

UKH 70-F BU - High-current terminal block



3247063

<https://www.phoenixcontact.com/sg/products/3247063>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 192 A, number of connections: 2, number of positions: 1, connection method: Screw connection, Rated cross section: 70 mm², cross section: 16 mm² - 70 mm², mounting type: direct screw connection, color: blue

Your advantages

- Reliable cable connection is ensured by three-point centering of the conductor in the prismatic sleeve base
- Screw locking by means of spring-loaded elements in the clamping part
- Tested for railway applications
- Low contact resistance of the contact surface due to ribbing

Commercial data

Item number	3247063
Packing unit	10 pc
Minimum order quantity	10 pc
Note	Made to order (non-returnable)
Sales key	*****
Product key	BE1311
GTIN	4046356733311
Weight per piece (including packing)	166.72 g
Weight per piece (excluding packing)	151.9 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	High current terminal block
Area of application	Railway industry
	Machine building
	Plant engineering
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	6.27 W

Connection data

Number of connections per level	2
Nominal cross section	70 mm ²

Level 1 above 1 below 1

Screw thread	M8
Tightening torque	8 ... 10 Nm
Stripping length	24 mm
Internal cylindrical gage	A11
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	16 mm ² ... 70 mm ²
Cross section AWG	4 ... 2/0 (converted acc. to IEC)
Conductor cross section flexible	25 mm ² ... 70 mm ²
Conductor cross section, flexible [AWG]	2 ... 2/0 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	16 mm ² ... 70 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	16 mm ² ... 70 mm ²
2 conductors with same cross section, solid	16 mm ² ... 25 mm ²
2 conductors with same cross section, flexible	16 mm ² ... 25 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	16 mm ² ... 25 mm ²
Nominal current	192 A
Maximum load current	192 A (with 70 mm ² conductor cross section)
Nominal voltage	1000 V
Note	Note: Product releases, connection cross sections and notes on connecting aluminum cables can be found in the download area.

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Nominal cross section	70 mm ²
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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	1201934 VDE-ISS 6
List of bridges	/ FBI 2-20 N EX / 3213210 / FBI 3-20 N EX / 3213211
Bridge data	180 A (70 mm ²)
Ex temperature increase	40 K (180 A / 70 mm ²)
Rated voltage	690 V
Rated insulation voltage	630 V
output	(Permanent)


Ex level General

Rated current	180 A
Maximum load current	180 A
Contact resistance	0.08 mΩ

Ex connection data General

Torque range	8 Nm ... 10 Nm
Nominal cross section	70 mm ²
Rated cross section AWG	2/0
Connection capacity rigid	16 mm ² ... 95 mm ²
Connection capacity AWG	4 ... 3/0
Connection capacity flexible	25 mm ² ... 70 mm ²
Connection capacity AWG	3 ... 2/0
2 conductors with same cross section, solid	16 mm ² ... 25 mm ²
2 conductors with the same cross-section AWG rigid	4 ... 3
2 conductors with same cross section, stranded	16 mm ² ... 25 mm ²
2 conductors with the same cross-section AWG flexible	4 ... 3

Dimensions

Dimensional drawing	
Width	20.3 mm
Height	70.5 mm
Depth	80 mm
Hole diameter	5.5 mm

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Material specifications

Color	blue (RAL 5015)
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

Test voltage setpoint	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 70 mm ²	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
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

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

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Result	Test passed
Test for conductor damage and slackening	
Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross section/weight	16 mm ² / 2.9 kg
	70 mm ² /10.4 kg
	95 mm ² /14 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 ²) ² /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):2022-06
Pulse shape	Half-sine
Acceleration	5g
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
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Mounting

Mounting type	direct screw connection
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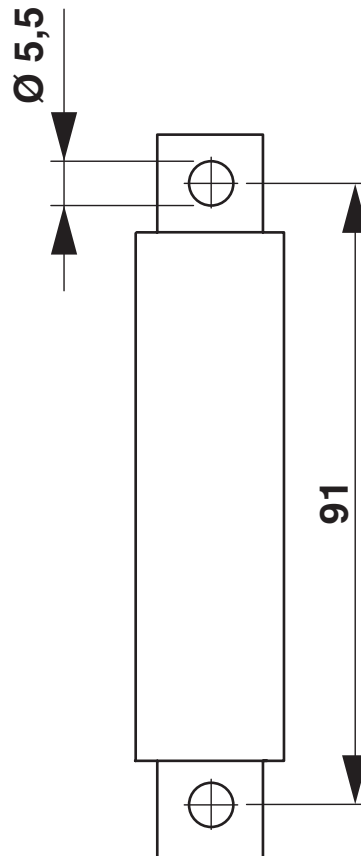
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Drawings

Dimensional drawing



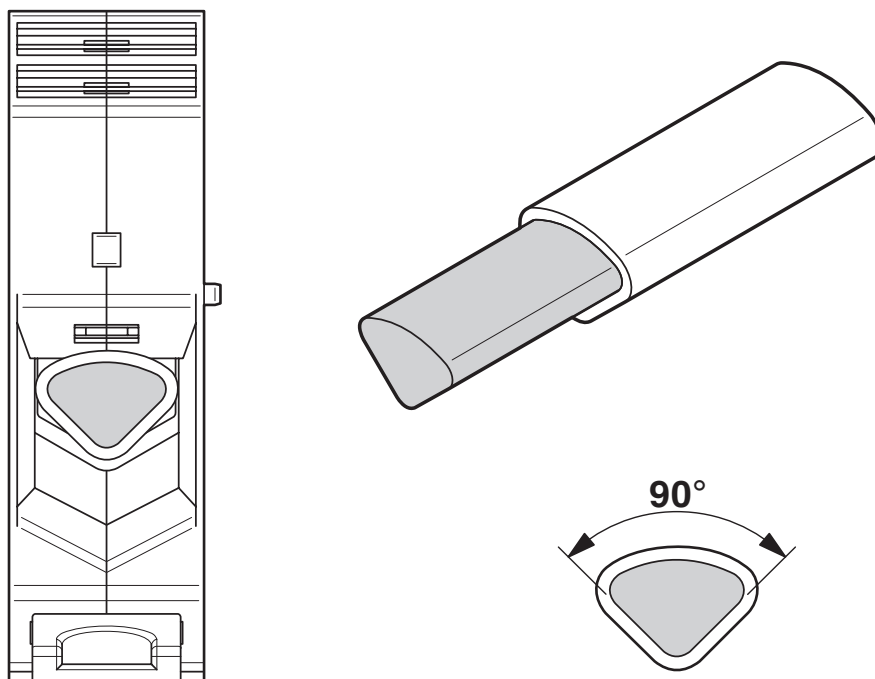
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Schematic diagram



Connecting aluminum cables. Further notes can be found in the download area

Circuit diagram



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
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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/3247063>

 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group C	1000 V	192 A	6 - 3/0	-
Use group E	1000 V	192 A	6 - 3/0	-

 IECEx Approval ID: IECEx SEV12.0008U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Mounting on NS 32	690 V	180 A	-	25 - 70
Mounting on NS 35	880 V	180 A	-	25 - 70

 ATEX Approval ID: SEV12ATEX0168U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Mounting on NS 32	690 V	180 A	-	25 - 70
Mounting on NS 35	880 V	180 A	-	25 - 70

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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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