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# EP66

FREQUENCY INVERTER

0.4 kW - 90 kW







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## FREQUENCY INVERTER

### HIGHLIGHTS

DSP based high-tech motor control concept, suitable for V/Hz, SENSORLESS VECTOR, PMM synchronous motor control. SPEED/TORQUE control mode, Intelligent AUTOTUNING functions for easy set-up

Rugged construction, IP66/NEMA4

Flexible configurable character display - fieldbus capability

Removable cable conduit plate, including vent with humidity barrier

Room inside the drive, for customer options, like main/emergency switch, start/stop selectors, potentiometer and brake resistor

Optional BYPASS switch build in

Optional EMC filter build in for 1. environment (residential area)

All standard inverter functions build in, to make it suitable for various applications, and for retrofit as well

Smart PC-tools, for inverter control, parametrization and troubleshooting. Parameter-duplication stick

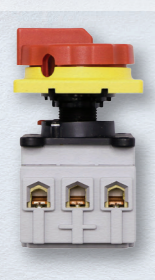
Ready for the worldwide market, due to approved international standards



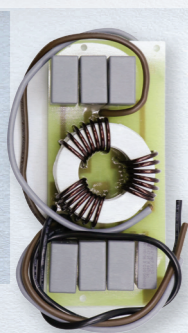
### FRAMESIZE

Model	Motor power (kW)	Frame-size	Dimensions (WxHxD-mm)	Brake resistor Min. value
EP66-0004 S2	0,4 kW - 2,5 A	11	200x412x198	80 Ohm
EP66-0007 S2	0,75 kW - 4,5 A			
EP66-0015 S2	1,5 kW - 7 A			
EP66-0022 S2	2,2 kW - 10 A			
EP66-0004 T2	0,4 kW - 2,5A			
EP66-0007 T2	0,75 kW - 4,5 A			
EP66-0015 T2	1,5 kW - 7 A			
EP66-0022 T2	2,2 kW - 10 A			
EP66-0004 T3	0,4kW - 1,2A			150 Ohm
EP66-0007 T3	0,75kW - 2A			
EP66-0015 T3	1,5kW - 4A			
EP66-0022 T3	2,2kW - 6,5A			
EP66-0030 T3	3,0 kW - 7 A			
EP66-0040 T3	4,0 kW - 9 A			
EP66-0055 T3	5,5 kW - 12 A	12	242x420x198	100 Ohm
EP66-0075 T3	7,5 kW - 17 A			
EP66-0110 T3	11 kW - 23 A			
EP66-0150 T3	15 kW - 32 A	13	242x471x228	50 Ohm
EP66-0185 T3	18,5kW - 38A			
EP66-0220 T3	22kW - 44A			
EP66-0300 T3	30kW - 60A	14	242x650x324	20 Ohm
EP66-0370 T3	37kW - 75A			
EP66-0450 T3	45kW - 90A			
EP66-0550 T3	55kW - 110A			
EP66-0750 T3	75kW - 150A	16	370x770x404	15 Ohm
EP66-0900 T3	90kW - 180A			

MAIN SWITCH UP TO 90 kW



C1 EMC FILTER UP TO 15 kW



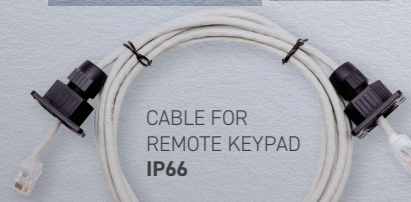
LCD REMOTE KEYPAD



PARAMETER COPY STICK



CABLE FOR REMOTE KEYPAD IP66



OPTIONAL MAIN- / EMERGENCY SWITCH INVERTER CONTROL



ROOM FOR BUILD-IN OPTIONALS



### TECHNICAL DATA

Power input	Rated input voltage	3-Phase 380V-460V (+/-15%) 1-Phase 220V ~ 240V ( ±15% )
	Input frequency	44...67 Hz
	EMC filter	Integrated for 2. environment - industrial area (optional for residential area - add-on box)
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
	Control 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 90 kW)
	Display	4 Line character display
I/O Channels, control functions	Inverter control	Via terminals / Keypad / Serial link (or combination of all)
	Digital inputs	6 (8) Dig. inputs (NPN-PNP selectable) pulstrain-input
	Speed reference input	Potentiometer (on keypad unit, external), analogue signal (terminals), keypad, internal programmable value, pulsetrain, serial link
	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	2 digital outputs (free mapping to different functions)
	Relais output	1 switchover contact 5 A 230 V (programmable assignment)
	Data link	Serial link RS 485 (MODBUS)
Special functions	24V / 50 mA auxiliary power supply on terminals, 10V potentiometer power supply, 5V/100 mA power supply on modbus connector Simple PTC / KLIXON motor protection	
Electronic protections with fault history	Electrical	Overvoltage, undervoltage Input phaseloss, motor phase unbalance
	Thermal	Heatsink overtemperature, I <sup>2</sup> t motorprotection
Options	Display	Removable display / keypad units
	Brake chopper	Braking resistors for different load characteristics
	Power control options	Main switch, emergency switch, BYPASS switch
	Inverter control options Parameter Stick	Potentiometer, inverter control selector switches Configuration-, control- an diagnosis-tool, parameter copy/duplicating stick
Environmental and operating conditions	Protection class	IP66 / NEMA4
	Operating temperature	-10.....+40 °C (-40 with optional antifreeze control)
	Humidity	0 to 95% RH, non-condensing, non-corrosive
	Altitude	1000 m, above 1% derating / 100m
	Vibration	Max. 1,0 g
Power range	0,4.....90 kW	
Standards	Electromagnetic compatibility	EN61800-3(2004)
	Safety	EN61800-5-1 2003