

UKH 240-F - High-current terminal block



3247048

<https://www.phoenixcontact.com/us/products/3247048>

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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: direct screw connection, 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	3247048
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE13
Product key	BE1311
Catalog page	Page 199 (C-1-2019)
GTIN	4046356607278
Weight per piece (including packing)	528.84 g
Weight per piece (excluding packing)	494.17 g
Customs tariff number	85369010
Country of origin	IN

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Technical data

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
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

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3247048

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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	1201947 VDE-ISS 8
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)

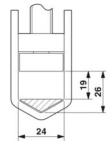
Ex level General

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

Dimensional drawing	
Width	36 mm
Height	136.1 mm
Depth	124 mm
Hole diameter	6.5 mm

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3247048

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Material specifications

Color	gray
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

UKH 240-F - High-current terminal block



3247048

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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	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
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, 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	direct screw connection
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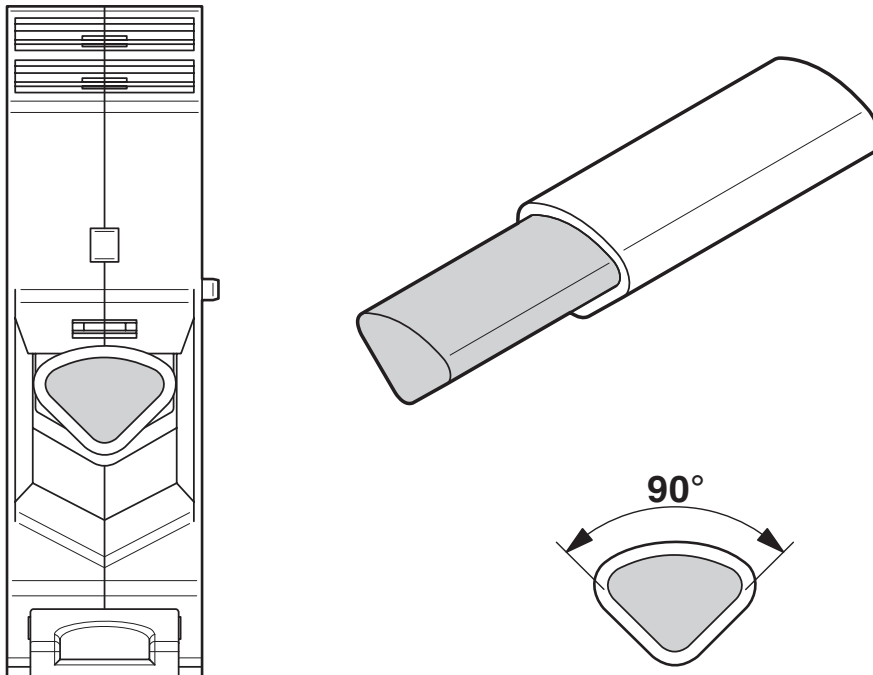
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Drawings

Schematic diagram



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

Circuit diagram



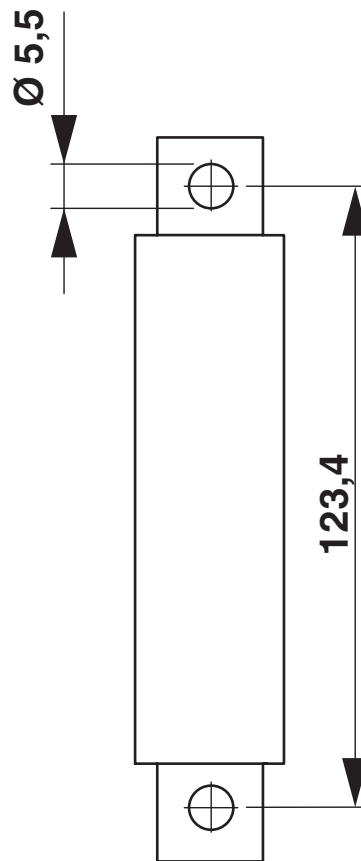
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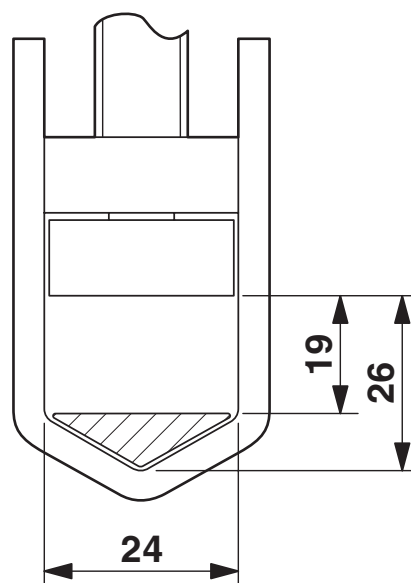
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Dimensional drawing



Dimensional drawing



UKH 240-F - High-current terminal block



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3247048>



EAC

Approval ID: RU C-DE.BL08.B.00534



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	-



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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3247048

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 8.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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3247048

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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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Accessories

i Note: Applying some accessories below might limit this product.

EB 3-36/UKH - Insertion bridge

0201414

<https://www.phoenixcontact.com/us/products/0201414>



Insertion bridge, pitch: 36 mm, number of positions: 3, color: gray

i Max. current carrying capacity: 382 A

EB 2-36/UKH - Insertion bridge

0201401

<https://www.phoenixcontact.com/us/products/0201401>



Insertion bridge, pitch: 36 mm, number of positions: 2, color: gray

i Max. current carrying capacity: 382 A

UKH 240-F - High-current terminal block



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ZB 22:UNBEDRUCKT - Zack marker strip

0811862

<https://www.phoenixcontact.com/us/products/0811862>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 22 mm, lettering field size: 10.5 x 21.8 mm, Number of individual labels: 4

ZB 22 CUS - Zack marker strip

0824949

<https://www.phoenixcontact.com/us/products/0824949>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 22 mm, lettering field size: 10.5 x 21.8 mm, Number of individual labels: 4

UKH 240-F - High-current terminal block

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ZB 22,LGS:L1-N,PE - Zack marker strip

0811875

<https://www.phoenixcontact.com/us/products/0811875>



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snapped, for terminal block width: 22 mm, lettering field size: 10.5 x 21.8 mm, Number of individual labels: 50

TMT 10 R - Marker for terminal blocks

0816210

<https://www.phoenixcontact.com/us/products/0816210>



Marker for terminal blocks, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, perforated, mounting type: snapped, snap into flat marker groove, for terminal block width: 10.2 mm, lettering field size: 6.35 x 10.15 mm, Number of individual labels: 10000

UKH 240-F - High-current terminal block

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TMT 10 R CUS - Marker for terminal blocks

0824500

<https://www.phoenixcontact.com/us/products/0824500>



Marker for terminal blocks, can be ordered: by line, white, labeled according to customer specifications, mounting type: snap into universal marker groove, snap into flat marker groove, for terminal block width: 10.2 mm, lettering field size: 6.35 x 10.15 mm

WS-2K - Warning label

1004513

<https://www.phoenixcontact.com/us/products/1004513>



Adhesive warning plate, self-adhesive, black print: lightning flash with mixed version - "Vorsicht Spannung - Attention Danger" size of label: 32 x 26 mm

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UKH 150/240 EP - Insertion profile

3009244

<https://www.phoenixcontact.com/us/products/3009244>

Insertion profile, color: silver



AGK 10-UKH 150/240 - Pick-off terminal block

3003554

<https://www.phoenixcontact.com/us/products/3003554>



Pick-off terminal block, nom. voltage: 1000 V, nominal current: 57 A, number of connections: 1, connection method: Screw connection, Rated cross section: 10 mm², cross section: 0.5 mm² - 10 mm², mounting type: on base element, color: gray

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3247048

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X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/us/products/0811228>



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

SF-THEX 8-200 - Screwdriver

1212643

<https://www.phoenixcontact.com/us/products/1212643>



T-handle screwdriver, for Allen screws, hexagonal (with chamfer), size: hex 8 x 200 mm, ergonomically shaped handle, matt chrome-plated

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