

High-current terminal block - UKH 95 - 3010013

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High-current terminal block, Screws with hexagonal socket, nom. voltage: 1000 V, nominal current: 232 A, connection method: Screw connection, number of connections: 2, cross section: 25 mm² - 95 mm², AWG: 4 - 3/0, width: 25 mm, height: 90 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
- ✓ 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	3 pc
GTIN	 4 017918 091835
GTIN	4017918091835

Technical data

General

Note	Screws with hexagonal socket
Number of levels	1
Number of connections	2
Potentials	1
Nominal cross section	95 mm ²
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	7.54 W

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Technical data

General

Maximum load current	232 A
Nominal current I_N	232 A
Nominal voltage U_N	1000 V
Open side panel	No
Terminal block mounting	15 Nm ... 20 Nm
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	IEC 60529:2013-08
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
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
	35 mm ² / 6.8 kg
	95 mm ² /14 kg
Tensile test result	Test passed
Conductor cross section tensile test	25 mm ²
Tractive force setpoint	135 N
Conductor cross section tensile test	35 mm ²
Tractive force setpoint	190 N
Conductor cross section tensile test	95 mm ²
Tractive force setpoint	351 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 32/NS 35
Result of voltage-drop test	Test passed
Requirements, voltage drop	$U_1 \leq 3,2 \text{ mV}$ $U_2 \leq 1,5 \times U_1$ $dT \leq 45 \text{ K}$
Result of temperature-rise test	Test passed
Requirement temperature-rise test	Increase in temperature $\leq 45 \text{ K}$
Short circuit stability result	Test passed
Conductor cross section short circuit testing	95 mm ²

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General

Short-time current	11.4 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 2, bogie-mounted
Test 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	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock form	Half-sine
Acceleration	30g
Shock duration	18 ms
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	25 mm
Length	83 mm
Height	90 mm
Height NS 35/15	97.5 mm
Height NS 32	95 mm

Connection data

Note	Screws with hexagonal socket
Connection method	Screw connection
Screw thread	M8
Stripping length	33 mm
Tightening torque, min	15 Nm
Tightening torque max	20 Nm

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Connection data

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.	25 mm ²
Conductor cross section solid max.	95 mm ²
Conductor cross section AWG min.	4
Conductor cross section AWG max.	3/0
Conductor cross section flexible min.	35 mm ²
Conductor cross section flexible max.	95 mm ²
Min. AWG conductor cross section, flexible	2
Max. AWG conductor cross section, flexible	3/0
Conductor cross section flexible, with ferrule without plastic sleeve min.	35 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	95 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	35 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	95 mm ²
Cross section with insertion bridge, solid max.	95 mm ²
Cross section with insertion bridge, stranded max.	70 mm ²
2 conductors with same cross section, solid min.	25 mm ²
2 conductors with same cross section, solid max.	35 mm ²
2 conductors with same cross section, stranded min.	25 mm ²
2 conductors with same cross section, stranded max.	35 mm ²
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, minimum	16 mm ²
Two conductors with the same cross section stranded, with ferrule and without plastic sleeve, maximum	35 mm ²
Connection in acc. with standard	IEC/EN 60079-7
Conductor cross section solid min.	25 mm ²
Conductor cross section solid max.	95 mm ²
Conductor cross section AWG min.	4
Conductor cross section AWG max.	3/0
Conductor cross section flexible min.	35 mm ²
Conductor cross section flexible max.	95 mm ²

Standards and Regulations

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

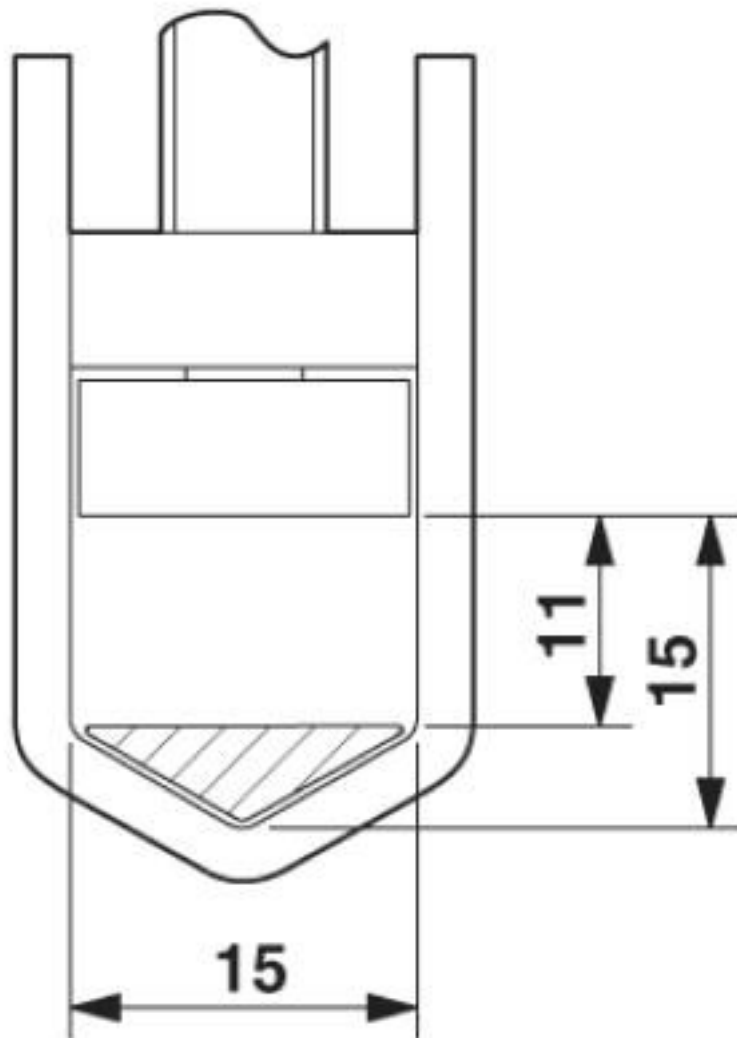
Environmental Product Compliance

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

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Drawings

Dimensional drawing

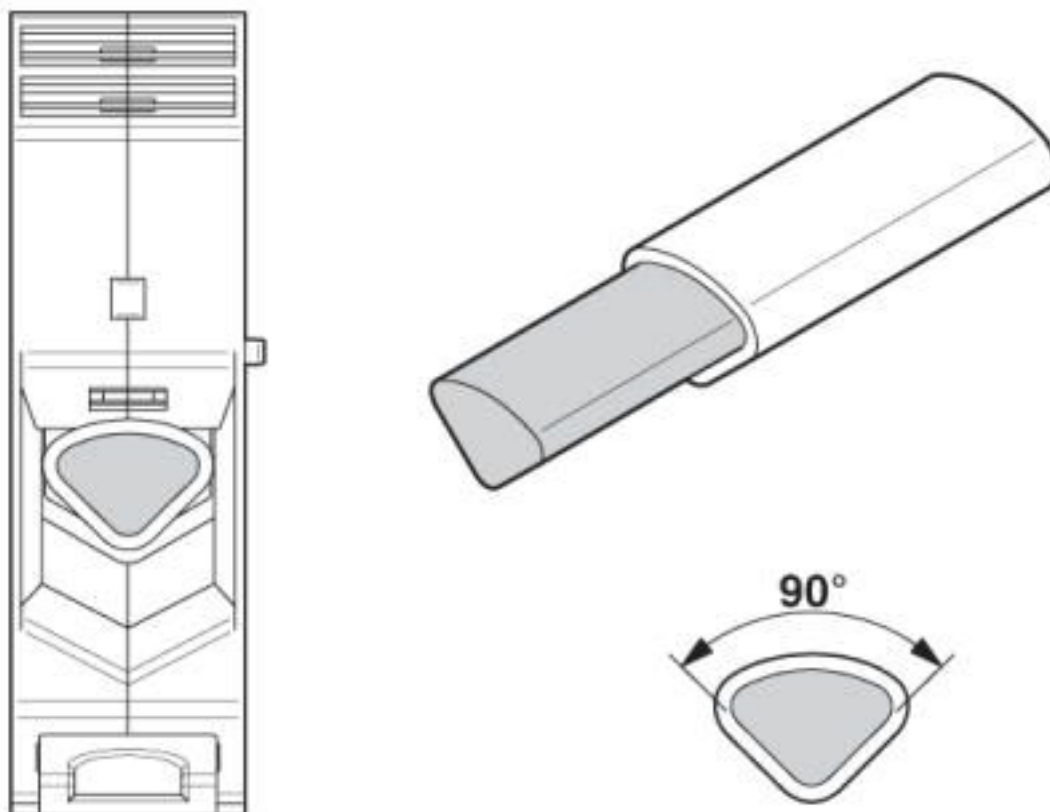


Circuit diagram



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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 11.0	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

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Classifications

ETIM

ETIM 5.0	EC000897
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

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DNV GL / CSA / PRS / CCA / UL Recognized / KEMA-KEUR / cUL Recognized / EAC / RS / LR / EAC / cULus Recognized

Ex Approvals

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

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00001CT
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CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	200 A	200 A	
mm²/AWG/kcmil	2	2	

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Approvals

PRS		http://www.prs.pl/	TE/2156/880590/17
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CCA	NTR-NL 4266
Nominal voltage UN	1000 V
mm²/AWG/kcmil	95

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	230 A	230 A	
mm²/AWG/kcmil	2	2	

KEMA-KEUR		http://www.dekra-certification.com	2183460.01
Nominal voltage UN	1000 V		
mm²/AWG/kcmil	95		

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	230 A	230 A	
mm²/AWG/kcmil	2	2	

EAC		RU C- DE.AI30.B.01102
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RS		http://www.rs-head.spb.ru/en/index.php	17.00013.272
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Approvals

LR		http://www.lr.org/en	LR2016282TA
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EAC		RU C- DE.BL08.B.00534
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cULus Recognized	
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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

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

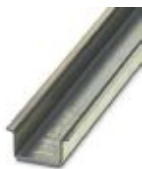


DIN rail perforated, Standard profile, width: 35 mm, height: 15 mm, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

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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

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

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

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

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

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

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

Insertion bridge

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Insertion bridge - EB 3-25/UKH - 0201375



Insertion bridge, pitch: 25 mm, length: 38.9 mm, width: 68.3 mm, number of positions: 3, color: gray

Insertion bridge - EB 2-25/UKH - 0201362



Insertion bridge, pitch: 25 mm, number of positions: 2, color: gray

Labeled terminal marker

Warning label - WS-4K - 1004584



Adhesive warning plate, self-adhesive, black print: lightning flash with mixed version - "Vorsicht Spannung - Attention Danger" size of label: 13 x 23.5 mm

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

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

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Accessories

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

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 95 EP - 3009231



Insertion profile, color: silver

Pick-off terminal block

Pick-off terminal block - AGK 10-UKH 95 - 3003541



Pick-off terminal block, Can only be used in conjunction with UKH 95, nom. voltage: 1000 V, nominal current: 57 A, 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

Planning and marking software

Software - CLIP-PROJECT ADVANCED - 5146040



Multilingual software for convenient configuration of Phoenix Contact products on standard DIN rails.

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Accessories

Software - CLIP-PROJECT PROFESSIONAL - 5146053



Multilingual software for terminal strip configuration. A marking module enables the professional marking of markers and labels for identifying terminal blocks, conductors and cables, and devices.

Socket spanner

Screwdriver - SF-THEX 6-200 - 1212642



T-handle screwdriver, for Allen screws, hexagonal (with chamfer), size: hex 6 x 200 mm, ergonomically shaped handle, matt chrome-plated

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

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