

# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Bolt connection terminal block, nom. voltage: 1500 V, nominal current: 192 A, number of connections: 2, number of positions: 1, connection method: Bolt connection, Rated cross section: 70 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, direct screw connection, color: black/yellow

## Your advantages

- Mounting on standard DIN rails or directly in control boxes
- Tested for railway applications

## Commercial data

Item number	3247975
Packing unit	5 pc
Minimum order quantity	5 pc
Sales key	BE44
Product key	BE4412
GTIN	4046356725095
Weight per piece (including packing)	195.6 g
Weight per piece (excluding packing)	176.92 g
Customs tariff number	85369010
Country of origin	CN

# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

## Technical data

### Product properties

Product type	Bolt connection terminal block
Product family	RBO
Area of application	Railway industry
	Machine building
	Plant engineering
Number of positions	1
Pitch	29 mm
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	6.27 W

### Connection data

Number of connections per level	2
Nominal cross section	70 mm <sup>2</sup>
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	70 mm <sup>2</sup>
Nominal current	192 A
Maximum load current	192 A (with 70 mm <sup>2</sup> conductor cross-section)
Nominal voltage	1500 V

### Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm <sup>2</sup> ... 70 mm <sup>2</sup>
Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	22 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 12 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	16 mm <sup>2</sup> ... 70 mm <sup>2</sup>

# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

Cross section range AWG	(converted acc. to IEC)
Hole diameter	8.4 mm
Width	24 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 12 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
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 ... 12 Nm
Identification color of ring cable lugs : blue	2.5 mm <sup>2</sup>
Identification color of ring cable lugs : yellow	6 mm <sup>2</sup>

## Ex data

### Rated data (ATEX/IECEx)

Identification	⊕ II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	0800886 E/NS 35 N
List of bridges	/ RBO 8-VS 2 / 3213179 / RBO 8-VS 3 / 3213182
Bridge data	187 A (70 mm <sup>2</sup> )
Ex temperature increase for bridging with bridge	40 K (187 A / 70 mm <sup>2</sup> ) 690 V
Rated insulation voltage output	630 V (Permanent)

### Ex level General

Rated voltage	690 V
Rated current	187 A
Maximum load current	187 A
Contact resistance	0.06 mΩ

### Ex connection data General

Torque range	6 Nm ... 12 Nm
Nominal cross section	70 mm <sup>2</sup>
Rated cross section AWG	2/0
Connection capacity flexible	2.5 mm <sup>2</sup> ... 70 mm <sup>2</sup>
Connection capacity AWG	12 ... 2/0
2 conductors with same cross section, stranded	2.5 mm <sup>2</sup> ... 70 mm <sup>2</sup>
2 conductors with the same cross-section AWG flexible	12 ... 2/0

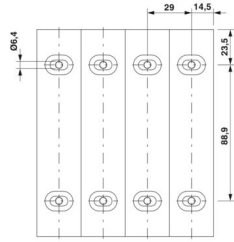
# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

## Dimensions

Dimensional drawing	
Width	29 mm
Height	184 mm
Depth	66 mm
Depth on NS 35/7,5	67 mm
Depth on NS 35/15	74.5 mm
Bolt length	20.5 mm
Hole diameter	6.4 mm
Pitch	29 mm

## Material specifications

Color	multicolored (RAL -) 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
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

# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

Short-time withstand current 70 mm <sup>2</sup>	8.4 kA
Result	Test passed

## Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	No
-----------------	----

## 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

### Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross-section/weight	70 mm <sup>2</sup> /10.4 kg
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	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

### Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g

# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

## 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
	direct screw connection

# RBO 8-FE-HC - Bolt connection terminal block

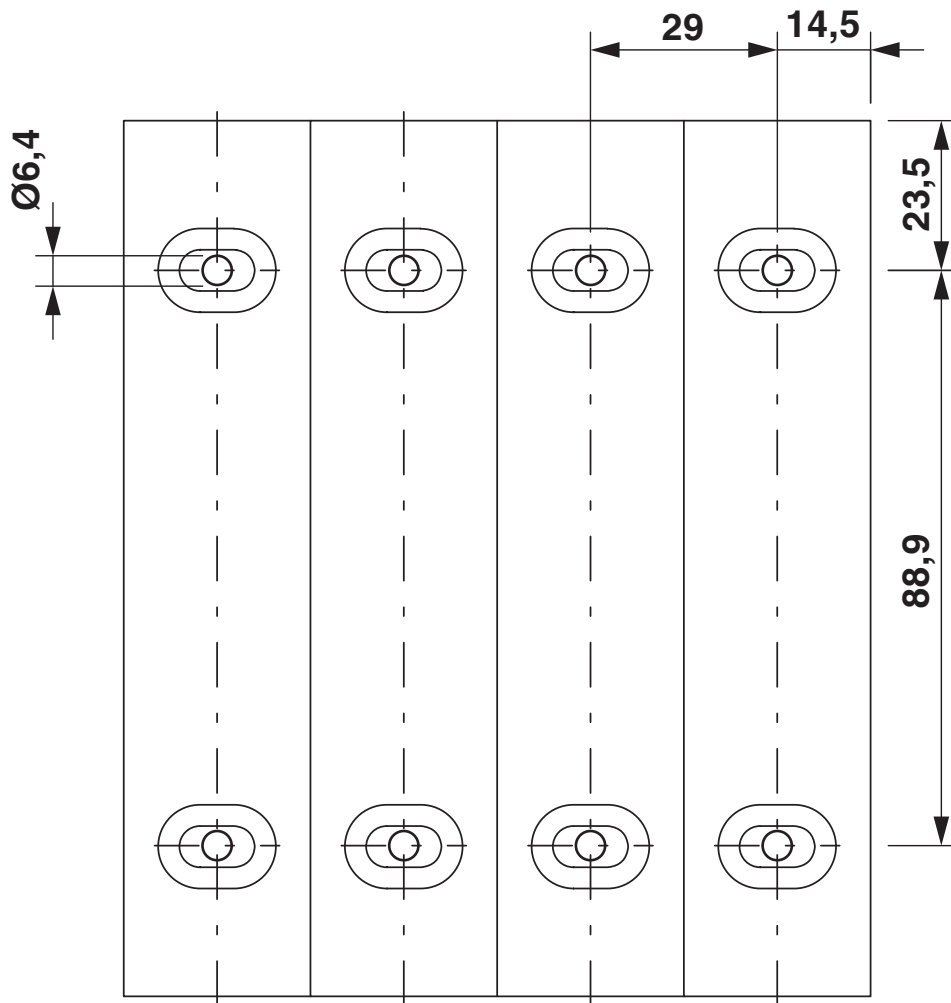


3247975

<https://www.phoenixcontact.com/us/products/3247975>

## Drawings

Dimensional drawing



# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

Circuit diagram



# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3247975>



**EAC**

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

**DNV**

Approval ID: TAE00004G1



**cULus Recognized**

Approval ID: E60425

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B	600 V	175 A	-	-
C	600 V	175 A	-	-



**IECEX**

Approval ID: IECEXSEV13.0003U

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine	690 V	187 A	-	2.5 - 70



**ATEX**

Approval ID: SEV13ATEX0132U

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine	690 V	187 A	-	2.5 - 70



**CCC**

Approval ID: 2020322313000627



**UKCA-EX**

Approval ID: CML 22UKEX1230U



**EAC Ex**

Approval ID: KZ 7500525010101950

# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

## Classifications

### ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

### ETIM

ETIM 10.0	EC000897
-----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# RBO 8-FE-HC - Bolt connection terminal block



3247975

<https://www.phoenixcontact.com/us/products/3247975>

## 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%
-------------------------------------	----------------------------

### EF3.1 Climate Change

CO2e kg	1.521 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)