

RTO 5-TC - Feed-through terminal block



3049961
<https://www.phoenixcontact.com/us/products/3049961>

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Feed-through terminal block, nom. voltage: 1000 V, nominal current: 41 A, number of connections: 2, connection method: Bolt connection, 1 level, Rated cross section: 6 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Four bridge shafts per terminal block
- Easy bridging and potential distribution using the patented plug-in bridges from the CLIPLINE complete system
- The screws are secured against loosening by captive spring-loaded spacers
- Large-surface labeling options in the terminal center and above the terminal points
- Terminal point always freely accessible

Commercial data

Item number	3049961
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE43
Product key	BE4312
Catalog page	Page 381 (C-1-2019)
GTIN	4046356431385
Weight per piece (including packing)	32.81 g
Weight per piece (excluding packing)	32.81 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Notes

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

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

Data management status

Article revision	01
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	1.31 W

Connection data

Number of connections per level	2
Nominal cross section	6 mm ²

1 level

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 current	41 A
Maximum load current	41 A (with 6 mm ² conductor cross section)
Nominal voltage	1000 V
Nominal cross section	6 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	0.5 mm ² ... 6 mm ²
Cross section range AWG	20 ... 10 (converted acc. to IEC)
Hole diameter	5.3 mm
Width	10 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque	2.5 ... 3 Nm
Connection in acc. with standard	DIN 46237:1970-07

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Cross section	1 mm² ... 6 mm²
Cross section range AWG	16 ... 10 (converted acc. to IEC)
Hole diameter	5.3 mm
Width	10 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque	2.5 ... 3 Nm
Identification color of ring cable lugs : red	1 mm²
Identification color of ring cable lugs : blue	2.5 mm²
Identification color of ring cable lugs : yellow	6 mm²

Dimensions

Width	16.3 mm
End cover width	2.2 mm
Height	66 mm
Depth on NS 35/7,5	51 mm
Depth on NS 35/15	58.5 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
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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

Result	Test passed
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Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 6 mm²	0.72 kA

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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
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):2018-05
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis

Shocks	
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, no longer than 24 h, -60°C to +70°C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C

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Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

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

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

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Drawings

Circuit diagram



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Approvals

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EAC

Approval ID: RU C-DE.A*30.B.01742



EAC

Approval ID: RU C-DE.BL08.B.00540

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 9.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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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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