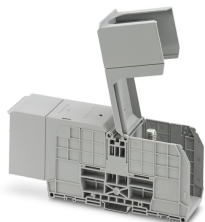


Bolt connection terminal block - RBO 12-HC - 3247986

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Bolt connection terminal block, nom. voltage: 1500 V, nominal current: 415 A, connection method: Bolt connection, 1 level, mounting type: NS 35/7,5, NS 35/15, direct screw connection, color: gray

Your advantages

- Tested for railway applications



Key Commercial Data

Packing unit	5 pc
GTIN	 4 046356 725132
GTIN	4046356725132

Technical data

General

Number of positions	1
Number of rows	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
Area of application	Railway industry
	Machine building
	Plant engineering
Mounting type	NS 35/7,5
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III

Bolt connection terminal block - RBO 12-HC - 3247986

Technical data

General

Insulating material group	I
Maximum power dissipation for nominal condition	13.78 W
Maximum load current	415 A (with 240 mm ² conductor cross section)
Nominal current I _N	415 A
Nominal voltage U _N	1500 V DC
	1000 V AC
Open side panel	No
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Note regarding shock protection	Touch proofness is effective only if the ring cable lug is insulated with a shrink sleeve and does not extend beyond the cover.
Result of surge voltage test	Test passed
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2.7 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
Result of temperature-rise test	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K
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)/Hz
Acceleration	0.8g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	5g
Shock duration	30 ms

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Technical data

General

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
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
Smoke gas toxicity NFPA 130 (SMP 800C)	passed
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	265 mm
Height NS 35/7,5	83.3 mm
Height NS 35/15	90.8 mm
Pitch	49 mm

Connection data

Connection	1 level
Connection method	Bolt connection
Stripping length	The stripping length depends on the specification provided by the cable lug manufacturer.
Connection in acc. with standard	IEC 60947-7-1
Cable lug connection according to standard	DIN 46234:1980-03
Min. cross section for cable lug connection	10 mm ²
Max. cross section for cable lug connection	240 mm ²
AWG min	8
AWG max	500 kcmil
Hole diameter, min.	13 mm
Cable lug width, max.	38 mm
Bolt diameter	12 mm
Screw thread	M12
Tightening torque, min	14 Nm
Tightening torque max	30 Nm
Cable lug connection according to standard	DIN 46235:1983-07
Min. cross section for cable lug connection	10 mm ²
Max. cross section for cable lug connection	240 mm ²

Bolt connection terminal block - RBO 12-HC - 3247986

Technical data

Connection data

AWG min	8
AWG max	500 kcmil
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

Ambient conditions

Operating temperature	-60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C

Standards and Regulations

Connection in acc. with standard	IEC 60947-7-1
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Environmental Product Compliance

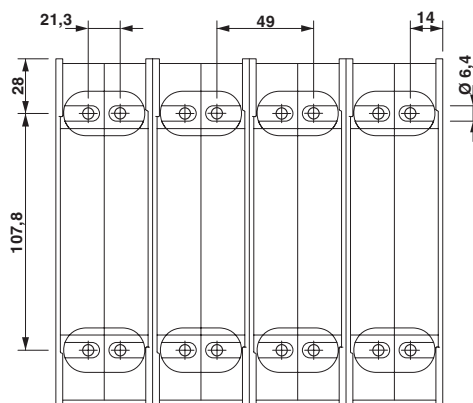
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Circuit diagram



Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27141120
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Bolt connection terminal block - RBO 12-HC - 3247986

Classifications

eCl@ss

eCl@ss 11.0	27141120
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

Approvals

Approvals

Approvals

CSA / EAC / UL Recognized

Ex Approvals

IECEX / EAC Ex / ATEX / CCC / NEPSI

Approval details

Bolt connection terminal block - RBO 12-HC - 3247986

Approvals

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
		C	
Nominal voltage UN	1000 V		
Nominal current IN	420 A		
mm ² /AWG/kcmil	8-600		

EAC			RU C- DE.BL08.B.00540
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UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425
		B	C
Nominal voltage UN	600 V	600 V	
Nominal current IN	420 A	420 A	
mm ² /AWG/kcmil	8-600	8-600	

Accessories

Accessories

Bridge

Connection rail - RBO 12-VS 2 - 3244669



Connection rail, color: silver

Connection rail - RBO 12-VS 3 - 3244672



Connection rail, color: silver

DIN rail

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

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



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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



DIN rail perforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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



DIN rail, unperforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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



DIN rail, unperforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

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



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

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



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

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



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

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 perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

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



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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



DIN rail perforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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



DIN rail, unperforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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



DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

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



DIN rail perforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

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



DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver

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



DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

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, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile 2.3 mm, color: silver

End block

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

Insulating sleeve

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

Insulating sleeve - PS-IH WH - 0311566



Insulating sleeve, color: white

Insulating sleeve - PS-IH RD - 0311579



Insulating sleeve, color: red

Insulating sleeve - PS-IH BU - 0311582



Insulating sleeve, color: blue

Insulating sleeve - PS-IH YE - 0311595



Insulating sleeve, color: yellow

Insulating sleeve - PS-IH GN - 0311605



Insulating sleeve, color: green

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

Insulating sleeve - PS-IH GY - 0311621



Insulating sleeve, color: gray

Insulating sleeve - PS-IH BK - 0311634



Insulating sleeve, color: black

Insulating sleeve - PS-IH VT - 0311618



Insulating sleeve, color: violet

Labeled device marker

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



Label, yellow/black, labeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2: Lightning flash, mounting type: adhesive, lettering field size: 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 size: 10.15 x 10.5 mm, Number of individual labels: 10

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

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



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

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



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snap into tall marker groove, for terminal block width: 10.2 mm, lettering field size: 10.15 x 10.5 mm, Number of individual labels: 10

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



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-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 size: 10.15 x 10.5 mm, Number of individual labels: 10

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



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-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 size: 10.15 x 10.5 mm, Number of individual labels: 10

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 size: 9.6 x 10.5 mm, Number of individual labels: 48

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

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 size: 8.9 x 9.6 mm, Number of individual labels: 36

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 size: 5.15 x 10 mm, Number of individual labels: 10

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 91 ... 100, mounting type: snap into flat marker groove, for terminal block width: 10 mm, lettering field size: 5.15 x 10 mm, Number of individual labels: 10

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 91 ... 100, mounting type: snap into flat marker groove, for terminal block width: 10 mm, lettering field size: 5.15 x 10 mm, Number of individual labels: 10

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 size: 9.6 x 5.1 mm, Number of individual labels: 48

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

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 size: 9.4 x 4.7 mm, Number of individual labels: 36

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

Pick-off terminal block

Pick-off terminal block - AGK PT 4X6/M12 - 1017454



Pick-off terminal block, nom. voltage: 1000 V, nominal current: 41 A, connection method: Push-in connection, 1 level, Rated cross section: 6 mm², cross section: 0.5 mm² - 10 mm², Bolt connection, 1 level, mounting type: on base element, color: gray

Planning and marking software

Software - PROJECT COMPLETE - 1050453



Intuitive planning and marking software for configuring terminal strips and for professional marking of marking materials for terminal blocks, conductors, cables, devices, and systems. The software is available for download

Terminal marking

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 10.5 x 10.15 mm, Number of individual labels: 10

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

Marker for terminal blocks - UC-TM 10 - 0818069



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 9.6 x 10.5 mm, Number of individual labels: 48

Marker for terminal blocks - UCT-TM 10 - 0829142



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 8.9 x 9.6 mm, Number of individual labels: 36

Zack Marker strip, flat - ZBF10:UNBEDRUCKT - 0809997



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 10 mm, lettering field size: 5.15 x 10 mm, Number of individual labels: 10

Marker for terminal blocks - UC-TMF 10 - 0818124



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 9.6 x 5.1 mm, Number of individual labels: 48

Marker for terminal blocks - UCT-TMF 10 - 0829204



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, for terminal block width: 10.2 mm, lettering field size: 9.4 x 4.7 mm, Number of individual labels: 36

Test plug terminal block

Bolt connection terminal block - RBO 12-HC - 3247986

Accessories

Test plugs - PS-MT - 0311647



Test plugs, color: silver

Warning label printed

Warning label - PML-W101 (25X25) - 0830433



Warning label, Sheet, yellow/black, labeled: Lightning flash, mounting type: adhesive, diameter: 0 mm, lettering field size: 25 x 25 mm, Number of individual labels: 25

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