2(STO) Tüv Rheinland Certified

NOTES [5] On certification process,

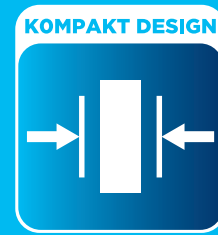
[6] SD700 Series from frame 5 on.  
For further information, please consult  
with Power Electronics.

# SD700

## Kompakt Series



- IP00 without dust filters
- 50°C operation without power derating
- (FFA) Full frontal access
- Built-in harmonics and RFI filters
- Built-in dV/dt filter 400V/μs-800V/μs (unscreened cable up to 150m)
- Modularity
- Conformally coated electronics with militar and aerospace technology



When space saving is a must, the SD700 Kompakt series with a power density up to  $800\text{kW/m}^3$  is your suitable solution. The drive keeps the advanced family features reducing up to 2.5 times the size. This product is suitable for professional project engineers to get freedom and competitiveness to their own electrical projects. Inspired by the contactors wiring concept, it has a top input power and a bottom output motor cable.

The drive unit and the input chokes are delivered together with a IP00 degree of protection. The customer following Power Electronics' recommendation will easily install the components in a dedicated cabinet or technical room.

SD700 Kompakt  
keeps the advanced  
family features  
reducing up to 2.5  
times the size.



## SD700 KOMPAKT SERIES

# Standard features

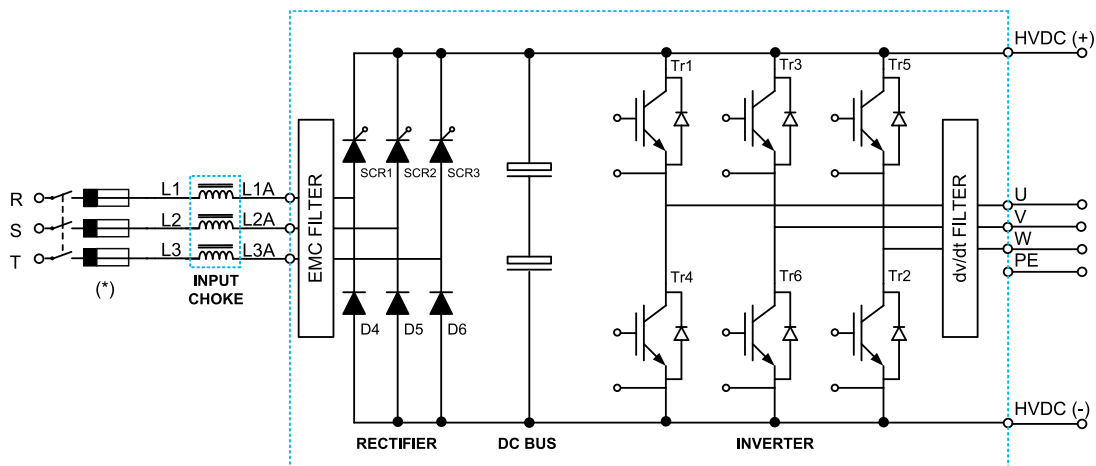
- Power range from 63kW to 800kW<sup>[1]</sup>. When there are many motors, this is a perfect space saving solution.
- Built-in dV/dt filter 400V/μs-800V/μs allows its installation with up to 150m unipolar cable following Power Electronics recommendations.
- 50°C operation without derating.
- Wide voltage range (230Vac, 380Vac-500Vac, 525Vac and 690Vac). Suitable for weak electrical grids and places with variable voltage range operations. The drive keeps running!
- Optional IP20 improvement through its dedicated enclosures suitable for technical room installation.
- Reduce the THD level without modifying the space needs; SD700 kompakt is available with 6 and 12 pulses.
- External input chokes (3% impedance), EMC input filter as standard to keep family performance features.
- External braking units. When the drive absorbs the regenerated energy during braking cycles, B150 accessory will dissipate it.

<sup>[1]</sup> Higher power drives, consult Power Electronics".



# SD700 KOMPAKT | Functional Diagram

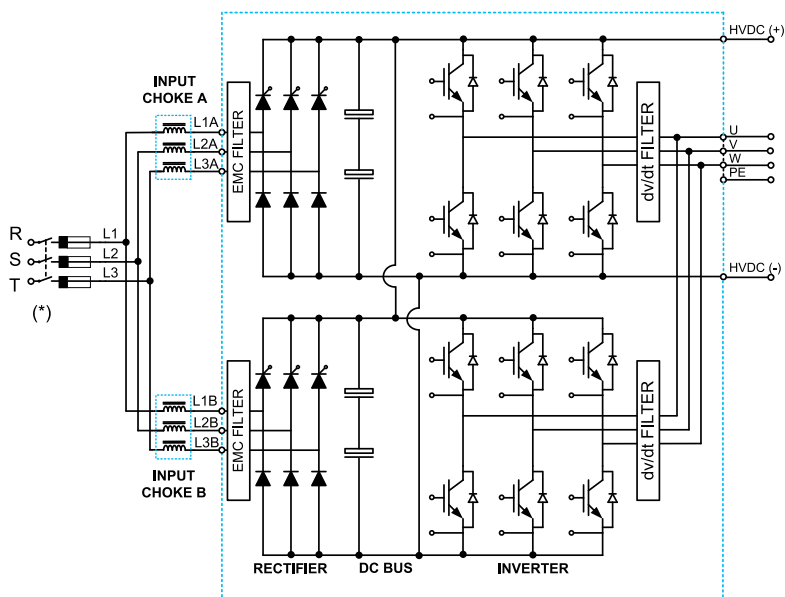
## FRAMES 1 & 2



(\*) : Protections and fuses not included

SD7KDTP0001BI

## FRAMES 3 & 4



(\*) : Protections and fuses not included

SD7KDTP0007AI

# SD700 KOMPAKT | Technical Characteristics

## SD700 KOMPAKT SERIES

<b>INPUT</b>	Power range	63kW - 800 kW <sup>[1]</sup>	
	Voltage power	230Vac, 380-500Vac, 525Vac, 690Vac , 3 phases (±10%)	
	Multipulse	6, 12	
	Input frequency	50Hz/60Hz ± 6%	
	Input rectifier technology	Thyristor-Diode	
	Displacement power factor (DPF = cos Φ)	≥ 0.98	
	Power factor (PF= I <sub>1</sub> /I <sub>rms</sub> · cos Φ)	≥ 0.91	
	Momentary power loss	> 2sec (depending on the load inertia)	
	EMC input filter	Second environment (Industrial): (C3 Standard) First environment (Domestic): C2 (Optional). C1 consult with Power Electronics	
	Harmonics filter	Choke coils 3% impedance	
	Current THDi (%)	≤ 40%	
	Regenerative	NO	
	<b>OUTPUT</b>	Output frequency <sup>[2]</sup>	0... 200Hz
Overload capacity		Constant torque/heavy duty: 150% during 60 sec at 50°C Variable torque/normal duty: 120% during 60 sec at 40°C.	
Efficiency (at rated current and rated voltage)		≥ 98%	
Control method		V/Hz VECTOR CONTROL Open Loop: PMC: speed (OLSP)/torque control (OLTQ), AVC: speed (OLSP) / torque control (OLTQ) Close Loop (Encoder): PMC: speed (CLSP)/torque control (CLTQ), AVC: speed(CLSP)/torque control (CLTQ)	
Switching frequency		4 to 8kHz - PEWave	
Output dv/dt filter		500 to 800V/μs	
Output cable length <sup>[3]</sup>		USC 150m SC 75m	
Dynamic brake		External B150 Dynamic Brake	
<b>ENVIRONMENTAL CONDITIONS</b>		Operation ambient temperature	Minimum: -20°C Maximum: +50°C
		Storage temperature	Minimum: -40°C Maximum: +70°C
	Altitude	1000m	
	Power altitude derating <sup>[1]</sup>	>1000m, 1% P <sub>n</sub> (kW) per 100m; 3000m maximum	
	Ambient humidity	<95%, non-condensing	
	Degree of protection	IP00..IP20	
	Vibration	Deflection: 0.075mm (10Hz-57Hz), Acceleration: 9.8m/s <sup>2</sup> (57Hz-150Hz)	
	Heating resistors	Optional	
<b>PROTECTIONS</b>	Motor protections	Rotor locked, Motor overload (thermal model), Output current limit, Phase current imbalance, Phase voltage imbalance, Motor over-temperature (PTC signal), Speed limit, Torque limit.	
	Drive protections	IGBT's overload, Input phase loss, Low input voltage, High input voltage, DC Bus voltage limit, Low DC Bus voltage, High input frequency, Low input frequency, IGBT temperature, Heat-sink over-temperature, Power supply fault, Drive thermal model, Ground fault, Software and Hardware fault, Analogue input signal loss (speed reference loss), Safe stop / Emergency stop.	
<b>INPUTS/OUTPUTS</b>	Digital inputs	6 programmable active high (24Vdc), Isolated power supply 1 PTC input	
	Digital outputs	3 Programmable changeover relays (250Vac, 8A or 30Vdc, 8A)	
	Analogue input	2 Programmable differential inputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc. (Optically isolated)	
	Analogue outputs	2 Isolated programmable outputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc	
	Encoder inputs (Optional)	Two differential encoders input. Voltages inputs from 5 to 24Vdc	
	User power supply	+24Vdc user power supply ( Max 180mA) regulated and short-circuit protected +10Vdc user power supply (Max 2 potentiometers R= 1 kΩ) regulated and short-circuit protected	
	I/O Extension board (optional)	4 Digital Inputs: Programmable inputs and active high (24Vdc). Optically isolated. 1 Analogue Input: Programmable and differential input. 5 Digital Outputs: Programmable multi-function relays.	
	External power supply (optional)	1 Analogue Output: Programmable outputs in voltage / current. 24 V External Power Supply, Fault Relay integrated	

### NOTES

[1] Other configuration, consult Power Electronics.

[2]: For operation frequencies higher than 100Hz consult Power Electronics.

[3] SC: Shielded cable, USC: Unshielded Cable.  
Follow Power Electronics installation recommendations. For greater cable lengths consult Power Electronics.

# SD700 KOMPAKT

## Technical Characteristics

### SD700 KOMPAKT SERIES

COMMUNICATION	Standard hardware	USB port RS232 port RS485 port	
	Standard protocol	Modbus-RTU	
	Optional protocol	Profibus-DP DeviceNet Ethernet (Modbus TCP) Ethernet IP CAN Open N2 Metasys Gateway	
CONTROL PANEL	Type	Removable	
	Length	3 meters and 5 meters (optional)	
	Connection	RJ45	
	Visualization leds	LED ON: Control board is energized LED RUN: Motor receiving power supply LED FAULT: Flashing displays that a fault has occurred	
	Alphanumeric display	4 lines x 16 characters Keypad with 6 keys to control and configure the drive, start and stop/reset Independent memory	
	Colour Touch-Screen Display	3,5 " Touch Screen (240x320 pixels) with pen 4Gb MicroSD card   Faults and events log and notification. Quad Band GSM modem integrated to remote start, stop and notification by SMS Ethernet Switch with two RJ45 connections Optional 5Vdc external power supply or batteries.	
	Display information	Average current and 3-phase motor current Average voltage and 3-phase motor voltage Average input voltage and 3-phase input voltage 3-phase input and output frequency DC Bus Voltage Drive Status Speed, Torque, Power, Power factor of motor Register of total and partial drive running time with reset function.(hours) Register of total and partial drive energy consumption with reset function (kWh) Relay status Digital inputs / PTC status Output comparator status Analogue inputs and sensor values Analogue output value Motor overload and equipment status Drive and rectifier temperature Fault history (last 6 faults)	
	Others	Real time clock Perpetual calendar	
	REGULATIONS	Certifications	CE, cTick, UL <sup>[4]</sup> , cUL <sup>[4]</sup>
		Electromagnetic compatibility	EMC Directive (2004/108/CE) IEC/EN 61800-3
Design and construction		LVD Directive (2006/95/CE) IEC/EN 61800-2 General requirements IEC/EN 61800-5-1 Safety IEC/EN 60146-1-1 Semiconductor converters IEC60068-2-6 - Vibration	
Functional Safety		IEC/EN 61800-5-2(STO) TÜV Rheinland Certified	

# SD700

Series

# Freemaq

SD700 FREEMAQ FL

SD700 FREEMAQ FR





SD700 family offers two low harmonics solutions SD700FL and SD700FR. SD700 FREEMAQ drives are fully tested solutions that ensure a THDi < 5%<sup>[1]</sup> under any grid impedance, without adding installation requirements or additional calculations to your project.

SD700FL is based on a Notch Input Filter (NIF) technology enclosed in an adjoining cabinet under the drive's supervision and control. It is a robust solution that meets your THDi requirements keeping SD700 features.

SD700 FR is based on an Active Front End technology (AFE) replacing the traditional thyristor-diode rectifier bridge for an IGBT rectifier bridge. This technology enables a bidirectional and fully controlled power flow, which permits energy regeneration, cosine phi control, immunity to high voltage drops and a reduced THDi. SD700FR Regenerative drive will reduce your energy bill, do not waste the regenerated energy in braking units, give it back to grid!

SD700 Freemaq drives  
are fully tested solutions  
that comply with  
IEEE519

[1] Harmonics are below the limits defined in IEEE519 for all  $I_{sc}/I_L$

# SD700

## SD700FL Series

Low harmonics  
Notch Filter Drive



- **IP00** without dust filters
- **50°C** operation without power derating
- **(FFA)** Full frontal access
- **Modular Power Stage and Notch Filter**
- **Built-in RFI filter**
- **Built-in dV/dt filter 400V/μs-800V/μs** (screened cable up to 300m)
- **Conformally coated electronics with militar and aerospace technology**



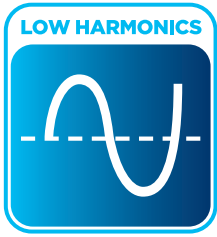
The unique features of the SD700 drive are improved adding an input notch filter that reduces the THDi below 5%<sup>[1]</sup>. It is constructed through the parallel connection of individual filtering modules, all controlled and monitored by the drive. Each module integrates temperature sensors and a contactor that isolates the long life integrated capacitors. This contactor is controlled by the drive depending on the motor load to get best filtering features.

What makes SD700FL different? The filtering features do not depend on the grid impedance, that means that the filter will never cause resonance as the passive filter could cause, and its performance will not vary significantly after electrical grid modifications. This feature makes it suitable for any low harmonic application.

[1]Harmonics are below the limits defined in IEEE519 for all ISC/IL

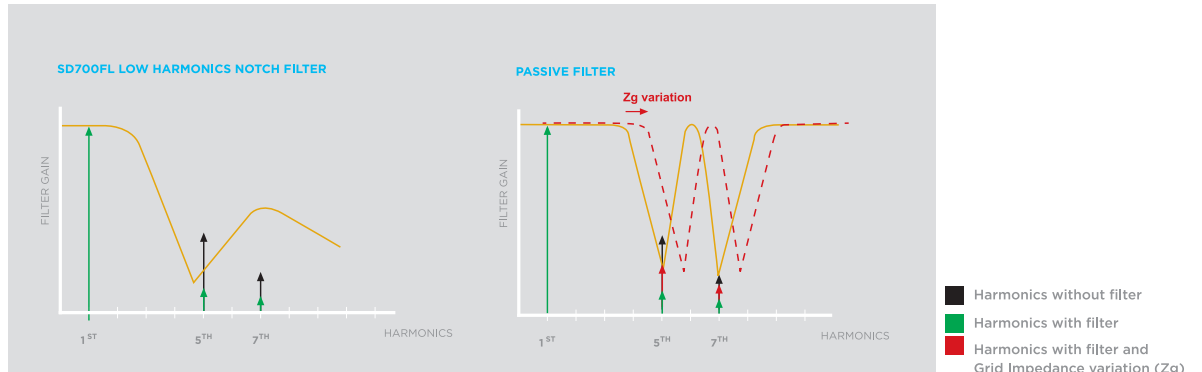
Rugged and  
reliable solution  
for low harmonics  
applications





## Low harmonic drive

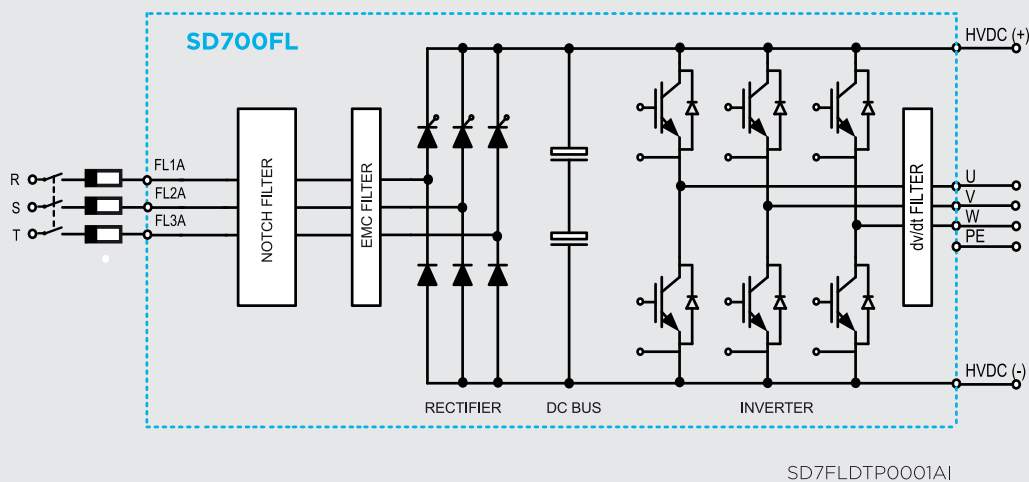
The additional input filter customized for your application ensures a THDi level that meets all the projects requirements. SD700FL is not a common passive filter, its performance does not depend on the grid impedance so the filter will never cause resonance under normal working conditions.





The passive filters are usually LC filters designed specifically to filter the 5<sup>th</sup> and 7<sup>th</sup> harmonic for a specific grid configuration and impedance  $Z_g$ . If the grid impedance is modified due to the introduction of new loads or motors, the filtering features are modified and may cause a resonance effect in the worst case.

The Notch filter integrates a line impedance that makes negates the grid, consequently the variation of the grid impedance does not affect the filtering features. We create long lasting solutions to meet today and future needs.



## Wide voltage and power range

230Vac, 380Vac-500Vac, 525Vac and 690Vac from 22kW to 2000kW.

## Complete and fully tested solution.

Forget about buying independent filters and separate solutions. SD700FL is a truly tested solution designed for your application. The drive monitors the temperature and activates the integrated contactor of the filter to provide the best performance under any load condition.



# SD700 FL SERIES

## Technical Characteristics

### SD700 FL SERIES

<b>INPUT</b>	Power range	2.2kW - 1800kW <sup>[1]</sup>
	Voltage power	230Vac, 380-500Vac, 525Vac, 690Vac , 3 phases (±10%)
	Multipulse	6
	Input frequency	50Hz/60Hz ± 6%
	Input rectifier technology	Thyristor-Diode
	Displacement power factor (DPF = cos Φ)	≥ 0.99
	Power factor (PF= I <sub>1</sub> /I <sub>rms</sub> · cos Φ)	≥ 0.98
	Momentary power loss	> 2sec (depending on the load inertia)
	EMC input filter	Frames 1 & 2: First environment (C2 standard) Frames 3 to 11: Second environment (Industrial) (C3 Standard) First environment (C2 Optional), C1 consult Power Electronics.
	Harmonics filter	Notch Filter
	Current THDi (%)	≤ 5% <sup>[2]</sup>
	Regenerative	NO
<b>OUTPUT</b>	Output frequency <sup>[3]</sup>	0... 200Hz
	Overload capacity	150% during 60s at 50°C
	Efficiency (at rated current and rated voltage)	≥97%
	Control method	V/Hz VECTOR CONTROL
		Open Loop: PMC: speed (OLSP)/torque control (OLTQ), AVC: speed(OLSP) / torque control (OLTQ) Close Loop (Encoder): PMC:speed (CLSP)/torque control (CLTQ), AVC: speed(CLSP)/torque control (CLTQ)
	Switching frequency	4 to 8kHz - PEWave
	Output dv/dt filter	500 to 800V/μs
	Output cable length <sup>[4]</sup>	USC 300m SC 150m
	Dynamic brake	External B150 Dynamic Brake
<b>ENVIRONMENTAL CONDITIONS</b>	Operation ambient temperature	Minimum: -20°C Maximum: +50°C
	Storage temperature	Minimum: -40°C Maximum: +70°C
	Altitude	1000m
	Power altitude derating <sup>[1]</sup>	>1000m, 1% P <sub>N</sub> (kW) per 100m; 4000m maximum
	Ambient humidity	<95%, non-condensing
	Degree of protection	IP42 Filter Cabinet / (IP20/IP54) Drive Cabinet
	Vibration	Deflection: 0.075mm (10Hz-57Hz), Acceleration: 9.8m/s <sup>2</sup> (57Hz-150Hz)
	Heating resistors	Optional
<b>PROTECTIONS</b>	Motor protections	Rotor locked, Motor overload (thermal model), Output current limit, Phase current imbalance, Phase voltage imbalance, Motor over-temperature (PTC signal), Speed limit, Torque limit.
	Drive protections	IGBT's overload, Input phase loss, Low input voltage, High input voltage, DC Bus voltage limit, Low DC Bus voltage, High input frequency, Low input frequency, IGBT temperature, Heat-sink over-temperature, Power supply fault, Drive thermal model, Ground fault, Software and Hardware fault, Analogue input signal loss (speed reference loss), Safe stop / Emergency stop.
<b>INPUTS/OUTPUTS</b>	Digital inputs	5 programmable active high (24Vdc), Isolated power supply 1 PTC input,
	Digital outputs	3 Programmable changeover relays (250Vac, 8A or 30Vdc, 8A)
	Analogue input	2 Programmable differential inputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc. (Optically isolated)
	Analogue outputs	2 Isolated programmable outputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc
	Encoder inputs (optional)	Two differential encoders input. Voltages inputs from 5 to 24Vdc
	User power supply	+24Vdc user power supply ( Max 180mA) regulated and short-circuit protected +10Vdc user power supply (Max 2 potentiometers R= 1 kΩ) regulated and short-circuit protected
	I/O Extension board (optional)	4 Digital Inputs: Programmable inputs and active high (24Vdc). Optically isolated. 1 Analogue Input: Programmable and differential input. 5 Digital Outputs: Programmable multi-function relays.
	External power supply (optional)	1 Analogue Output: Programmable outputs in voltage / current. 24 V External Power Supply, Fault Relay integrated

#### NOTES

[1] Other configuration, consult Power Electronics.  
[2] Harmonics are below the limits defined in IEEES19 for all

[3]: For operation frequencies higher than 100Hz consult Power Electronics.

[4] SC: Shielded cable, USC: Unshielded Cable. Follow Power Electronics installation recommendations. For greater cable lengths and first environment (C2) consult Power Electronics.

# SD700 FL SERIES

## Technical Characteristics

### SD700 FL SERIES

<b>COMMUNICATION</b>	Standard hardware	USB port RS232 port RS485 port
	Standard protocol	Modbus-RTU Profibus-DP DeviceNet
	Optional protocol	Ethernet (Modbus TCP) Ethernet IP CAN Open N2 Metasys Gateway
<b>CONTROL PANEL</b>	Type	Removable
	Length	3 meters and 5 meters (optional)
	Connection	RJ45
	Visualization leds	LED ON: Control board is energized LED RUN: Motor receiving power supply LED FAULT: Flashing displays that a fault has occurred
	Alphanumeric display	4 lines x 16 characters Keypad with 6 keys to control and configure the drive, start and stop/reset Independent memory
	Colour Touch-Screen Display	3,5" Touch Screen (240x320 pixels) with pen 4Gb MicroSD card   Faults and events log and notification. Quad Band GSM modem integrated to remote start, stop and notification by SMS Ethernet Switch with two RJ45 connections Optional 5Vdc external power supply or batteries.
	Display information	Average current and 3-phase motor current Average voltage and 3-phase motor voltage Average input voltage and 3-phase input voltage 3-phase input and output frequency DC Bus Voltage Drive Status Speed, Torque, Power, Power factor of motor Register of total and partial drive running time with reset function. (hours) Register of total and partial drive energy consumption with reset function (kWh) Relay status Digital inputs / PTC status Output comparator status Analogue inputs and sensor values Analogue output value Motor overload and equipment status Drive and rectifier temperature Fault history (last 6 faults)
Others	Real time clock Perpetual calendar	
<b>REGULATIONS</b>	Certifications	CE, cTick, UL <sup>[5]</sup> , cUL <sup>[5]</sup>
	Electromagnetic compatibility	EMC Directive (2004/108/CE) IEC/EN 61800-3 IEEE 519
	Design and construction	LVD Directive (2006/95/CE) IEC/EN 61800-2 General requirements IEC/EN 61800-5-1 Safety IEC/EN 60146-1-1 Semiconductor converters IEC60068-2-6 - Vibration
	Functional Safety	IEC/EN 61800-5-2(STO) TÜV Rheinland Certified

# SD700

## SD700FR Series Regenerative



- IP54 without dust filters
- 50°C operation without power derating
- (FFA) Full frontal access
- Modular LCL Filter and Power Stage
- Regenerative Drive 4Q
- Adjustable Displacement Power Factor
- Built-in RFI filter
- Built-in dV/dt filter 400V/ $\mu$ s-800V/ $\mu$ s (unscreened cable up to 300m)
- Conformally coated electronics with militar and aerospace technology



SD700FR SERIES goes one step ahead keeping the family unique characteristics. Based on the latest active front end technology, they are able to: regenerate the braking energy, reduce the THDi<5%<sup>[1]</sup>, adjust the cosine phi and keep it constant at any load condition, and keep the motor voltage constant even when high input voltage drops occur.

SD700FR provides the best regeneration features. Save money reducing your energy bills and increasing the process performance at the same time!

[1]Harmonics are below the limits defined in IEEE519 for all ISC/IL

Save money reducing  
your energy bills and  
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performance at the  
same time!



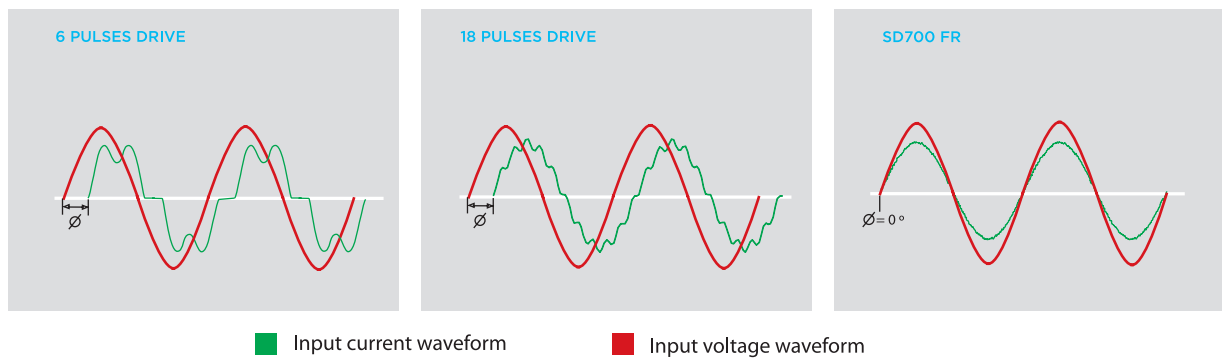


## What is the Active Front End technology?

The traditional thyristor-diode rectifier has been replaced by a controlled Isolated Gate Bipolar Transistor (IGBT) bridge. This bridge is operated by its own control and power board that creates an almost sinusoidal input current wave.

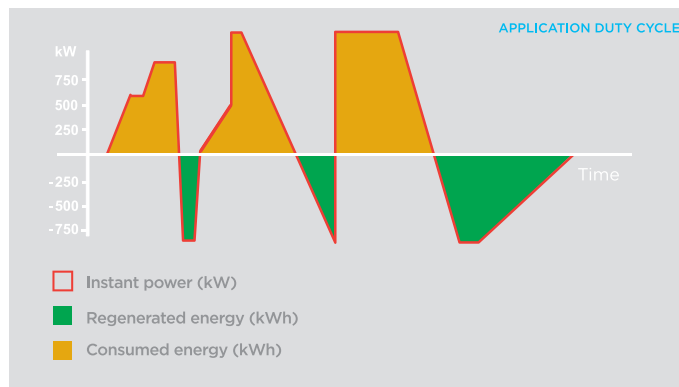
This technology reduces the THDi with the highest efficiency and space savings. Furthermore the  $\text{Cos}\Phi = 1.0$  is adjustable and will be kept at any load condition. Forget the capacitor bank installation, additional bill charges and transformer and wiring overheating!

The active front end technology substitutes the multipulse drives and passive filters. The multipulse solutions have: higher installation cost by means of special transformers and wiring requirements, no cosine phi control, filtering features load dependant, higher input voltage drops and no regeneration capacity.



## Energy regeneration - 4 quadrant operation

The best regeneration features are provided by the SD700FR. Some applications such as cranes, downhill conveyors, centrifuges pumps and fans generate a huge amount of energy during braking periods. This energy has been traditionally dissipated in braking units constructed by resistors. The SD700FR goes one step ahead giving the regenerated energy back to the grid, saving energy and providing low harmonic distortion at the same time.

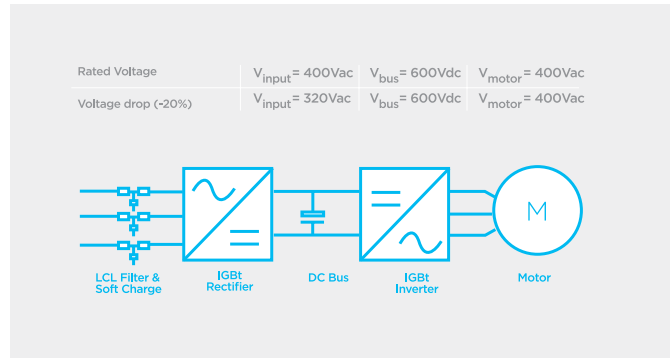


## Complete and fully tested solution

Forget about buying independent AFE and motor units that are separate solutions. It is a truly tested and optimized solution. The rectifier and inverter bridge integrates a control and a power board each. They are communicated and synchronized by fibre optics, monitoring the input and output electric parameters continuously.

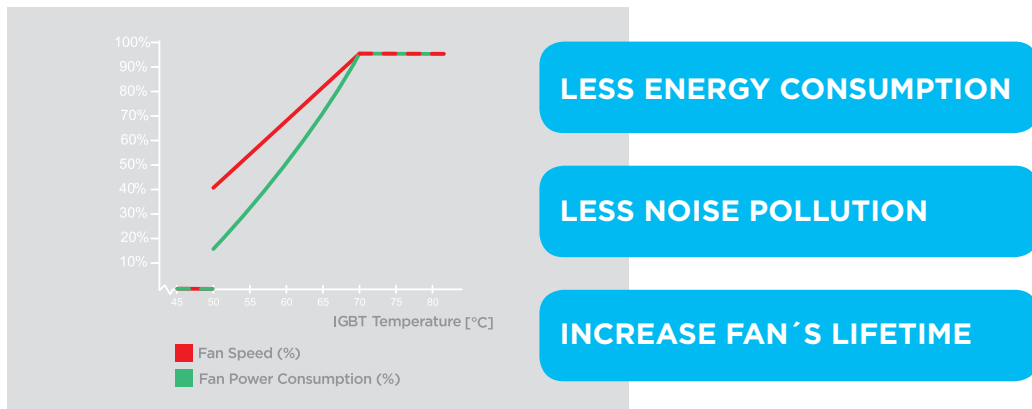
## Are you afraid because of your weak grid?

This is your best solution, the IGBT rectifier bridge allows a constant DC bus voltage under the most demanding voltage dips. Even when high voltage drops occurs, the drive will provide the rated motor voltage.

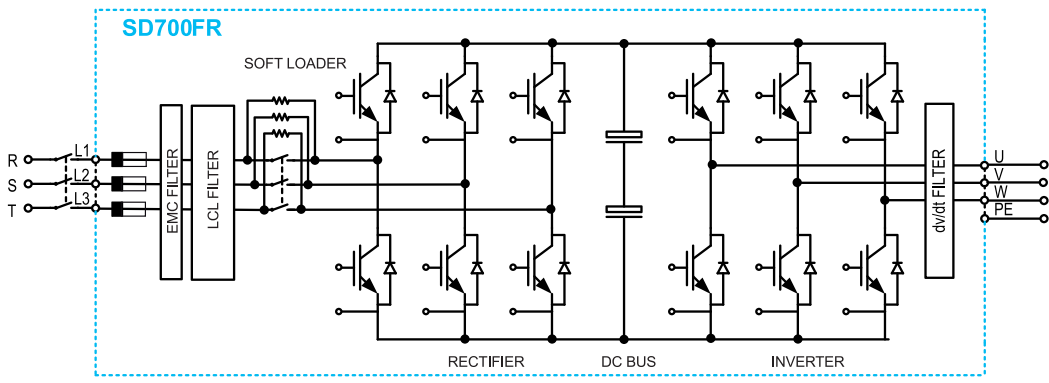


## Variable Speed Cooling

When savings are a must, the design goes one step ahead integrating a variable speed system for the cooling fans that vary the air speed depending on the IGBT's temperature. This way, not only does the SD700FR reduce the stand-by consumption at low capacity but also reduces the environment noise level and increases the fans' lifetime.



### SD700FR FUNCTIONAL DIAGRAM



SD7FRDTP0001A1

# SD700 FR SERIES

## Technical Characteristics

### SD700 FR SERIES

<b>INPUT</b>	Power range	110kW - 2000kW [1]
	Voltage power	380-480Vac, 525Vac, 690Vac , 3 phases (±10%)
	Multipulse	-
	Input frequency	50Hz/60Hz ± 6%
	Input rectifier technology	IGBT
	Rectifier bridge Switching Frequency	2,8kHz
	Displacement power factor (DPF = cos Φ )	1 (factory settings) 0,90 leading ... 0,90 lagging (adjustable)
	Power factor (PF= I <sub>n</sub> /I <sub>rms</sub> · cos Φ)	≥0,98
	Momentary power loss	> 2sec (depending on the load inertia)
	EMC input filter	Second environment (Industrial): (C3 Standard) First environment (Domestic): C2 (Optional). C1 consult Power Electronics
	Harmonics filter	LCL
	Current THDi (%)	≤ 3% / 5% [2]
	Regenerative	Yes - 4 quadrant operation
<b>OUTPUT</b>	Output frequency [3]	0... 200Hz
	Overload capacity	Constant torque/heavy duty: 150% during 60 sec at 50°C Variable torque/normal duty: 120% during 60 sec at 40°C.
	Efficiency (at I <sub>n</sub> and at V <sub>n</sub> )	≥97%
	Control method	V/Hz VECTOR CONTROL Open Loop: PMC: speed (OLSP)/torque control (OLTQ), AVC: speed(OLSP) / torque control (OLTQ) Close Loop (Encoder): PMC:speed (CLSP)/torque control (CLTQ), AVC: speed(CLSP)/torque control (CLTQ)
	Switching frequency	4-8kHz -PEWave
	Output dV/dT filter	500 to 800V/μs
	Output cable length [4]	USC 300m SC 150m
	Dynamic brake	-
<b>ENVIRONMENTAL CONDITIONS</b>	Operation ambient temperature	Minimum: -20°C Maximum: +50°C
	Storage temperature	Minimum: -40°C Maximum: +70°C
	Altitude	1000m
	Power altitude derating [1]	>1000m, 1% PN(kW) per 100m; 4000m maximum
	Ambient humidity	<95%, non-condensing
	Degree of protection	IP20, IP54
	Vibration	Deflection: 0,075mm (10Hz-57Hz), Acceleration: 9,8m/s <sup>2</sup> (57Hz-150Hz)
Heating resistors	Optional	
<b>PROTECTIONS</b>	Motor protections	Rotor locked, Motor overload (thermal model), Output current limit, Phase current imbalance, Phase voltage imbalance, Motor over-temperature (PTC signal), Speed limit, Torque limit.
	Drive protections	Overload, IGBT's overload, Input phase loss, Low input voltage, High input voltage, DC Bus voltage limit, Low DC Bus voltage, High input frequency, Low input frequency, IGBT temperature, Heat-sink over-temperature, Power supply fault, Drive thermal model, Ground fault, Software and Hardware fault, Analogue input signal loss (speed reference loss), Safe stop / Emergency stop.
<b>INPUTS/OUTPUTS</b>	Digital inputs	6 programmable active high (24Vdc), Isolated power supply 1 PTC input,
	Digital outputs	3 Programmable changeover relays (250Vac, 8A or 30Vdc, 8A)
	Analogue input	2 Programmable differential inputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc. Optically isolated.
	Analogue outputs	2 Isolated programmable outputs: 0 - 20mA, 4 - 20mA, 0 - 10Vdc and ±10Vdc
	Encoder inputs (optional)	Two differential encoders input. Voltages inputs from 5 to 24Vdc
	User power supply	+24Vdc user power supply ( Max 180mA) regulated and short-circuit protected +10Vdc user power supply (Max 2 potentiometers R= 1 kΩ) regulated and short-circuit protected
	I/O Extension board (optional)	4 Digital Inputs: Programmable inputs and active high (24Vdc). Optically isolated. 1 Analogue Input: Programmable and differential input. 5 Digital Outputs: Programmable multi-function relays.
External power supply (optional)	1 Analogue Output: Programmable outputs in voltage / current. 24 V External Power Supply, Fault Relay integrated	

#### NOTES

[1] Other configuration, consult Power Electronics.  
[2] THDi ≤ 3% (THDv =0%), Harmonics are below the limits defined in IEEES19 for all I<sub>sc</sub>/I<sub>n</sub>

[3]: For operation frequencies higher than 100Hz consult Power Electronics.

[4] SC: Shielded cable, USC: Unshielded Cable. Follow Power Electronics installation recommendations. For greater cable lengths consult Power Electronics.



# SD700 FR SERIES

## Technical Characteristics

### SD700 FR SERIES

<b>COMMUNICATION</b>	Standard hardware	USB port RS232 port RS485 port	
	Standard protocol	Modbus-RTU Profibus-DP DeviceNet	
	Optional protocol	Ethernet (Modbus TCP) Ethernet IP CAN Open N2 Metasys Gateway	
<b>CONTROL PANEL</b>	Type	Removable	
	Length	3 meters and 5 meters (optional)	
	Connection	RJ45	
	Visualization leds	LED ON: Control board is energized LED RUN: Motor receiving power supply LED FAULT: Flashing displays that a fault has occurred	
	Alphanumeric display	4 lines x 16 characters Keypad with 6 keys to control and configure the drive, start and stop/reset Independent memory	
	Colour Touch-Screen Display	3,5" Touch Screen (240x320 pixels) with pen 4Gb MicroSD card   Faults and events log and notification. Quad Band GSM modem integrated to remote start, stop and notification by SMS Ethernet Switch with two RJ45 connections Optional 5Vdc external power supply or batteries.	
	Display information	Average current and 3-phase motor current Average voltage and 3-phase motor voltage Average input voltage and 3-phase input voltage 3-phase input and output frequency DC Bus Voltage Drive Status Speed, Torque, Power, Power factor of motor Register of total and partial drive running time with reset function. (hours) Register of total and partial drive energy consumption with reset function (kWh) Register of total and partial energy regenerated with reset function (kWh) Relay status Digital inputs / PTC status Output comparator status Analogue inputs and sensor values Analogue output value Motor overload and equipment status Drive and rectifier temperature Fault history (last 6 faults)	
	Others	Real time clock Perpetual calendar Adjustable DC bus voltage	
	<b>REGULATIONS</b>	Certifications	CE, cTick, UL <sup>[5]</sup> , cUL <sup>[5]</sup>
		Electromagnetic compatibility	EMC Directive (2004/108/CE) IEC/EN 61800-3 IEEE 519
Design and construction		LVD Directive (2006/95/CE) IEC/EN 61800-2 General requirements IEC/EN 61800-5-1 Safety IEC/EN 60146-1-1 Semiconductor converters IEC60068-2-6 - Vibration	
Functional Safety		IEC/EN 61800-5-2(STO) Tüv Rheinland Certified	

# SD700

Series

# Accessories

## SD700

SD700 through its accessories fulfils the most extended requirements of the industrial sector. SD700 series offers a wide variety of communication protocols, dedicated boards, filters, interface accessories, etc... that enhances family features.





## Communication accessories

SD700 family is compatible with the most commonly used communication protocols (Profibus-DP, DeviceNet, Ethernet Modbus TCP, Ethernet IP, N2 Metasys, CAN Open...), thanks to its optional boards.

## I/O Expander Board

Extend the standard number of programmable, digital and analogue inputs/outputs. Getting up to 10 Digital Inputs, 1 PTC, 8 Digital Outputs, 3 Analogue Inputs, 3 Analogue Outputs in total.

## Fibre Optics Board

It connects and synchronizes all required drives through fibre optics. Power Motor Control can be utilised with the master and multiple slaves all sharing identical torque or following the same speed reference. The fibre optics allows long communication distance without interference.

## Encoder Board

The encoder board improves the speed regulation thanks to the close loop control with up to two differential encoders. The encoders improve the vector control and the process control, they are optically isolated and have the possibility to be powered by 5Vdc or 24Vdc.

## External 24Vdc Power Supply boards

This board powers the control system externally with 24Vdc. The board powered by a UPS keeps the display, the communication system and the control boards active even when there is not input power connected to the drive. There are 5 different boards to cover the whole series. Frames 4 upwards allow the boards to be internally installed.

## STO Board

Safe Torque off board (STO) allows to implement the safety torque off function according to IEC/EN 61800-5-2 (SIL1 or SIL3)

## Interface Accessories

### Colour Touch-screen Display 3.5"

The ultimate Colour Display 3.5" (240x320pixels) boost the SD700 features: integrated pen, built-in help system, 4Gb MicroSD card, faults and events log and notification, save and copy the parameter configuration for fast commissioning, quad Band GSM modem integrated to remote start, stop and notification by SMS, Ethernet switch with double connection RJ45, optional 5Vdc external power supply or batteries.

### Display extender kits

Available 3m and 5m extender cable kit to install both the alphanumeric and graphic display far from the drive.

### Display IP54 Protection box.

Installed over the front door of the drive it protects with an IP54 degree.





## Dynamic Brake B150

The Dynamic brake controls the regenerated energy for series SD700, SD700KOMPAKT and SD700FL. B150 dynamic brake activates an IGBT to discharge the DC bus over external resistors when the DC voltage surpasses a pre-set value. This activation signal could also be delivered by the drive acquiring an optional Master-Slave mode braking board.



## Mechanical Accessories

### IP20 Connection boxes

SD700 frames 1 to 3 have extension boxes permitting larger cables to be terminated. SD700 KOMPAKT has IP00 connection terminals that can be protected by IP20 connection boxes.



### SD700 Frame 4 to 11 plinths

SD700 frames 5 on are stand-alone drives. They can be equipped with optional plinths to attain 2000mm or 2200mm total height. A stand-alone plinth for frame 4 attaining total height of 1712mm is also available.



## Other accessories

**Special filters.** Special output and input filters are available such as sinusoidal output filter or First Environment, C2 category input filter. For further information consult Power Electronics

**Safety:** SD700 can include safety accessories such as PT100, emergency off and emergency stop pushbuttons.

**Painting:** SD700 can include special cabinet painting.

Customized solutions available.

## SD700 SERIES

## Configuration Table

### SD700 SERIES

#### SD7 SERIE SD700

SD700 Series	Model	Output Current <sup>[1]</sup>		Input Voltage <sup>[2]</sup>		Degree of Protection <sup>[3]</sup>		Pulses number <sup>[4]</sup>		Cabinet Plinths <sup>[5]</sup>		EMC Filter		Floating Earth		Input Frequency		
SD7	-	SD700	0050	50A	2	230Vca	0	IP00	-	6 Pulses	-	Standard	-	Second Environment	-	Without floating earth	-	50Hz
	K	SD700 Kompakt	0100	100A	5	380-500Vca	2	IP20	12	12 Pulses	20	Total Height 2000mm	F	First Environment <sup>[6]</sup>	T	Floating earth	6	60Hz <sup>[7]</sup>
	FL	SD700 FL Low Harmonics Notch Filter	...	...	7	525Vca	5	IP54	18	18 Pulses	22	Total Height 2200mm	M	Optional IT filter				
	FR	SD700 FR Regenerative	2500	2500A	6	690Vca			24	24 Pulses								

#### NOTES

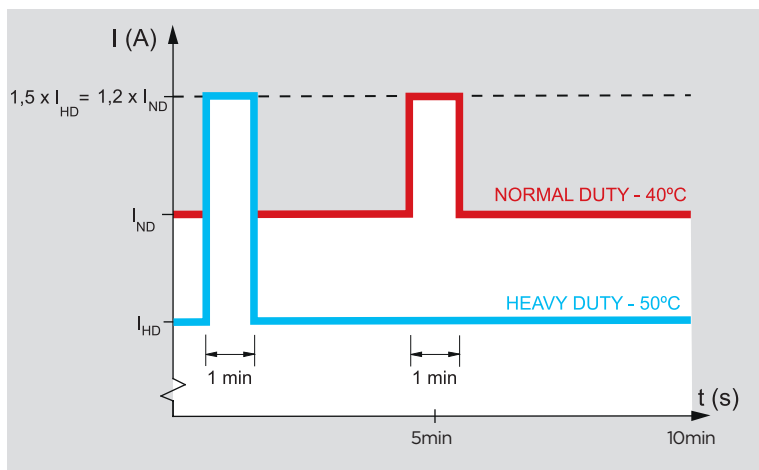
[1] Verify the rated current of the motor nameplate to guarantee the compatibility with the selected drive.  
 [2] SD700FR not available for 230Vac and 480Vac. SD700FL not available for 230Vac and 525Vac.  
 [3] IP00 only available for SD700 Kompakt Series.  
 [4] SD700 Kompakt not available in 18 and 24 pulses. SD700FL available in 6 pulses. SD700FR do not apply.

[5] SD700 frame 4 available with standard height and with 1712mm total height.  
 [6] Floating earth drive not available with first environment filter.  
 [7] Consult availability.

#### Codification examples:

SD71800 6 2 12 SD700, 1800A, 690Vac, Degree of protection IP20, 12 pulses, Second Environment, 50 Hz.  
 SD71800 6 2 12 F SD700, 1800A, 690Vac, Degree of protection IP20, 12 pulses, First environment 1, 50 Hz.  
 SD7K0370 5 2 SD700Kompakt, 370A, 400Vac, Degree of protection IP20, 6 pulses, Second Environment, 50 Hz.  
 SD7FR0460 5 5 SD700FR Regenerative, 480Vac, IP54, Second Environment, 50 Hz.  
 SD7FL0370 5 2 20 SD700FL Low harmonics, 400Vac, IP20, 6 pulses, Second Environment, 50Hz, 2000mm total height.

### SD700 OVERLOAD



Ensure that the drive's overload, rated output current and maximum ambient temperature are not overpassed otherwise the drive could suffer from overheating.

$I_{ND}$ : Rated current 40°C (Normal Duty)  
 $I_{HD}$ : Rated current 50°C (Heavy Duty)

# SD700 | Standard Ratings

## SD700 SERIES

## Standard Ratings

### POWER RANGE AT 230VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 230VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 230VAC	120% Overload (A)
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	86	375
	SD70275 2X Y	275	86	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



# SD700 SERIES

## Standard Ratings

### POWER RANGE AT 400VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 400VAC	120% Overload (A)
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
2	SD70024 5X Y	24	11	36	30	15	36
	SD70032 5X Y	32	15	48	40	18,5	48
	SD70038 5X Y	38	18,5	57	48	22	57
3	SD70048 5X Y	48	22	72	60	30	72
	SD70060 5X Y	60	30	90	75	37	90
	SD70075 5X Y	75	37	113	94	45	113
4	SD70090 5X Y	90	45	135	113	55	135
	SD70115 5X Y	115	55	173	144	75	173
	SD70150 5X Y	150	75	225	188	90	225
5	SD70170 5X Y	170	90	255	213	110	255
	SD70210 5X Y	210	110	315	263	132	315
	SD70250 5X Y	250	132	375	313	160	375
6	SD70275 5X Y	275	150	413	344	200	413
	SD70330 5X Y	330	160	495	413	220	495
	SD70370 5X Y	370	200	555	463	250	555
7	SD70460 5X Y	460	250	690	575	315	690
	SD70580 5X Y	580	315	870	725	400	870
	SD70650 5X Y	650	355	975	813	450	975
8	SD70720 5X Y	720	400	1080	900	500	1080
	SD70840 5X Y	840	450	1260	1050	560	1260
	SD70925 5X Y	925	500	1388	1156	630	1388
9	SD70990 5X Y	990	560	1485	1238	710	1485
	SD71150 5X Y	1150	630	1725	1438	800	1725
	SD71260 5X Y	1260	710	1890	1575	900	1890
10	SD71440 5X Y	1440	800	2160	1800	1000	2160
	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
	SD72500 5X Y	2500	1400	3750	3100	1750	3750

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 400VAC	120% Overload (A)
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
	SD72500 5X 12 Y	2500	1400	3750	3100	1750	3750

## SD700 SERIES

## Standard Ratings

### POWER RANGE AT 400VAC

18 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 400VAC	120% Overload (A)
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
	SD72500 5X 18 Y	2500	1400	3750	3100	1750	3750

24 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 400VAC	120% Overload (A)
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
	SD72500 5X 24 Y	2500	1400	3750	3100	1750	3750

# SD700 SERIES

## Standard Ratings

### POWER RANGE AT 440VAC

6 PULSES									
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY				Operation Temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power (kW) at 440VAC		150% Overload (A)	I(A) Rated	Motor Power (kW) at 440VAC		120% Overload (A)
			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
2	SD70024 5X Y	22	11	15	33	27,5	15	20	33
	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
3	SD70048 5X Y	43,6	22	30	65,4	54,5	30	40	65,4
	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
4	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
	SD70150 5X Y	136	75	100	204	170	90	125	204
5	SD70170 5X Y	154,5	90	125	231,6	193	110	150	231,6
	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
6	SD70275 5X Y	250	150	200	375	312,5	200	275	375
	SD70330 5X Y	300	160	240	450	375	220	300	450
	SD70370 5X Y	336	200	275	504	420	250	340	504
7	SD70460 5X Y	418	250	340	627	522,5	315	400	627
	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
8	SD70720 5X Y	654,5	400	500	981,7	818,1	500	650	981,7
	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
9	SD70990 5X Y	900	560	750	1350	1125	710	900	1350
	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
10	SD71440 5X Y	1309	800	1000	1963,5	1636,2	1000	1400	1963,5
	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	2000	3000
	SD72500 5X Y	2300	1400	1900	3450	2800	1750	2350	3450

12 PULSES									
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY				Operation Temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power (kW) at 440VAC		150% Overload (A)	I(A) Rated	Motor Power (kW) at 440VAC		120% Overload (A)
			kW	HP			kW	HP	
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	2000	3000
	SD72500 5X 12 Y	2300	1400	1900	3450	2800	1750	2350	3450

## SD700 SERIES

## Standard Ratings

### POWER RANGE AT 440VAC

18 PULSES									
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY				Operation Temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power (kW) at 440VAC		150% Overload (A)	I(A) Rated	Motor Power (kW) at 440VAC		120% Overload (A)
			kW	HP			kW	HP	
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
	SD72500 5X 18 Y	2300	1400	1900	3450	2800	1750	2350	3450

24 PULSES									
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY				Operation Temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power (kW) at 440VAC		150% Overload (A)	I(A) Rated	Motor Power (kW) at 440VAC		120% Overload (A)
			kW	HP			kW	HP	
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
	SD72500 5X 24 Y	2300	1400	1900	3450	2800	1750	2350	3450

# SD700 SERIES

## Standard Ratings

### POWER RANGE AT 500VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 500VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 500VAC	120% Overload (A)
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
	SD72500 5X Y	2000	1400	3000	2500	1750	3000

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SERIES

## Standard Ratings

## POWER RANGE AT 500VAC

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 500VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 500VAC	120% Overload (A)
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
	SD72500 5X 12 Y	2000	1400	3000	2500	1750	3000

18 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 500VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 500VAC	120% Overload (A)
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
	SD72500 5X 18 Y	2000	1400	3000	2500	1750	3000

24 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 500VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 500VAC	120% Overload (A)
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
	SD72500 5X 24 Y	2000	1400	3000	2500	1750	3000

# SD700 SERIES

## Standard Ratings

### POWER RANGE AT 525VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		k(A) Rated	Motor Power (kW) at 525VAC	150% Overload (A)	k(A) Rated	Motor Power (kW) at 525VAC	120% Overload (A)
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

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		k(A) Rated	Motor Power (kW) at 525VAC	150% Overload (A)	k(A) Rated	Motor Power (kW) at 525VAC	120% Overload (A)
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

18 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		k(A) Rated	Motor Power (kW) at 525VAC	150% Overload (A)	k(A) Rated	Motor Power (kW) at 525VAC	120% Overload (A)
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

SD700  
SERIES

## Standard Ratings

## POWER RANGE AT 525VAC

24 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 525VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 525VAC	120% Overload (A)
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

## POWER RANGE AT 690VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 690VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 690VAC	120% Overload (A)
4	SD70052 6X Y	52	45	78	65	55	78
	SD70062 6X Y	62	55	93	78	75	93
	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	400	480
7	SD70385 6X Y	385	355	578	481	450	578
	SD70460 6X Y	460	450	690	575	560	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



# SD700 SERIES

## Standard Ratings

### POWER RANGE AT 690VAC

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 690VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 690VAC	120% Overload (A)
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	400	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

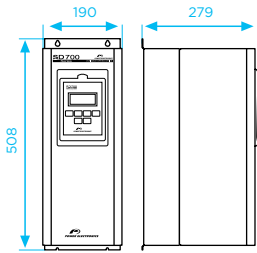
18 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 690VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 690VAC	120% Overload (A)
7	SD70385 6X 18 Y	385	355	578	481	450	578
	SD70460 6X 18 Y	460	450	690	575	500	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

24 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 690VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 690VAC	120% Overload (A)
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

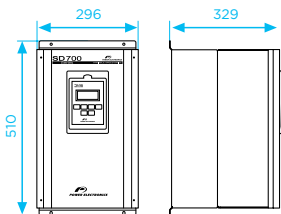
## SD700 SERIES

## Dimensions

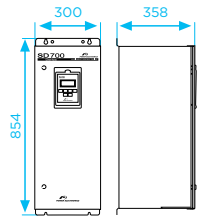
### DIMENSIONS AND WEIGHT



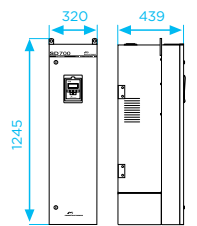
FRAME 1				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD70006 2X Y	SD70006 5X Y	-	-	15
SD70009 2X Y	SD70009 5X Y			
SD70012 2X Y	SD70012 5X Y			
SD70020 2X Y	SD70018 5X Y			
SD70026 2X Y	SD70024 5X Y			



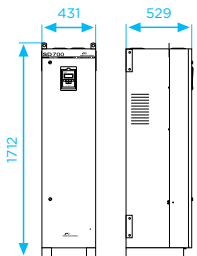
FRAME 2				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD70032 2X Y	SD70032 5X Y	-	-	26
SD70039 2X Y	SD70038 5X Y			
SD70050 2X Y	SD70048 5X Y			



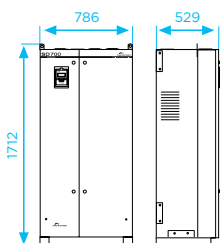
FRAME 3				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD70064 2X Y	SD70060 5X Y	-	-	67.5
SD70075 2X Y	SD70075 5X Y			
SD70090 2X Y	SD70090 5X Y			
SD70115 2X Y	SD70115 5X Y			



FRAME 4				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD70150 2X Y	SD70150 5X Y	SD70100 7X Y	SD70052 6X Y	94
SD70170 2X Y	SD70170 5X Y	SD70120 7X Y	SD70062 6X Y	
		SD70145 7X Y	SD70080 6X Y	
			SD70105 6X Y	



FRAME 5				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD70210 2X Y	SD70210 5X Y	SD70180 7X Y	SD70130 6X Y	200
SD70250 2X Y	SD70250 5X Y	SD70205 7X Y	SD70150 6X Y	
SD70275 2X Y	SD70275 5X Y		SD70170 6X Y	



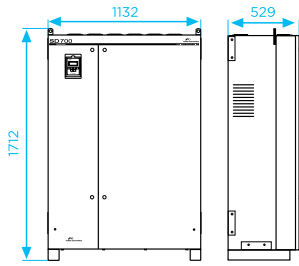
FRAME 6				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD70330 2X Y	SD70330 5X Y	SD70270 7X Y	SD70210 6X Y	335
SD70370 2X Y	SD70370 5X Y	SD70295 7X Y	SD70260 6X Y	
SD70460 2X Y	SD70460 5X Y	SD70340 7X Y	SD70320 6X Y	
	SD70330 5X 12 Y	SD70270 7X 12 Y	SD70210 6X 12 Y	
	SD70370 5X 12 Y	SD70295 7X 12 Y	SD70260 6X 12 Y	
	SD70460 5X 12 Y	SD70340 7X 12 Y	SD70320 6X 12 Y	

\*Dimensions in mm. for IP20 and IP54

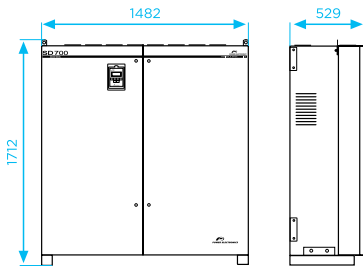
# SD700 SERIES

## Dimensions

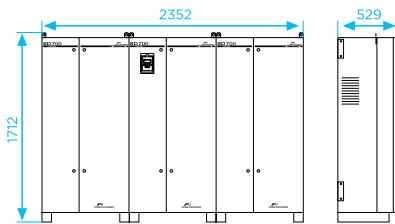
### DIMENSIONS AND WEIGHT



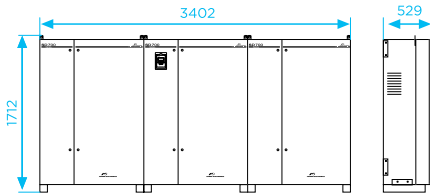
FRAME 7				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD70580 2X Y	SD70580 5X Y	SD70425 7X Y	SD70385 6X Y	479
SD70650 2X Y	SD70650 5X Y	SD70470 7X Y	SD70460 6X Y	
SD70720 2X Y	SD70720 5X Y	SD70535 7X Y	SD70385 6X 18 Y	
	SD70580 5X 18 Y	SD70425 7X 18 Y	SD70460 6X 18 Y	
	SD70650 5X 18 Y	SD70470 7X 18 Y		
	SD70720 5X 18 Y	SD70535 7X 18 Y		



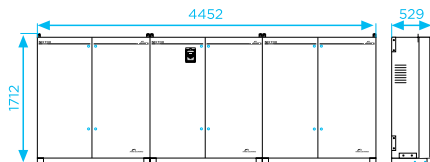
FRAME 8				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
-	SD70840 5X Y	SD70660 7X Y	SD70550 6X Y	585
	SD70925 5X Y	SD70750 7X Y	SD70660 6X Y	
	SD70990 5X Y	SD70660 7X 12 Y	SD70550 6X 12 Y	
	SD70840 5X 12 Y	SD70750 7X 12 Y	SD70660 6X 12 Y	
	SD70925 5X 12 Y	SD70660 7X 24 Y	SD70550 6X 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			



FRAME 9				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
-	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	380-500Vac	525Vac	690Vac	
-	SD71580 5X Y	SD71070 7X Y	SD71140 6X Y	1437
	SD71800 5X Y	SD71205 7X Y	SD71270 6X Y	
	SD71580 5X 18 Y	SD71340 7X Y	SD71420 6X Y	
	SD71800 5X 18 Y	SD71605 7X Y	SD71140 6X 18 Y	
		SD71070 7X 18 Y	SD71270 6X 18 Y	
		SD71205 7X 18 Y	SD71420 6X 18 Y	
		SD71340 7X 18 Y		
		SD71605 7X 18 Y		



FRAME 11				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
-	SD72200 5X Y	SD72005 7X Y	SD71500 6X Y	1755
	SD72200 5X 12 Y	SD72005 7X 12 Y	SD71800 6X Y	
	SD72200 5X 18 Y	SD72005 7X 18 Y	SD71500 6X 12 Y	
	SD72200 5X 24 Y	SD72005 7X 24 Y	SD71800 6X 12 Y	
			SD71500 6X 18 Y	
			SD71800 6X 18 Y	
			SD71500 6X 24 Y	
			SD71800 6X 24 Y	

**SD700**  
**KOMPAKT**

Standard Ratings

# SD700 KOMPAKT

## Standard Ratings

### POWER RANGE AT 230VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 230VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 230VAC	120% Overload (A)
1	SD7K0210 2X Y	210	63	315	263	75	315
	SD7K0250 2X Y	250	75	375	313	86	375
	SD7K0275 2X Y	275	86	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

### POWER RANGE AT 400VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 400VAC	120% Overload (A)
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

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 400VAC	120% Overload (A)
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

# SD700 KOMPAKT

## Standard Ratings

### POWER RANGE AT 440VAC

6 PULSES									
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY				Operation Temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power (kW) at 440VAC		150% Overload (A)	I(A) Rated	Motor Power (kW) at 440VAC		120% Overload (A)
			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

12 PULSES									
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY				Operation Temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power (kW) at 440VAC		150% Overload (A)	I(A) Rated	Motor Power (kW) at 440VAC		120% Overload (A)
			kW	HP			kW	HP	
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

# SD700 KOMPAKT

## Standard Ratings

### POWER RANGE AT 500VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 500VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 500VAC	120% Overload (A)
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

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 500VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 500VAC	120% Overload (A)
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

### POWER RANGE AT 525VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 525VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 525VAC	120% Overload (A)
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

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 525VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 525VAC	120% Overload (A)
4	SD7K0660 7X 12 Y	660	500	990	824	600	990
	SD7K0750 7X 12 Y	750	560	1125	936	700	1125

# SD700 KOMPAKT

## Standard Ratings

### POWER RANGE AT 690VAC

6 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 690VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 690VAC	120% Overload (A)
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	400	480
3	SD7K0385 6X Y	385	355	578	481	450	578
	SD7K0460 6X Y	460	450	690	575	560	690
4	SD7K0550 6X Y	550	500	825	688	630	825
	SD7K0660 6X Y	660	630	990	825	800	990

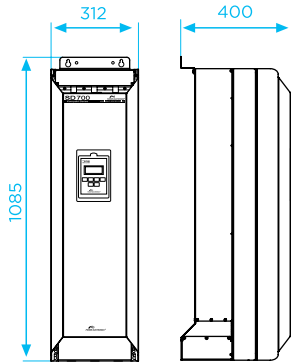
  

12 PULSES							
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 690VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 690VAC	120% Overload (A)
4	SD7K0550 6X 12 Y	550	500	825	688	630	825
	SD7K0660 6X 12 Y	660	630	990	825	800	990

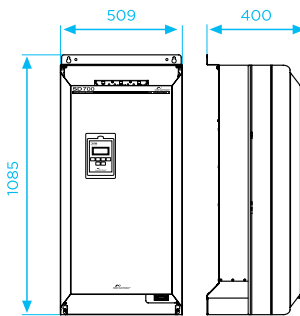


# SD700 KOMPAKT | Dimensions

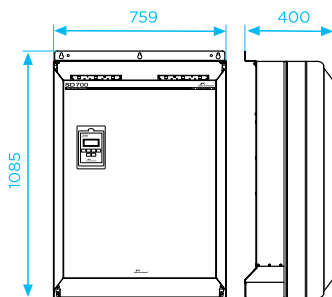
## DIMENSIONES IPOO



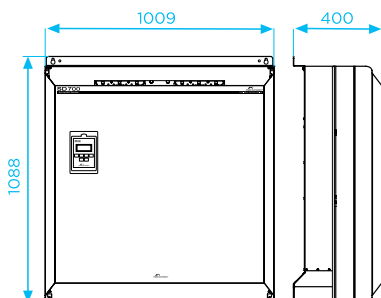
FRAME 1-IPOO				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD7K0210 20 Y	SD7K0210 50 Y	SD7K0180 70 Y	SD7K0130 60 Y	78,2
SD7K0250 20 Y	SD7K0250 50 Y	SD7K0205 70 Y	SD7K0150 60 Y	
SD7K0275 20 Y	SD7K0275 50 Y		SD7K0170 60 Y	



FRAME 2 -IPOO				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
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	



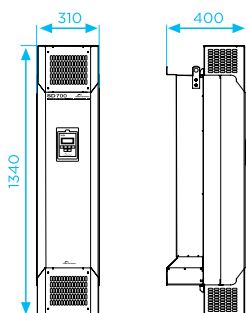
FRAME 3 -IPOO				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD7K0580 20 Y	SD7K0580 50 Y	SD7K0425 70 Y	SD7K0385 60 Y	200
SD7K0650 20 Y	SD7K0650 50 Y	SD7K0470 70 Y	SD7K0460 60 Y	
SD7K0720 20 Y	SD7K0720 50 Y	SD7K0535 70 Y		



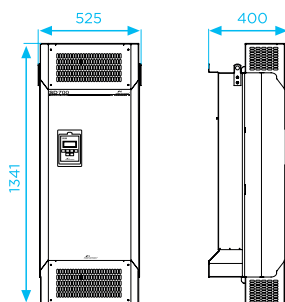
FRAME 4 -IPOO				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
-	SD7K0840 50 Y	SD7K0660 70 Y	SD7K0550 60 Y	280
	SD7K0925 50 Y	SD7K0750 70 Y	SD7K0660 60 Y	
	SD7K0990 50 Y	SD7K0660 70 12 Y	SD7K0550 60 12 Y	
	SD7K0840 50 12 Y	SD7K0750 70 12 Y	SD7K0660 60 12 Y	
	SD7K0925 50 12 Y			
	SD7K0990 50 12 Y			

## SD700 KOMPAKT | Dimensions

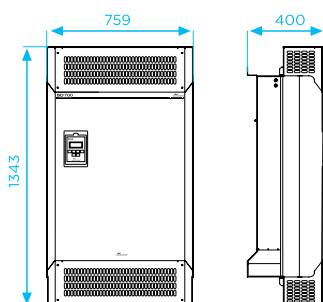
### DIMENSIONES IP20



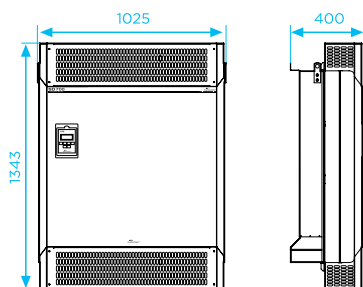
FRAME 1-IP20				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
SD7K0210 22 Y	SD7K0210 52 Y	SD7K0180 72 Y	SD7K0130 62 Y	85,5
SD7K0250 22 Y	SD7K0250 52 Y	SD7K0205 72 Y	SD7K0150 62 Y	
SD7K0275 22 Y	SD7K0275 52 Y		SD7K0170 62 Y	



FRAME 2 -IP20				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
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	



FRAME 3 -IP20				
INPUT VOLTAGE				WEIGHT (kg)
230Vac	380-500Vac	525Vac	690Vac	
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	380-500Vac	525Vac	690Vac	
-	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			

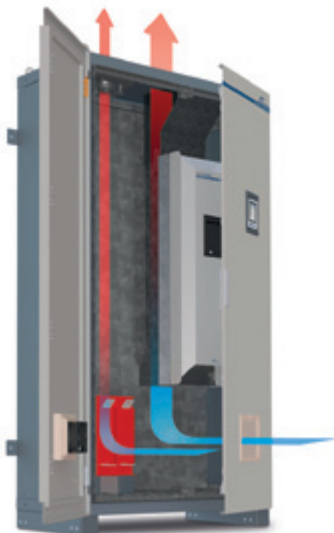
# SD700 KOMPAKT

## Input Inductances Standard Ratings

### STANDARD RATINGS

INPUT VOLTAGE 230VAC					
DRIVE		INDUCTANCE			
FRAME	REFERENCE	REFERENCE	QUANTITY	I (A)	WEIGHT (kg)
1	SD7K0210 2X Y	P246B	1	250	33
	SD7K0250 2X Y				
	SD7K0275 2X Y	P256A	1	370	65
2	SD7K0330 2X Y	P256A	1	370	65
	SD7K0370 2X Y				
	SD7K0460 2X Y	P233A	1	500	53
3	SD7K0580 2X Y	P297A	2	2x290	2x48
	SD7K0650 2X Y				
	SD7K0720 2X Y	P298A	2	2x360	2x43

INPUT VOLTAGE 380VAC - 500VAC					
DRIVE		INDUCTANCE			
FRAME	REFERENCE	REFERENCE	QUANTITY	I (A)	WEIGHT (kg)
1	SD7K0210 5X Y	P246B	1	250	33
	SD7K0250 5X Y				
	SD7K0275 5X Y	P256A	1	370	65
2	SD7K0330 5X Y	P256A	1	370	65
	SD7K0370 5X Y				
	SD7K0460 5X Y	P233A	1	500	53
3	SD7K0580 5X Y	P297A	2	2x290	2x48
	SD7K0650 5X Y				
	SD7K0720 5X Y	P298A	2	2x360	2x43
4	SD7K0840 5X Y	P233A	2	2x500	2x53
	SD7K0925 5X Y				
	SD7K0990 5X Y				
	SD7K0840 5X 12 Y				
	SD7K0925 5X 12 Y				
	SD7K0990 5X 12 Y				



INPUT VOLTAGE 525VAC					
DRIVE		INDUCTANCE			
FRAME	REFERENCE	REFERENCE	QUANTITY	I (A)	WEIGHT (kg)
1	SD7K0180 7X Y	P317B	1	210	40
	SD7K0205 7X Y	P246B	1	250	33
	SD7K0270 7X Y				
2	SD7K0295 7X Y	P233A	1	500	53
	SD7K0340 7X Y				
	SD7K0425 7X Y	P297A	2	2x290	2x48
SD7K0470 7X Y					
3	SD7K0535 7X Y	P298A	2	2x360	2x43
	SD7K0660 7X Y				
	SD7K0750 7X Y	P233A	2	2x500	2x53
SD7K0660 7X 12 Y					
4	SD7K0750 7X 12 Y				

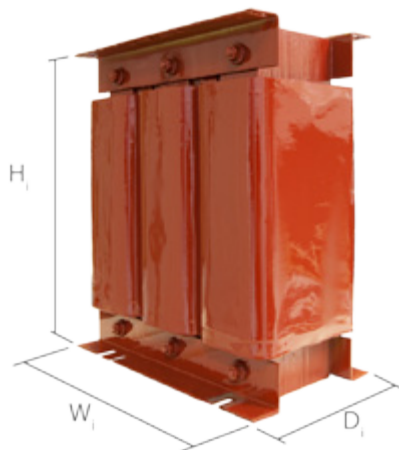
## SD700 KOMPAKT | Input Inductances Standard Ratings

### STANDARD RATINGS

INPUT VOLTAGE 690VAC					
DRIVE		INDUCTANCE			
FRAME	REFERENCE	REFERENCE	QUANTITY	I (A)	WEIGHT (kg)
1	SD7K0130 6X Y	P316B	1	170	33
	SD7K0150 6X Y				
	SD7K0170 6X Y				
2	SD7K0210 6X Y	P317B	1	210	40
	SD7K0260 6X Y	P318A	1	330	62
	SD7K0320 6X Y				
3	SD7K0385 6X Y	P319B	2	2x230	2x42
	SD7K0460 6X Y				
4	SD7K0550 6X Y	P318A	2	2x330	2x62
	SD7K0660 6X Y				
	SD7K0550 6X 12 Y				
	SD7K0660 6X 12 Y				

### DIMENSIONS & WEIGHT

INDUCTANCES DIMENSIONS AND WEIGHT					
REFERENCE	Wi (mm)	Di (mm)	Hi (mm)	WEIGHT (kg)	I (A)
P233A	300	255	350	53	500
P246B	300	170	350	33	250
P256A	300	245	355	65	370
P297A	300	210	360	48	290
P298A	300	200	360	43	360
P316B	300	170	350	33	170
P317B	300	200	360	40	210
P318A	300	245	355	62	330
P319B	300	200	360	42	230



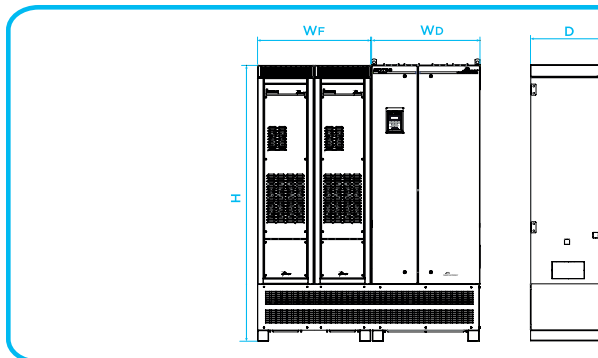
**SD700**  
**FL**

# Standard Ratings

## SD700 FL | Standard Ratings

### POWER RANGE AT 400VAC

400VAC													
FRAME	CODE	Operation Temperature 50°C			DIMENSIONS						Weight (kg)		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	Widths		Depths		Heights <sup>[1]</sup>		Drive	Filter	
					Drive (W <sub>D</sub> )	Filter (W <sub>F</sub> )	Drive (D <sub>D</sub> )	Filter (D <sub>F</sub> )	Drive (H <sub>D</sub> )	Filter (H <sub>F</sub> )			
1	SD7FL0006 5X	6	2.2	9	190	207	278.6	279	507.6	507.6	15	50	
	SD7FL0009 5X	9	4	14									
	SD7FL0012 5X	12	5.5	18									
	SD7FL0018 5X	18	7.5	27									
	SD7FL0024 5X	24	11	36									
2	SD7FL0032 5X	32	15	48	296	500	328.8	394	510.3	851	26	75	
	SD7FL0038 5X	38	18.5	57									
	SD7FL0048 5X	48	22	72									
3	SD7FL0060 5X	60	30	90	300.5	500	358	390	853.5	990	67.5	100	
	SD7FL0075 5X	75	37	113								105	
	SD7FL0090 5X	90	45	135								110	
	SD7FL0115 5X	115	55	173								110	
4	SD7FL0150 5X	150	75	225	320	608	438.5	440	1245	1206	94	175	
	SD7FL0170 5X	170	90	255								180	
5	SD7FL0210 5X	210	110	315	431	407	529	1712				425	
	SD7FL0250 5X	250	132	375								450	
	SD7FL0275 5X	275	150	413								460	
6	SD7FL0330 5X	330	160	495	786	407	529	1712				614	
	SD7FL0370 5X	370	200	555								649	
	SD7FL0460 5X 20	460	250	690								814	2000
7	SD7FL0580 5X 20	580	315	870	1132	814	529	2000				1037	
	SD7FL0650 5X 20	650	355	975								1221	1236
	SD7FL0720 5X 20	720	400	1080								814	1107
8	SD7FL0840 5X 20	840	450	1260	1482	1221	529	2000				1412	
	SD7FL0925 5X 20	925	500	1388								1457	
	SD7FL0990 5X 20	990	560	1485								1492	
9	SD7FL1150 5X 20	1150	630	1725	2352	1628	529	2000				2121	
	SD7FL1260 5X 20	1260	710	1890								2171	
	SD7FL1440 5X 20	1440	800	2160								2261	
10	SD7FL1580 5X 20	1580	900	2370	3402	2035	529	2000				2937	
	SD7FL1800 5X 20	1800	1000	2700								3007	
11	SD7FL2200 5X 20	2200	1200	3300	4452	2442	529	2000				3429	
	SD7FL2500 5X 20	2500	1400	3750								2849	3953



Dimensions for frames 5 to 11 (Stand Alone)

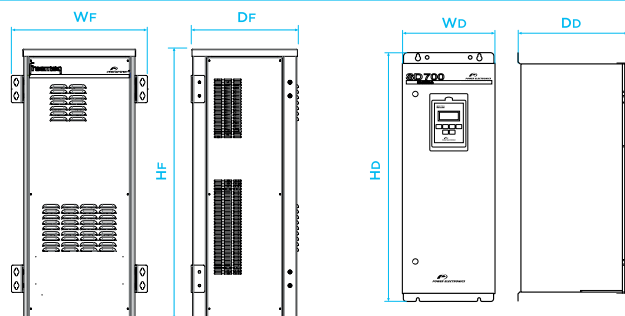
#### NOTES

[1]: Available optional plinths for frames 5 to 11, 2000mm and 2200mm total height.

# SD700 FL | Standard Ratings

## POWER RANGE AT 690VAC

690 VAC													
TALLA	CÓDIGO	Operation Temperature 50°C			DIMENSIONS						Weight (kg)		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	Widths		Depths		Heights <sup>[1]</sup>		Drive	Filter	
					Drive (W <sub>D</sub> )	Filter (W <sub>F</sub> )	Drive (D <sub>D</sub> )	Filter (D <sub>F</sub> )	Drive (H <sub>D</sub> )	Filter (H <sub>F</sub> )			
3 <sup>[1]</sup>	SD7FL0052 6X	52	45	78	300.5	-	358	-	853.5	-	67.5	-	
	SD7FL0062 6X	62	55	93		500		390		990		128	
4	SD7FL0080 6X	80	75	120	320	608	438.5	440	1245	1206	94	128	
	SD7FL0105 6X	105	90	157								185	
5	SD7FL0130 6X	130	110	195	431	407	529	1712				413	
	SD7FL0150 6X	150	132	225								550	
	SD7FL0170 6X	170	160	255								560	
6	SD7FL0210 6X	210	200	315	786	407	529	1712	2000			724	
	SD7FL0260 6X 20	260	250	390		814						1073	
	SD7FL0320 6X 20	320	315	480								1093	
7	SD7FL0385 6X 20	385	355	578	1132	814	529	2000				1247	
	SD7FL0460 6X 20	460	450	690		1221						1606	
8	SD7FL0550 6X 20	550	500	825	1482	1221	529	2000				1732	
	SD7FL0660 6X 20	660	630	990		1628						2101	
9	SD7FL0750 6X 20	750	710	1125	2352	1628	529	2000				2541	
	SD7FL0840 6X 20	840	800	1260								2035	2561
	SD7FL0950 6X 20	950	900	1425									2930
10	SD7FL1140 6X 20	1140	1000	1710	3402	2035	529	2000				3382	
	SD7FL1270 6X 20	1270	1200	1905		2442						3771	
	SD7FL1420 6X 20	1420	1400	2130		2849						4160	
11	SD7FL1500 6X 20	1500	1500	2250	4452	3256	529	2000				4847	
	SD7FL1800 6X 20	1800	1800	2700		3663						5256	



Dimensions for frames 3 and 4 (Wall mounted)

NOTES

[1]: Dimensions and weights not indicated upon request.  
 [2]: Available optional plinths for frames 5 to 11, 2000mm and 2200mm total height.

**SD700**  
**FR**

Standard Ratings



# SD700 FR

## Standard Ratings

### POWER RANGE AT 400VAC

FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 400VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 400VAC	120% Overload (A)
5	SD7FR0210 5X Y	210	110	315	263	132	315
	SD7FR0250 5X Y	250	132	375	313	160	375
	SD7FR0275 5X Y	275	150	413	344	200	413
6	SD7FR0330 5X Y	330	160	495	413	220	495
	SD7FR0370 5X Y	370	200	555	463	250	555
	SD7FR0460 5X Y	460	250	690	575	315	690
7	SD7FR0580 5X Y	580	315	870	725	400	870
	SD7FR0650 5X Y	650	355	975	813	450	975
	SD7FR0720 5X Y	720	400	1080	900	500	1080
8	SD7FR0840 5X Y	840	450	1260	1050	560	1260
	SD7FR0925 5X Y	925	500	1388	1156	630	1388
	SD7FR0990 5X Y	990	560	1485	1238	710	1485
9	SD7FR1150 5X Y	1150	630	1725	1438	800	1725
	SD7FR1260 5X Y	1260	710	1890	1575	900	1890
	SD7FR1440 5X Y	1440	800	2160	1800	1000	2160
10	SD7FR1580 5X Y	1580	900	2370	1975	1100	2370
	SD7FR1800 5X Y	1800	1000	2700	2250	1200	2700
11	SD7FR2200 5X Y	2200	1200	3300	2750	1500	3300
	SD7FR2500 5X Y	2500	1400	3750	3100	1750	3750

### POWER RANGE AT 440VAC

FRAME	CODE	Operation Temperature 50°C HEAVY DUTY				Operation Temperature 40°C NORMAL DUTY			
		I(A) Rated	Motor Power (kW) at 440VAC		150% Overload (A)	I(A) Rated	Motor Power (kW) at 440VAC		120% Overload (A)
			kW	HP			kW	HP	
5	SD7FR0210 5X Y	191	110	150	286,5	238,7	132	180	286,5
	SD7FR0250 5X Y	227	132	180	340,5	283,7	160	240	340,5
	SD7FR0275 5X Y	250	150	200	375	312,5	200	275	375
6	SD7FR0330 5X Y	300	160	240	450	375	220	300	450
	SD7FR0370 5X Y	336	200	275	504	420	250	340	504
	SD7FR0460 5X Y	418	250	340	627	522,5	315	400	627
7	SD7FR0580 5X Y	527	315	400	790,5	658,7	400	500	790,5
	SD7FR0650 5X Y	591	355	450	886,5	738,7	450	600	886,5
	SD7FR0720 5X Y	654,5	400	500	981,7	818,1	500	650	981,7
8	SD7FR0840 5X Y	764	450	600	1146	955	560	750	1146
	SD7FR0925 5X Y	841	500	650	1261,5	1051,2	630	850	1261,5
	SD7FR0990 5X Y	900	560	750	1350	1125	710	900	1350
9	SD7FR1150 5X Y	1045,5	630	850	1568	1306,8	800	1000	1568
	SD7FR1260 5X Y	1145,5	710	900	1718	1431,8	900	1250	1718
	SD7FR1440 5X Y	1309	800	1000	1963,5	1636,2	1000	1400	1963,5
10	SD7FR1580 5X Y	1436	900	1250	2154	1795	1100	1500	2154
	SD7FR1800 5X Y	1636	1000	1400	2454	2045	1200	1600	2454
11	SD7FR2200 5X Y	2000	1200	1600	3000	2500	1500	1800	3000
	SD7FR2500 5X Y	2300	1400	1900	3450	2800	1750	2350	3450

# SD700 FR | Standard Ratings

## POWER RANGE AT 480VAC

FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 480VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 480VAC	120% Overload (A)
5	SD7FR0210 5X Y	168	110	252	210	132	252
	SD7FR0250 5X Y	200	132	300	250	150	300
	SD7FR0275 5X Y	220	150	330	275	160	330
6	SD7FR0330 5X Y	264	160	396	330	200	396
	SD7FR0370 5X Y	296	200	444	370	250	444
	SD7FR0460 5X Y	368	250	552	460	315	552
7	SD7FR0580 5X Y	464	315	696	580	355	696
	SD7FR0650 5X Y	520	355	780	650	400	780
	SD7FR0720 5X Y	576	400	864	720	450	864
8	SD7FR0840 5X Y	672	450	1008	840	500	1008
	SD7FR0925 5X Y	740	500	1110	925	560	1110
	SD7FR0990 5X Y	792	560	1188	990	630	1188
9	SD7FR1150 5X Y	920	630	1380	1150	710	1380
	SD7FR1260 5X Y	1008	710	1512	1260	800	1512
	SD7FR1440 5X Y	1152	800	1728	1440	900	1728
10	SD7FR1580 5X Y	1264	900	1896	1580	1000	1896
	SD7FR1800 5X Y	1440	1000	2160	1800	1200	2160
11	SD7FR2200 5X Y	1760	1200	2640	2200	1500	2640
	SD7FR2500 5X Y	2000	1400	3000	2500	1750	3000

## POWER RANGE AT 525VAC

FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 525VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 525VAC	120% Overload (A)
5	SD7FR0180 7X Y	180	132	270	222	150	270
	SD7FR0205 7X Y	205	150	308	254	185	308
6	SD7FR0270 7X Y	270	200	405	334	250	405
	SD7FR0295 7X Y	295	220	443	360	280	443
	SD7FR0340 7X Y	340	250	510	417	315	510
7	SD7FR0425 7X Y	425	315	638	526	400	638
	SD7FR0470 7X Y	470	355	705	586	450	705
	SD7FR0535 7X Y	535	400	803	666	500	803
8	SD7FR0660 7X Y	660	500	990	824	600	990
	SD7FR0750 7X Y	750	560	1125	936	700	1125
9	SD7FR0845 7X Y	845	630	1268	1052	800	1268
	SD7FR0950 7X Y	950	710	1425	1157	900	1425
10	SD7FR1070 7X Y	1070	800	1605	1337	1000	1605
	SD7FR1205 7X Y	1205	900	1808	1504	1100	1808
	SD7FR1340 7X Y	1340	1000	2010	1672	1250	2010
	SD7FR1605 7X Y	1605	1200	2408	2006	1500	2408
11	SD7FR2005 7X Y	2005	1500	3008	2507	1900	3008

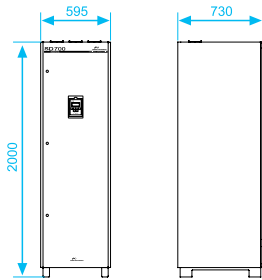
# SD700 FR | Standard Ratings

## POWER RANGE AT 690VAC

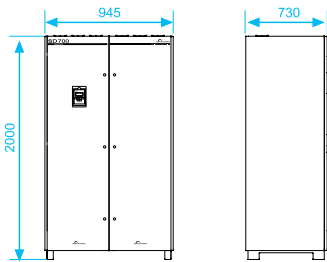
FRAME	CODE	Operation Temperature 50°C HEAVY DUTY			Operation Temperature 40°C NORMAL DUTY		
		I(A) Rated	Motor Power (kW) at 690VAC	150% Overload (A)	I(A) Rated	Motor Power (kW) at 690VAC	120% Overload (A)
5	SD7FR0130 6X Y	130	110	195	163	132	195
	SD7FR0150 6X Y	150	132	225	188	160	225
	SD7FR0170 6X Y	170	160	255	213	200	255
6	SD7FR0210 6X Y	210	200	315	263	250	315
	SD7FR0260 6X Y	260	250	390	325	315	390
	SD7FR0320 6X Y	320	315	480	400	400	480
7	SD7FR0385 6X Y	385	355	578	481	450	578
	SD7FR0460 6X Y	460	450	690	575	560	690
8	SD7FR0550 6X Y	550	500	825	688	630	825
	SD7FR0660 6X Y	660	630	990	825	800	990
9	SD7FR0750 6X Y	750	710	1125	938	900	1125
	SD7FR0840 6X Y	840	800	1260	1050	1000	1260
	SD7FR0950 6X Y	950	900	1425	1188	1100	1425
10	SD7FR1140 6X Y	1140	1000	1710	1425	1300	1710
	SD7FR1270 6X Y	1270	1200	1905	1588	1600	1905
	SD7FR1420 6X Y	1420	1400	2130	1775	1700	2130
11	SD7FR1500 6X Y	1500	1500	2250	1875	1800	2250
	SD7FR1800 6X Y	1800	1800	2700	2250	2000	2700

## SD700 FR | Dimensions

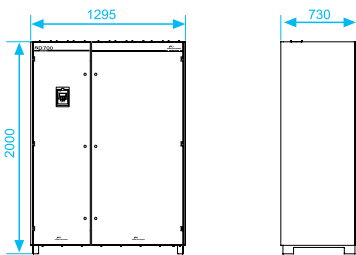
### DIMENSIONS & WEIGHT



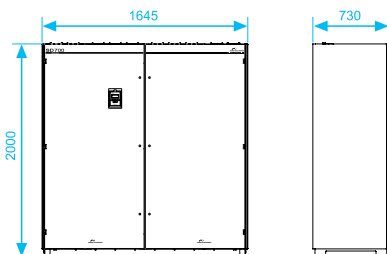
FRAME 5			
INPUT VOLTAGE			WEIGHT (kg)
380-480Vac	525Vac	690Vac	
SD7FR0210 5X Y	SD7FR0185 7X Y	SD7FR0130 6X Y	350
SD7FR0250 5X Y	SD7FR0205 7X Y	SD7FR0150 6X Y	
SD7FR0275 5X Y		SD7FR0170 6X Y	



FRAME 6			
INPUT VOLTAGE			WEIGHT (kg)
380-480Vac	525Vac	690Vac	
SD7FR0330 5X Y	SD7FR0270 7X Y	SD7FR0210 6X Y	700
SD7FR0370 5X Y	SD7FR0295 7X Y	SD7FR0260 6X Y	
SD7FR0460 5X Y	SD7FR0340 7X Y	SD7FR0320 6X Y	



FRAME 7			
INPUT VOLTAGE			WEIGHT (kg)
380-480Vac	525Vac	690Vac	
SD7FR0580 5X Y	SD7FR0425 7X Y	SD7FR0385 6X Y	1000
SD7FR0650 5X Y	SD7FR0470 7X Y	SD7FR0460 6X Y	
SD7FR0720 5X Y	SD7FR0535 7X Y		



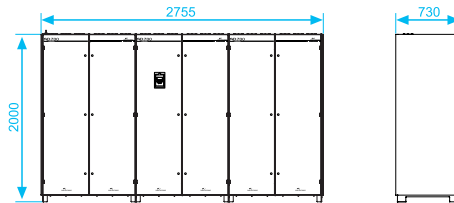
FRAME 8			
INPUT VOLTAGE			WEIGHT (kg)
380-480Vac	525Vac	690Vac	
SD7FR0840 5X Y	SD7FR0660 7X Y	SD7FR0550 6X Y	1200
SD7FR0925 5X Y	SD7FR0750 7X Y	SD7FR0660 6X Y	
SD7FR0990 5X Y			

# SD700 FR

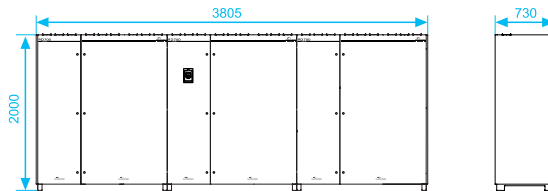
## Dimensions

### DIMENSIONS & WEIGHT

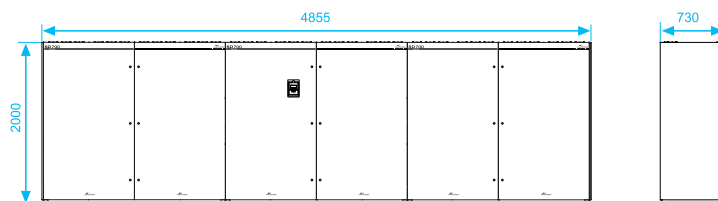
FRAME 9			
INPUT VOLTAGE			WEIGHT (kg)
380-480Vac	525Vac	690Vac	
SD7FR1150 5X Y	SD7FR0845 7X Y	SD7FR0750 6X Y	2100
SD7FR1260 5X Y	SD7FR0950 7X Y	SD7FR0840 6X Y	
SD7FR1440 5X Y		SD7FR0950 6X Y	



FRAME 10			
INPUT VOLTAGE			WEIGHT (kg)
380-480Vac	525Vac	690Vac	
SD7FR1580 5X Y	SD7FR1070 7X Y	SD7FR1140 6X Y	3000
SD7FR1800 5X Y	SD7FR1205 7X Y	SD7FR1270 6X Y	
	SD7FR1340 7X Y	SD7FR1420 6X Y	
	SD7FR1605 7X Y		



FRAME 11			
INPUT VOLTAGE			WEIGHT (kg)
380-480Vac	525Vac	690Vac	
SD7FR2200 5X Y	SD7FR2005 7X Y	SD7FR1500 6X Y	3600
SD7FR2500 5X Y		SD7FR1800 6X Y	



**SD700**  
**SERIES**

Accessories

# SD700 SERIES | Accessories

## ACCESSORIES REFERENCES

CODE	ACCESSORIES DESCRIPTION
SD7PD	Profibus Communication Board
SD7ET	Ethernet Communication Board
SD7DN	DeviceNet Communication Board
SD7CO	CAN Open Communication Board
(*)	N2 Metasys Communication Gateway
SD7EC	Encoder Board
SD7IO	Inputs / Outputs Expansion Board - Additional 4DI, 5DO, 1AI and 1 AO
SD7FO	Fiber Optics board
SD7STO	Safe Torque Off (STO) board. Allows to implement in the drive the safe torque off function according to IEC/EN 61800-5-2
SD7ES01E	External 24Vdc Power Supply - Frame 1 of SD700. Exterior assembly - SD7EB1 extension box required
SD7ES02I	External 24Vdc Power Supply - Frame 2 of SD700. Interior Assembly.
SD7ES03I	External 24Vdc Power Supply - Frame 3 of SD700. Interior Assembly.
SD7ES04I	External 24Vdc Power Supply - Frame 4 of SD700. Interior Assembly
SD7ES05I	External 24Vdc Power Supply - Frame 5 of SD700. Interior Assembly
SD7ES06I	External 24Vdc Power Supply - Frames 6, 7, 9 and 10 of SD700. Interior Assembly
SD7ES08I	External 24Vdc Power Supply - Frames 8 and 11 of SD700. Interior Assembly
SD7TD	Colour Touch Screen Display
V11	Display Extender Kit (3 meters)
V12	Display Extender Kit (5 meters)
GSM01	GSM Module - SD7TD Colour Touch Screen Display required

\* Consult Availability

## DYNAMIC BRAKE

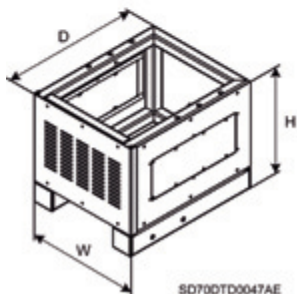
REFERENCE	VOLTAGE	Current (A)		Minimum Resistance Rating ( $\Omega$ )	Dimensions (mm)			Weight
		Maximum	Continuous		W	D	H	
B150.2	230V <sub>AC</sub>	300A	150A	2.4 $\Omega$	177	221	352	7 kg
B150	380V <sub>AC</sub> , 500V <sub>AC</sub>	300A	150A	2.4 $\Omega$				
B150.6	690V <sub>AC</sub>	200A	100A	5.75 $\Omega$				



CODE	ACCESSORIES DESCRIPTION
SD7DB	Optional Board for Slave Mode Brake

# SD700 SERIES | Accessories

## PLINTHS



FRAME	CODE	Dimensions (mm)			Total Drive Height (mm)
		W	D	H	
4	SD7PLO417	320	464	438.5	1712
5	SD7PL0520	431	413.5	529	2000
	SD7PL0522	431	613.5	529	2200
6	SD7PL0620	786	413.5	529	2000
	SD7PL0622	786	613.5	529	2200
7	SD7PL0720	1132	413.5	529	2000
	SD7PL0722	1132	613.5	529	2200
8	SD7PL0820	1482	413.5	529	2000
	SD7PL0822	1482	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

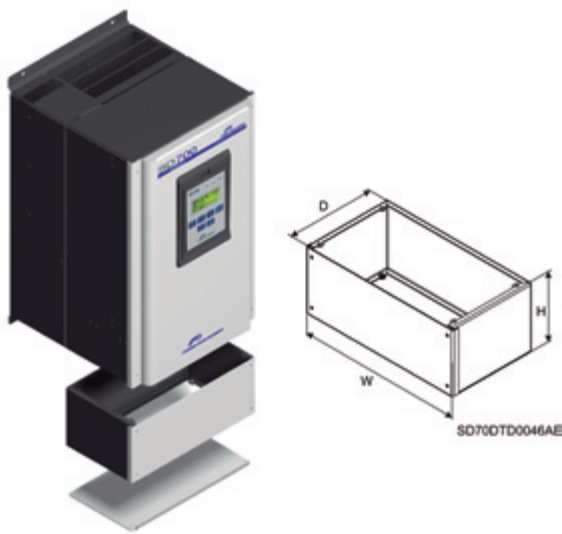
Code Explanation: **SD7PL0520**

SD7	PL05	20
SD700 Series	Plinth for Frame 5	Total Height 2000mm



# SD700 SERIES | Accessories

## SD700 CONNECTION BOXES



FRAME	CODE	Dimensions (mm)		
		W	D	H
1	SD7EB1	189	122	161
2	SD7EB2	295	122	161
3	SD7EB3	300	151	168

## SD700 KOMPAKT CONNECTION BOXES



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

# Warranty

POWER ELECTRONICS guarantees supply against any anomaly which can be directly and exclusively attributed to design, fabrication, manufacture or material defect, thus in case those faults or defects are identified before the end of warranty, POWER ELECTRONICS undertakes to repair them in a maximum time span of 24/48h. POWER ELECTRONICS provides its clients with a 24h/365 days a year technical service. Lacking a specific agreement in particular terms, the period of the warranty is of THREE years. In application of that warranty, POWER ELECTRONICS commits to repair or replace the faulty parts. The client must communicate to POWER ELECTRONICS immediately any obvious defect, describing its nature in detail and allowing POWER ELECTRONICS to control and correct this fault. The possible expenses caused by transport, customs, expenses, etc and those related to dismantling and assembling the corrected or substituted part, will be covered by POWER ELECTRONICS, except in those cases in which the client wishes to carry out those tasks with the previous approval by POWER ELECTRONICS, which no cost for the manufacturer.

The warranty will only be valid when the transport, storage, assembly, installation, commissioning, functioning and maintenance in the delivery have all been carried out correctly by authorized personnel and in accordance with the enclosed instructions manual. The warranty exclusively includes the repair of defects and/or exchange of faulty parts on our own products. The warranty will be void in normal cases of wear and tear, being ordinary caused by functioning or external causes, or extraordinary caused by an overcharge of work load, wrong use or external causes as can be excessive humidity, dust,

corroding products, electromagnetic fields, static energy, fluctuations in the quality of the electrical supply, etc. And, does not cover defects caused by accidents, by transport, inadequate storage or conservation, and in general faults which are not attributable or are out of POWER ELECTRONICS' control.



The client does not have authorization to personally repair, or do so through a third party, nor can he send the equipment to be corrected or replaced, without the specific authorization by POWER ELECTRONICS. The warranty will be void if the client or any third parties make any intervention, modification, or repair without the previous written consent by POWER ELECTRONICS, or if they do not fulfill the immediate requirements to avoid an aggravation of the damage. The warranty will not cover in any case the damage, whether direct or not, to people or objects, and in no case will the faulty equipment include compensation or payment for lack of productivity by the client or by the final user, and this is the only warranty given to the client, substituting any previous mentioned conditions or warranty, both implicit and legal, which have not been expressly accepted by POWER ELECTRONICS. The warranty always frees POWER ELECTRONICS from having to answer to faults which occur after the mentioned period. The repair or replacement of a faulty equipment at arrival will not modify the initial date of the warranty period for the global equipment. The substituted equipment will be property of POWER ELECTRONICS.

# Standards

		SD700	SD700 KOMPAKT	SD700 FREEMAQ		
				SD700FL Low Harmonics Notch Filter	SD700FR Regenerative	
REGULATIONS	CERTIFICATIONS	CE, cTick, UL <sup>[1]</sup> , cUL <sup>[1]</sup> , GL <sup>[2]</sup>				
	ELECTROMAGNETIC COMPATIBILITY	EMC Directive (2004/108/CE)			IEEE 519	
		IEC/EN 61800-3				
	DESIGN AND CONSTRUCTION	LVD Directive (2006/95/CE)				
		IEC/EN 61800-2 General requirements				
IEC/EN 61800-5-1 Safety						
IEC/EN 60146-1-1 Semiconductor converters						
FUNCTIONAL SAFETY	IEC60068-2-6 - Vibration					
		IEC/EN 61800-5-2(STO) TÜV Rheinland Certified				

[1] On certification process.

[2] SD700 Series from frame 5 on. For further information about deviations from the standard drive units, please consult with Power Electronics.



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SD700

Series

When  
you have  
a great team,  
**anything is  
possible**





### When everyone gives the very best of oneself.

When effort and commitment team up. When you have a great team any challenge is possible. This year Power Electronics Aspar team will compete in the MotoGP category at the Motorcycles World Championship and will do it with two great riders such as Aleix Espargaró and Randy de Puniet. But we also count on your support in this new adventure.

Undoubtfully the best team ever.



# SD700

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