UKH 95 - High-current terminal block

3010013

https://www.phoenixcontact.com/in/products/3010013

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High-current terminal block, nom. voltage: 1000 V, nominal current: 232 A, number of connections: 2, connection method: Screw connection, Rated cross section: 95 mm^2, cross section: 25 mm^2 - 95 mm^2, mounting type: NS 35/15, NS 32, color: gray

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

Commercial Data

Item number	3010013
Packing unit	3 pc
Minimum order quantity	3 pc
Sales Key	BE1
Product Key	BE1311
Catalog Page	Page 195 (C-1-2019)
GTIN	4017918091835
Weight per Piece (including packing)	228.5 g
Weight per Piece (excluding packing)	204 g
Customs tariff number	85369010
Country of origin	IN

Technical Data

Notes

General	Screws with hexagonal socket

General

Note	For a reliable contact of multi stranded conductors it is recommended to untwist multi stranded conductors.

Product properties

Product type	High current terminal block
Number of connections	2
Number of rows	1
Potentials	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	7.54 W

Connection data

Number of connections per level	2
Nominal cross section	95 mm²

Level 1 above 1 below 1

Screw thread	M8
Note	Screws with hexagonal socket
Tightening torque	15 ... 20 Nm
Stripping length	33 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	25 mm² ... 95 mm²
Cross section AWG	4 ... 3/0 (converted acc. to IEC)
Conductor cross section flexible	35 mm² ... 95 mm²
Conductor cross section, flexible [AWG]	2 ... 3/0 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	35 mm² ... 95 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	35 mm² ... 95 mm²
Cross-section with insertion bridge, rigid	95 mm²
Cross-section with insertion bridge, flexible	70 mm²
2 conductors with same cross section, solid	25 mm² ... 35 mm²
2 conductors with same cross section, flexible	25 mm² ... 35 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	16 mm² ... 35 mm²

Nominal current	232 A
Maximum load current	232 A
Nominal voltage	1000 V
Note	Note: Product releases, connection cross sections and notes on connecting aluminum cables can be found in the download area.
Nominal cross section	95 mm²

Ex data

Rated data (ATEX/IECEx)

Identification	☐ II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
Ex-certified accessories	1201934 VDE-ISS 6
	1201659 E/AL-NS 32
	1201662 E/AL-NS 35
List of bridges	Insertion bridge / EB 2-25/UKH / 0201362
	Insertion bridge / EB 3-25/UKH / 0201375
Bridge data	177 A / 95 mm²
Ex temperature increase	40 K (238.1 A / 95 mm²)
Rated voltage	880 V
at bridging with insertion bridge	690 V
Rated insulation voltage	800 V
output	(Permanent)

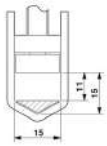
Ex level General

Rated current	216 A
Maximum load current	216 A
Contact resistance	0.06 mΩ

Ex connection data General

Torque range	15 Nm ... 20 Nm
Nominal cross section	95 mm²
Rated cross section AWG	3/0
Connection capacity rigid	25 mm² ... 95 mm²
Connection capacity AWG	4 ... 3/0
Connection capacity flexible	35 mm² ... 95 mm²
Connection capacity AWG	2 ... 3/0
2 conductors with same cross section, solid	25 mm² ... 35 mm²
2 conductors with the same cross-section AWG rigid	4 ... 2
2 conductors with same cross section, stranded	25 mm² ... 35 mm²
2 conductors with the same cross-section AWG flexible	4 ... 2

Dimensions

Dimensional drawing	
Width	25 mm
Height	90 mm
Height NS 35/15	90 mm
Height NS 35/7,5	90 mm
Height	3.839 "
Height NS 32	95 mm
Length	83 mm

Material specifications

Color	gray
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
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
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

Electrical tests

Surge voltage test

Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 95 mm²	11.4 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

General

Terminal block mounting	15 Nm ... 20 Nm

Mechanical data

Open side panel	No

Mechanical tests

Mechanical strength

Result	Test passed

Attachment on the carrier

DIN rail/fixing support	NS 32/NS 35
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross section/weight	25 mm² / 4.5 kg
	35 mm² / 6.8 kg
	95 mm²/14 kg
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2022-06
Spectrum	Service life test category 2, bogie-mounted
Frequency	f_1 = 5 Hz to f_2 = 250 Hz
ASD level	6.12 (m/s²)²/Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2022-06
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

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

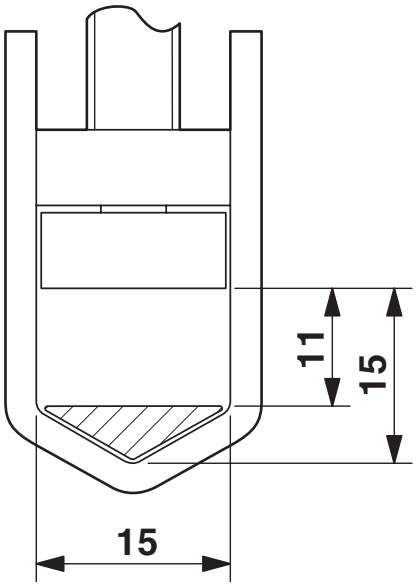
Mounting

Mounting type	NS 35/15
	NS 32
Terminal block mounting	15 Nm ... 20 Nm

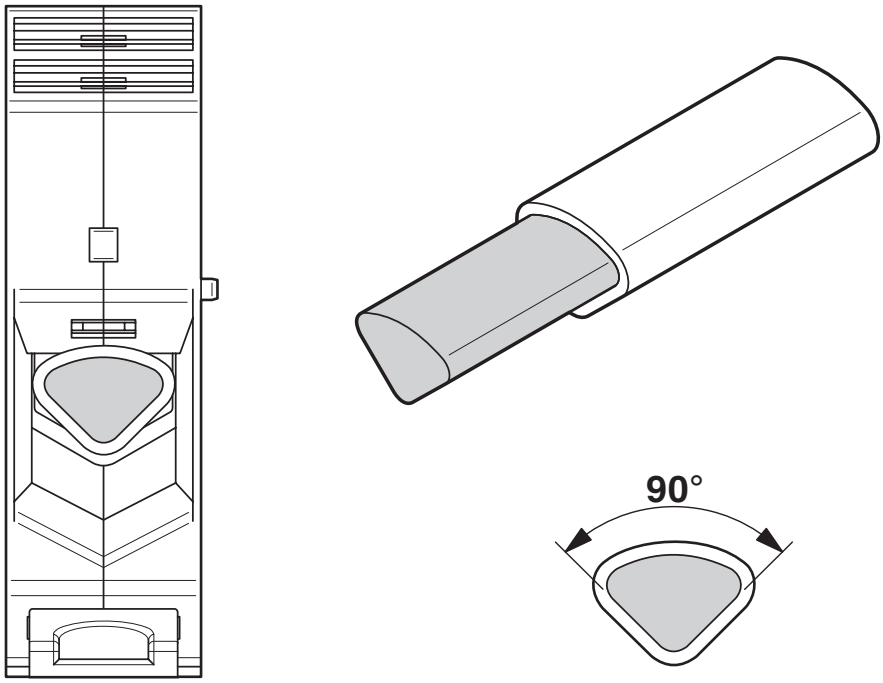
Drawings

Circuit diagram

Dimensional drawing



Schematic diagram



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

Approvals

CSA
Approval ID: 13631

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	600 V	200 A	2 - 4/0	-
Use group C				
	600 V	200 A	2 - 4/0	-

EAC
Approval ID: RU C-DE.BL08.B.00534

cULus Recognized
Approval ID: E60425

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
Use group B				
	600 V	230 A	2 - 4/0	-
Multi-conductor connection	600 V	230 A	4 - 2	-
Use group C				
	600 V	230 A	2 - 4/0	-
Multi-conductor connection	600 V	230 A	4 - 2	-

KEMA-KEUR
Approval ID: 71-116392

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	-	-	- 95

LR
Approval ID: LR2041789TA-02

RS
Approval ID: 22.44.01.00083.250

ATEX
Approval ID: KEMA98ATEX1786U

cUL Recognized
Approval ID: E192998

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	230 A	2 - 4/0	-

EAC Ex
Approval ID: RU C-DE.HA91.B.00066

IECEx
Approval ID: IECEx KEM 06.0029U

UL Recognized
Approval ID: E192998

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	230 A	2 - 4/0	-

CCC
Approval ID: 2020322313000623

NEPSI
Approval ID: GYJ20.1195U

UKCA-EX
Approval ID: DEKRA 21UKEX0307U

Classifications

ECLASS

ECLASS-11.0	27141120

ETIM

ETIM 8.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

Environmental Product Compliance

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

Accessories

Note: Applying some accessories below might limit this product.

EB 3-25/UKH - Insertion bridge

0201375

https://www.phoenixcontact.com/in/products/0201375

Insertion bridge, pitch: 25 mm, number of positions: 3, length: 39 mm, color: gray

Max. current carrying capacity: 232 A

EB 2-25/UKH - Insertion bridge

0201362

https://www.phoenixcontact.com/in/products/0201362

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

Max. current carrying capacity: 232 A

WS-4K - Warning label

1004584

https://www.phoenixcontact.com/in/products/1004584

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

UKH 95 EP - Insertion profile

3009231

https://www.phoenixcontact.com/in/products/3009231

Insertion profile, color: silver

AGK 10-UKH 95 - Pick-off terminal

3003541

https://www.phoenixcontact.com/in/products/3003541

Pick-off terminal, nom. voltage: 1000 V, nominal current: 57 A, number of connections: 1, connection method: Screw connection, Rated cross section: 10 mm^2, cross section: 0.5 mm^2 - 10 mm^2, mounting type: on base element, color: gray

X-PEN 0,35 - Marker pen

0811228

https://www.phoenixcontact.com/in/products/0811228

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

SF-THEX 6-200 - Screwdriver

1212642

https://www.phoenixcontact.com/in/products/1212642

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

VDE-ISS 6 - Tool

1201934

https://www.phoenixcontact.com/in/products/1201934

Allen wrench, fully insulated, safety tool in accordance with EN 60900, length: 200 mm, handle width: 110 mm, for all terminal blocks with 8 mm Allen screw

NS 32 PERF 2000MM-VPE 10 - DIN rail perforated

1201002

https://www.phoenixcontact.com/in/products/1201002

DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, G profile, color: silver, Pack of 10 (20 m)

NS 32 UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201015

https://www.phoenixcontact.com/in/products/1201015

DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, G profile, color: silver, Pack of 10 (20 m)

NS 35/15 PERF 2000MM - DIN rail perforated

1201730

https://www.phoenixcontact.com/in/products/1201730

DIN rail perforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

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

1201714

https://www.phoenixcontact.com/in/products/1201714

DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver, Pack of 25 (50 m)

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

0806602

https://www.phoenixcontact.com/in/products/0806602

DIN rail perforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: white, Pack of 25 (50 m)

NS 35/15 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204135

https://www.phoenixcontact.com/in/products/1204135

DIN rail, unperforated, similar to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver, Pack of 10 (20 m)

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

1201756

https://www.phoenixcontact.com/in/products/1201756

DIN rail, unperforated, similar to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

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

1206599

https://www.phoenixcontact.com/in/products/1206599

DIN rail perforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

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

1206586

https://www.phoenixcontact.com/in/products/1206586

DIN rail, unperforated, similar to EN 60715, material: Steel, galvanized, Standard profile, color: silver, Pack of 25 (50 m)

NS 35/15 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1201895

https://www.phoenixcontact.com/in/products/1201895

DIN rail, unperforated, similar to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored, Pack of 10 (20 m)

NS 35/15 CAP - End cap

1206573

https://www.phoenixcontact.com/in/products/1206573

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

ZB 22:UNBEDRUCKT - Zack marker strip

0811862

https://www.phoenixcontact.com/in/products/0811862

Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 22 mm, lettering field size: 10.5 x 21.8 mm, Number of individual labels: 4

ZB 22 CUS - Zack marker strip

0824949

https://www.phoenixcontact.com/in/products/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

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

0811875

https://www.phoenixcontact.com/in/products/0811875

Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snapped, for terminal block width: 22 mm, lettering field size: 10. 5 x 21.8 mm, Number of individual labels: 50

TMT 10 R - Marker for terminal blocks

0816210

https://www.phoenixcontact.com/in/products/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: snapped, 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

TMT 10 R CUS - Marker for terminal blocks

0824500

https://www.phoenixcontact.com/in/products/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

E/AL-NS 32 - End clamp

1201659

https://www.phoenixcontact.com/in/products/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

E/AL-NS 35 - End clamp

1201662

https://www.phoenixcontact.com/in/products/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

PROJECT COMPLETE - Software

1050453

https://www.phoenixcontact.com/in/products/1050453

Intuitive planning and marking software for configuring terminal strips and for professional marking of marking materials for terminal blocks, conductors, cables, devices, and systems. The software is available for download

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