

IBS IP 400 ME-VFD 1-3A DI4 - Frequency inverter



2836939

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Variable frequency drive, 4 digital inputs, IP54 protection, for connecting an asynchronous motor, without lower part of the housing

INTERBUS variable frequency drive, 1.5 kW, IP54 protection, without sheet-steel lower part

Product description

>>! Replacement product (module electronics) for motor starter: 28 36 939 IBS IP 400 VFD 1-3A DI 4/4 without lower housing part 27 32 871 IBS IP 400 MBH – see motor starter accessories) !<<

The motor starter modules enable three-phase standard motors to be switched via INTERBUS and are available with two housing variants.

The standard housing with IP54 degree of protection is especially suited for direct use in conveying technology machines and systems, whereas the stainless steel variant with IP67 protection is designed for installation in food industry systems.

Given that they are available in various versions, INTERBUS motor starters cover the most important applications.

The 1- and 2-channel motor starters enable direct drives to be controlled and there are reversing load versions for applications involving different drive directions.

If different speeds are required, the variable frequency drives provide the appropriate control, reliably connected with a motor connection line of up to 5 meters.

Additional features include:

- Easy installation and plug-in connection technology,
- Replaceable module electronics,
- Power networking:

Motor starter 400 V AC/20 A

Variable frequency drive 500 V AC/20 A

- Extensive status and diagnostics indicators on the module,
- Startup without bus possible with manual operate function (with VFD also via RS-232),
- Initiator inputs for the connection of sensors and
- Stainless steel housing which is extremely resistant to cleaning agents and
- Sheet-steel housing, ideal for use in systems, with plug-in cable feed-throughs for preassembled cables.

Commercial data

Item number	2836939
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DRFAAB
GTIN	4017918161422
Weight per piece (including packing)	5,000 g
Weight per piece (excluding packing)	4,700 g
Customs tariff number	85044090
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
Mounting position	Panel mounting

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 ² ... 4 mm ²
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. 300 mA (at U _{S1} = 24 V; plus current of digital inputs/outputs)
Ripple	Permissible ripple 3.6 V _{pp} within the permissible voltage range
Max. current carrying capacity	16 A
Derating	above 20 °C: 0.3 A/K

Electrical isolation/isolation of the voltage ranges

Test voltage: Incoming/outgoing remote bus	350 V AC, 50 Hz, 1 min
Test voltage: Remote bus / supply voltage U _{S1}	350 V AC, 50 Hz, 1 min

Input data

Digital: Digital inputs

Number of inputs	4
Connection method	M12 connector
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

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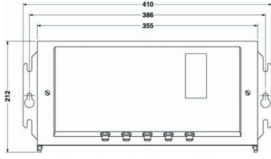
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INTERBUS

Connection method	MINI COMBICON
Designation connection point	X30 (IN) and X31 (OUT)
Number of positions	10
Permissible conductor cross-section	max. 1.5 mm ²

Dimensions

Dimensional drawing	
Width	355 mm
Height	180 mm
Depth	150 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)	-15 °C ... 40 °C (Without derating)
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 (Temperature change 10 K/h)
Permissible humidity (operation)	4 % ... 100 % (non-condensing)
Permissible humidity (storage/transport)	75 % (slight temporary condensation may sometimes appear on 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

Noise emission	Test of emitted interference, housing, in acc. with EN 50081-2:1993 EN 55011:1991 class A
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Air clearances and creepage distances

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

Mounting type	direct screw connection
	Panel mounting
Mounting position	Panel mounting

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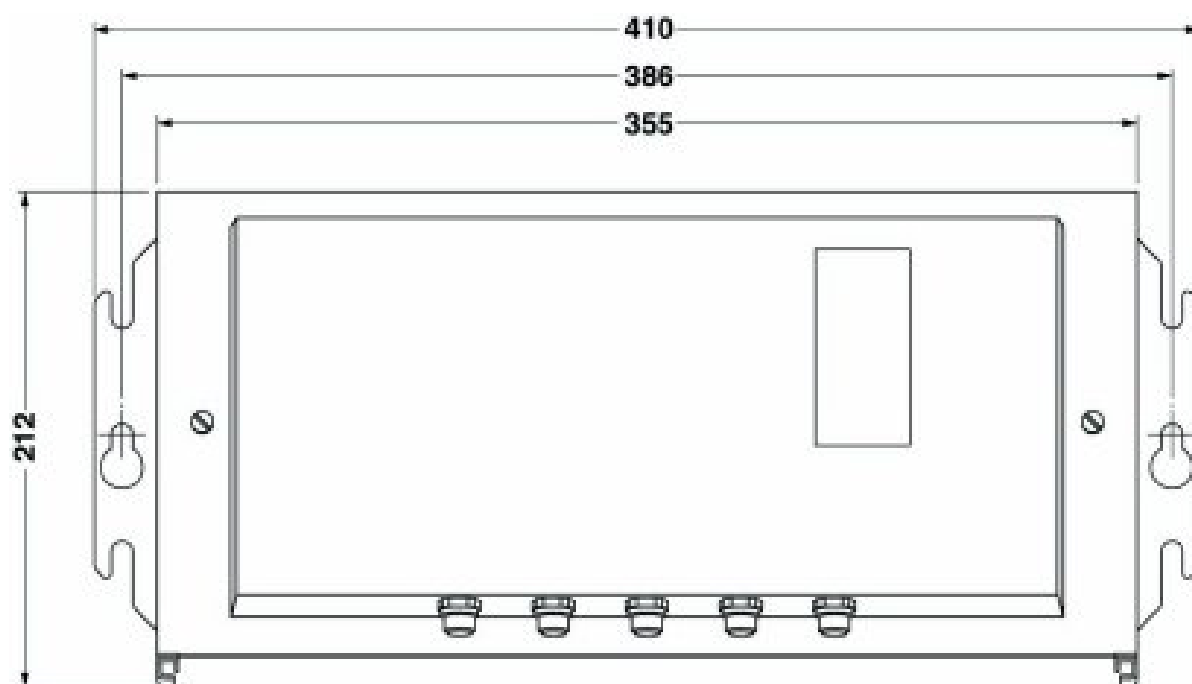


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Drawings

Dimensional drawing



The figure shows a product version with lower part of the housing

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(a), 6(a)-I, 6(c), 7(a), 7(c)-I

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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