

Motor management - EMM 3-230AC/500AC-IFS - 2297507

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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.

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

Product Features

- 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

| | |
|--------------------------------------|-----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 444.0 GRM |
| Custom tariff number | 85371099 |
| Country of origin | Germany |

Technical data

Note

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

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 |

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Technical data

Ambient conditions

| | |
|----------------------|------|
| Degree of protection | IP20 |
|----------------------|------|

Input data

| | |
|---|---|
| Input name | Device supply |
| Rated control supply voltage U_S | 230 V AC |
| Voltage range with reference to U_S | 0.4 ... 1.1 |
| Rated control supply current I_S | 10 mA |
| Switching threshold "0" signal, voltage | 48 V AC |
| Switching threshold "1" signal voltage | 96 V AC |
| 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 | 230 V AC |
| Rated actuating current I_C | 3.5 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

| | |
|-------------------------|---|
| 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 | 230 V AC (relay output/500 mA) |
| Continuous load current | 500 mA |

Output data, signaling contact

| | |
|----------------|---|
| Designation | Current measurement |
| Measuring via | External push-through current transformers connected upstream |
| Basic accuracy | typ. 0.5 % |
| Designation | Voltage measurement/phase-to-neutral voltage |
| Voltage range | 0 V AC ... 350 V AC (Phase-to-neutral voltage) |
| Basic accuracy | typ. 0.75 % |
| Designation | Power measurement |
| Basic accuracy | typ. 2 % |

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Technical data

Connection data

| | |
|--|----------------------|
| Connection method | Screw connection |
| Conductor cross section solid min. | 0.14 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section stranded min. | 0.14 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 26 |
| Conductor cross section AWG/kcmil max | 12 |

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 |
| Designation | Low voltage switching device |
| Standards/regulations | EN 60947 |
| | EN 60947-4-2 |
| Designation | Power station requirements |
| Standards/regulations | DWR 1300 / ZXX01/DD/7080.8d |
| Designation | 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 |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27371102 |
| eCl@ss 4.1 | 27371102 |
| eCl@ss 5.0 | 27371601 |
| eCl@ss 5.1 | 27371601 |
| eCl@ss 6.0 | 27371601 |
| eCl@ss 7.0 | 27371601 |
| eCl@ss 8.0 | 27371601 |

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Classifications

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC000066 |
| ETIM 3.0 | EC000066 |
| ETIM 4.0 | EC000066 |
| ETIM 5.0 | EC001437 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211915 |
| UNSPSC 7.0901 | 39121514 |
| UNSPSC 11 | 39121514 |
| UNSPSC 12.01 | 39121514 |
| UNSPSC 13.2 | 39121514 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed


Ex Approvals

ATEX

Approvals submitted

Approval details

| |
|---|
| UL Listed  |
|---|

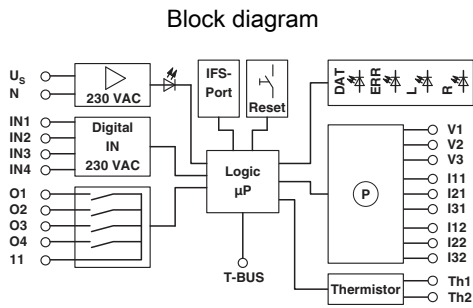
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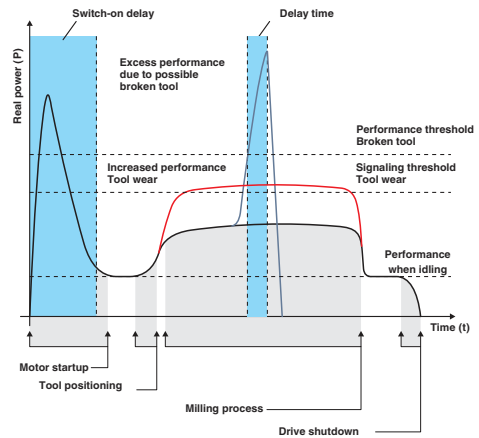
Approvals



Drawings

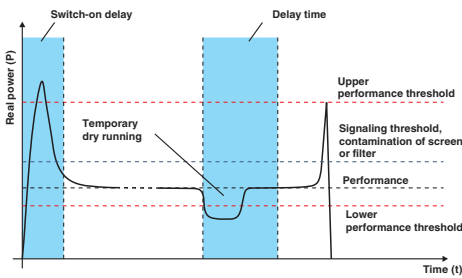


Diagram



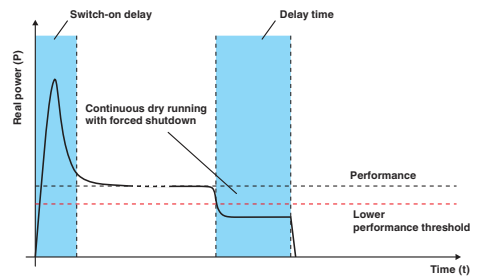
Status monitoring: machine tool for milling

Diagram



Status monitoring: air bubbles in motor-operated pumps

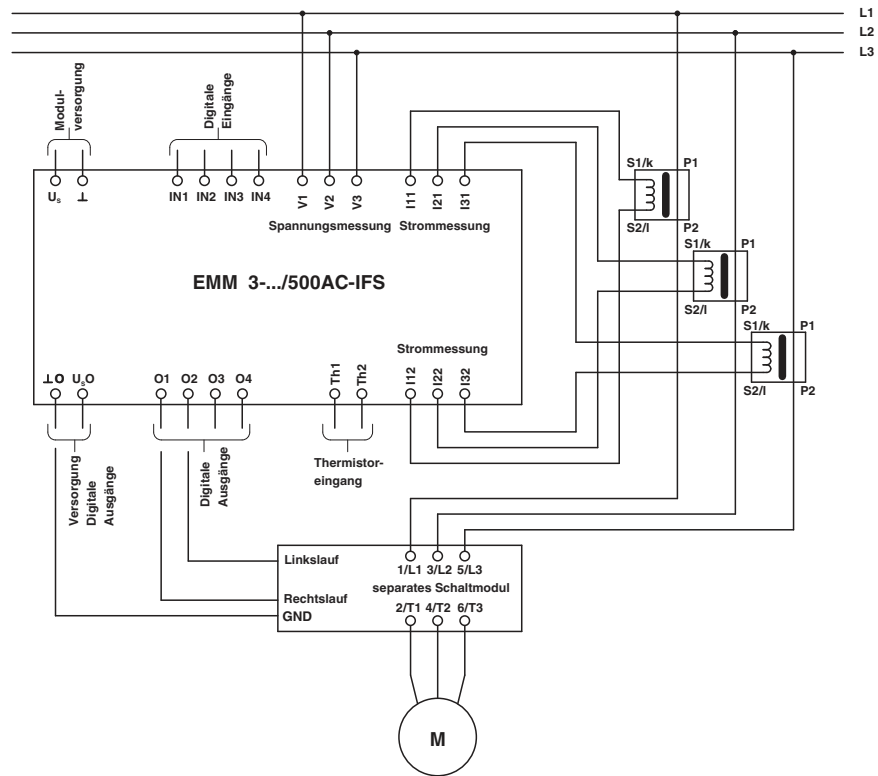
Diagram



Status monitoring: dry run in motor-operated pumps

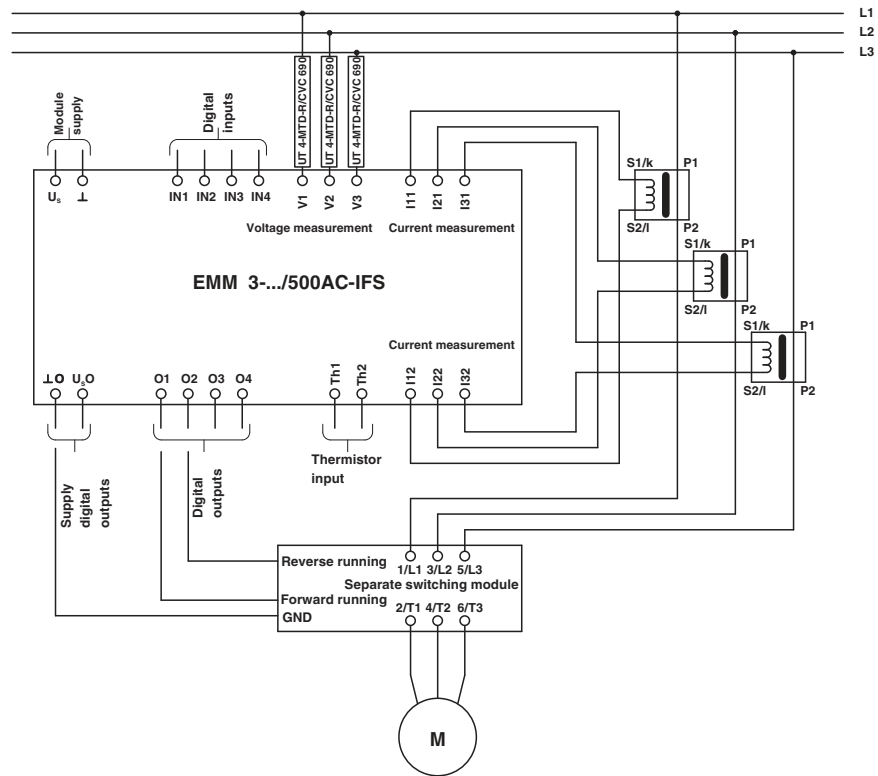
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Connection diagram



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Connection diagram



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