

Bolt connection terminal block - RTO 5 - 3049521

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Bolt connection terminal block, Note: the BE-RT... path extension is to be used for non-insulated cable lugs (see accessories)., nom. voltage: 1000 V, nominal current: 41 A, connection method: Bolt connection, number of connections: 2, width: 16.3 mm, color: gray, mounting type: NS 35/7,5, NS 35/15

Your advantages

- ✔ Four bridge shafts per terminal block
- ✔ Terminal point always freely accessible



Key Commercial Data

Packing unit	50 pc
GTIN	 4 046356 140829
GTIN	4046356140829

Technical data

General

Note	Note: the BE-RT... path extension is to be used for non-insulated cable lugs (see accessories).
Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	6 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	1.31 W

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Technical data

General

Maximum load current	41 A (with 6 mm ² conductor cross section)
Nominal current I _N	41 A
Nominal voltage U _N	1000 V
Open side panel	Yes
Ambient temperature (operation)	-60 °C ... 85 °C
Ambient temperature (storage/transport)	-25 °C ... 55 °C (For a short time, not exceeding 24 h, -60 to +70 °C)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Result of surge voltage test	Test passed
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	5 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	6 mm ²
Short-time current	0.72 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 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
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2008-03
Shock form	Half-sine
Acceleration	5g
Shock duration	30 ms
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

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General

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	16.3 mm
End cover width	2.2 mm
Length	66 mm
Height NS 35/7,5	49.9 mm
Height NS 35/15	57.4 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	0.5 mm ²
Max. cross section for cable lug connection	6 mm ²
AWG min	20
AWG max	10
Hole diameter, min.	5.3 mm
Cable lug width, max.	10 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque, min	2.5 Nm
Tightening torque max	3 Nm
Cable lug connection according to standard	DIN 46237:1970-07
Min. cross section for cable lug connection	1 mm ²
Max. cross section for cable lug connection	6 mm ²
AWG min	16
AWG max	10
Hole diameter, min.	5.3 mm
Cable lug width, max.	10 mm
Bolt diameter	5 mm

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Technical data

Connection data

Screw thread	M5
Tightening torque, min	2.5 Nm
Tightening torque max	3 Nm

Standards and Regulations

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

Environmental Product Compliance

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

Drawings

Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27141120
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 8.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

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Classifications

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

UL Recognized / cUL Recognized / IEC EE CB Scheme / VDE Zeichengenehmigung / EAC / EAC / cULus Recognized

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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	30 A	30 A	

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	30 A	30 A	

IECEE CB Scheme		http://www.iecee.org/	DE1-62814
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Approvals

VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40022553
Nominal voltage UN	1000 V		
Nominal current IN	41 A		
mm ² /AWG/kcmil	0.14-6		

EAC		EAC-Zulassung
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EAC		RU C-DE.A*30.B.01742
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cULus Recognized	
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Accessories

Accessories

DIN rail

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



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

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



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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Accessories

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, 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, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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Accessories

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

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



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

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



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

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Accessories

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, Standard profile 2.3 mm, width: 35 mm, height: 15 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

End block

End clamp - CLIPFIX 35 - 3022218



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, width: 9.5 mm, color: gray

End clamp - CLIPFIX 35-5 - 3022276



Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray

End clamp - E/NS 35 N - 0800886



End clamp, width: 9.5 mm, color: gray

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Accessories

End clamp - E/UK - 1201442



End clamp, width: 9.5 mm, height: 35.3 mm, material: PA, length: 50.5 mm, Mounting on a DIN rail NS 32 or NS 35, color: gray

End clamp - E/UK 1 - 1201413



End clamps, for supporting the ends of double-level and three-level terminal blocks, width: 10 mm, color: gray

End cover

End cover - D-RT 3/5 - 3049097



End cover, length: 65 mm, width: 2.2 mm, height: 50.4 mm, color: gray

Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



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Accessories

Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



Jumper

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Accessories

Plug-in bridge - FBS 2-8 - 3030284



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: red

Plug-in bridge - FBS 3-8 - 3030297



Plug-in bridge, pitch: 8.2 mm, width: 22.9 mm, number of positions: 3, color: red

Plug-in bridge - FBS 4-8 - 3030307



Plug-in bridge, pitch: 8.2 mm, width: 31.1 mm, number of positions: 4, color: red

Plug-in bridge - FBS 5-8 - 3030310



Plug-in bridge, pitch: 8.2 mm, width: 39.3 mm, number of positions: 5, color: red

Plug-in bridge - FBS 10-8 - 3030323



Plug-in bridge, pitch: 8.2 mm, width: 80.3 mm, number of positions: 10, color: red

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Accessories

Plug-in bridge - FBS 2-8 CT - 3033830



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: orange

Plug-in bridge - FBS 3-8 CT - 3033831



Plug-in bridge, pitch: 8.2 mm, width: 22.9 mm, number of positions: 3, color: orange

Plug-in bridge - FBS 4-8 CT - 3033832



Plug-in bridge, pitch: 8.2 mm, width: 31.1 mm, number of positions: 4, color: orange

Plug-in bridge - FBS 10-8 CT - 3033833



Plug-in bridge, pitch: 8.2 mm, width: 80.3 mm, number of positions: 10, color: orange

Plug-in bridge - FBS 2-8 BU - 3032567



Plug-in bridge, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: blue

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Accessories

Plug-in bridge - FBS 3-8 BU - 3032570



Plug-in bridge, pitch: 8.2 mm, width: 22.9 mm, number of positions: 3, color: blue

Plug-in bridge - FBS 4-8 BU - 3032583



Plug-in bridge, pitch: 8.2 mm, width: 31.1 mm, number of positions: 4, color: blue

Plug-in bridge - FBS 5-8 BU - 3032596



Plug-in bridge, pitch: 8.2 mm, width: 39.3 mm, number of positions: 5, color: blue

Plug-in bridge - FBS 6-8 BU - 3032677



Plug-in bridge, pitch: 8.2 mm, width: 47.5 mm, number of positions: 6, color: blue

Plug-in bridge - FBS 10-8 BU - 3032606



Plug-in bridge, pitch: 8.2 mm, width: 80.3 mm, number of positions: 10, color: blue

Labeled terminal marker

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Accessories

Zack marker strip - ZB 16 CUS - 0827463



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 10.5 x 16 mm, Number of individual labels: 5

Zack marker strip - ZB 16,LGS:L1-N,PE - 0827462



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 16.3 mm, lettering field size: 10.5 x 16.25 mm, Number of individual labels: 5

Marker for terminal blocks - UC-TM 16 CUS - 0824621



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: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

Marker for terminal blocks - UCT-TM 16 CUS - 0829637



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: 16 mm, lettering field size: 14.8 x 9.6 mm, Number of individual labels: 18

Zack marker strip - ZB 16,3 CUS - 0824946



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16.3 mm, lettering field size: 10.5 x 16.25 mm, Number of individual labels: 5

Partition plate

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Accessories

Partition plate - TPNS-UK - 0706647



Partition plate, length: 80 mm, width: 2 mm, height: 70 mm, color: gray

Spacer plate - DP PS-8 - 3036741



Spacer plate, length: 22.4 mm, width: 8.2 mm, height: 29 mm, number of positions: 1, color: red

Protective cap

Path extension - BE-RT 3/5 - 3049819



Path extension, color: gray

Short-circuit connector

Short-circuit connector - FBSRH 2-8 - 3033802



Short-circuit connector, pitch: 8.2 mm, width: 14.7 mm, number of positions: 2, color: red

Short-circuit connector - FBSRH 3-8 - 3033803



Short-circuit connector, pitch: 8.2 mm, width: 22.9 mm, number of positions: 3, color: red

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Accessories

Short-circuit connector - FBSRH 4-8 - 3033804



Short-circuit connector, pitch: 8.2 mm, width: 31.1 mm, number of positions: 4, color: red

Socket spanner

Tool - SHN 8 - 1209868



Socket wrench, wrench size 8 mm

Terminal marking

Zack marker strip - ZB 16:UNPRINTED - 0827461



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 16 x 10.5 mm, Number of individual labels: 50

Marker for terminal blocks - UC-TM 16 - 0819217



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

Marker for terminal blocks - UCT-TM 16 - 0829146



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: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 14.8 x 9.6 mm, Number of individual labels: 18

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Accessories

Zack marker strip - ZB 16,3:UNPRINTED - 0820222



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 16.3 mm, lettering field size: 10.5 x 16.25 mm, Number of individual labels: 5

Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

Test plugs - PS-8 - 3031005



Test plugs, Modular test plug, color: red

Test plugs - PS-8/2,3MM RD - 3048564



Test plugs, color: red

Test socket

Test adapter - PAI-4-N GY - 3032871



4 mm test adapter, for terminal blocks with 5.2 mm, 6.2 mm and 8.2 mm pitch

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