

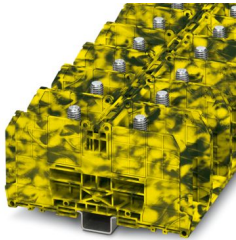
RBO 12-FE - Bolt connection terminal block



3244628

<https://www.phoenixcontact.com/us/products/3244628>

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Bolt connection terminal block, nom. voltage: 1000 V, nominal current: 415 A, number of connections: 2, number of positions: 1, connection method: Bolt connection, 1 level, Rated cross section: 240 mm², mounting type: NS 35/7,5, NS 35/15, direct screw connection, color: black/yellow

Your advantages

- Tested for railway applications

Commercial data

Item number	3244628
Packing unit	5 pc
Minimum order quantity	5 pc
Sales key	BE44
Product key	BE4412
Catalog page	Page 391 (C-1-2019)
GTIN	4046356724456
Weight per piece (including packing)	375.5 g
Weight per piece (excluding packing)	375.5 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Bolt connection terminal block
Area of application	Railway industry
	Machine building
	Plant engineering
Number of positions	1
Pitch	49 mm
Number of connections	2
Number of rows	1
Potentials	1

Data management status

Article revision	04
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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	13.78 W

Connection data

Number of connections per level	2
Nominal cross section	240 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	415 A
Maximum load current	415 A (with 240 mm ² conductor cross section)
Nominal voltage	1000 V
Nominal cross section	240 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	10 mm ² ... 240 mm ²
Cross section range AWG	8 ... 500 kcmil (converted acc. to IEC)
Hole diameter	13 mm
Width	38 mm
Bolt diameter	12 mm
Screw thread	M12

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Tightening torque	14 ... 30 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	10 mm ² ... 240 mm ²
Cross section range AWG	8 ... 500 kcmil (converted acc. to IEC)
Hole diameter	13 mm
Width	42 mm
Bolt diameter	12 mm
Screw thread	M12
Tightening torque	14 ... 30 Nm

Ex data

Rated data (ATEX/IECEx)

Identification	Ex II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	3247983 HC-RBO 12 0800886 E/NS 35 N
List of bridges	/ RBO 12-VS 2 / 3244669 / RBO 12-VS 3 / 3244672
Bridge data	415 A / 240 mm ²
Ex temperature increase	40 K (415 A / 240 mm ²)
Rated voltage	1100 V
for bridging with bridge	1100 V
Rated insulation voltage	1000 V
output	(Permanent)

Ex level General

Rated current	415 A
Maximum load current	415 A
Contact resistance	0.05 mΩ

Ex connection data General

Torque range	14 Nm ... 30 Nm
Nominal cross section	240 mm ²
Rated cross section AWG	500 kcmil
Connection capacity rigid	10 mm ² ... 240 mm ²
Connection capacity AWG	8 ... 500 kcmil
Connection capacity flexible	10 mm ² ... 240 mm ²
Connection capacity AWG	8 ... 500 kcmil
2 conductors with same cross section, solid	10 mm ² ... 240 mm ²
2 conductors with the same cross-section AWG rigid	8 ... 500 kcmil
2 conductors with same cross section, stranded	10 mm ² ... 240 mm ²
2 conductors with the same cross-section AWG flexible	8 ... 500 kcmil

Dimensions

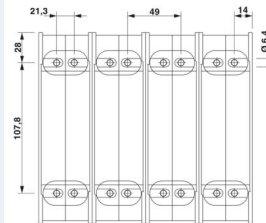
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Dimensional drawing



Width	49 mm
Height	164 mm
Depth on NS 35/7,5	83.3 mm
Depth on NS 35/15	90.8 mm
Bolt length	36.5 mm
Hole diameter	6.4 mm
Pitch	49 mm

Material specifications

Color	multicolored
	black (RAL 9005)
	yellow (RAL 1018)
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

Mechanical properties

Mechanical data

Open side panel	No
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Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
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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
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
	direct screw connection

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Drawings

Circuit diagram



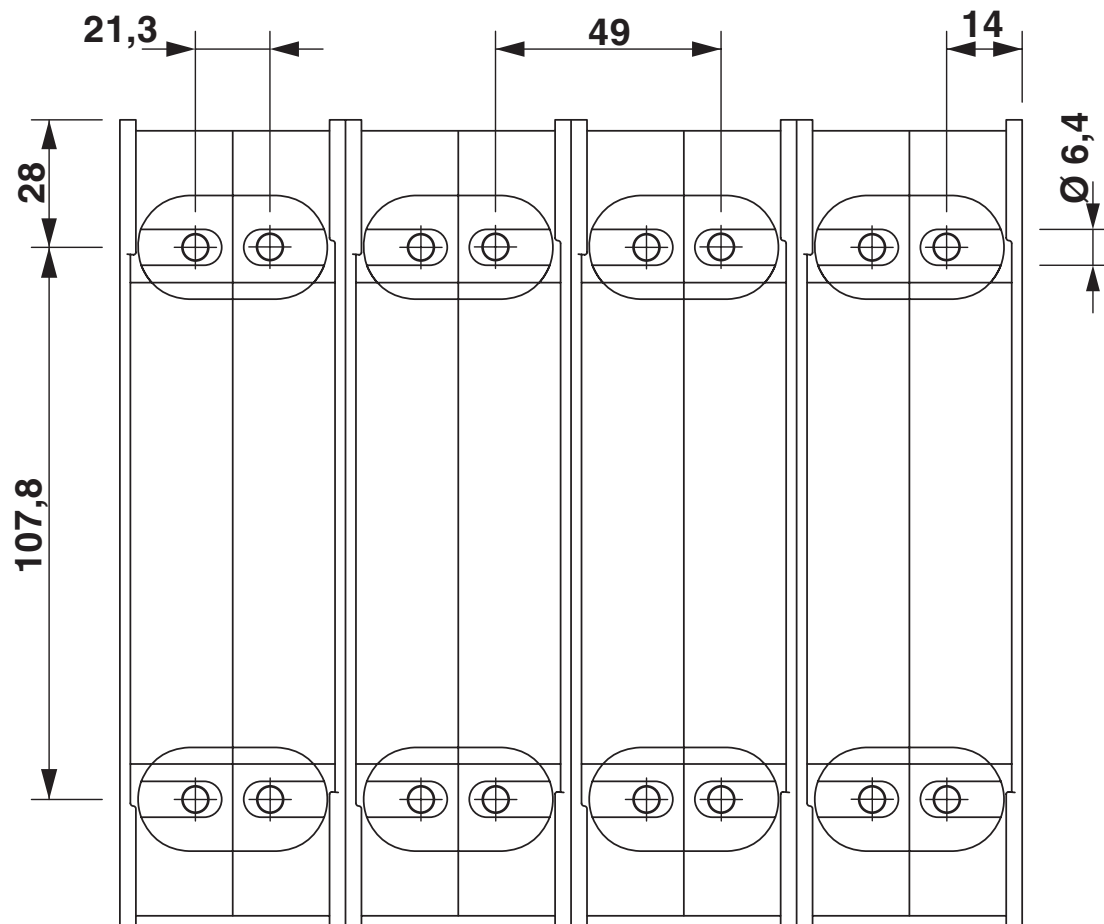
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Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3244628>

CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group C				
	1000 V	420 A	8 - 600	-

UL Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	420 A	8 - 600	-
Use group C				
	600 V	420 A	8 - 600	-
Use group E				
	1000 V	420 A	8 - 600	-

EAC Approval ID: RU C-DE.BL08.B.00540				
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DNV Approval ID: TAE00004G1				
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IECEx Approval ID: IECExSEV13.0003U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1100 V	415 A	-	10 - 240

ATEX Approval ID: SEV13ATEX0132U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1100 V	415 A	-	10 - 240

CCC Approval ID: 2020322313000627				
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UKCA-EX

Approval ID: CML 22UKEX1230U

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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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