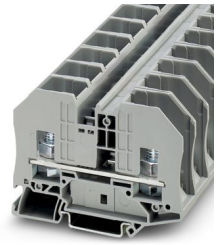
RTO 8 - Bolt connection terminal block

3049343

https://www.phoenixcontact.com/us/products/3049343

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Bolt connection terminal block, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 2, number of positions: 1, connection method: Bolt connection, Rated cross section: 35 mm^2, mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

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

Commercial data

Item number	3049343
Packing unit	25 pc
Minimum order quantity	25 pc
Sales key	BE43
Product key	BE4312
GTIN	4046356140058
Weight per piece (including packing)	80.432 g
Weight per piece (excluding packing)	79.4 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Notes

General	Note: the BE-RT... path extension is to be used for non-insulated cable lugs (see accessories).

Product properties

Product type	Bolt connection terminal block
Product family	RTO
Number of positions	1
Number of connections	2
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	4.06 W

Connection data

Number of connections per level	2
Nominal cross section	35 mm²

Level 1 above 1 below 1

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
Nominal cross section	35 mm²
Nominal current	125 A
Maximum load current	125 A (with 35 mm² conductor cross-section)
Nominal voltage	1000 V

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm² ... 35 mm²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	16 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 10 Nm

Connection in acc. with standard	DIN 46235:1983-07
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 10 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm² ... 6 mm²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 10 Nm
Identification color of ring cable lugs : blue	2.5 mm²
Identification color of ring cable lugs : yellow	6 mm²

Ex data

Rated data (ATEX/IECEx)

Identification	Ⓔx II 2 G Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3049194 D-RT 8
	3003062 TPN-UK
	1209923 SHN 13
	3022276 CLIPFIX 35-5
List of bridges	Plug-in bridge / FBS 2-10 / 3005947
	Plug-in bridge / FBS 5-10 / 3005948
Bridge data	57 A (10 mm²)
Ex temperature increase	40 K (123 A / 35 mm²)
for bridging with bridge	690 V
Rated insulation voltage	630 V
output	(Permanent)

Ex level General

Rated voltage	690 V
Rated current	123 A
Maximum load current	123 A
Contact resistance	0.09 mΩ

Ex connection data General

Torque range	6 Nm ... 10 Nm
Nominal cross section	35 mm²
Rated cross section AWG	2

Connection capacity rigid	2.5 mm² ... 35 mm²
Connection capacity AWG	14 ... 2
Connection capacity flexible	2.5 mm² ... 35 mm²
Connection capacity AWG	14 ... 2

Dimensions

Width	20.2 mm
End cover width	2.2 mm
Height	84 mm
Depth on NS 35/7,5	62.2 mm
Depth on NS 35/15	69.7 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
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
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

Electrical tests

Surge voltage test

Test voltage setpoint	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
	Test passed
Short-time withstand current 35 mm²	4.2 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes

Mechanical tests

Mechanical strength

Result	Test passed

Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	10 N
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2022-06
Spectrum	Long life test category 2, bogie-mounted
Frequency	f_1 = 5 Hz to f_2 = 250 Hz
ASD level	6.12 $(m/s^2)^2/Hz$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)

Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

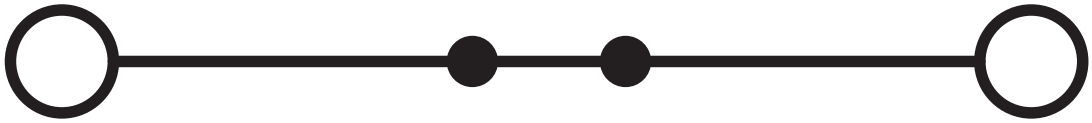
Connection in acc. with standard	IEC 60947-7-1

Mounting

Mounting type	NS 35/7,5
	NS 35/15

Drawings

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3049343

IECEE CB Scheme
Approval ID: DE1-62814

VDE approval of drawings
Approval ID: 40022553

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	1000 V	125 A	-	2.5 - 35

cULus Recognized
Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	130 A	-	-
C				
	600 V	130 A	-	-

EAC Ex
Approval ID: KZ 7500525010101950

IECEx
Approval ID: IECExPTB08.0063U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	690 V	123 A	-	2.5 - 35

ATEX
Approval ID: PTB09ATEX1003U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	690 V	123 A	-	2.5 - 35

CCC
Approval ID: 2020322313000627

UKCA-EX
Approval ID: CSAE 22UKEX1085U

Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

ETIM

ETIM 10.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%

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