Inline terminal - IB IL 400 ELR R-3A - 2727378

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Inline power-level terminal blocks, electronic reversing load starter, up to 1.5 kW / 400 V AC

Product Description

The terminal is designed for use within an Inline station.
The single-channel power-level terminal for reversing load features electronic motor protection. It enables a three-phase asynchronous motor to be switched, protected, and monitored via a bus system.
The terminal enables a three-phase asynchronous motor to be switched, protected, and monitored via a bus system.

Your advantages

- Integrated electronic motor protection in accordance with IEC 60947-4
- Connection option for an external passive brake module
- Hand-held operator panel mode
- Motor control via OUT process data
- Motor current monitoring

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	4 017918 168490
GTIN	4017918168490

Technical data

Note

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

Dimensions

Width	63 mm
Height	224 mm
Depth	109 mm

Ambient conditions

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Ambient conditions

Ambient temperature (operation)	-25 °C ... 55 °C
Ambient temperature (storage/transport)	-25 °C ... 85 °C
Permissible humidity (operation)	10 % ... 85 % (non-condensing)
Permissible humidity (storage/transport)	10 % ... 85 % (non-condensing)
Air pressure (operation)	70 kPa ... 106 kPa (up to 2000 m above sea level)
Air pressure (storage/transport)	70 kPa ... 106 kPa (up to 3000 m above sea level)
Degree of protection	IP20
Note	Notes on operation Line protection for the network supply line, max. 20 A. Observe derating of the POWER-COMBICON connector

Interfaces

Designation	Inline local bus
Number	2
Connection method	Inline data jumper
Transmission speed	500 kbps
Transmission physics	Copper

Mains connection

Designation	Mains connection
Connection method	Power plug
Designation connection point	Terminal strip X11 and X12
Number of positions	5
Permissible conductor cross section	max. 2.5 mm² (L1, L2, L3, N, PE (not leading))
Operating voltage	187 V AC ... 440 V AC +0 % (conductor voltage)
Max. current carrying capacity	20 A

Motor starter, output

Connection method	COMBICON
Number	1 (3 phases, short-circuit-proof with external conductor protection 16 A (full-range fuse for semiconductors, type gR))
	1
Output name	Motor output
Designation connection point	Terminal strip X10
Number of positions	4
Permissible conductor cross section	1 mm² ... 2.5 mm²
Operating voltage	200 V AC ... 440 V AC
Frequency range	50 Hz ... 60 Hz
Nominal current range	0.2 A ... 3.6 A
Switching rate	Max. 30 per minute (observe derating)

Motor monitoring

Parameterization range	0.2 A ... 3.6 A (steps of 50/100/200 mA, via fieldbus)
Overspeed tripping	≥ 20 A (after 0.3 seconds)

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Motor starter, brake

Number	1
Designation	Brake module (external)
Type of contact	Solid-state contact
Connection technology	COMBICON

Inline potentials

Designation	Communications power (U_L)
Supply voltage	7.5 V DC (via voltage jumper)
Current consumption	max. 45 mA
Power consumption	max. 0.34 W
Designation	Segment circuit supply (U_S)
Supply voltage	24 V DC (via voltage jumper)
Supply voltage range	19.2 V DC ... 28.8 V DC (including all tolerances, including ripple)
Current consumption	max. 50 mA
Power consumption	max. 1.2 W (entire device)

General

Mounting type	DIN rail
Net weight	500 g
Note on weight specifications	without plug
Operating mode	Process data mode with one byte
Diagnostics messages	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
Assembly instructions	To safeguard sufficient ventilation, ensure that there is an installation clearance of a minimum of 50 cm both above and below.
Mounting position	Panel mounting on horizontal DIN rail
Note	Notes on operation Line protection for the network supply line, max. 20 A. Observe derating of the POWER-COMBICON connector

Standards and Regulations

Immunity to ESD	Noise immunity test in accordance with EN 61000-6-2 Electrostatic discharge (ESD) EN 61000-4-2/IEC 61000-4-2 6 kV contact discharge, criterion B, 8 kV air discharge, criterion B
Immunity to EF	Noise immunity test in accordance with EN 61000-6-2 Electromagnetic fields EN 61000-4-3/IEC 61000-4-3 Criterion A, field strength: 3 V/m
Immunity to burst	Noise immunity test in accordance with EN 61000-6-2 Fast transients (burst) EN 61000-4-4/IEC 61000-4-4 Criterion B; Supply lines: 2 kV; Signal/data lines: 2 kV
Immunity to surge	Noise immunity test in accordance with EN 61000-6-2 Transient overvoltage (surge) EN 61000-4-5/IEC 61000-4-5 Criterion B, supply lines DC: 0.5 kV/0.5 kV (symm./asymm.), criterion B, supply lines AC: 2 kV/4 kV (symm./asymm.)
Immunity to conducted interference	Noise immunity test in accordance with EN 61000-6-2 Conducted interference EN 61000-4-6/IEC 61000-4-6 Criterion A, Test voltage 10 V

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Standards and Regulations

Interference emission	Noise emission test as per EN 61000-6-4 Radio interference properties EN 55011 Class A
Mechanical tests	Vibration resistance in acc. with EN 60068-2-6/IEC 60068-2-6 2g, evaluation criterion 1
	Shock in acc. with EN 60068-2-27/IEC 60068-2-27 10g, evaluation criterion 1
Protection class	I (МЭК 61140, EN 61140, VDE 0140-1)

Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

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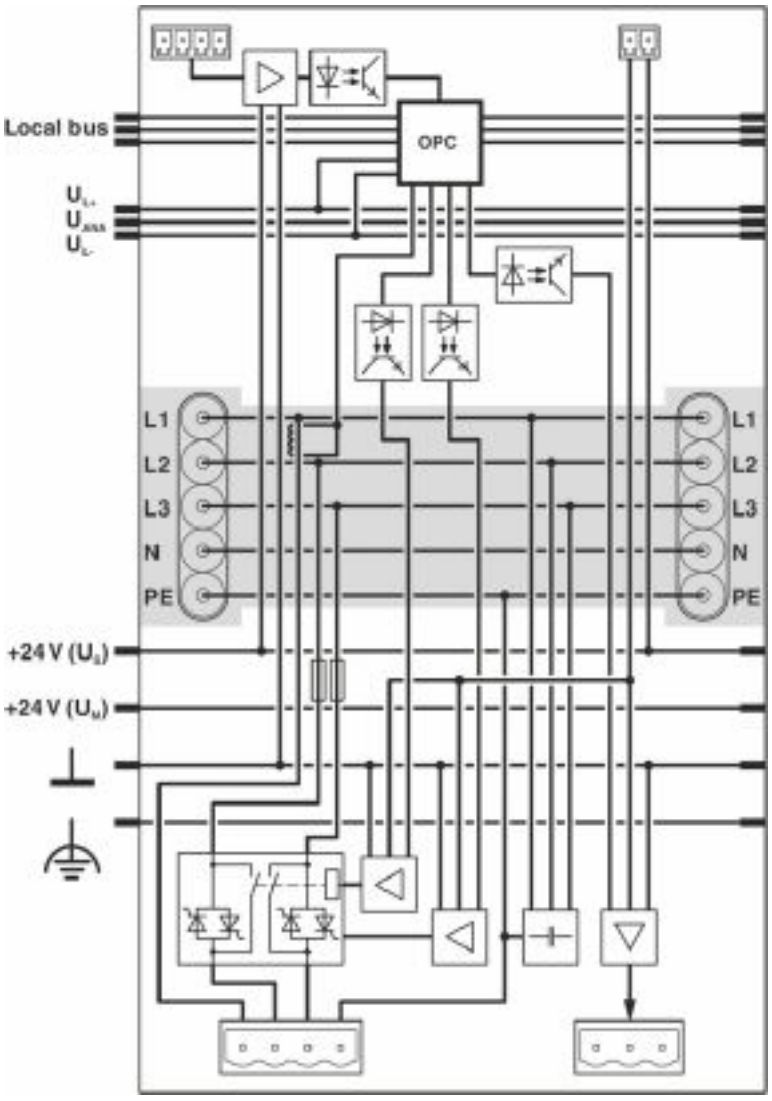
Block diagram



Internal wiring of connections

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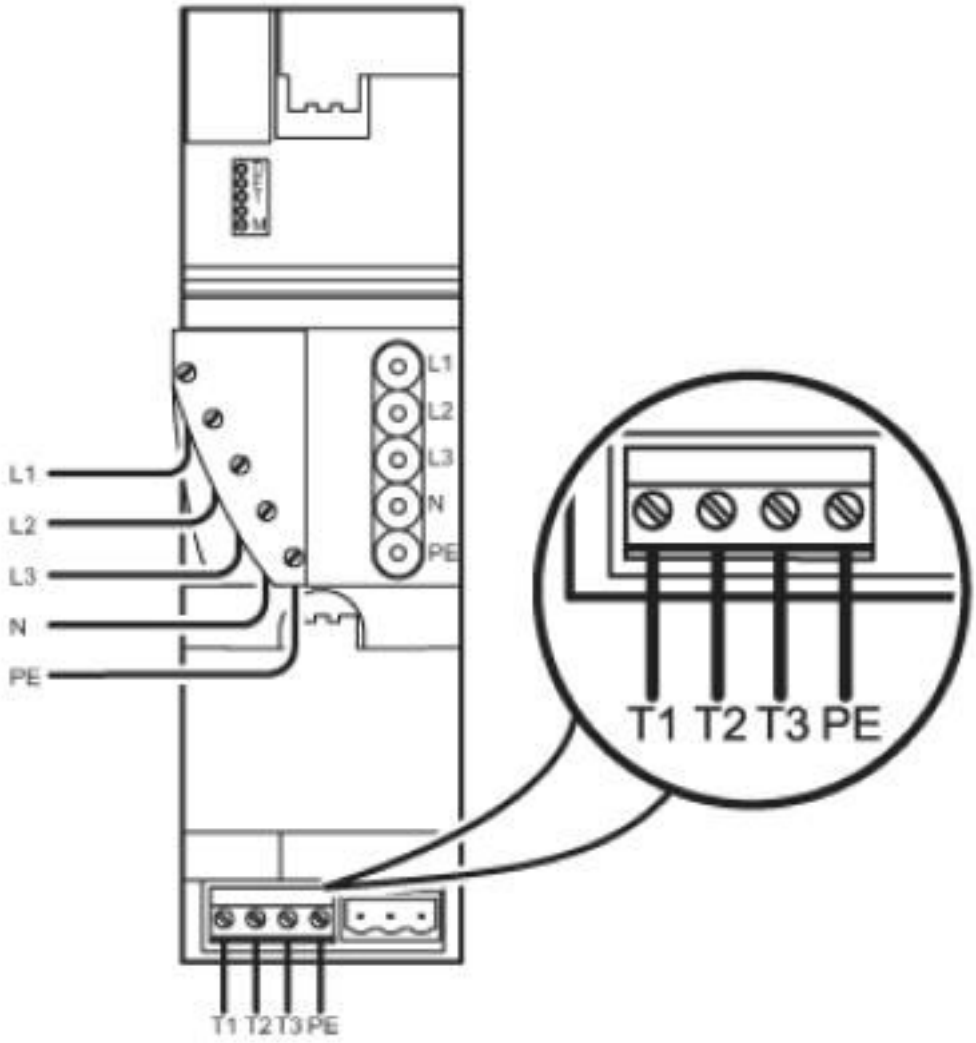
Connection diagram



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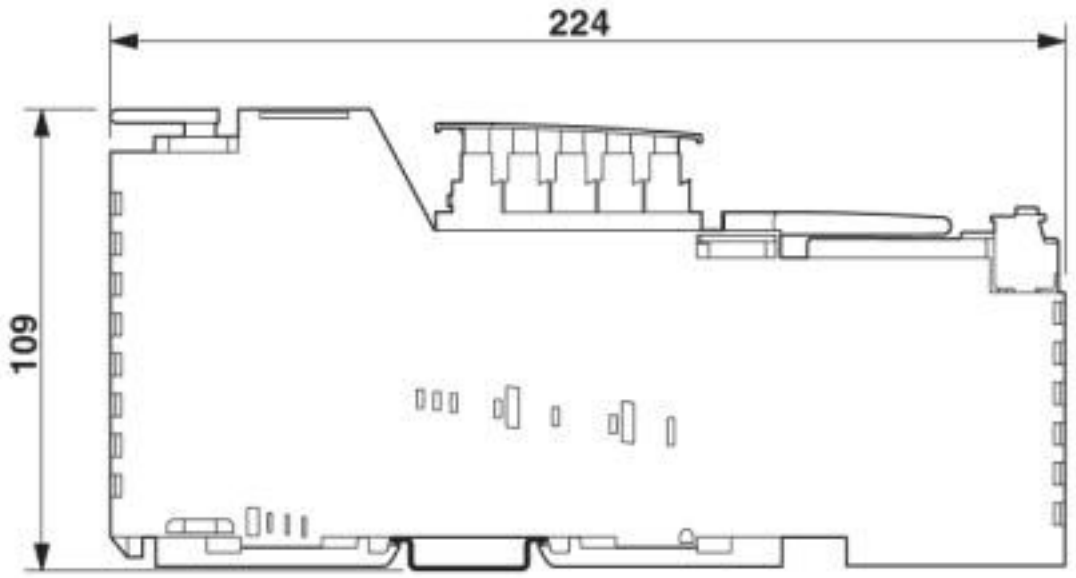
Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27242609
eCl@ss 11.0	27242609
eCl@ss 4.0	27250300
eCl@ss 4.1	27250300
eCl@ss 5.0	27250300
eCl@ss 5.1	27242600
eCl@ss 6.0	27242600
eCl@ss 7.0	27242609
eCl@ss 8.0	27242609
eCl@ss 9.0	27242609

ETIM

ETIM 2.0	EC001433
ETIM 3.0	EC001601
ETIM 4.0	EC001601
ETIM 5.0	EC001605
ETIM 6.0	EC001605
ETIM 7.0	EC001605

UNSPSC

UNSPSC 6.01	43172015
UNSPSC 7.0901	43201404
UNSPSC 11	43172015

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Classifications

UNSPSC

UNSPSC 12.01	43201404
UNSPSC 13.2	32151602
UNSPSC 18.0	32151602
UNSPSC 19.0	32151602
UNSPSC 20.0	32151602
UNSPSC 21.0	32151602

Approvals

Approvals

Approvals

EAC

Ex Approvals

Approval details

EAC	EAC	EAC-Zulassung

Accessories

Accessories

Bridge

Power bridge - IB IL 400 CN-BRG - 2836081

Power bridge, for Inline power-level terminal blocks

Power bridge - IB IL 400 CN-BRG - 2836081

Power bridge, for Inline power-level terminal blocks

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Accessories

Cover

Cover - IB IL 400 CN-COV - 2860947

Cover for the 400 V mains connection of the Inline power-level terminals

Extension module

Inline terminal - IB IL 400 BR - 2727394

Inline extension module, for brake control in conjunction with Inline power level terminals, brake module for 440 V DC or 440 V AC brakes

Fuse terminal block

Fuse modular terminal block - UK 10,3-HESI N - 3048386

Fuse modular terminal block, fuse type: Glass / ceramics / ..., connection method: Screw connection, cross section: 1.5 mm² - 25 mm², AWG: 16 - 4, nominal current: 32 A, nom. voltage: 690 V, width: 18 mm, fuse type: 10:3 x 38 mm, mounting type: NS 35/7,5, NS 35/15, color: black

I/O component

Inline function terminal - IB IL 24 TC-PAC - 2861360

Inline thermistor terminal block, complete with accessories (connector and labeling field), 2-wire connection method

PCB plug

Printed-circuit board connector - GMVSTBW 2,5 HV/ 4-ST-7,62 NZIL - 1893957

Motor-circuit connector, for Inline power-level terminal blocks

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Accessories

Printed-circuit board connector - MCVW 1,5/ 4-ST-3,81 - 1826995

PCB connector, nominal cross section: 1.5 mm², color: green, nominal current: 8 A, rated voltage (III/2): 160 V, contact surface: Tin, type of contact: Female connector, Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, number of connections: 4, product range: MCVW 1,5/..-ST, pitch: 3.81 mm, connection method: Screw connection with tension sleeve, conductor/PCB connection direction: -90 °, Stecksystem: MINI COMBICON, Locking: without, type of packaging: packed in cardboard

Plug

Power plug - IB IL 400 CN-PWR-IN - 2836078

Power plug, for Inline power-level terminals

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