

Bolt connection terminal block - RBO 12 - 3244627

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Bolt connection terminal block, Connection method: Bolt connection, Number of positions: 1, Cross section: 10 mm² - 240 mm², AWG: 8 - 500, Width: 49 mm, Color: gray, Mounting type: NS 35/7,5, NS 35/15

Why buy this product

- Tested for railway applications



Key Commercial Data

Packing unit	1 STK
Minimum order quantity	5 STK
Weight per Piece (excluding packing)	372.000 g
Custom tariff number	85369010
Country of origin	China

Technical data

Environmental Product Compliance

China RoHS	No hazardous substances above threshold values
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General

Number of positions	1
Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	240 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0

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Technical data

General

Area of application	Railway industry
	Machine building
	Plant engineering
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum load current	415 A (At 240 mm ² conductor cross section)
Nominal current I _N	415 A
Nominal voltage U _N	1000 V
Open side panel	No
Result of surge voltage test	Test passed
Surge voltage test setpoint	9.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2.2 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	20 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	240 mm ²
Short-time current	28.8 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 1, class B, body mounted
Test frequency	f ₁ = 5 Hz to f ₂ = 150 Hz
ASD level	1.857 (m/s ²) ² /Hz
Acceleration	0,8 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed

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Technical data

General

Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	5 g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Static insulating material application in cold	-60 °C
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3

Dimensions

Width	49 mm
Length	164 mm
Height NS 35/7,5	83.3 mm
Height NS 35/15	90.8 mm
Pitch	49 mm

Connection data

Note	Connection bolts
Connection method	Bolt connection
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	10 mm ²
Conductor cross section solid max.	240 mm ²
Conductor cross section AWG min.	8
Conductor cross section AWG max.	500

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Technical data

Connection data

Conductor cross section flexible min.	10 mm ²
Conductor cross section flexible max.	240 mm ²
Min. AWG conductor cross section, flexible	8
Max. AWG conductor cross section, flexible	500
Cable lug connection according to standard	DIN 46234
Min. cross section for cable lug connection	10 mm ²
Max. cross section for cable lug connection	240 mm ²
Hole diameter, min.	13 mm
Cable lug width, max.	38 mm
Bolt diameter	12 mm
Tightening torque, min	14 Nm
Tightening torque max	30 Nm
Cable lug connection according to standard	DIN 46235
Min. cross section for cable lug connection	25 mm ²
Max. cross section for cable lug connection	240 mm ²
Hole diameter, min.	13 mm
Cable lug width, max.	42 mm
Bolt diameter	12 mm
Screw thread	M12
Tightening torque, min	14 Nm
Tightening torque max	30 Nm
Screw thread	M12
Tightening torque, min	14 Nm
Tightening torque max	30 Nm

Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0

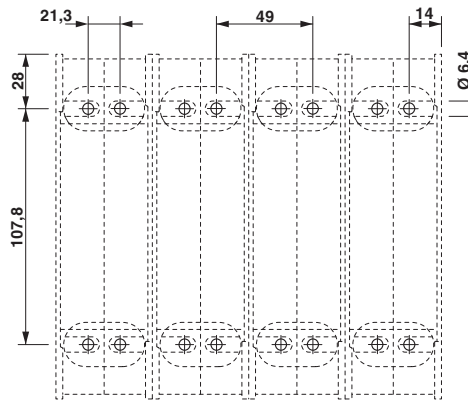
Drawings

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Circuit diagram



Dimensional drawing



Classifications

eCl@ss

eCl@ss 4.0	27141120
eCl@ss 4.1	27141120
eCl@ss 5.0	27141120
eCl@ss 5.1	27141120
eCl@ss 6.0	27141120
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 4.0	EC000897
ETIM 5.0	EC000897

UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

Approvals

Approvals

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Approvals


Approvals

UL Recognized / CSA / EAC / EAC


Ex Approvals

IECEX / ATEX / EAC Ex

Approval details

UL Recognized  <http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 60425

		B	C
mm ² /AWG/kcmil	8-600	8-600	8-600
Nominal current I _N	420 A	420 A	420 A
Nominal voltage U _N	1000 V	600 V	600 V

CSA  <http://www.csagroup.org/us/en/services/testing-and-certification/certified-product-listing> 13631

	C
mm ² /AWG/kcmil	8-600
Nominal current I _N	420 A
Nominal voltage U _N	1000 V

EAC EAC-Zulassung

EAC 7500651.22.01.00246

Accessories

Accessories

Bridge

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Accessories

Connection rail - RBO 12-VS 2 - 3244669



Connection rail, Number of positions: 2, Color: silver

Connection rail - RBO 12-VS 3 - 3244672



Connection rail, Number of positions: 3, Color: silver

Cover

Covering hood - HC-RBO 12 - 3247983



Covering hood, Connection method: Bolt connection, Width: 49 mm, Height: 33 mm, Color: gray

Covering hood - HC-RBO 12 BU - 3247985



Covering hood, Connection method: Bolt connection, Width: 49 mm, Height: 33 mm, Color: blue

Covering hood - HC-RBO 12-FE - 3247984



Covering hood, Connection method: Bolt connection, Width: 49 mm, Height: 33 mm, Color: black/yellow

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Accessories

DIN rail

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 7.5 mm, width 35 mm, length: 2000 mm

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, material: Steel, unperforated, height 7.5 mm, width 35 mm, length: 2 m

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail 35 mm (NS 35)

DIN rail - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail 35 mm (NS 35)

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, Width: 35 mm, Height: 7.5 mm, Length: 2000 mm, Color: silver

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Accessories

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail, material: Galvanized, perforated, height 7.5 mm, width 35 mm, length: 2 m

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, material: Galvanized, unperforated, height 7.5 mm, width 35 mm, length: 2 m

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, material: Copper, unperforated, height 7.5 mm, width 35 mm, length: 2 m

End cap - NS 35/ 7,5 CAP - 1206560



DIN rail end piece, for DIN rail NS 35/7.5

DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 15 mm, width 35 mm, length: 2000 mm

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Accessories

DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, material: Steel, unperforated, height 15 mm, width 35 mm, length: 2 m

DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602



DIN rail 35 mm (NS 35)

DIN rail - NS 35/15 WH UNPERF 2000MM - 1204135



DIN rail 35 mm (NS 35)

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, deep drawn, high profile, unperforated, 1.5 mm thick, material: aluminum, height 15 mm, width 35 mm, length 2000 mm

DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599



DIN rail, material: Galvanized, perforated, height 15 mm, width 35 mm, length: 2 m

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Accessories

DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586



DIN rail, material: Galvanized, unperforated, height 15 mm, width 35 mm, length: 2 m

DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, material: Copper, unperforated, 1.5 mm thick, height 15 mm, width 35 mm, length: 2 m

End cap - NS 35/15 CAP - 1206573



DIN rail end piece, for DIN rail NS 35/15

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, material: Steel, unperforated, 2.3 mm thick, height 15 mm, width 35 mm, length: 2 m

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

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Accessories

Labeled device marker

Label - EML (51X25)R YE /RBO8 - 0801353



Label, yellow/black, labeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK X1.2: Lightning flash, Mounting type: Adhesive, Lettering field: 51 x 25 mm

Labeled terminal marker

Zack marker strip - ZB 10 CUS - 0824941



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Zack marker strip - ZB10,LGS:FORTL.ZAHLEN - 1053014



Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Zack marker strip - ZB10,QR:FORTL.ZAHLEN - 1053027



Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Zack marker strip - ZB10,LGS:GLEICHE ZAHLEN - 1053030



Zack marker strip, Strip, white, labeled, can be labeled with: Plotter, Printed horizontally: Identical numbers 1 or 2, etc. up to 100, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

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Accessories

Marker for terminal blocks - ZB10,LGS:L1-N,PE - 1053412



Marker for terminal blocks, Strip, white, labeled, can be labeled with: Plotter, Horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Marker for terminal blocks - ZB10,LGS:U-N - 1053438



Marker for terminal blocks, Strip, white, labeled, can be labeled with: Plotter, Horizontal: U, V, W, N, GND, U, V, W, N, GND, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Marker for terminal blocks - UC-TM 10 CUS - 0824605



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 9.6 x 10.5 mm

Marker for terminal blocks - UCT-TM 10 CUS - 0829623



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 8.9 x 9.6 mm

Zack Marker strip, flat - ZBF10 CUS - 0825031



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 10 mm, Lettering field: 5.15 x 10 mm

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Accessories

Zack Marker strip, flat - ZBF10,LGS:FORTL.ZAHLEN - 0810009



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into flat marker groove, for terminal block width: 10 mm, Lettering field: 5.15 x 10 mm

Zack Marker strip, flat - ZBF10,QR:FORTL.ZAHLEN - 0810025



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into flat marker groove, for terminal block width: 10 mm, Lettering field: 5.15 x 10 mm

Marker for terminal blocks - UC-TMF 10 CUS - 0824662



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 10.2 mm, Lettering field: 9.6 x 5.1 mm

Marker for terminal blocks - UCT-TMF 10 CUS - 0829679



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into flat marker groove, for terminal block width: 10.2 mm, Lettering field: 9.4 x 4.7 mm

Marker carriers

Terminal strip marker carrier - KLM 3-L - 0814788



Terminal strip marker carrier, height-adjustable, for end brackets CLIPFIX 15, CLIPFIX 35 and CLIPFIX 35-5, can be labeled with BMK...20 x 8 labels, or directly with the M-PEN or X-PEN

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Accessories

Planning and marking software

Software - CLIP-PROJECT ADVANCED - 5146040



Multilingual software for convenient configuration of Phoenix Contact products on standard DIN rails.

Software - CLIP-PROJECT PROFESSIONAL - 5146053



Multilingual software for terminal strip configuration. A marking module enables the professional marking of markers and labels for identifying terminal blocks, conductors and cables, and devices.

Terminal marking

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.5 x 10.15 mm

Marker for terminal blocks - UC-TM 10 - 0818069



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 9.6 x 10.5 mm

Marker for terminal blocks - UCT-TM 10 - 0829142



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, THERMOMARK PRIME, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 8.9 x 9.6 mm

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Accessories

Zack Marker strip, flat - ZBF10:UNBEDRUCKT - 0809997



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 10 mm, Lettering field: 5.15 x 10 mm

Marker for terminal blocks - UC-TMF 10 - 0818124



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 10.2 mm, Lettering field: 9.6 x 5.1 mm

Marker for terminal blocks - UCT-TMF 10 - 0829204



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, THERMOMARK PRIME, Mounting type: Snap into flat marker groove, for terminal block width: 10.2 mm, Lettering field: 9.4 x 4.7 mm
