

# PB IP 400 ME-ELR 2-3A - Motor starter



2734772

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Module electronics, two-channel electronic motor starter, PROFIBUS-DP connection, electronic motor monitoring can be used to switch on/off a three-phase asynchronous motor

The figure shows the version IBS IP 400 ME-ELR R-3A

## Commercial data

Item number	2734772
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRFAAA
GTIN	4017918911881
Weight per piece (including packing)	3,340 g
Weight per piece (excluding packing)	3,260 g
Customs tariff number	85389091
Country of origin	DE

## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Product properties

Type	Stand-alone
Diagnostics messages	Mains failure, phase failure Error message in the diagnostic code (bus) and display via the LED ERR on the module
	Motor connector not plugged in, motor temperature exceeded, thermistor line short-circuited Error message in the diagnostic code (bus) and display via the LED ERR on the module
	Sensor supply failure Error message in the diagnostic code (bus) and display via the LED ERR on the module
	Overcurrent Error message in the diagnostic code (bus) and display via the LED ERR on the module
	Output stage cannot be controlled Error message in the diagnostic code (bus) and display via the LED ERR on the module
	Short-circuit or overload of the digital outputs Message in the diagnostic code
	Module error during self test Message to the master

### Electrical properties

#### Supply: Module electronics

Connection method	POWER-COMBICON
Designation	Terminal strip X13 and X15
Number of positions	2
Permissible conductor cross-section	1.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Pg screw connection	Pg16R
Supply voltage	24 V DC ( $U_{S1}$ )
Supply voltage range	20 V DC ... 30 V DC (including ripple)
Supply current	typ. 0.17 A (at $U_{S1} = 24$ V; plus current of digital inputs/outputs)
Ripple	Permissible ripple 3.6 V <sub>pp</sub> within the permissible voltage range
Max. current carrying capacity	16 A
Derating	from 30 °C 0.1A/K

#### Electrical isolation/isolation of the voltage ranges

Test voltage: Remote bus / supply voltage $U_{S1}$	350 kV AC, 50 Hz, 1 min
Test voltage: Supply voltage $U_{S1}$ /400 V level	1.2 kV AC, 50 Hz, 1 min
Test voltage: Supply voltage $U_{S1}$ / brake relay	1.2 kV AC, 50 Hz, 1 min
Test voltage: Supply voltage $U_{S1}$ / thermistor inputs	1.2 kV AC, 50 Hz, 1 min
Test voltage: Local bus/400 V level	1.2 kV AC, 50 Hz, 1 min

Test voltage: Remote bus/brake relay	1.2 kV AC, 50 Hz, 1 min
Test voltage: Remote bus/thermistor inputs	1.2 kV AC, 50 Hz, 1 min

## Input data

### Digital: Digital inputs

Number of inputs	4
Connection method	M12 connector, A-coded
Connection technology	3-, 4-conductor
Number of positions	5
Input voltage	24 V DC ( $U_{S1}$ )
Input voltage range "0" signal	-30 V ... 5 V (binary "0")
Input voltage range "1" signal	13 V ... 30 V (binary "1")
Filter time	3 ms
Typical input current per channel	approx. 5 mA (for $U_{S1} = 24$ V)

## Interfaces

### PROFIBUS interface

Connection method	M12 connector, B-coded
Designation connection point	M12 connector; X30 (IN) and X31 (OUT)
Number of positions	5
Permissible conductor cross-section	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup> (flexible)

## Signaling

### Diagnostic messages

Diagnostics	Mains failure, phase failure
Message	Error message in the diagnostic code (bus) and display via the LED ERR on the module

### Diagnostic messages

Diagnostics	Motor connector not plugged in, motor temperature exceeded, thermistor line short-circuited
Message	Error message in the diagnostic code (bus) and display via the LED ERR on the module

### Diagnostic messages

Diagnostics	Sensor supply failure
Message	Error message in the diagnostic code (bus) and display via the LED ERR on the module

### Diagnostic messages

Diagnostics	Overcurrent
Message	Error message in the diagnostic code (bus) and display via the LED ERR on the module

### Diagnostic messages

Diagnostics	Output stage cannot be controlled
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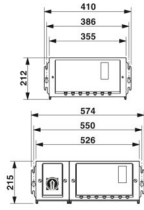


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Message	Error message in the diagnostic code (bus) and display via the LED ERR on the module
Diagnostic messages	
Diagnostics	Short-circuit or overload of the digital outputs
Message	Message in the diagnostic code
Diagnostic messages	
Diagnostics	Module error during self test
Message	Message to the master

## Dimensions

Dimensional drawing	
Width	355 mm
Height	180 mm
Depth	100 mm
Drill hole spacing	386 mm
Note on dimensions	Module electronics without lower part

## Material specifications

Housing material	Sheet-steel housing, IP54
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## Mechanical properties

### Technical data

Drill hole spacing	386 mm
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## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP54
Ambient temperature (operation)	-20 °C ... 55 °C (non-condensing)
Note	Notes on operation Line protection for the network supply line, max. 20 A. Observe derating of the POWER-COMBICON connector Notes on operation Permitted network type TN network, TT network, IT network available on request
Air pressure (operation)	86 kPa ... 106 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	86 kPa ... 106 kPa (up to 2000 m above sea level)
Ambient temperature (storage/transport)	-25 °C ... 75 °C
Permissible humidity (operation)	4 % ... 100 % (non-condensing)
Permissible humidity (storage/transport)	75 % (slight temporary condensation may sometimes appear on

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	the housing)
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## Mechanical test

Shock in accordance with EN 60068-2-27/IEC 60068-2-27	10g, evaluation criterion 1
Vibration resistance in accordance with EN 60068-2-6/IEC 60068-2-6	2g, evaluation criterion 1

## Standards and regulations

Protection class	I (IEC 61140, EN 61140, VDE 0140-1)
Noise emission	Test of emitted interference, housing, in acc. with EN 50081-2:1993 EN 55011:1991 class A

## Air clearances and creepage distances

Air clearances and creepage distances	in accordance with EN 50178: 1998
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## Mounting

Mounting type	Panel mounting
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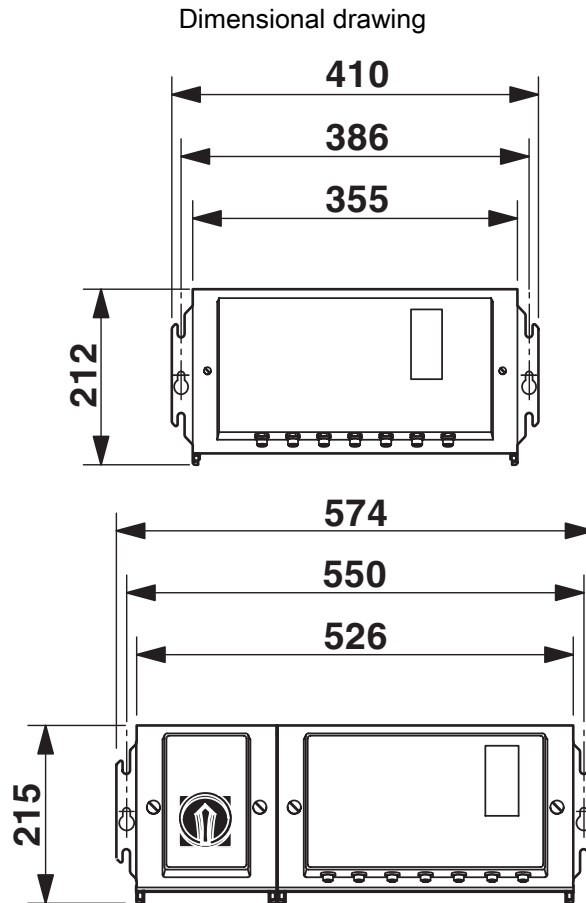
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## Drawings



The figure shows the product with lower part of the housing

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## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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