

3010217

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High-current terminal block, nom. voltage: 1000 V, nominal current: 415 A, number of connections: 2, connection method: Screw connection, Rated cross section: 240 mm<sup>2</sup>, cross section: 70 mm<sup>2</sup> - 240 mm<sup>2</sup>, mounting type: NS 35/15, NS 32, color: gray

### Your advantages

- Reliable cable connection is ensured by three-point centering of the conductor in the prismatic sleeve base<br/>br/>
- · Low contact resistance of the contact surface due to ribbing
- · Screw locking by means of spring-loaded elements in the clamping part

#### Commercial data

Item number	3010217
Packing unit	3 pc
Minimum order quantity	3 pc
Sales key	BE13
Product key	BE1311
GTIN	4017918091873
Weight per piece (including packing)	496.067 g
Weight per piece (excluding packing)	476 g
Customs tariff number	85369010
Country of origin	IN



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### Technical data

#### Notes

General
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Note	For a reliable contact of multi stranded conductors it is
	recommended to untwist multi stranded conductors.

### Product properties

Product type	High current terminal block
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	13.78 W

#### Connection data

Number of connections per level	2
Nominal cross section	240 mm²

#### Level 1 above 1 below 1

Level 1 above 1 below 1	
Connection method	Screw connection
Screw thread	M10
Note	Screws with hexagonal socket
Tightening torque	25 30 Nm
Stripping length	40 mm
Internal cylindrical gage	B15
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	70 mm² 240 mm²
Cross section AWG	3/0 250 kcmil (converted acc. to IEC)
Conductor cross-section flexible	70 mm² 240 mm²
Conductor cross-section, flexible [AWG]	3/0 350 kcmil (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	70 mm² 185 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	70 mm² 185 mm²
Cross-section with insertion bridge, rigid	240 mm²
Cross-section with insertion bridge, flexible	185 mm²
2 conductors with same cross section, solid	35 mm² 95 mm²
2 conductors with same cross section, flexible	50 mm² 95 mm²
2 conductors with same cross section, flexible, with ferrule	35 mm² 50 mm²



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without plastic sleeve	
Nominal current	415 A
Maximum load current	415 A (with 240 mm² 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.
Nominal cross section	240 mm²

#### Ex data

Rated data	(ATEX/	IECEx)
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Identification	
Operating temperature range	-60 °C 110 °C
Ex-certified accessories	1201947 VDE-ISS 8
	1201659 E/AL-NS 32
	1201662 E/AL-NS 35
List of bridges	Insertion bridge / EB 2-36/UKH / 0201401
	Insertion bridge / EB 3-36/UKH / 0201414
Bridge data	270 A (240 mm²)
Ex temperature increase	40 K (389 A/240 mm²)
at bridging with insertion bridge	690 V
Rated insulation voltage	1000 V
output	(Permanent)

#### Ex level General

Rated voltage	1100 V
Rated current	350 A
Maximum load current	350 A
Contact resistance	0.03 mΩ

### Ex connection data General

Stripping length	40 mm
Torque range	25 Nm 30 Nm
Nominal cross section	240 mm²
Rated cross section AWG	500 kcmil
Connection capacity rigid	70 mm² 240 mm²
Connection capacity AWG	2/0 500 kcmil
Connection capacity flexible	70 mm² 240 mm²
Connection capacity AWG	2/0 500 kcmil
2 conductors with same cross section, solid	35 mm² 95 mm²
2 conductors with the same cross-section AWG rigid	2 3/0
2 conductors with same cross section, stranded	50 mm² 95 mm²
2 conductors with the same cross-section AWG flexible	1/0 3/0

### Dimensions



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Dimensional drawing	24
Width	36 mm
Height	100 mm
Depth	123.6 mm
Depth on NS 32	129 mm
Depth on NS 35/15	131.5 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
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

Result	Test passed
Short-time withstand current 240 mm²	28.8 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
open diag pane.	

#### Mechanical tests

#### Mechanical strength

Result	Test passed



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Attachment on the carrier	
DIN rail/fixing support	NS 32/NS 35
Result	Test passed
Test for conductor damage and slackening	
Test for conductor damage and slackening  Rotation speed	10 (+/- 2) rpm
	10 (+/- 2) rpm 135

240 mm<sup>2</sup>/20.0 kg

Test passed

#### Environmental and real-life conditions

Needle-flame test	Need	le-fl	ame	test
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Result

Time of exposure	30 s
Result	Test passed
Oscillation/broadband noise	
Specification	DIN EN 50155 (VDE 0115-200):2022-06

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/s²)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



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	Connection in acc. with standard	IEC 60947-7-1
М	ounting	
	Mounting type	NS 35/15
		NS 32



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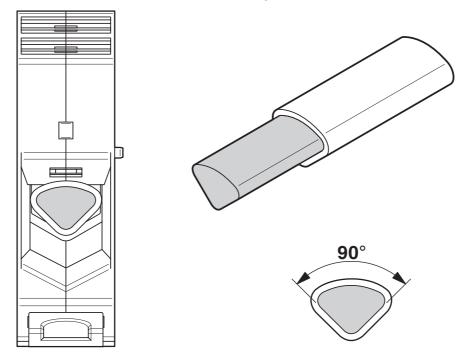


## Drawings

Dimensional drawing

61
92

Schematic diagram



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



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Circuit diagram





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### **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3010217

	CSA Approval ID: 13631				
		Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
В					
		600 V	400 A	1/0 - 500	-
С					
		600 V	400 A	1/0 - 500	-

cULus Recognized Approval ID: E60425				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
В				
	600 V	380 A	2/0 - 500	-
Multi-conductor connection	600 V	380 A	2 - 3/0	-
С				
	600 V	380 A	2/0 - 500	-
Multi-conductor connection	600 V	380 A	2 - 3/0	-

**DNV**Approval ID: TAE00001CT

ATEX Approval ID: KEMA99ATEX8332U				
	Nominal voltage $U_N$	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
Type examination certificate	1100 V	350 A	-	70 - 240

Approval ID: IECEx KEM 06.0030U				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	1100 V	350 A	-	70 - 240



CCC

Approval ID: 2020322313000623



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UL Comp Hazloc CA US Approval ID: UL US CA L 192998				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
keine				
	600 V	380 A	2/0 - 500	-



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### Classifications

UNSPSC 21.0

#### **ECLASS**

	ECLASS-13.0	27250101
	ECLASS-15.0	27250101
ET	ТІМ	
	ETIM 9.0	EC000897
UN	NSPSC	

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%
EF3.0 Climate Change	
CO2e kg	1.673 kg CO2e

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