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# EMM 3- 24DC/500AC-IFS

Order No.: 2297497

The figure shows version: EMM 3- 24DC/500AC-16




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2297497>

Electronic motor management for operation with external current transformer- active power measurement for overload and underload monitoring of motors and systems for optimum protection for all performance classes. Freely parameterizable switching and signaling thresholds.



## Commercial data

GTIN (EAN)	 4 046356 175753
sales group	G452
Pack	1 pcs.
Customs tariff	85371099
Catalog page information	Page 150 (IF-2009)

## Product notes

WEEE/RoHS-compliant since:  
01/16/2009



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

## Technical data

### Input data

Input name	Device supply
Rated control supply voltage $U_s$	24 V DC

Rated control supply voltage range with reference to $U_s$	0.8 ... 1.25
Rated control supply current $I_s$	25 mA
Switching threshold "0" signal, voltage	9.6 V DC
Switching threshold "1" signal voltage	19.2 V DC
Operating voltage display	Green LED
Status display	LED yellow right rotation (R), LED yellow left rotation (L), LED green data communication
Indication	Red LED
Input name	Digital inputs
Rated actuating voltage $U_c$	24 V DC
Rated actuating current $I_c$	3.3 mA
Input name	Voltage measuring input V1, V2, V3
Input voltage range	42 V AC ... 575 V AC
Typical input current at $U_N$	< 0.5 mA
Input name	Current measuring input L1/T1, L2/T2, L3/T3
Typical input current at $U_N$	5 A Secondary external converter

**Output data, load relay**

Output name	Acknowledging contacts O1-O4
Note	The meaning of the acknowledgement outputs can be freely parameterized, see user manual
Number of outputs	4
Nominal output voltage	24 V DC (semiconductor output)
Nominal output voltage range (factor)	0.8 ... 1.25
Continuous load current	500 mA
Residual voltage	< 200 mV
Protective circuit/component	Suppressor diode
Surge voltage protection	> 33 V DC

**Output data, signaling contact**

Name	Current Measurement
Measuring via	External push-through current transformers connected upstream
Basic accuracy	Typ. 0.5 %
Name	Voltage measurement/phase-to-neutral voltage
Voltage range	0 V AC ... 350 V AC (Phase-to-neutral voltage)
Basic accuracy	Typ. 0.75 %

Name	Power measurement
Basic accuracy	Typ. 2 %

**Connection data**

Type of connection	Screw connection
Conductor cross section solid min.	0.14 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section stranded min.	0.14 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12

**General data**

Width	22.5 mm
Height	99 mm
Depth	114.5 mm
Test voltage input/output	8 kV
Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Mounting position	Vertical (horizontal DIN rail)
Assembly instructions	In rows with zero spacing
Operating mode	100% operating factor
Degree of protection	IP20
Name	Low voltage switching device
Standards/regulations	EN 60947
	EN 60947-4-2
Name	Power station requirements
Standards/regulations	DWR 1300 / ZXX01/DD/7080.8d
Name	Noise immunity
Standards/regulations	EN 61000-6-2
	EN 61000-6-3
	EN 61000-6-4
Rated surge voltage / insulation	6 kV/safe isolation
Rated insulation voltage	500 V
Pollution degree	2
Surge voltage category	III



### Certificates / Approvals

Certifications applied for: UL Listed / CUL Listed

### Accessories

Item	Designation	Description
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#### Cable/conductor

2811271	IFS-USB-PROG-ADAPTER	Programming adapter with USB interface, for programming with the IFS-CONF, MACX-MCR-CONF and UPS-CONF software
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#### General

2297620	EM-PB-GATEWAY-IFS	The PROFIBUS module EM-PB-GATEWAY-IFS, certified as per DPV1 specification (EN 50170), connects up to 32 motor management modules (EMM-...IFS) or other INTERFACE system devices via the TBUS DIN rail connector.
2901103	IFS-CONFSTICK-L	Multi-functional memory block with handle for the INTERFACE system; for easy storage and back up of the configuration. (EMM...IFS firmware Version 1.04 or later)
2707437	ME 22,5 TBUS 1,5/ 5-ST-3,81 GN	DIN rail connector for current transducers, gold-plated contacts, for DIN rail mounting, 5-pos.

### Additional products

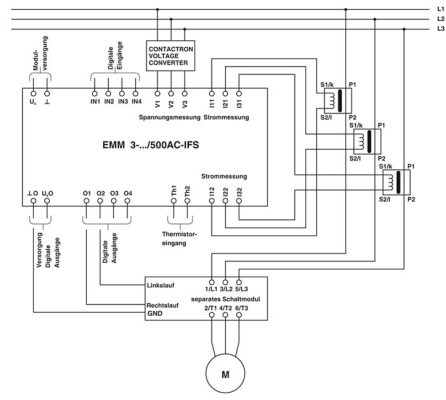
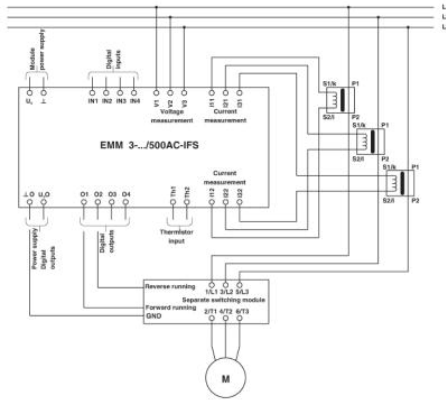
Item	Designation	Description
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#### General

2297992	MM-CONF-SET	Configuration package for the EMM ... IFS, comprising CONTACTRON-DTM-IFS, USB programming adapter, and user manual on CD.
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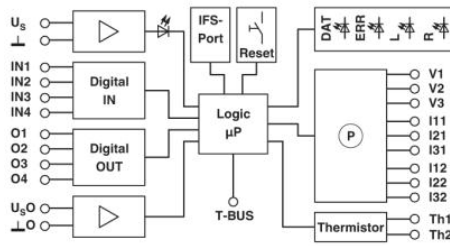
Diagrams/Drawings

Connection diagram



EMM 3-.../500AC-IFS with connected CONTACTRON VOLTAGE CONVERTER

Block diagram



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