

High-current terminal block - UKH 50 - 3009118

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High-current terminal block, connection method: Screw connection, number of connections: 2, cross section: 16 mm² - 70 mm², 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

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 091644
GTIN	4017918091644
Weight per Piece (excluding packing)	126.000 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	50 mm²
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	4.73 W
Maximum load current	150 A (with 50 mm ² conductor cross section)
Nominal current I _N	150 A
Nominal voltage U _N	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
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 ² / 4.5 kg
	50 mm ² / 9.5 kg
	70 mm ² /10.4 kg
Tensile test result	Test passed
Conductor cross section tensile test	25 mm ²
Tractive force setpoint	135 N
Conductor cross section tensile test	50 mm ²
Tractive force setpoint	236 N
Conductor cross section tensile test	70 mm ²
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

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General

Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	50 mm ²
Short-time current	6 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	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
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 ²
Conductor cross section solid max.	70 mm ²
Conductor cross section AWG min.	6
Conductor cross section AWG max.	2/0

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Technical data

Connection data

Conductor cross section flexible min.	25 mm ²
Conductor cross section flexible max.	70 mm ²
Min. AWG conductor cross section, flexible	3
Max. AWG conductor cross section, flexible	2/0
Conductor cross section flexible, with ferrule without plastic sleeve min.	25 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	50 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	25 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	50 mm ²
2 conductors with same cross section, solid min.	10 mm ²
2 conductors with same cross section, solid max.	16 mm ²
2 conductors with same cross section, stranded min.	10 mm ²
2 conductors with same cross section, stranded max.	16 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, min.	10 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve, max.	16 mm ²
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	16 mm ²
Conductor cross section solid max.	50 mm ²
Conductor cross section AWG min.	6
Conductor cross section AWG max.	1/0
Conductor cross section flexible min.	25 mm ²
Conductor cross section flexible max.	50 mm ²
Stripping length	24 mm
Internal cylindrical gage	B10
Screw thread	M6
Tightening torque, min	6 Nm
Tightening torque max	8 Nm

Standards and Regulations

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

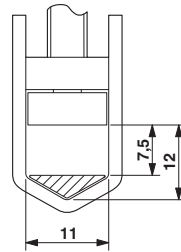
Drawings

High-current terminal block - UKH 50 - 3009118

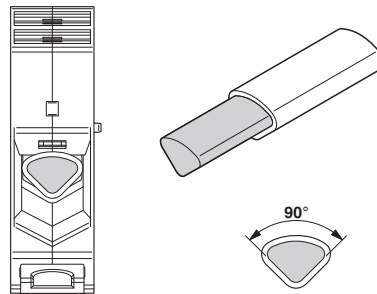
Circuit diagram



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

ETIM

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

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Classifications

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 / cUL Recognized / PRS / CCA / VDE Zeichengenehmigung / EAC / EAC / IECEE CB Scheme / DNV GL / LR / cULus Recognized

Ex Approvals

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


Approval details


CSA		http://www.csagroup.org/services/testing-and-certification/certified-product-listing/	13631
	B	C	
mm²/AWG/kcmil	6-1/0	6-1/0	
Nominal current I _N	150 A	150 A	
Nominal voltage U _N	600 V	600 V	

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
mm²/AWG/kcmil	6-1/0	6-1/0	
Nominal current I _N	150 A	150 A	
Nominal voltage U _N	600 V	600 V	


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Approvals

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
mm²/AWG/kcmil	6-1/0	6-1/0	
Nominal current I _N	150 A	150 A	
Nominal voltage U _N	600 V	600 V	


PRS		http://www.prs.pl/	TE/1824/880590/09
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CCA	NTR-NL 4265
mm²/AWG/kcmil	50
Nominal voltage U _N	1000 V

VDE Zeichengenehmigung		http://www.vde.com/en/Institute/OnlineService/VDE-approved-products/Pages/Online-Search.aspx	40036368
Nominal current I _N	150 A		
Nominal voltage U _N	1000 V		



EAC		EAC-Zulassung
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EAC		7500651.22.01.00246
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IECEE CB Scheme		http://www.iecee.org/	DE1-55836/A1
Nominal voltage U _N	1000 V		

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Approvals

DNV GL	http://exchange.dnv.com/tari/	TAE00001CT
LR	 http://www.lr.org/en	17/20014
cULus Recognized	 http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	

Accessories

Accessories

DIN rail

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733

DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 7.5 mm, width 35 mm, length: 2000 mm

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681

DIN rail, material: Steel, unperforated, height 7.5 mm, width 35 mm, length: 2 m

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail 35 mm (NS 35)

DIN rail - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail 35 mm (NS 35)

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Accessories

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704

DIN rail, unperforated, Width: 35 mm, Height: 7.5 mm, Length: 2000 mm, Color: silver

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail, material: Galvanized, perforated, height 7.5 mm, width 35 mm, length: 2 m

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, material: Galvanized, unperforated, height 7.5 mm, width 35 mm, length: 2 m

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, material: Copper, unperforated, height 7.5 mm, width 35 mm, length: 2 m

End cap - NS 35/ 7,5 CAP - 1206560



DIN rail end piece, for DIN rail NS 35/7.5

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Accessories

DIN rail, unperforated - NS 35/15-2,3 UNPERF 2000MM - 1201798



DIN rail, unperforated, Width: 35 mm, Height: 15 mm, Length: 2000 mm, Color: silver

DIN rail perforated - NS 32 PERF 2000MM - 1201002



G-profile DIN rail, material: Steel, perforated, height 15 mm, width 32 mm, length 2 m

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



G-profile DIN rail, material: Steel, unperforated, height 15 mm, width 32 mm, length 2 m

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



DIN rail, material: steel galvanized and passivated with a thick layer, perforated, height 15 mm, width 35 mm, length: 2000 mm

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



DIN rail, material: Steel, unperforated, height 15 mm, width 35 mm, length: 2 m

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



DIN rail 35 mm (NS 35)

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



DIN rail 35 mm (NS 35)

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



DIN rail, deep drawn, high profile, unperforated, 1.5 mm thick, material: aluminum, height 15 mm, width 35 mm, length 2000 mm

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



DIN rail, material: Galvanized, perforated, height 15 mm, width 35 mm, length: 2 m

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



DIN rail, material: Galvanized, unperforated, height 15 mm, width 35 mm, length: 2 m

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



DIN rail, material: Copper, unperforated, 1.5 mm thick, height 15 mm, width 35 mm, length: 2 m

End cap - NS 35/15 CAP - 1206573



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

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

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

Labeled terminal marker

Zack marker strip - ZB 10 CUS - 0824941



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

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Accessories

Zack marker strip - ZB10,LGS:FORTL.ZAHLEN - 1053014



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Zack marker strip - ZB10,QR:FORTL.ZAHLEN - 1053027



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 991 - 1000, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Zack marker strip - ZB10,LGS:GLEICHE ZAHLEN - 1053030



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Printed horizontally: Identical numbers 1 or 2, etc. up to 100, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Marker for terminal blocks - ZB10,LGS:L1-N,PE - 1053412



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Horizontal: L1, L2, L3, N, PE, L1, L2, L3, N, PE, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

Marker for terminal blocks - ZB10,LGS:U-N - 1053438



Marker for terminal blocks, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, Horizontal: U, V, W, N, GND, U, V, W, N, GND, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 10.15 x 10.5 mm

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Accessories

Marker for terminal blocks - UC-TM 10 CUS - 0824605



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 9.6 x 10.5 mm

Marker for terminal blocks - UCT-TM 10 CUS - 0829623



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 8.9 x 9.6 mm

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: 6.35 x 10.15 mm

Marker pen

Marker pen - X-PEN 0,35 - 0811228



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

Mounting material

Insertion profile - UKH 50 EP - 3009228



Insertion profile, color: silver

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Accessories

Pick-off terminal block

Pick-off terminal block - AGK 10-UKH 50 - 3001763



Pick-off terminal block, connection method: Screw connection, number of connections: 1, cross section: 0.5 mm² - 10 mm², AWG: 20 - 8, width: 10.2 mm, height: 34.7 mm, color: gray, mounting type: On base element

Screw bridge

Fixed bridge - FBI 2-20 - 0201346



Fixed bridge, pitch: 20 mm, number of positions: 2, color: silver

Fixed bridge - FBI 3-20 - 0201317



Fixed bridge, pitch: 20 mm, number of positions: 3, color: silver

Screwdriver tools

Screwdriver - SZS 1,2X8,0 VDE - 1205082



Screwdriver, slot-headed, VDE insulated, size: 1.2 x 8.0 x 175 mm, 2-component grip, with non-slip grip

Terminal marking

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Accessories

Zack marker strip - ZB 10:UNBEDRUCKT - 1053001



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: 10.2 mm, Lettering field: 10.5 x 10.15 mm

Marker for terminal blocks - UC-TM 10 - 0818069



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 9.6 x 10.5 mm

Marker for terminal blocks - UCT-TM 10 - 0829142



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, Mounting type: Snap into tall marker groove, for terminal block width: 10.2 mm, Lettering field: 8.9 x 9.6 mm

Marker for terminal blocks - TMT 10 R - 0816210



Marker for terminal blocks, Roll, white, unlabeled, can be labeled with: 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: 6.35 x 10.15 mm