



POWER ELECTRONICS

Specialist drives company for Australian industry

Sometimes it is difficult to do things simply. Power Electronics is the company behind the flexible, intelligent and 'easy to drive' variable speed drive series, the SD700.





In response to growing demand from Australian VSD users, Power Electronics has opened an Australian operation, starting with an office in Brisbane that is carrying full stock locally up to 400kW. Many sites in Australia have been looking for a suitable VSD to replace their aging PDL Electronics equipment. With many of these sites being remote and operating in the most rugged

integral IP54, reliable operation in high ambient temperatures and ease of use and serviceability are paramount. The Power Electronics range of VSDs and Soft Starters has proven to be the perfect solution.

Several of Australia's largest mining companies have now standardized on the Power Electronics range of AC motor control equipment with one site already having installed in excess of 1MW of SD700 VSDs.

"Power Electronics now offer a genuine alternative to the multi-national suppliers of high power variable speed drives," says Power Electronics Australia manager, Nigel Smith. "A complete suite of products stocked locally extensive experience, and comprehensive application and service support ensure that the right product is available at the right time. Unlike others, we have an exclusive focus on AC drives and soft starters giving our customers the traditional attention that was once commonplace but now rare."

The company

Power Electronics, who have had a long and close relationship with former New Zealand drive manufacturer PDL Electronics, have established themselves as a leading manufacturer and supplier of variable speed drive and soft starter technology.

"Based in Spain," says Nigel Smith, "Power Electronics have long been a dominant supplier in their local market and are now focused on developing an international distribution network. They are the leading Spanish company in a.c motor control with more than 20 years of experience in the drives and soft starters business."

Thanks to their research laboratory, a great

team of professionals and complete in-house manufacturing facilities, Power Electronics is developing new technologies and bringing new benefits to our customers, taking drives and softstarters to the next level.

"With the SD700 we have focused all our technological research into making life easier for the user."

It is a unique drive due in part to its features, reliability and its mechanical design, which will allow a full Power-Stage replacement in less than one hour.

"Special attention has been given to the unique requirements of Australasian industry," says Power Electronics Australia's partner in New Zealand Drive Dynamics managing director, David O'Donoghue.

Involvement in the sales, design and manufacture of this type of equipment for in excess of 25 years has seen Power Electronics blossom into a market leader in this area.

The products

A high power, high performance VSD, the SD700 provides precise control of motor speed and torque in V/Hz. Sensorless or Closed Loop Vector, up to 1500kW (380-480V) and 2000kW (690V). It is the first VSD to incorporate a graphical touch screen as an option (in place of the standard 4-line LCD display). A 3.5" TFT 240 x 340 pixel colour graphics touch screen, permitting modification of screen lists and graphical replication of the process.

Available in IP54 (sealed electronics chamber), IP20, or IP00, a combination of superb motor control, flexibility and simple design make this range the most advanced drive solution available for any application. For serviceability, the three major power stages – rectifier, DC bus, inverter are all sub-assemblies that are mechanically separated and can be accessed from the front.

As standard the SD700 offers the user a comprehensive set of control inputs and outputs. All digital and analogue I/O are multifunctional and can be configured to suit the users requirements. Common applications, such as irrigation pump control, are built into the SD700s software as macros. For those customers wanting to expand or customize the functionality of the SD700, I/O expansion cards, serial communications, customization software and a graphical touch screen are also available. Sales and marketing director Mark Duncan expands, "The SD700 will be able to be used as a standalone process controller."





The standard drive operator interface can be replaced with a full colour graphical touch screen. No longer does the feedback on the process and VSD need to be limited to a text-only based LCD. The process can be replicated graphically allowing easy monitoring of what is happening in the system. The customization software and expandable I/O means that the SD700 can be configured to control practically any system. The SD700 has been manufactured utilizing a revolutionary new mechanical design. This design sees the VSD using a vertical architecture. Externally the SD700 appears to have a familiar mechanical layout, however, internally the VSD could not be more different than traditional designs, says technical director Brent Sheridan.

"The three major components of the power platform of the SD700 – the rectifier, DC bus, and inverter are all sub assemblies that are mechanically separate from each other. This design is a major leap forward in the ability to undertake service in the field. Any one of the three sections can be worked on, or removed from the drive, without having to disassemble the entire VSD. It is also very clear as to how to replace the appropriate component or section. It is more a case of "follow your nose" rather than reading a complicated service manual."

The People

Focused solely on the supply of AC variable speed drives and soft starters and with in excess of 40 years collective experience in the AC motor control industry the directors of Power Electronics Australia make a vast amount of application experience and expertise available to Australian customers. The team's experience in this specialized industry sector has come from careers working with New Zealand manufacturers of AC motor control equipment. O'Donoghue spent 13 years as the general manager of PDL Electronics Ltd and was instrumental in seeing the company achieve significant growth, particularly in the export area, whilst overseeing the company explore and develop leading edge new products.

Duncan held sales and management roles for more than eight years with PDL Electronics Ltd servicing both the domestic and Pacific region markets. This expertise was supported by a solid background in the industrial electrical field. Sheridan brings a diverse background of knowledge acquired in motor control applications and industrial automation. Following seven years operating in sales within the New Zealand market, the past three years have seen Sheridan expand into international sales positions for both PDL Electronics Ltd and AuCom Electronics Ltd. Smith moved to Australia after eight years at PDL Electronics Ltd Napier factory where he held the position of Senior Applications Engineer. He joins Power Electronics Australia from a local ABB drives distributor and brings a great deal of commercial and engineering experience to this new operation.

As Power Electronics Australia looks to the future they have their sights firmly set on becoming one of Australia's leading AC motor control suppliers.

"Along with a complete suite of products stocked locally, we are committed to returning to the original ideology of providing quality product, service and attention to customer's requirements," states Nigel Smith.

"Our team are some of the most experienced people in this field and will be only too happy to assist with any technical or commercial query put to them." **C**



POWER ELECTRONICS

Variable Speed Drives and Electronic Softstarters

Easy to drive



SD700
2,2kW - 1,8MW



SOFTSTARTER V5
2,2kW - 900kW

SD450
3,7kW - 90kW

SOFTSTARTER V2
3,7kW - 37kW

SD100
0,4kW - 2,2kW



SD250
0,4kW - 7,5kW

WARRANTY
3
YEARS
for the whole series

SDRIVE 700 Series

- Standard Enclosure IP20 / IP54 (sealed electronics chamber)
- Ambient temperature 50°C
- Built-in harmonic filter / 12, 16 pulses operation
- Input fuses (Frames 5 to 11)
- Isolated control inputs and outputs
- Dynamic Braking chopper up to 11kW
- Output dV/dt filters 100m...
- AC line voltage 400V/690V units
- High starting torque 200%
- Torque time response less than 10msec
- Graphic Display with GPRS...
- Application specific macro's (pumping, crusher, etc... programmable)
- Communication interface Modbus as a standard (Profibus, DeviceNet, TCP/IP optional)
- PDL Footprint

strength dynamism
innovation

THE VARIABLE SPEED DRIVES
AND SOFTSTARTERS OF POWER
ELECTRONICS OFFER THE
HIGHEST FEATURES TO GET THE
MAXIMUM EFFICIENCY OF YOUR
APPLICATION.



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