

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



High Current Connectors, nom. voltage: 1000 V, nominal current: 76 A, number of connections: 1, connection method: Bolt connection, Rated cross section: 16 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	3049107
Packing unit	25 pc
Minimum order quantity	25 pc
Sales key	BE4
Product key	BE4211
Catalog page	Page 396 (C-1-2019)
GTIN	4046356184014
Weight per piece (including packing)	25.878 g
Weight per piece (excluding packing)	18.276 g
Customs tariff number	85369010
Country of origin	CN

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Technical data

Product properties

Product type	Bolt connection terminal block
Product family	HV
Pitch	13 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	2.43 W

Connection data

Number of connections per level	1
Nominal cross section	16 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	76 A
Maximum load current	76 A (with 16 mm ² conductor cross section)
Nominal voltage	1000 V
Nominal cross section	16 mm ²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	0.5 mm ² ... 16 mm ²
Cross section range AWG	20 ... 6 (converted acc. to IEC)
Hole diameter	5.3 mm
Width	11 mm
Bolt length	22.5 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque	2 ... 4 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	6 mm ² ... 10 mm ²
Cross section range AWG	10 ... 8 (converted acc. to IEC)
Hole diameter	5.3 mm
Width	9 mm
Bolt length	22.5 mm

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Bolt diameter	5 mm
Screw thread	M5
Tightening torque	2 ... 4 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	1 mm² ... 6 mm²
Cross section range AWG	20 ... 10 (converted acc. to IEC)
Hole diameter	5.3 mm
Width	10 mm
Bolt length	22.5 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque	2 ... 4 Nm

Dimensions

Width	13 mm
End cover width	2 mm
Height	64 mm
Depth	56.1 mm
Depth on NS 35/7,5	56.8 mm
Depth on NS 35/15	64.3 mm
Bolt length	22.5 mm
Pitch	13 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
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

Result	Test passed
--------	-------------

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Short-time withstand current 16 mm ²	1.92 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
-----------------	----

Mechanical tests

Mechanical strength

Result	Test passed
--------	-------------

Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	5 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 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2018-05
Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)

Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI Elec.)
---------------------------------	--

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Ambient temperature (storage/transport)	-25 °C ... 60 °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 %

Standards and regulations

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

Mounting

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

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/ae/products/3049107>

 **CSA**
Approval ID: 13631

 **cUL Recognized**
Approval ID: FILE E 60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group C				
	1000 V	76 A	-	-

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

 **CSA**
Approval ID: 13631

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

ETIM

ETIM 9.0	EC000897
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Environmental product compliance

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

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

Accessories

i Note: Applying some accessories below might limit this product.

HV M5/1-VS 2 - Connection element

3049437

<https://www.phoenixcontact.com/ae/products/3049437>



Connection element, depth: 4 mm, width: 12 mm, height: 27 mm, number of positions: 2, color: silver

i Max. current carrying capacity: 76 A

HV M5/1-VS 3 - Connection element

3049440

<https://www.phoenixcontact.com/ae/products/3049440>



Connection element, depth: 4 mm, width: 12 mm, height: 42 mm, number of positions: 3, color: silver

i Max. current carrying capacity: 76 A

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

HV M12/1-TP - Separating plate

3049602

<https://www.phoenixcontact.com/ae/products/3049602>

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



HV M5/1-AP - Cover profile

3049806

<https://www.phoenixcontact.com/ae/products/3049806>

Cover profile, for single-bolt terminal block M5, depth: 6.5 mm, width: 13 mm, height: 52 mm, color: gray



HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

AP-BTO 5,5/14 - Cover profile

3281151

<https://www.phoenixcontact.com/ae/products/3281151>

Cover profile, material: PC, color: transparent



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

0801733

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



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

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

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

0801681

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



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

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

1204119

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



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

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

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

1204122

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



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

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

0801704

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



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

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

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

1206421

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



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

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

1206434

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



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

HV M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

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

0801762

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



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

NS 35/ 7,5 CAP - End cap

1206560

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



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

HV M5/1 - High Current Connectors



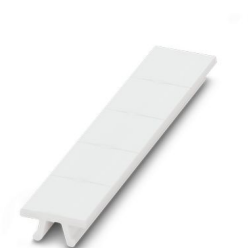
3049107

<https://www.phoenixcontact.com/ae/products/3049107>

ZB 12:UNPRINTED - Zack marker strip

0812120

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

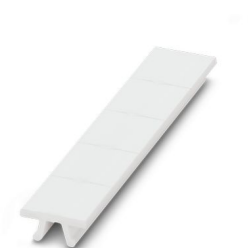


Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 12.2 mm, lettering field size: 12 x 10.5 mm, Number of individual labels: 5

ZB 12 CUS - Zack marker strip

0824942

<https://www.phoenixcontact.com/ae/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

HV M5/1 - High Current Connectors



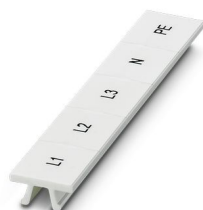
3049107

<https://www.phoenixcontact.com/ae/products/3049107>

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

0812146

<https://www.phoenixcontact.com/ae/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/ae/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 M5/1 - High Current Connectors



3049107

<https://www.phoenixcontact.com/ae/products/3049107>

UC-TM 12 CUS - Marker for terminal blocks

0824613

<https://www.phoenixcontact.com/ae/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/ae/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

HV M5/1 - High Current Connectors

3049107

<https://www.phoenixcontact.com/ae/products/3049107>



UCT-TM 12 CUS - Marker for terminal blocks

0829630

<https://www.phoenixcontact.com/ae/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

WS-4K - Warning label

1004584

<https://www.phoenixcontact.com/ae/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

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

PHOENIX CONTACT Middle East FZ LLC
1201N-1206N, Dubai Science Park Towers – North
P.O. Box 345002, Dubai, United Arab Emirates
(+971) 4 437-0324
info-me@phoenixcontact.com