

**AX-PVR-FL**

The a.c. motors of the AX-PVR-FL series have been designed to satisfy the applications that require high dynamic performances and instantaneous overload that frequently reach the double of the rated torque.

The stator pack is laminated and they are nearly always fed by inverter.

**Main characteristics:**

- > Small moment of inertia of the rotor
- > High rotation speed (up to 9000 rpm)
- > Peak and continuous torque available even at zero speed
- > Fan and Encoder incorporated in the motor structure
- > Protection degree IP 54 or IP 23
- > Cooling by axial or radial electric fan.
- > Parking brake as option
- > Mounting IMB5 or IM B3
- > Water cooled version FL series

Motors are manufactured according to IEC 60034-1 Standard

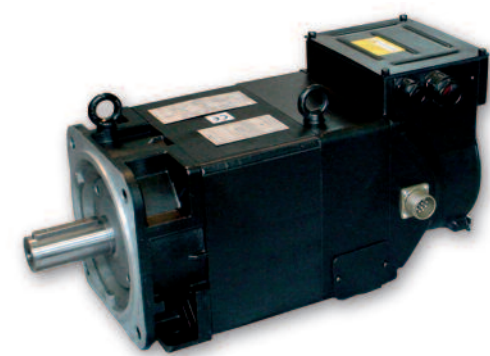
**SN**

The SN series of three-phase induction motors is specifically designed for high-performance variable-speed applications and use on vector-control inverters.

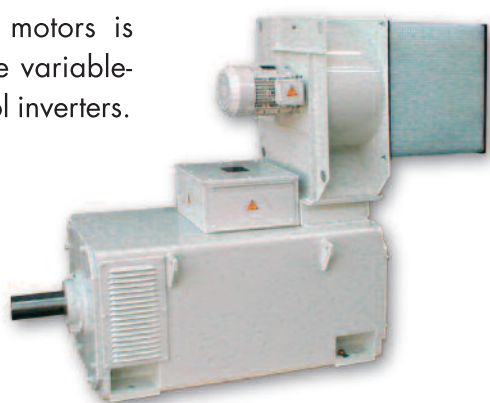
The SN series is the right answer for the application with wide field weakening range. The motors are force-ventilated so that they can operate at constant torque up to very low speeds.

The insulating system thermal class is H; the electrical performance complies with a class F temperature rise. Standard motors are supplied with a top-mounted electric motor driven blower, always provided with a filter Cooling method IC 86 W with air-to-water heat-exchanger is available on request.

The non-drive-end bearing is insulated to avoid bearing voltages and currents generated by IGBT frequency converters.



**AX-PVR-FL**  
**Power ratings:**  
 0,27 - 1400 kW  
**Voltage:**  
 380 - 690V  
**Frame:**  
 63 - 315mm



**SN**  
**Power ratings:**  
 90 - 1400 kW  
**Voltage:**  
 380 - 690V  
**Frame:**  
 200 - 400mm

**CORPORATE**  
 Answer Drives S.r.l.  
 Viale Sarca 336  
 I - 20126 Milano  
 Phone +39 02 6445 1  
 Fax +39 02 6445 4401

**MANUFACTURING FACILITY**  
 S.S. 11 - Via Cà Sordis, 4  
 I-36054 Montebello Vicentino (VI)  
 Phone +39 0444 449 268  
 Fax +39 0444 449 276  
 www.answerdrives.com

**CUSTOMER SERVICE AND SUPPORT**  
 S.S. 11 - Via Cà Sordis, 4  
 I-36054 Montebello Vicentino (VI)  
 Phone +39 0444 449 226  
 Fax +39 0444 449 276  
 www.answerdrives.com

**REPRESENTATIVE OFFICE CHINA**  
 Silver Tower Rm. 3208 No. 2  
 Dongsanhuan Beilu Chao Yang District  
 Beijing 100027  
 Phone +86 10 6410 6601  
 +86 10 6410 6602  
 Fax +86 10 6554 4493

**ANSALDO SISTEMI INDUSTRIALI  
 INTERNATIONAL NETWORK  
 SUPPORTING ANSWER DRIVES**

**CHINA**  
**ASI Industrial Systems Beijing Co. Ltd.**  
 (subsidiary of Ansaldo Sistemi Industriali S.p.A.)  
 Room 3206 - 3208 / Beijing Silver Tower  
 No. 2 Dong San Huan Bei Road-Chaoyang District  
 Beijing People's Republic of China  
 Phone +86 10 6554 4490/91/92  
 Fax +86 10 6554 4493

**FRANCE**  
**Ansaldo Sistemi Industriali SA**  
 Z.I. du Buisson, Rue de la Poudrière  
 F-42230 Roche-La-Molière  
 Phone +33 4 77907600  
 Fax +33 4 77907629

**GERMANY**  
**Ansaldo Sistemi Industriali GmbH**  
 Im Teelbruch 104  
 D-45219 Essen - Kettwig  
 Phone +49 (0) 2054 104980  
 Fax +49 (0) 2054 1049811

**ROMANIA**  
**Ansaldo Sistemi Industriali RO**  
 235b Darzei II St. - Crevedia, Jud. Dambovita  
 137180 Romania  
 Phone +40 374 00 33 54  
 Fax +40 757 71 02 04

**RUSSIA**  
**AO Ansaldo - VEI**  
 Krasnokazarmennaya Ul 12  
 111250 Moscow, Russia  
 Phone +7 495 3619163  
 Fax +7 495 2734391

**Ansaldo Sistemi Industriali - Moscow Office**  
 Proezd zavoda  
 Serp i Molot 6/1  
 111250 Moscow - Russia  
 Phone +7 495 6623752  
 Fax +7 495 6623750

**THAILAND**  
**Ansaldo Sistemi Industriali SpA Thailand Branch**  
 Muang Thai-Phatra Office Tower II 24th Fl  
 252/119 Rachadaphisek Rd, Huaywang  
 Bangkok 10310 Thailand  
 Phone +66 2 6932930  
 Fax +66 2 6932934

**USA**  
**Anselectric LLC**  
 an Ansaldo Sistemi Industriali SpA Company  
 4900 Woodway Dr., Suite 970  
 Houston, Texas  
 77056 USA  
 Phone +1 832 214 4185  
 Fax +1 713 583 7775

**VIETNAM**  
**ASI Industrial Systems**  
**Representative Office of Ansaldo Sistemi Industriali S.p.A.**  
 Room 702 - Floor 7th No. 3 Mai Hac De street,  
 Hai Ba Trung district - Hanoi  
 Phone +84 4 394 47415  
 Fax +84 4 394 47415

For information on the sales office  
 or sales representative nearest you  
 contact us at: info@answerdrives.com



www.answerdrives.com

8000001722

AC-DC  
 PRODUCTS

An Ansaldo Sistemi Industriali S.p.A. Company



LOW VOLTAGE DRIVES



**GT700**

GT700E is an innovative and compact drive that combines good looks with robustness, reliability and easy to use performance. It is dedicated to low power applications where total costs are ultracompetitive, including: competitive purchase price, low installation commissioning and technical support costs. It has only 14 standard parameters to adjust in its basic form.

GT700P control strategy delivers 200% torque down to 0.0Hz allowing this unique open loop product to be used without any feedback device in many traditional closed loop applications.

- > Pluggable terminals enable simple, easy access control wiring
- > Up to 50°C Ambient Temperature.
- > 14 Basic Parameters (40 Max) allow fast commission.
- > High Visibility LED Display, easy to read.
- > 32kHz Switching Frequency for ultra quiet motor operation.
- > 150% Overload for 60 Seconds.
- > Mains dip ride through allows continuous operation through short periods of supply loss.



**GT1000**

The GT1000 is a compact VFDs designed for pumping stations, fans, HVAC systems and textile applications. Known for its reliability, ease of use and flexibility, the GT1000 is the low-cost solution for any customer's application requirements.

GT1000 features include:

- > FUser-friendly operation and configuring
- > Internal Input reactor
- > Internal RFI filter
- > WInternal Braking switch
- > Selectable control method: volts/hertz, closed loop vector control
- > Application-specific 'macros' handle complex applications
- > Windows™ PC interface simplifies start-up operations and diagnostics
- > Wide range of options and accessories



**GT700E**  
**Power range:**  
 0.75 - 11 kW  
**Voltage:**  
 230V single phase  
 400 - 460V three phase  
**Output frequency:**  
 up to 500 Hz

**GT700P**  
**Power range:**  
 0.75 - 37 kW  
**Voltage:**  
 400 - 460V three phase  
**Output frequency:**  
 up to 2KHz

**Applications:**  
 Rubber, Machine Tools,  
 Pumping, Elevators,  
 Conditioning.

**GT1000**  
**Power range:**  
 0.75 - 110 kW  
**Voltage:**  
 400 - 480V  
**Output frequency:**  
 1 - 480 Hz

**Applications:**  
 Paper, Metals, Marine, Cement,  
 Rubber & Plastics, Wind energy.



**GT3000**

The GT3000 is an IGBT-based variable frequency drive with unmatched levels of adaptability. This efficient drive has proven to serve a wide range of applications with the highest levels of energy stability and user control.

The GT3000's closed-loop vector control algorithm meets the most demanding torque application requirements.

**Main characteristics of serie GT3000:**

- > Easy start up, operation and maintenance
- > Auto Tuning of of motor data
- > Applicative macros
- > Three operating modes: V/Hz, Sensorless, Closed Loop Vector.
- > Active Front End Control version

**Other main characteristics of serie GT3000:**

- > Any control method available
- > Auto-tuning for simpler and quicker start-up
- > Water-cooling available for easier heat transfer without air filtering problems
- > Flying restart for powering into a spinning motor
- > Trace log and Fault/Alarm log functions for easier troubleshooting
- > Energy saving

**GT3000 LARGE**

The GT3000 Large, designed either for forced air or water cooling, extend the power of the GT3000 up to 6MW.

The GT3000 Large has the same HMI interface, software for parameter setting, control board and communication protocols typical of the GT3000 family.



**GT3000**

**Power range:**  
0.75 - 1200 kW  
**Voltage:**  
400 - 480V, 525 - 690V  
**Output frequency:**  
up to 200 Hz

**Applications:**

General purpose drives for industrial applications, particularly suitable for metals, paper, marine, petrochemical, cement, and cranes.

**GT3000 Large**

**Power range:**  
480 - 6000 kW  
**Voltage:**  
525 - 690 V  
**Output frequency:**  
up to 200 Hz

**SILCOPAC**

The Silcopac is a high performance, thyristor-based, packaged ac/dc three-phase drive. Characteristics of high dynamic response, ease of customisation, the availability of two or four-quadrant operation and full digital control, make it the perfect solution for industrial DC applications, from the simplest to the most complex.



**SILCOPAC**

**Current ratings:**  
30 - 4000 Adc  
**Input voltage:**  
400 - 950 Vca

**Applications:**  
General purpose converters for industrial applications, particularly suitable for metals, paper, cement and marine.

The Silcopac is designed for the most demanding applications in a system environment, including metals, paper, cement, marine and industrial market applications.

**SPDM firmware includes, as standard, the functions suited to the most important applications among these:**

- > Helper for the load sharing control between two motors mechanically coupled
- > Pope for paper production plant
- > ADP for the angular speed regulation as function of diameter to maintain constant peripheral speed
- > Winder: for direct or indirect axial and peripheral reels regulation of
- > Load weighing, torque proof for hoisting equipment

**SILCOSTART**

The Silcostart is an electronic starter for induction motors. It consist of a three-phase fully controlled thyristor switch and is designed to reduce the inrush current during direct online starting of induction motors at low and medium power ratings.

**Silcostart provides three selectable start up modes:**

- > Voltage ramp, constant current, constant acceleration
- > Acceleration current and voltage drop reduction
- > High reliability
- > Removal of mechanical stress
- > Continuous and soft acceleration
- > Removal of gear switching transients
- > Compact and light
- > Prolonged motor life
- > Reduced maintenance Starting Methods



**SILCOSTART**

**Motor power ratings:**  
5.5 - 630 kW  
**Input voltage:**  
400 - 690 VAC

**Applications:**  
Compressors, pumps, fans, Conveyor belts, translators, Escalators.

**CUBE**

The GT3000 is the core of the CUBE cabinet solution that provides the perfect compliment between the drive and the electromechanical protection and control devices.

Answer Drives's CUBE is the result of years of experience in Industrial Automation. It is the ideal "Plug & Play" solution for innovative applications where an enclosure class ranging from IP23 to IP54 is required.

By design, the CUBE simplifies the application process and reduces delivery time and engineering costs.

The CUBE is available with a wide range of options and accessories, providing the ideal platform for machine and process integration for OEMs, end-users and system integrators.

**The CUBE base version consists of:**

- > GT3000 Drive
- > Answer Drives's System Cabinet
- > Automatic line breaker
- > Three-phase line reactor
- > Door-mounted keypad
- > Door-mounted emergency button

**Options:**

- > Enclosure: IP33, IP43, IP54
- > Protection and control devices
- > RFI input filter
- > Output reactor
- > Sinusoidal filter
- > DV/DT filter
- > Braking unit & resistor
- > Communication options

**Accessories:**

- > Internal cabinet light and 230 V power source
- > Anti condensation thermistor devices
- > PT100 and PTC motor protection devices
- > Automatic breaker for motor ventilation
- > Emergency control devices
- > Door-mounted auxiliary instrumentation (voltmeter, ammeter,.)

**CUBE**

**Power ratings:**  
37 - 1400 kW  
**Voltage:**  
400 - 690 V  
**Operating temperature:**  
0°C - +40° C  
**Relative humidity:**  
5 - 95%, without condensation  
**Altitude:**  
1000 m  
**Protection degree:**  
IP32  
**Colour:**  
pebble grey RAL7035



**GH**

The GH DC motor is the result of Ansaldo Sistemi Industriali's vast experience in DC technology.

The wide selection of options and built-in flexibility means that these motors can be tailored for any application and industry.

The GH DC motor is designed to allow fan cooling, air/water and air/air heat exchangers, external cooling or frame cooling.

**Main characteristics:**

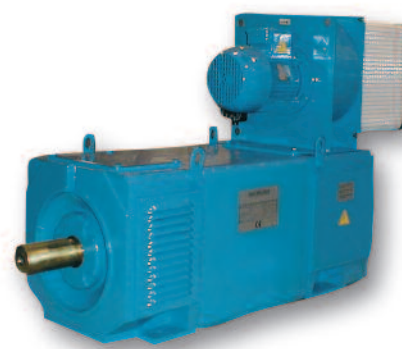
- > High power with relation to the external size
- > Optimized cooling system
- > Protection degree IP 23 or IP 54
- > Cooling by axial or radial electric fan.
- > Parking brake as option
- > Mounting IMB3 or other mounting arrangements on request
- > Frame, main poles and interpoles fully laminated to ensures good commutation even during rapid current changes.
- > Frame ≥ 180-22 with compensating winding on request

Motors are manufactured according to IEC 60034-1 Standard

**GH**

**Power ratings:**  
2 - 6000 kW  
**Voltage:**  
up to 1000 V  
**Shaft Height:**  
80 - 1120 mm  
**Cooling:**  
IC06, IC00, IC666, IC86W, IC37

**Applications:**  
Paper, Metals & Plastics



**AMI**

Our modular steel cabinets are especially suitable for electronic power devices.

They are modular free-standing cabinets with reversible solid doors, rear screw-on walls, internal cabling plate and base with removable flanges for cable entry.

Based on a modular sectional parts, this system gives you total flexibility to choose the width, depth and accessories to meet your design needs.



**AMI**

**Width:**  
from 400 to 1400mm  
**Depth:**  
from 400 to 1600mm  
**Height:**  
from 1800 to 2300mm