

HV M6/1 - High Current Connectors



3049204

<https://www.phoenixcontact.com/in/products/3049204>

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High Current Connectors, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 1, connection method: Bolt connection, Rated cross section: 35 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	3049204
Packing unit	25 pc
Minimum order quantity	25 pc
Sales Key	BE4
Product Key	BE4211
Catalog Page	Page 396 (C-1-2019)
GTIN	4046356184038
Weight per Piece (including packing)	35.808 g
Weight per Piece (excluding packing)	20.976 g
Customs tariff number	85369010
Country of origin	CN

Technical Data

Product properties

Product type	Bolt connection terminal block
Pitch	18 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	4.06 W

Connection data

Number of connections per level	1
Nominal cross section	35 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	125 A
Maximum load current	125 A (with 35 mm ² conductor cross section)
Nominal voltage	1000 V
Nominal cross section	35 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm ² ... 35 mm ²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	6.5 mm
Width	15 mm
Bolt length	22.5 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque	3 ... 6 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	6 mm ² ... 25 mm ²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	6.4 mm
Width	14 mm
Bolt length	22.5 mm
Bolt diameter	6 mm

HV M6/1 - High Current Connectors



3049204

<https://www.phoenixcontact.com/in/products/3049204>

Screw thread	M6
Tightening torque	3 ... 6 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm ² ... 6 mm ²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	6.5 mm
Width	11 mm
Bolt length	22.5 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque	3 ... 6 Nm

Dimensions

Width	16 mm
End cover width	2 mm
Height	56.1 mm
Height NS 35/15	64.3 mm
Height NS 35/7,5	56.8 mm
Length	64 mm
Bolt length	22.5 mm
Pitch	18 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)	27,5 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

HV M6/1 - High Current Connectors



3049204

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Short-time withstand current 35 mm ²	4.2 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 (m/s ²)/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

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI)
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HV M6/1 - High Current Connectors



3049204

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	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


HV M6/1 - High Current Connectors





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Approvals

 cUL Recognized Approval ID: FILE E 60425				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	125 A	-	-

 EAC Approval ID: RU C-DE.BL08.B.00540				
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 CSA Approval ID: 13631				
	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	1000 V	125 A	-	-

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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 M6/1-VS 2 - Connection element

3049262

<https://www.phoenixcontact.com/in/products/3049262>



Connection element, length: 91.3 mm, width: 42.8 mm, height: 11.4 mm, number of positions: 2, color: silver

 Max. current carrying capacity: 125 A

HV M6/1-VS 3 - Connection element

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Connection element, length: 50 mm, width: 15 mm, height: 4 mm, number of positions: 3, color: silver

 Max. current carrying capacity: 125 A

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3049204

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HV M12/1-TP - Separating plate

3049602

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Separating plate, length: 50 mm, width: 1.5 mm, color: gray



HV M6/1-AP - Cover profile

3049903

<https://www.phoenixcontact.com/in/products/3049903>

Cover profile, for single-bolt terminal block M6, length: 70 mm, width: 16 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



HV M6/1 - High Current Connectors

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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

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

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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



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)

HV M6/1 - High Current Connectors

3049204

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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)

HV M6/1 - High Current Connectors



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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)

HV M6/1 - High Current Connectors

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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



HV M6/1 - High Current Connectors

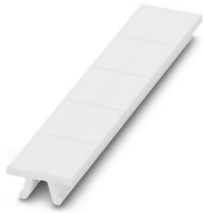
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ZB 12:UNPRINTED - Zack marker strip

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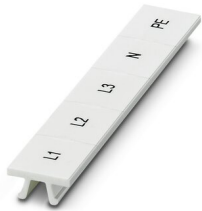
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ZB 12,LGS:L1-N,PE - Zack marker strip

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

HV M6/1 - High Current Connectors



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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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