

UKH 240 - High-current terminal block



3010217

<https://www.phoenixcontact.com/sg/products/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 mm², cross section: 70 mm² - 240 mm², 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
- 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	1 pc
Minimum order quantity	1 pc
Sales key	0100*
Product key	BE1311
Catalog page	Page 199 (C-1-2019)
GTIN	4017918091873
Weight per piece (including packing)	487.667 g
Weight per piece (excluding packing)	476 g
Customs tariff number	85369010
Country of origin	IN

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Technical data

Notes

General

Note	For a reliable contact of multi stranded conductors it is recommended to untwist multi stranded conductors.
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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 mm ²

Level 1 above 1 below 1

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 mm ² ... 240 mm ²
Cross section AWG	3/0 ... 250 kcmil (converted acc. to IEC)
Conductor cross section flexible	70 mm ² ... 240 mm ²
Conductor cross section, flexible [AWG]	3/0 ... 350 kcmil (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	70 mm ² ... 185 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	70 mm ² ... 185 mm ²
Cross-section with insertion bridge, rigid	240 mm ²
Cross-section with insertion bridge, flexible	185 mm ²
2 conductors with same cross section, solid	35 mm ² ... 95 mm ²
2 conductors with same cross section, flexible	50 mm ² ... 95 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	35 mm ² ... 50 mm ²

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Nominal current	415 A
Maximum load current	415 A (with 240 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.
Nominal cross section	240 mm ²

Ex data

Rated data (ATEX/IECEX)

Identification	⊕ II 2 GD Ex eb IIC Gb
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 mm ²)
Ex temperature increase	40 K (389 A/240 mm ²)
Rated voltage	1100 V
at bridging with insertion bridge	690 V
Rated insulation voltage	1000 V
output	(Permanent)

Ex level General

Rated current	350 A
Maximum load current	350 A
Contact resistance	0.03 mΩ

Ex connection data General

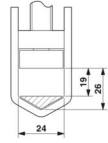
Stripping length	40 mm
Torque range	25 Nm ... 30 Nm
Nominal cross section	240 mm ²
Rated cross section AWG	500 kcmil
Connection capacity rigid	70 mm ² ... 240 mm ²
Connection capacity AWG	2/0 ... 500 kcmil
Connection capacity flexible	70 mm ² ... 240 mm ²
Connection capacity AWG	2/0 ... 500 kcmil
2 conductors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

Dimensions

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Dimensional drawing	
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 mm ²	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
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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
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross section/weight	70 mm ² /10.4 kg 240 mm ² /20.0 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

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

Mounting type	NS 35/15
	NS 32

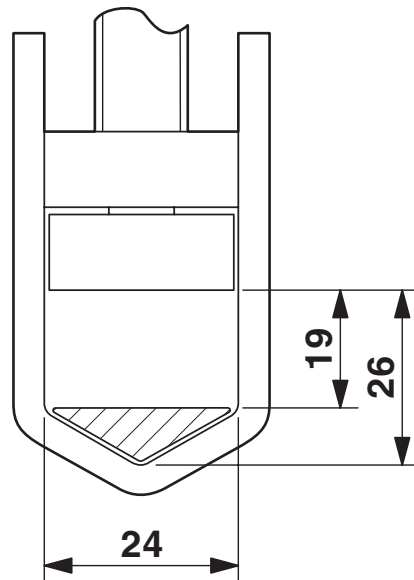
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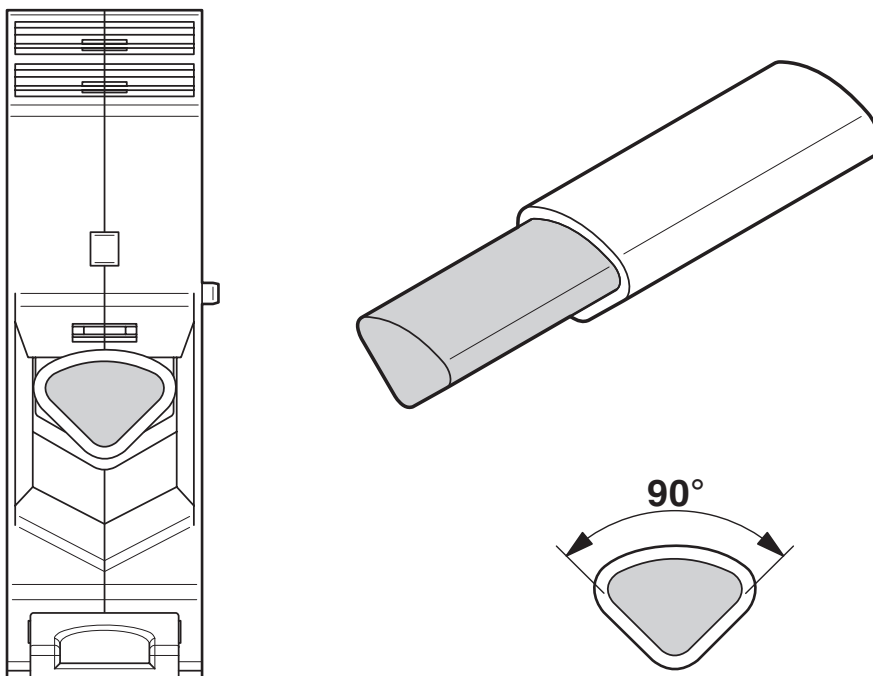
<https://www.phoenixcontact.com/sg/products/3010217>

Drawings

Dimensional drawing



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/sg/products/3010217>

DNV

Approval ID: TAE00001CT



CSA

Approval ID: 13631

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	400 A	1/0 - 500	-
Use group C	600 V	400 A	1/0 - 500	-



cULus Recognized

Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	380 A	2/0 - 500	-
Multi-conductor connection	600 V	380 A	2 - 3/0	-
Use group C	600 V	380 A	2/0 - 500	-
Multi-conductor connection	600 V	380 A	2 - 3/0	-



LR

Approval ID: LR2041789TA-02



ATEX

Approval ID: KEMA99ATEX8332U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Type examination certificate	1100 V	350 A	-	70 - 240



IECEx

Approval ID: IECEx KEM 06.0030U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1100 V	350 A	-	70 - 240

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CCC

Approval ID: 2020322313000623



UKCA-EX

Approval ID: DEKRA 21UKEX0309U

UL Comp Hazloc CA US

Approval ID: UL US CA L 192998

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	600 V	380 A	2/0 - 500	-

cULus Recognized

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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
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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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EF3.0 Climate Change

CO2e kg	1.673 kg CO2e
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