



## Series Description


The AD600M is our new inverter model with a more compact design, maintaining quality in vector control, its main feature being simple speed control for electric motors. It comes with a manufacturer's warranty and a wide range of applications. It offers a vast power range from 0.4 to 15kW and supply voltages of 220 Vac (single-phase/three-phase) and 380 Vac (three-phase) with fully flexible input and output points. The quality and reliability of a machine or process are, in most cases, the result of precise and dynamic control of AC motors.

The AD600M inverter line has the following main characteristics:

- Vector control in closed or open loop;
- Adjustment of acceleration and deceleration ramps via local or remote parameterization;
- LED display that allows visualization of up to 2 simultaneous quantities. Optional LCD panel-mount HMI version, which allows visualization of up to 5 simultaneous quantities;
- Configuration software;
- PID control;
- Various possibilities for configuring digital and analog inputs and outputs;
- Additional 24/10/Vdc power supply for control devices;
- Log of the last 30 faults;

## General Characteristics of the Series

Power Supply	Input voltage	As per model: 1 x 220V (Single-phase 220Vac) 3 x 127Vac (Three-phase 220Vac) 3 x 220Vac (Three-phase 380Vac)
	Internal source	Switching power supply, available in 10Vdc and 24Vdc for control signals.
	Power, Input current, Output current	See tables for each model starting on page 4.
Motor	Type	Asynchronous motor, permanent magnet motor
	Connection distance	100 meters (If the cable length between the motor and the inverter exceeds the maximum limit, the following measures can be taken: Install an output reactor (most common solution); Reduce the switching frequency; Use a motor with a higher insulation class.)
Control	Control method	Open-loop or closed-loop vector control
	Starter command source	Control via operating panel, via I/O terminal, via communication.
	Frequency	0~1200Hz
	Speed	0rpm~60000rpm
	Starting torque	180%
	Acceleration	Controlled via HMI or remotely or by control signal.
	Overcurrent	150% up to 3600 seconds
	Carrier Frequency	1 a 15kHz
	Acceleration Time	0 to 30000s, configurable via parameter
	Deceleration Ramp	Controlled via HMI or remotely or by control signal.
	Deceleration Time	0 to 30000s, configurable via parameter
Communication	Integrated Modbus RS485 (spring-type connection).	
I/O	Power supply output	10Vdc / 10mA 24Vdc / 200mA
	Digital input	4 isolated multifunction inputs. Voltage 9-30Vdc
	Digital output	1 Output 0~24Vdc / 50mA / 50kHz
	Analog input	1 independent input with selectable modes of 0~10Vdc or 4~20mA.
	Analog output	1 independent output with selectable modes 0~10Vdc or 4~20mA.
	Relay output	1 relay output 250Vac/3A or 30Vdc/1A
Display and Keyboard	LED display	LED display that allows viewing of up to 2 simultaneous values.
	LCD display	Optional LCD version that allows viewing up to 5 simultaneous parameters.
	External display	Detachable display for panel door installation. Connection via RJ-45 connector.
	Copy parameters	Quick parameter replication through the use of the LED/LCD display.

	<b>Key lock and function selection</b>	Partial or complete key locking and defining the scope of action of some keys to prevent accidental operation.
	<b>Functions</b>	Parameterization, motor start and stop, increment and decrement (acceleration, speed and frequency), variable monitoring and message visualization and faults.
<b>Dimensions</b>	Ver tabela dimensões para cada modelo a partir da página 5	
<b>Environment</b>	<b>Operating temperature</b>	-10 ~ +50°C
	<b>Storage temperature</b>	-20 ~ +60°C
	<b>Relative humidity</b>	0 ~ 95%, without condensation
	<b>Altitude</b>	Up to 1000m
	<b>Vibration</b>	Up to 5.9 m/s (0.6 g)
	<b>Protection</b>	IP20
<b>Protections</b>	<b>Fault detection</b>	Overcurrent during acceleration, overcurrent during deceleration, overcurrent during operation, overcurrent during idle, overvoltage during acceleration, overvoltage during deceleration, overvoltage during operation, overvoltage during idle, low voltage, inverter overload, motor overload, inverter overheating, motor short circuit, input phase failure, output phase failure, ground fault, phase-to-phase short circuit, ground short circuit, EEPROM error, communication error, loss of PID feedback signal, hardware current failure, load loss, motor overheating, motor speed, power supply phase imbalance.
<b>Certificacates</b>	 <p>IEC/EN 61800-3: 2023 IEC/EN 61800-3-11: 2019 EN 61800-3-12: 2011/A1:2024 EN 61800-5-1: 2007+A1: 2017+A11: 2021</p>	

**CURRENT AND POWER SPECIFICATIONS FOR AD600M SERIES INVERTERS****Single-phase 220Vac** (-15% ~ +20%)

Model	Power (kW)	Power (CV)	Input Current (A)	Output Current (A)
AD600M-2S-0.4GB	0,4	0,5	5,4	2,1
AD600M-2S-0.75GB	0,75	1	8,2	3,8
AD600M-2S-1.5GB	1,5	2	14	7
AD600M-2S-2.2GB	2,2	3	23	9
AD600M-2S-4.0GB	4,0	5	40	17
AD600M-2S-5.5GB	5,5	7,5	60	25
AD600M-2S-7.5GB	7,5	10	75	32

**Three-phase 220Vac** (-15% ~ +20%)

Model	Power (kW)	Power (CV)	Input Current (A)	Output Current (A)
AD600M-2T-0.4GB	0,4	0,5	2.7	2.3
AD600M-2T-0.75GB	0,75	1	4.2	4.0
AD600M-2T-1.5GB	1,5	2	7.7	7.0
AD600M-2T-2.2GB	2,2	3	12	9.6
AD600M-2T-4.0GB	4,0	5	19	17
AD600M-2T-5.5GB	5,5	7,5	28	25
AD600M-2T-7.5GB	7,5	10	35	32

**Three-phase 380Vac** (-15% ~ +20%)

Model	Power (kW)	Power (CV)	Input Current (A)	Output Current (A)
AD600M-4T-0.75GB	0,75	1	3,4	2,1
AD600M-4T-1.5GB	1,5	2	5	3,8
AD600M-4T-2.2GB	2,2	3	5,8	5,1
AD600M-4T-4.0GB	4	5	10,5	9
AD600M-4T-5.5GB	5,5	7,5	14,6	13
AD600M-4T-7.5GB	7,5	10	20,5	17
AD600M-4T-11GB	11	15	26	25
AD600M-4T-15GB	15	20	35	32

**PHYSICAL DIMENSIONS OF AD700 SERIES INVERTERS****Single-phase 220Vac** (-15% ~ +20%)

Model	Width (mm)	Height (mm)	Depth (mm)
AD600M-2S-0.4G	83	149	111
AD600M-2S-0.75G	83	149	111
AD600M-2S-1.5G	83	149	111
AD600M-2S-2.2G	83	149	111
AD600M-2S-4.0G	98	170	124
AD600M-2S-5.5G	135	228	160
AD600M-2S-7.5G	135	228	160

**Three-phase 220Vac** (-15% ~ +20%)

Model	Width (mm)	Height (mm)	Depth (mm)
AD600M-2T-0.4G	83	149	111
AD600M-2T-0.75G	83	149	111
AD600M-2T-1.5G	83	149	111
AD600M-2T-2.2G	83	149	111
AD600M-2T-4.0G	98	170	124
AD600M-2T-5.5G	135	228	160
AD600M-2T-7.5G	135	228	160

**Three-phase 380Vac** (-15% ~ +20%)

Model	Width (mm)	Height (mm)	Depth (mm)
AD600M-4T-0.75GB	83	149	111
AD600M-4T-1.5GB	83	149	111
AD600M-4T-2.2GB	83	149	111
AD600M-4T-4.0GB	98	170	124
AD600M-4T-5.5GB	98	170	124
AD600M-4T-7.5GB	98	170	124
AD600M-4T-11GB	135	228	160
AD600M-4T-15GB	135	228	160

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## ***Manutenção***

Periodic maintenance consists of the following procedures:

- Cleaning and dusting the unit
- Clearing ventilation openings
- Checking the rail attachment
- Tightening the electrical connection screws