

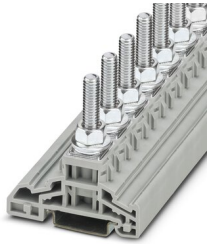
HV M8/1 - High Current Connectors



3049301

<https://www.phoenixcontact.com/in/products/3049301>

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High Current Connectors, nom. voltage: 1000 V, nominal current: 150 A, number of connections: 1, connection method: Bolt connection, Rated cross section: 50 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Comprehensive, supplementary accessories
- For connecting up to four conductors

Commercial Data

Item number	3049301
Packing unit	25 pc
Minimum order quantity	1 pc
Sales Key	BE4
Product Key	BE4211
Catalog Page	Page 397 (C-1-2019)
GTIN	4046356184052
Weight per Piece (including packing)	56.58 g
Weight per Piece (excluding packing)	50.084 g
Customs tariff number	85369010
Country of origin	CN

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Technical Data

Product properties

Product type	Bolt connection terminal block
Pitch	23 mm
Number of connections	1
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	4.73 W

Connection data

Number of connections per level	1
Nominal cross section	50 mm ²
Stripping length	The stripping length depends on the specification provided by the cable lug manufacturer.
Connection in acc. with standard	IEC 60947-7-1
Nominal current	150 A
Maximum load current	150 A (with 50 mm ² conductor cross section)
Nominal voltage	1000 V
Nominal cross section	50 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm ² ... 50 mm ²
Cross section range AWG	12 ... 2 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	18 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 12 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	16 mm ² ... 35 mm ²
Cross section range AWG	6 ... 2 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	20 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 12 Nm

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Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm ² ... 6 mm ²
Cross section range AWG	12 ... 8 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	6 ... 12 Nm

Dimensions

Width	21 mm
End cover width	2 mm
Height	63.5 mm
Height NS 35/15	73.3 mm
Height NS 35/7,5	65.8 mm
Length	64 mm
Bolt length	31.5 mm
Pitch	23 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
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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

Test voltage setpoint	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
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Result	Test passed
Short-time withstand current 50 mm ²	6 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	No
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	10 N
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):2018-05
Spectrum	Service life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	$0.964 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	5.72g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

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

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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
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Mounting

Mounting type	NS 35/7,5
	NS 35/15


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Approvals

 CSA Approval ID: 13631				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	150 A	-	-

 cUL Recognized Approval ID: FILE E 60425				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	150 A	-	-

 EAC Approval ID: RU C-DE.BL08.B.00540				
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Classifications

ECLASS

ECLASS-11.0

27141120

ETIM

ETIM 8.0

EC000897

UNSPSC

UNSPSC 21.0

39121400

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Environmental Product Compliance

China RoHS

Environmentally friendly use period: unlimited = EFUP-e

No hazardous substances above threshold values

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Accessories

 Note: Applying some accessories below might limit this product.

HV M8/1-VS 2 - Connection element

3049369

<https://www.phoenixcontact.com/in/products/3049369>



Connection element, length: 41 mm, width: 20 mm, height: 4 mm, number of positions: 2, color: silver

 Max. current carrying capacity: 150 A

HV M8/1-VS 3 - Connection element

3049372

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Connection element, length: 64 mm, width: 20 mm, height: 4 mm, number of positions: 3, color: silver

 Max. current carrying capacity: 150 A

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HV M12/2-TP - Separating plate

3049709

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Separating plate, length: 156 mm, width: 2 mm, color: gray



HV M8/1-AP - Cover profile

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Cover profile, for single-bolt terminal block M8, length: 75 mm, width: 21 mm, height: 6.5 mm, color: gray



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WS-4K - Warning label

1004584

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



CLIPFIX 35-5 - End clamp

3022276

<https://www.phoenixcontact.com/in/products/3022276>

Quick mounting end clamp for NS 35/7,5 DIN rail or NS 35/15 DIN rail, with marking option, with parking option for FBS...5, FBS...6, KSS 5, KSS 6, width: 5.15 mm, color: gray



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HV M8/1 M6/1-STL - Connection element

3071094

<https://www.phoenixcontact.com/in/products/3071094>

Connection element, number of positions: 2, color: silver



APH-HV - Cover profile carrier

1069621

<https://www.phoenixcontact.com/in/products/1069621>

Cover profile carrier, material: PA, color: gray, End piece for attaching the AP-BTO 5,5/14 cover profile



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APH-HV-M - Cover profile carrier

1136699

<https://www.phoenixcontact.com/in/products/1136699>



Cover profile carrier, material: PA, color: gray, Middle piece for attaching the AP-BTO 5,5/14 cover profile

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

0801733

<https://www.phoenixcontact.com/in/products/0801733>



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

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

0801681

<https://www.phoenixcontact.com/in/products/0801681>



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

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

1204119

<https://www.phoenixcontact.com/in/products/1204119>



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

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NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - DIN rail, unperforated

1204122

<https://www.phoenixcontact.com/in/products/1204122>



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

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

0801704

<https://www.phoenixcontact.com/in/products/0801704>



DIN rail, unperforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver, Pack of 25 (50 m)

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

1206421

<https://www.phoenixcontact.com/in/products/1206421>



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

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

1206434

<https://www.phoenixcontact.com/in/products/1206434>



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

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NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - DIN rail, unperforated

0801762

<https://www.phoenixcontact.com/in/products/0801762>



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

NS 35/ 7,5 CAP - End cap

1206560

<https://www.phoenixcontact.com/in/products/1206560>

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



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ZB 12:UNPRINTED - Zack marker strip

0812120

<https://www.phoenixcontact.com/in/products/0812120>

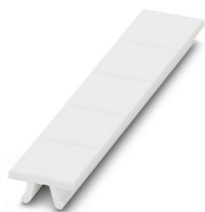


Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 12.2 mm, lettering field size: 12 x 10.5 mm, Number of individual labels: 5

ZB 12 CUS - Zack marker strip

0824942

<https://www.phoenixcontact.com/in/products/0824942>



Zack marker strip, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 12.2 mm, lettering field size: 10.5 x 12.15 mm, Number of individual labels: 5

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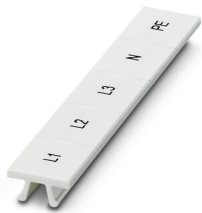
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ZB 12,LGS:L1-N,PE - Zack marker strip

0812146

<https://www.phoenixcontact.com/in/products/0812146>



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: snapped, for terminal block width: 12.2 mm, lettering field size: 10.5 x 12.15 mm, Number of individual labels: 5

UC-TM 12 - Marker for terminal blocks

0819194

<https://www.phoenixcontact.com/in/products/0819194>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 12 mm, lettering field size: 11.45 x 10.5 mm, Number of individual labels: 40

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UC-TM 12 CUS - Marker for terminal blocks

0824613

<https://www.phoenixcontact.com/in/products/0824613>



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: 12 mm, lettering field size: 11.45 x 10.5 mm, Number of individual labels: 40

UCT-TM 12 - Marker for terminal blocks

0829144

<https://www.phoenixcontact.com/in/products/0829144>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, for terminal block width: 12 mm, lettering field size: 10.8 x 9.6 mm, Number of individual labels: 30

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UCT-TM 12 CUS - Marker for terminal blocks

0829630

<https://www.phoenixcontact.com/in/products/0829630>



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: 12 mm, lettering field size: 10.8 x 9.6 mm, Number of individual labels: 30

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