

## High-current terminal block - UKH 50 - 3009118

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High-current terminal block, nom. voltage: 1000 V, nominal current: 150 A, connection method: Screw connection, number of connections: 2, cross section: 16 mm<sup>2</sup> - 70 mm<sup>2</sup>, AWG: 6 - 2/0, width: 20 mm, height: 76 mm, color: gray, mounting type: NS 35/7,5, NS 35/15, NS 32, NS 35/15-2,3

### 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



### Key Commercial Data

Packing unit	10 pc
GTIN	 4 017918 091644
GTIN	4017918091644
Weight per Piece (excluding packing)	113.400 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	50 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

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### Technical data

#### General

Insulating material group	I
Maximum power dissipation for nominal condition	4.73 W
Designation	Level 1 above 1 below 1
Maximum load current	150 A (with 50 mm <sup>2</sup> conductor cross section)
Nominal current I <sub>N</sub>	150 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	25 mm <sup>2</sup> / 4.5 kg
	50 mm <sup>2</sup> / 9.5 kg
	70 mm <sup>2</sup> /10.4 kg
Tensile test result	Test passed
Conductor cross section tensile test	25 mm <sup>2</sup>
Tractive force setpoint	135 N
Conductor cross section tensile test	50 mm <sup>2</sup>
Tractive force setpoint	236 N
Conductor cross section tensile test	70 mm <sup>2</sup>
Tractive force setpoint	285 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 32/NS 35
Setpoint	10 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
Conductor cross section short circuit testing	50 mm <sup>2</sup>
Short-time current	6 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s

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## Technical data

### General

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	20 mm
Length	70.5 mm
Height	76 mm
Height NS 35/15	83.5 mm
Height NS 32	81 mm

### Connection data

Connection method	Screw connection
Screw thread	M6
Stripping length	24 mm
Tightening torque, min	6 Nm
Tightening torque max	8 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.	16 mm <sup>2</sup>
Conductor cross section solid max.	70 mm <sup>2</sup>
Conductor cross section AWG min.	6
Conductor cross section AWG max.	2/0
Conductor cross section flexible min.	25 mm <sup>2</sup>
Conductor cross section flexible max.	70 mm <sup>2</sup>
Min. AWG conductor cross section, flexible	3
Max. AWG conductor cross section, flexible	2/0

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### Technical data

#### Connection data

Conductor cross section flexible, with ferrule without plastic sleeve min.	25 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve max.	50 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve min.	25 mm <sup>2</sup>
Conductor cross section flexible, with ferrule with plastic sleeve max.	50 mm <sup>2</sup>
2 conductors with same cross section, solid min.	10 mm <sup>2</sup>
2 conductors with same cross section, solid max.	16 mm <sup>2</sup>
2 conductors with same cross section, stranded min.	10 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	16 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	10 mm <sup>2</sup>
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	16 mm <sup>2</sup>
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	16 mm <sup>2</sup>
Conductor cross section solid max.	50 mm <sup>2</sup>
Conductor cross section AWG min.	6
Conductor cross section AWG max.	1/0
Conductor cross section flexible min.	25 mm <sup>2</sup>
Conductor cross section flexible max.	50 mm <sup>2</sup>
Internal cylindrical gage	B10

#### 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
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

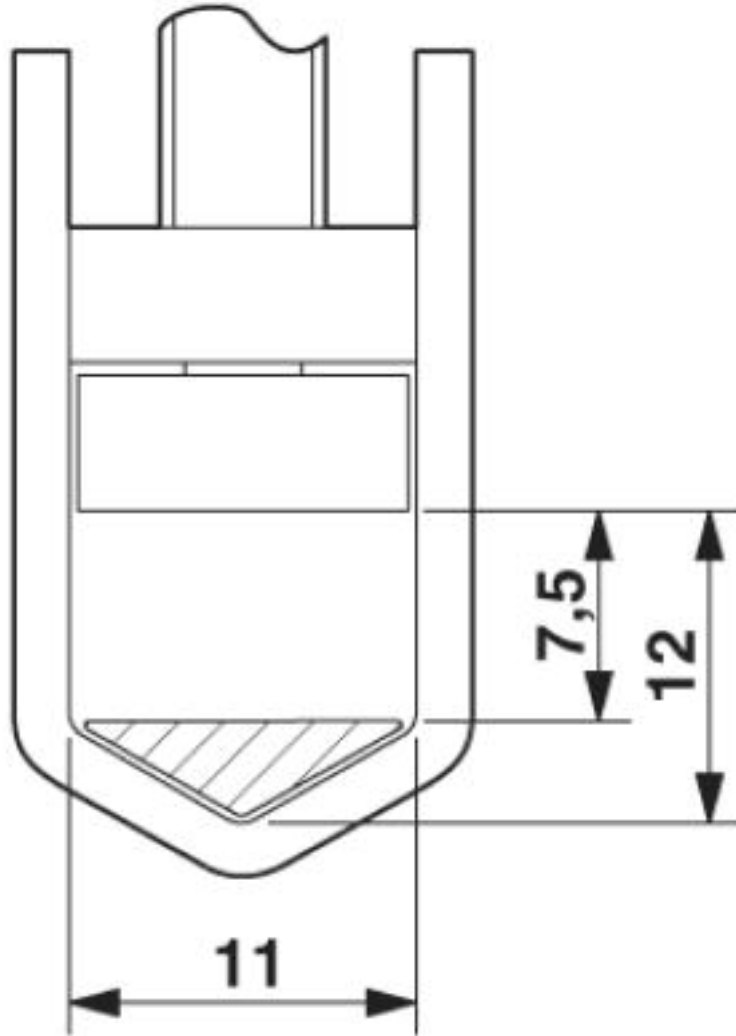
#### Environmental Product Compliance

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

### Drawings

# High-current terminal block - UKH 50 - 3009118

Dimensional drawing

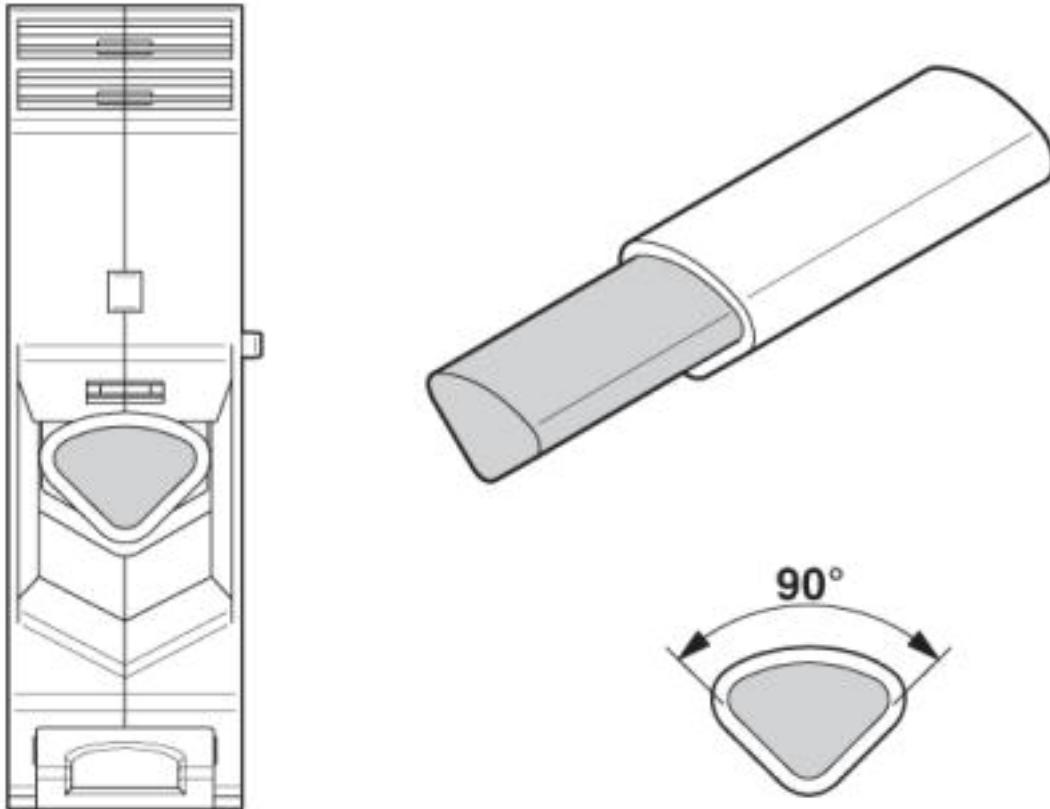


Circuit diagram



## High-current terminal block - UKH 50 - 3009118

Schematic diagram



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

### Classifications

#### eCl@ss

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
ETIM 6.0	EC000897

<https://www.phoenixcontact.com/gb/products/3009118>



## High-current terminal block - UKH 50 - 3009118

### Classifications

#### ETIM

ETIM 7.0	EC000897
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#### UNSPSC

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

### Approvals

#### Approvals

##### Approvals


DNV GL / CSA / PRS / LR / UL Recognized / cUL Recognized / IECEx CB Scheme / VDE Zeichengenehmigung / EAC / cULus Recognized

##### 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	150 A	150 A	
mm <sup>2</sup> /AWG/kcmil	6	6	

PRS		<a href="http://www.prs.pl/">http://www.prs.pl/</a>	TE/2156/880590/17
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LR		<a href="http://www.lr.org/en">http://www.lr.org/en</a>	17/20014
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<https://www.phoenixcontact.com/gb/products/3009118>





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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	
Nominal voltage UN	600 V	600 V	
Nominal current IN	150 A	150 A	
mm <sup>2</sup> /AWG/kcmil	6	6	

cUL 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	150 A	150 A	
mm <sup>2</sup> /AWG/kcmil	6	6	

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	DE1-55836/A1
Nominal voltage UN	1000 V		

VDE Zeichengenehmigung		<a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a>	40036368
Nominal voltage UN	1000 V		
Nominal current IN	150 A		

EAC		RU C- DE.AI30.B.01102
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cULus Recognized	
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