

■ FREQUENCY INVERTER

EM 30

0.4 kW - 15 kW



- ▶ High-tech motor control concept, based on advanced DSP-technology V/Hz, SENSORLESS VECTOR, PMM synchronous motor control mode - SPEED / TORQUE control Intelligent AUTOTUNING functions for easy set-up.
- ▶ Rugged construction, all metal enclosure, thermally decoupled from motor, IP67 / NEMA4, shock proof (4G).
- ▶ Flexible configurable man/machine interface – fieldbus capability
- ▶ Numerous functions, to make it suitable for all kind of industrial and residential applications, and for retrofit as well
- ▶ Smart PC-tools, for inverter control, -paramtrization and –troubleshooting. Parameter-duplication stick.
- ▶ Approved for worldwide standards by independent bodies.

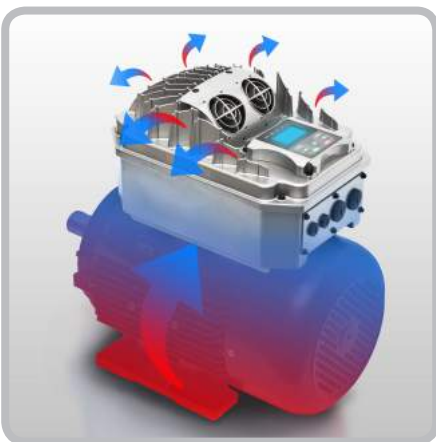
EM 30 - Technical product data

Power input	Rated input voltage	3-Phase 380 - 460V +/- 15% 1-Phase 230/240V +/- 15%
	Input frequency	44...67 Hz
	EMC Filter	Integrated for 2. environment - industrial area (optional for residential area)
Motor output	Output voltage	0.....V-input
	Output frequency	0.....650 Hz (1500HZ OPITION)
	Frequency resolution	0,01 Hz
	Overload capability	150% - 60 sec. / 10 min
Control Mode	Motor control algorithm	V/Hz-SpaceVector - SLV-SENSORLESS Vector control - Torque/Speed control mode. CLV-Closed loop vector - Permanent Magnet Synchronous Motor PMSM SENSORLESS control
	Chopper frequency	0.8...16 kHz (fixed / random)
	V/Hz curve	Linear, exponential, and user-programmable curve
	Starting torque	150% rated torque at 0,5 Hz (in SLV Mode)
	Torque compensation	Automatic / Manual
	Motor data input	Manual, from nameplate / AUTOTUNING
	Speed range	1:100 in SLV mode, 1:1000 in CLV mode, 1:20 in PMSM mode
	Speed precision	+/- 0,5% (SLV), +/- 0.02% (CLV)
	Torque precision	+/- 5% (SLV)
	DC-Brake	User programmable functions
	Brake chopper	Chopper transistor integrated (up to 22 kW)
Display	Character display	Config-Parameters and -value, programmable to display various working parameters

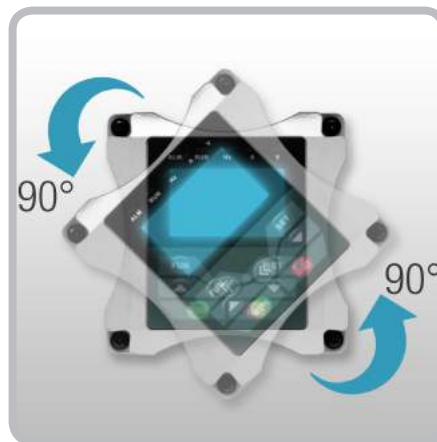
I/O Channels	Analogue channels	2 analogue channels - 12 BIT: 0...10V, 0...5V, -10V...0...10V, 0..(4)20 mA, all free scalable in gain and offset, and mathematically concatenable
	Analogue outputs	2 analogue outputs, programmable in gain and function (0...10V, 0(4)..20 mA)
	Digital outputs	1 switchover contact 5 A 230 V (programmable assignment)
	Relais output	2 analogue outputs, programmable in gain and function (0...10V, 0(4)..20 mA)
	Data link	Serial link RS 485 (MODBUS)
Special functions	Special functions	12V / 50 mA auxiliary power supply on terminals, 10V potentiometer power supply, 5V/100 mA power supply on modbus connector PTC / KLIXON motor protection
Electronic protections with fault history	Electrical	Overvoltage, undervoltage Overcurrent, overload, motor-overload, output short-circuit Input phaseloss, motor phase unbalance
	Thermal	Heatsink overtemperature, I ² t motorprotection
Optionals	Display	Remotable display / keypad units
	Brake chopper	Braking resistors for different load characteristics
	PC-software Parameter copy stick	Configuration-, control- an diagnosis-tool, parameter saving and duplicating For parameter duplicating
Environmental and operating conditions	Protection class	IP67 / NEMA4 motor/wall mountable
	Operating temperature	-10.....+50 °C – -40°C with automatic antifreeze control function (option)
	Humidity	0 to 95% RH, non-condensing, non-corrosive
	Altitude	1000 m, above: 1% derating / 100m
Power range	0,4.....15 kW	
Standards	Electromagnetic compatibility	EN61800-3(2004)
	Safety	EN61800-5-1 2003

EM 30 - Products and Framesizes

Model	Motor power (KW)	Frame-size	Dimensions (WxHxD-mm)	Remarks		
EM30-0004S2	0,4 kW - 2.5 A	J1	186x266x180	1-phase 220V		
EM30-0007S2	0.75 kW - 4,5A					
EM30-0015S2	1.5 kW - 7A					
EM30-0022S2	2.2 kW - 10A					
EM30-0004T2	0.4 kW - 2,5A					
EM30-0007T2	0.75 kW - 4,5A					
EM30-0015T2	1.5 kW - 7A					
EM30-0022T2	2.2 kW - 10A					
EM30-0007T3	0.75 kW - 2A			J2	215x325x190	3-phase 220V
EM30-0015T3	1.5 kW - 4A					
EM30-0022T3	2.2 kW - 6,5A					
EM30-0030T3	3.0 kW - 7A					
EM30-0040T3	4.0 kW - 9A					
EM30-0055T3	5.5 kW - 12A	J3	280x380x220	3-phase 380V		
EM30-0075T3	7.5 kW - 17A					
EM30-0110T3	11 kW - 23A					
EM30-0150T3	15 kW - 32A					



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