

## High-current terminal block - UKH 150 - 3010110

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High-current terminal block, nom. voltage: 1000 V, nominal current: 309 A, connection method: Screw connection, number of connections: 2, cross section: 35 mm<sup>2</sup> - 150 mm<sup>2</sup>, AWG: 2 - 300 kcmil, width: 31 mm, height: 107.3 mm, color: gray, mounting type: NS 35/15, NS 32

### 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
- ✓ Low contact resistance of the contact surface due to ribbing



### Key Commercial Data

Packing unit	3 pc
Minimum order quantity	3 pc
GTIN	 4 017918 091842
GTIN	4017918091842

### Technical data

#### General

Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	150 mm <sup>2</sup>
Color	gray
Insulating material	PA
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	9.55 W

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## Technical data

### General

Maximum load current	309 A (with 150 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	309 A
Nominal voltage U <sub>N</sub>	1000 V
Open side panel	No
Ambient temperature (operation)	-60 °C ... 85 °C
Ambient temperature (storage/transport)	-25 °C ... 55 °C (For a short time, not exceeding 24 h, -60 to +70 °C)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
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
Tensile test result	Test passed
Result of tight fit on support	Test passed
Tight fit on carrier	NS 32/NS 35
Result of voltage-drop test	Test passed
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	150 mm <sup>2</sup>
Short-time current	18 kA
Result of thermal test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Proof of thermal characteristics (needle flame) effective duration	30 s
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2008-03
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz
ASD level	6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock form	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms

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## Technical data

### General

Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
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
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
Smoke gas toxicity NFPA 130 (SMP 800C)	passed
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	31 mm
Length	100 mm
Height	107.3 mm
Height NS 35/15	118.5 mm
Height NS 32	116 mm

### Connection data

Note	Screws with hexagonal socket
Connection method	Screw connection
Screw thread	M10
Stripping length	40 mm
Tightening torque, min	25 Nm
Tightening torque max	30 Nm
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.	35 mm <sup>2</sup>
Conductor cross section solid max.	150 mm <sup>2</sup>
Conductor cross section AWG min.	2
Conductor cross section AWG max.	300 kcmil
Conductor cross section flexible min.	50 mm <sup>2</sup>
Conductor cross section flexible max.	150 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	1/0
Max. AWG conductor cross section, flexible	300 kcmil
Conductor cross section flexible, with ferrule without plastic sleeve min.	50 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	150 mm <sup>2</sup>

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## Technical data

### Connection data

Conductor cross section flexible, with ferrule with plastic sleeve min.	50 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	150 mm <sup>2</sup>
Cross section with insertion bridge, solid max.	150 mm <sup>2</sup>
Cross section with insertion bridge, stranded max.	120 mm <sup>2</sup>
2 conductors with same cross section, solid min.	25 mm <sup>2</sup>
2 conductors with same cross section, solid max.	50 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	35 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	50 mm <sup>2</sup>
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, minimum	25 mm <sup>2</sup>
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, maximum	50 mm <sup>2</sup>
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	35 mm <sup>2</sup>
Conductor cross section solid max.	150 mm <sup>2</sup>
Conductor cross section AWG min.	2
Conductor cross section AWG max.	300
Conductor cross section flexible min.	50 mm <sup>2</sup>
Conductor cross section flexible max.	150 mm <sup>2</sup>
Internal cylindrical gage	B14

### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
	IEC/EN 60079-7
Flammability rating according to UL 94	V0

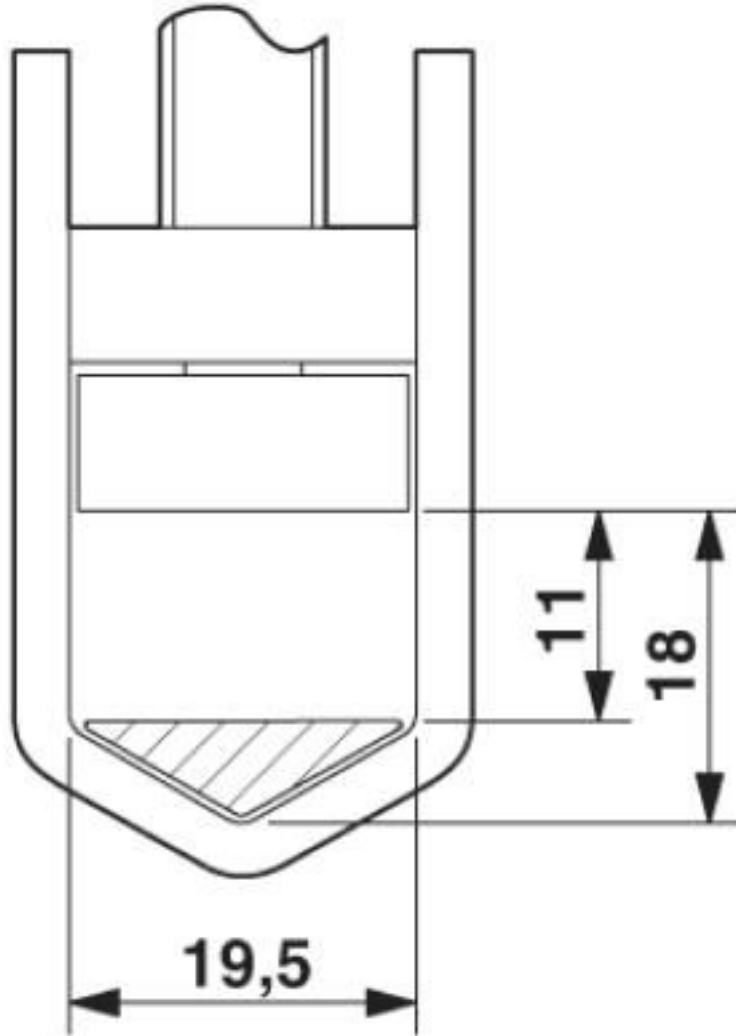
### Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

## Drawings

# High-current terminal block - UKH 150 - 3010110

Dimensional drawing

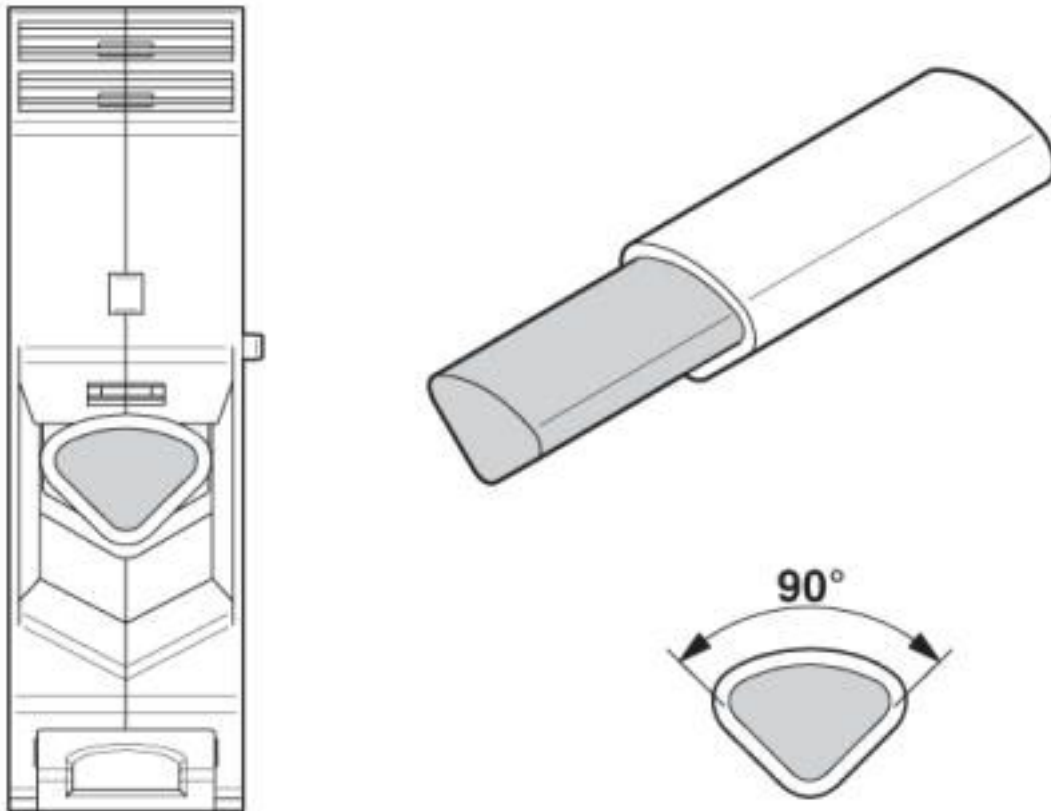


Circuit diagram



# High-current terminal block - UKH 150 - 3010110

Schematic diagram



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

## Classifications

### eCl@ss

eCl@ss 10.0.1	27141120
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 8.0	27141120
eCl@ss 9.0	27141120

### ETIM

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

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## Classifications

### ETIM

ETIM 6.0	EC000897
ETIM 7.0	EC000897

### UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

## Approvals

### Approvals

#### Approvals


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

#### Ex Approvals

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

### Approval details

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAE00001CT
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CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	275 A	275 A	
mm <sup>2</sup> /AWG/kcmil	2-300	2-300	

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## Approvals

PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2156/880590/17
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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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	285 A	285 A	
mm <sup>2</sup> /AWG/kcmil	2-300	2-300	

EAC		RU C- DE.AI30.B.01102
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RS		<a href="http://www.rs-head.spb.ru/en/index.php">http://www.rs-head.spb.ru/en/index.php</a>	17.00013.272
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EAC		RU C- DE.BL08.B.00534
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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, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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



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



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### Accessories

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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, 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, 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, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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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, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

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#### 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, material: Aluminum, uncoated, length: 2000 mm, color: silver

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## High-current terminal block - UKH 150 - 3010110

### Accessories

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, 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, 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, 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

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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## High-current terminal block - UKH 150 - 3010110

### Accessories

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 3-31/UKH - 0201391



Insertion bridge, pitch: 31 mm, number of positions: 3, color: gray

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Insertion bridge - EB 2-31/UKH - 0201388



Insertion bridge, pitch: 31 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

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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, Number of individual labels: 4

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## High-current terminal block - UKH 150 - 3010110

### Accessories

Zack marker strip - ZB 22,LGS:L1-N,PE - 0811875



Zack marker strip, 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, Number of individual labels: 4

Zack marker strip - ZB 25 CUS - 0802752



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 25 mm, lettering field size: 25 x 10 mm, Number of individual labels: 4

Marker for terminal blocks - TMT 10 R CUS - 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

### 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, Can only be used in conjunction with UKH 150/240, 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 150 - 3010110

### Accessories

Screwdriver - SF-THEX 8-200 - 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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### Terminal marking

Zack marker strip - ZB 22:UNBEDRUCKT - 0811862



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, 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

Zack marker strip - ZB 25:UNPRINTED - 0802751



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Marker pen, mounting type: snap into tall marker groove, for terminal block width: 25 mm, lettering field size: 25 x 10 mm, Number of individual labels: 4

Marker for terminal blocks - TMT 10 R - 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: 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, Number of individual labels: 10000

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