3010013

https://www.phoenixcontact.com/us/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<sup>2</sup>, cross section: 25 mm<sup>2</sup> - 95 mm<sup>2</sup>, 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<br/>
- · 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 рс
Minimum order quantity	3 рс
Sales key	BE13
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

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# Technical data

otes	
General	Screws with hexagonal socket
General	
Note	For a reliable contact of multi stranded conductors it is recommended to untwist multi stranded conductors.
oduct 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
lectrical properties	
Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	7.54 W
onnection 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	2 3/0 (converted acc. to IEC)
Conductor cross section flexible	35 mm² 95 mm²
Conductor cross section, flexible [AWG]	1/0 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



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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	ll 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 mm <sup>2</sup>
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 mm <sup>2</sup> 35 mm <sup>2</sup>
2 conductors with the same cross-section AWG rigid	4 2
2 conductors with same cross section, stranded	25 mm <sup>2</sup> 35 mm <sup>2</sup>
2 conductors with the same cross-section AWG flexible	42

Dimensions



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Dimensional drawing	
Width	25 mm
Height	83 mm
Depth	90 mm
Depth on NS 32	95 mm
Depth on NS 35/7,5	90 mm
Depth on NS 35/15	90 mm

# Material specifications

Color	gray
Flammability rating according to UL 94	VO
Insulating material group	1
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

Surae	voltage	test
ourge	vonuge	1001

Result	Test passed
Temperature-rise test	
Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 95 mm <sup>2</sup>	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



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pen side panel	No
hanical tests	
echanical strength	
Result	Test passed
tachment on the carrier	NO 20040 25
DIN rail/fixing support	NS 32/NS 35
Result	Test passed
est 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
Time of exposure	00
	30 s
Result	30 s Test passed
Result scillation/broadband noise Specification	
scillation/broadband noise	Test passed
scillation/broadband noise Specification	Test passed DIN EN 50155 (VDE 0115-200):2022-06
scillation/broadband noise Specification Spectrum	Test passed DIN EN 50155 (VDE 0115-200):2022-06 Service life test category 2, bogie-mounted
scillation/broadband noise Specification Spectrum Frequency	Test passed DIN EN 50155 (VDE 0115-200):2022-06 Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz
scillation/broadband noise Specification Spectrum Frequency ASD level	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz $6.12$ (m/s <sup>2</sup> ) <sup>2</sup> /Hz
scillation/broadband noise Specification Spectrum Frequency ASD level Acceleration	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz $6.12$ (m/s <sup>2</sup> ) <sup>2</sup> /Hz $3.12g$
scillation/broadband noise Specification Spectrum Frequency ASD level Acceleration Test duration per axis	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted         f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz         6.12 (m/s²)²/Hz         3.12g         5 h
scillation/broadband noise Specification Spectrum Frequency ASD level Acceleration Test duration per axis Test directions	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz $6.12$ (m/s <sup>2</sup> ) <sup>2</sup> /Hz $3.12g$ $5$ h         X-, Y- and Z-axis
scillation/broadband noise Specification Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz $6.12$ (m/s <sup>2</sup> ) <sup>2</sup> /Hz $3.12g$ $5$ h         X-, Y- and Z-axis
scillation/broadband noise Specification Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted $f_1 = 5$ Hz to $f_2 = 250$ Hz $6.12$ (m/s <sup>2</sup> ) <sup>2</sup> /Hz $3.12g$ $5$ h         X-, Y- and Z-axis         Test passed
scillation/broadband noise Specification Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result Accelsion	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted         f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz         6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz         3.12g         5 h         X-, Y- and Z-axis         Test passed
scillation/broadband noise Specification Spectrum Frequency ASD level Acceleration Test duration per axis Test directions Result Acceleration Pulse shape	Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Service life test category 2, bogie-mounted         f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz         6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz         3.12g         5 h         X-, Y- and Z-axis         Test passed         DIN EN 50155 (VDE 0115-200):2022-06         Half-sine

Ambient conditions

Result

Test directions

Ambient temperature (operation)	-60 °C
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60 °C ... 110 °C (Operating temperature range incl. self-heating;

X-, Y- and Z-axis (pos. and neg.)

Test passed

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	for max. short-term operating temperature, see RTI Elec.)
Ambient temperature (storage/transport)	-25 °C 60 °C (for a short time, no longer than 24 h, -60°C to +70°C)
Ambient temperature (assembly)	-5 °C 70 °C
Ambient temperature (actuation)	-5 °C 70 °C
Permissible humidity (operation)	20 % 90 %
Permissible humidity (storage/transport)	30 % 70 %
andards and regulations	
	30 % 70 % IEC 60947-7-1
andards and regulations	
andards and regulations Connection in acc. with standard	
andards and regulations Connection in acc. with standard punting	IEC 60947-7-1

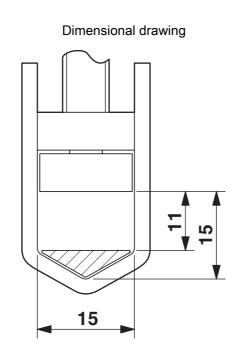
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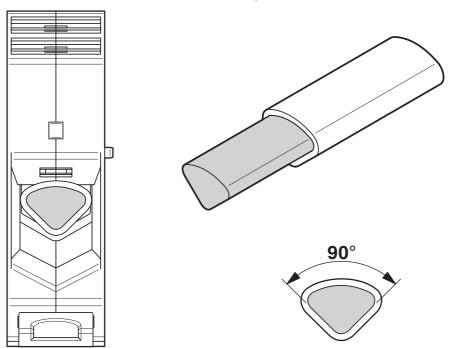
https://www.phoenixcontact.com/us/products/3010013



Drawings



Schematic diagram



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

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Circuit diagram





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# Approvals

🌣 To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3010013

pproval ID: TAE00001CT

CSA Approval ID: 13631				
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
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

Approval ID: E60425					
	Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>	
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	-	

KEUR	KEMA-KEUR Approval ID: 71-116392				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		1000 V	-	-	- 95



LR Approval ID: LR2041789TA-02





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<b>.</b>	<b>cUL Recognized</b> Approval ID: E192998				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		600 V	230 A	2 - 4/0	-
EACEx	EAC Ex Approval ID: RU C-DE	HA91.B.00066			
I ( C IEĈEX )	IECEX Approval ID: IECEx K	KEM 06.0029U			
<b>F/</b>	UL Recognized Approval ID: E192998				
		Nominal voltage U <sub>N</sub>	Nominal current I <sub>N</sub>	Cross section AWG	Cross section mm <sup>2</sup>
		600 V	230 A	2 - 4/0	-
	CCC Approval ID: 2020322313	000623			
(Ex)	UKCA-EX Approval ID: DEKRA 21U	KEX0307U			
-					
-					
cUL	Lus Recognized				

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# Classifications

### ECLASS

	ECLASS-11.0	27141120		
	ECLASS-13.0	27250101		
ETIM				
	ETIM 9.0	EC000897		
UNSPSC				
	UNSPSC 21.0	39121400		

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# Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions				
China RoHS					
Environment friendly use period (EFUP)	EFUP-E				
	No hazardous substances above the limits				
EU REACH SVHC					
REACH candidate substance (CAS No.)	No substance above 0.1 wt%				
EF3.0 Climate Change					
CO2e kg	1.347 kg CO2e				



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# **Dentact**

# Accessories



Note: Applying some accessories below might limit this product.

# EB 3-25/UKH - Insertion bridge

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

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



1 Max. current carrying capacity: 232 A

# EB 2-25/UKH - Insertion bridge

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

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



1 Max. current carrying capacity: 232 A

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

#### 3003541

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



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

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

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



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

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

#### 1201015

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



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

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

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



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

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

#### 1201714

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



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

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

0806602

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



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

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

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

### 1204135

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



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

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

1201756

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



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

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

#### 1206599

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



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

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

1206586

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



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

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

### 1201895

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



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

### NS 35/15 CAP - End cap

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

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



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# **PHŒNIX** CONTACT

### ZB 22:UNBEDRUCKT - Zack marker strip

#### 0811862

https://www.phoenixcontact.com/us/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:  $10.5 \times 21.8$  mm, Number of individual labels: 4

### ZB 22 CUS - Zack marker strip

0824949 https://www.phoenixcontact.com/us/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

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

0811875

https://www.phoenixcontact.com/us/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/us/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

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## TMT 10 R CUS - Marker for terminal blocks

#### 0824500

https://www.phoenixcontact.com/us/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.  $35 \times 10.15$  mm

### WS-4K - Warning label

1004584 https://www.phoenixcontact.com/us/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



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



UKH 95 EP - Insertion profile

3009231

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

Insertion profile, color: silver



### X-PEN 0,35 - Marker pen

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



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

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#### SF-THEX 6-200 - Screwdriver

#### 1212642

https://www.phoenixcontact.com/us/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/us/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

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# **PROJECT COMPLETE - Software**

#### 1050453

https://www.phoenixcontact.com/us/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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