

Motor management - EMM 3- 24DC/500AC-16-IFS - 2297523

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Electronic motor management with integrated current transformers up to 16 A - active power measurement for overload and underload monitoring of motors and systems for optimum protection. Freely parameterizable switching and signaling thresholds.

Your advantages

- Optional connection to INTERFACE system and PROFIBUS-GATEWAY-IFS via TBUS
- Digital outputs control external switching elements
- Freely parameterizable signaling or switching thresholds



Key commercial data

package_quantity	1
GTIN	4046356175777

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Input data

Input name	Device supply
Rated control circuit supply voltage U_s	24 V DC
Voltage range with reference to U_s	0.8 ... 1.25
Control supply voltage range	19.2 V DC ... 30 V DC
Rated control supply current I_s	25 mA
Switching threshold	9.6 V DC ("0" signal)
Switching threshold	19.2 V DC ("1" signal)
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 (IN1 - IN4)
Rated actuating voltage U_c	24 V DC
Rated actuating current I_c	3.3 mA
Input name	Voltage measuring input V1, V2, V3

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Technical data

Input data

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	max. 16 A

Output data

Mains frequency	50 Hz ... 60 Hz
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

Current measurement

Measuring via	Internal current transformer
Basic accuracy	typ. 0.5 %

Voltage measurement/phase-to-neutral voltage

Voltage range	0 V AC ... 350 V AC (Phase-to-neutral voltage)
Basic accuracy	typ. 0.75 %

Power measurement

Power range	14 kW
Basic accuracy	typ. 2 %

Connection data, control circuit

Connection name	Control circuits
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14

Connection data load circuit

Connection name	Load circuit
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²

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Technical data

Connection data load circuit

Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14

General

Test voltage input/output	8 kV
Mounting position	Vertical (horizontal DIN rail)
Assembly instructions	In rows with zero spacing
Operating mode	100% operating factor

Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-25 °C ... 70 °C
Degree of protection	IP20

Standards and Regulations

Designation	Standards/regulations
Standards/regulations	DIN EN 50178
Standards/regulations	EN 60947
Standards/regulations	EN 60947-4-2

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
China RoHS	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 5.1	27370802
eCl@ss 6.0	27370804
eCl@ss 7.0	27370804
eCl@ss 8.0	27370804
eCl@ss 9.0	27370804

ETIM

ETIM 4.0	EC002572
ETIM 5.0	EC002572
ETIM 6.0	EC002572

UNSPSC

UNSPSC 6.01	30211915
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Classifications

UNSPSC

UNSPSC 7.0901	39121514
UNSPSC 11	39121514
UNSPSC 12.01	39121514
UNSPSC 13.2	39121104

Approvals

ATEX / UL Listed / cUL Listed / EAC / EAC / cULus Listed /

Approval details

- ATEX
- UL Listed
- cUL Listed
- EAC
- ERC
- cULus Listed

Accessories

DIN rail connector

ME 22,5 TBUS 1,5/ 5-ST-3,81 GN - 2707437



Data cable preassembled

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Accessories

IFS-USB-DATACABLE - 2320500



Gateways/Proxies

EM-PB-GATEWAY-IFS - 2297620



EM-RS232-GATEWAY-IFS - 2901526



EM-RS485-GATEWAY-IFS - 2901527



EM-MODBUS-GATEWAY-IFS - 2901528



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Accessories

EM-DNET-GATEWAY-IFS - 2901529



EM-CAN-GATEWAY-IFS - 2901504



EM-PNET-GATEWAY-IFS - 2904472



EM-ETH-GATEWAY-IFS - 2901988



Memory block

IFS-CONFSTICK-L - 2901103



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Accessories

IFS-CONFSTICK - 2986122



Configuration set

MM-CONF-SET - 2297992



PCB plug

MC 1,5/ 5-ST-3,81 - 1803604



IMC 1,5/ 5-ST-3,81 - 1857919



Device marking

US-EMLP (15X5) - 0828790



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Accessories

UC-EMLP (15X5) - 0819301

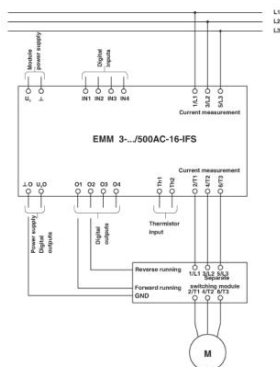


Accessories

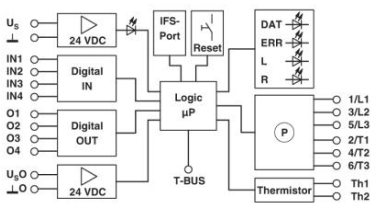
IMC 1,5/ 5-ST-3,81SET IL IFS 2M - 1784729

Drawings

Connection diagram

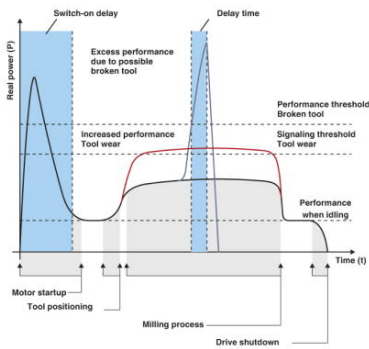


Block diagram



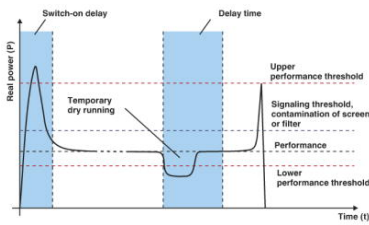
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Diagram



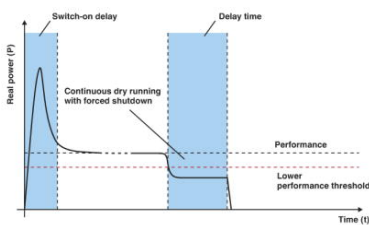
Status monitoring: machine tool for milling

Diagram



Status monitoring: air bubbles in motor-operated pumps

Diagram



Status monitoring: dry run in motor-operated pumps