

## High-current terminal block - UKH 240 - 3010217

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High-current terminal block, nom. voltage: 1000 V, nominal current: 415 A, connection method: Screw connection, number of connections: 2, cross section: 70 mm<sup>2</sup> - 240 mm<sup>2</sup>, AWG: 2/0 - 500 kcmil, width: 36 mm, height: 123.6 mm, color: gray, mounting type: NS 35/15, NS 32

### Why buy this product

- ✓ 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



### Key Commercial Data

Packing unit	1 STK
GTIN	 4 017918 091873
GTIN	4017918091873
Weight per Piece (excluding packing)	520.000 g
Custom tariff number	85369010
Country of origin	China

### Technical data

#### General

Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	240 mm <sup>2</sup>
Color	gray
Insulating material	PA

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## Technical data

### General

Flammability rating according to UL 94	V0
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	13.78 W
Maximum load current	415 A (At 240 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	415 A
Nominal voltage U <sub>N</sub>	1000 V
Open side panel	No
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Note regarding shock protection	Finger-safe protection is not guaranteed if bridges are positioned.
Result of surge voltage test	Test passed
Surge voltage test setpoint	9.8 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2.2 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	70 mm <sup>2</sup> /10.4 kg
	240 mm <sup>2</sup> /20.0 kg
Tensile test result	Test passed
Conductor cross section tensile test	70 mm <sup>2</sup>
Tractive force setpoint	285 N
Conductor cross section tensile test	240 mm <sup>2</sup>
Tractive force setpoint	578 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 32/NS 35
Setpoint	20 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed

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## Technical data

### General

Conductor cross section short circuit testing	240 mm <sup>2</sup>
Short-time current	28.8 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Static insulating material application in cold	-60 °C
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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

### Dimensions

Width	36 mm
Length	100 mm
Height	123.6 mm
Height NS 35/15	131.5 mm
Height NS 32	129 mm

### Connection data

Note	Screws with hexagonal socket
Connection method	Screw connection
Connection in acc. with standard	IEC 60947-7-1
Note	Note: Product releases, connection cross sections and notes on connecting aluminum cables can be found in the download area.
Conductor cross section solid min.	70 mm <sup>2</sup>
Conductor cross section solid max.	240 mm <sup>2</sup>
Conductor cross section AWG min.	2/0
Conductor cross section AWG max.	500 kcmil
Conductor cross section flexible min.	70 mm <sup>2</sup>

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## Technical data

### Connection data

Conductor cross section flexible max.	240 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	2/0
Max. AWG conductor cross section, flexible	500 kcmil
Conductor cross section flexible, with ferrule without plastic sleeve min.	70 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	185 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	70 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	185 mm <sup>2</sup>
Cross section with insertion bridge, solid max.	240 mm <sup>2</sup>
Cross section with insertion bridge, stranded max.	185 mm <sup>2</sup>
2 conductors with same cross section, solid min.	35 mm <sup>2</sup>
2 conductors with same cross section, solid max.	95 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	50 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	95 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	35 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	50 mm <sup>2</sup>
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	70 mm <sup>2</sup>
Conductor cross section solid max.	240 mm <sup>2</sup>
Conductor cross section AWG min.	2/0
Conductor cross section AWG max.	500
Conductor cross section flexible min.	70 mm <sup>2</sup>
Conductor cross section flexible max.	185 mm <sup>2</sup>
Stripping length	40 mm
Internal cylindrical gage	B15
Screw thread	M10
Tightening torque, min	25 Nm
Tightening torque max	30 Nm

### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3

# High-current terminal block - UKH 240 - 3010217

## Technical data

### Environmental Product Compliance

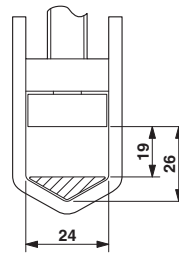
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

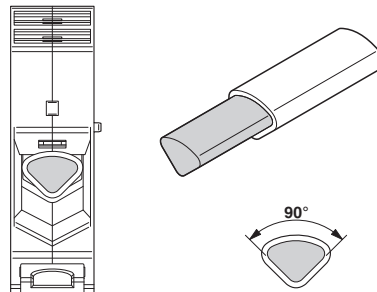
Circuit diagram



Dimensional drawing



Schematic diagram



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

## Classifications

eCl@ss

eCl@ss 4.0	27141120
eCl@ss 4.1	27141120
eCl@ss 5.0	27141120
eCl@ss 5.1	27141120
eCl@ss 6.0	27141120
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

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## Classifications

### ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	EC000897
ETIM 6.0	EC000897

### UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410

## Approvals

### Approvals


#### Approvals

CSA / UL Recognized / PRS / EAC / EAC / DNV GL / PRS

#### Ex Approvals


IECEX / ATEX / UL Recognized / cUL Recognized / EAC Ex / cULus Recognized


### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	C	
mm <sup>2</sup> /AWG/kcmil	1/0-500	1/0-500	
Nominal current I <sub>N</sub>	400 A	400 A	
Nominal voltage U <sub>N</sub>	600 V	600 V	


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## Approvals


UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	C	
mm <sup>2</sup> /AWG/kcmil	2/0-500	2/0-500	
Nominal current I <sub>N</sub>	380 A	380 A	
Nominal voltage U <sub>N</sub>	600 V	600 V	

PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/1824/880590/09
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EAC			EAC-Zulassung
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EAC			7500651.22.01.00246
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DNV GL		<a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a>	TAE00001CT
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PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2156/880590/17
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## Accessories

### Accessories

#### DIN rail

DIN rail perforated - NS 32 PERF 2000MM - 1201002



DIN rail perforated, G profile, width: 32 mm, height: 15 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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### Accessories

DIN rail, unperforated - NS 32 UNPERF 2000MM - 1201015



DIN rail, unperforated, G profile, width: 32 mm, height: 15 mm, in acc. with EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/15 PERF 2000MM - 1201730



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/15 UNPERF 2000MM - 1201714



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/15 WH PERF 2000MM - 0806602



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, Galvanized, white passivated, length: 2000 mm, color: white

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DIN rail, unperforated - NS 35/15 WH UNPERF 2000MM - 1204135



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, Galvanized, white passivated, length: 2000 mm, color: white

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## High-current terminal block - UKH 240 - 3010217

### Accessories

DIN rail, unperforated - NS 35/15 AL UNPERF 2000MM - 1201756



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Aluminum, uncoated, length: 2000 mm, color: silver

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DIN rail perforated - NS 35/15 ZN PERF 2000MM - 1206599



DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/15 ZN UNPERF 2000MM - 1206586



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Steel, galvanized, length: 2000 mm, color: silver

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DIN rail, unperforated - NS 35/15 CU UNPERF 2000MM - 1201895



DIN rail, unperforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715: 2001, material: Copper, uncoated, length: 2000 mm, color: copper-colored

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End cap - NS 35/15 CAP - 1206573



DIN rail end piece, for DIN rail NS 35/15

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End block

## High-current terminal block - UKH 240 - 3010217

### Accessories

End clamp - E/AL-NS 32 - 1201659



End clamp, for end support of UKH 50 - UKH 240, is pushed onto DIN rail NS 32 and fixed with 2 screws, width: 10 mm, color: Aluminum

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End clamp - E/AL-NS 35 - 1201662



End clamp, for end support of UKH 50 to UKH 240, is pushed onto DIN rail NS 35 and fixed with 2 screws, width: 10 mm, color: aluminum

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### Insertion bridge

Insertion bridge - EB 3-36/UKH - 0201414



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

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Insertion bridge - EB 2-36/UKH - 0201401



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

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### Labeled terminal marker

Warning label - WS-2K - 1004513



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

## High-current terminal block - UKH 240 - 3010217

### Accessories

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#### Zack marker strip - ZB 22 CUS - 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

#### Marker for terminal blocks - ZB 22,LGS:L1-N,PE - 0811875



Marker for terminal blocks. Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snap into tall marker groove, for terminal block width: 22 mm, lettering field size: 10.5 x 21.8 mm

### Mounting material

#### Insertion profile - UKH 150/240 EP - 3009244



Insertion profile, color: silver

### Pick-off terminal block

#### Pick-off terminal block - AGK 10-UKH 150/240 - 3003554



Pick-off terminal block, nom. voltage: 1000 V, nominal current: 57 A, connection method: Screw connection, number of connections: 1, cross section: 0.5 mm<sup>2</sup> - 10 mm<sup>2</sup>, AWG: 20 - 8, width: 10.2 mm, height: 34.7 mm, color: gray, mounting type: on base element

### Socket spanner

## High-current terminal block - UKH 240 - 3010217

### Accessories

Tool - VDE-ISS 8 - 1201947



Allen wrench, fully insulated, safety tool in accordance with EN 60900, length: 200 mm, handle width: 110 mm, for all terminal blocks with 10 mm Allen screw

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### Terminal marking

Zack marker strip - ZB 22:UNBEDRUCKT - 0811862



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 22 mm, lettering field size: 10.5 x 21.8 mm