

High Current Connectors - HV M5/1 - 3049107

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High Current Connectors, nom. voltage: 1000 V, nominal current: 76 A, connection method: Bolt connection, number of connections: 1, width: 13 mm, height: 56.1 mm, color: gray, mounting type: NS 35/7,5, NS 35/15

Your advantages

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



Key Commercial Data

Packing unit	1 pc
Minimum order quantity	25 pc
GTIN	 4 046356 184014
GTIN	4046356184014
Weight per Piece (excluding packing)	20.680 g
Custom tariff number	85369010
Country of origin	China

Technical data

General

Number of levels	1
Number of connections	1
Nominal cross section	16 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0

High Current Connectors - HV M5/1 - 3049107

Technical data

General

Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	2.43 W
Connection in acc. with standard	IEC 60947-7-1
Nominal current I_N	76 A
Maximum load current	76 A (with 16 mm ² conductor cross section)
Nominal voltage U_N	1000 V
Open side panel	No
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	2.2 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	5 N
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	16 mm ²
Short-time current	1.92 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2018-05

High Current Connectors - HV M5/1 - 3049107

Technical data

General

Shock form	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °C
Static insulating material application in cold	-60 °C
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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg

Dimensions

Length	64 mm
Width	13 mm
Height	56.1 mm
Height NS 35/7,5	56.8 mm
Height NS 35/15	64.3 mm
Bolt length	22.5 mm

Connection data

Connection method	Bolt connection
Cable lug connection according to standard	DIN 46234:1980-03
Min. cross section for cable lug connection	0.5 mm ²
Max. cross section for cable lug connection	16 mm ²
Hole diameter, min.	5.3 mm
Cable lug width, max.	11 mm
Bolt length	22.5 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque, min	2 Nm
Tightening torque max	4 Nm
Cable lug connection according to standard	DIN 46235:1983-07
Min. cross section for cable lug connection	6 mm ²
Max. cross section for cable lug connection	10 mm ²
Hole diameter, min.	5.3 mm
Cable lug width, max.	9 mm

High Current Connectors - HV M5/1 - 3049107

Technical data

Connection data

Bolt length	22.5 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque, min	2 Nm
Tightening torque max	4 Nm
Cable lug connection according to standard	DIN 46237:1970-07
Min. cross section for cable lug connection	1 mm ²
Max. cross section for cable lug connection	6 mm ²
Hole diameter, min.	5.3 mm
Cable lug width, max.	10 mm
Bolt length	22.5 mm
Bolt diameter	5 mm
Screw thread	M5
Tightening torque, min	2 Nm
Tightening torque max	4 Nm
Stripping length	The stripping length depends on the specification provided by the cable lug manufacturer.

Ambient conditions

Operating temperature	-60 °C ... 105 °C (max. short-term operating temperature 130°C)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Permissible humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C

Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 10.0.1	27141120
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High Current Connectors - HV M5/1 - 3049107

Classifications

eCl@ss

eCl@ss 11.0	27141120
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 6.0	EC000897
ETIM 7.0	EC000897

UNSPSC

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

Approvals

Approvals

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EAC / CSA / UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

Approval details

High Current Connectors - HV M5/1 - 3049107

Approvals

EAC			RU C- DE.BL08.B.00540
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CSA		http://www.csagroup.org/services-industries/product-listing/	158887
		C	
Nominal voltage UN		1000 V	
Nominal current IN		76 A	

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
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cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
		C	
Nominal voltage UN		1000 V	
Nominal current IN		76 A	

cULus Recognized			
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Accessories

Accessories

Bridge

Connection element - HV M5/1-VS 2 - 3049437



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

High Current Connectors - HV M5/1 - 3049107

Accessories

Connection element - HV M5/1-VS 3 - 3049440



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

Cover profile

Cover profile - HV M5/1-AP - 3049806

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



Cover profile carrier

Cover profile carrier - APH-HV - 1069621



Cover profile carrier, width: 4.5 mm, height: 88.4 mm, material: PA, length: 50 mm, color: gray

Cover profile carrier - APH-HV-M - 1136699



Cover profile carrier, width: 4.5 mm, height: 35 mm, material: PA, length: 50.2 mm, color: gray

DIN rail

High Current Connectors - HV M5/1 - 3049107

Accessories

DIN rail perforated - NS 35/ 7,5 PERF 2000MM - 0801733



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 UNPERF 2000MM - 0801681



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, length: 2000 mm, color: silver

DIN rail perforated - NS 35/ 7,5 WH PERF 2000MM - 1204119



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM - 1204122



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, Galvanized, white passivated, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 AL UNPERF 2000MM - 0801704



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Aluminum, uncoated, length: 2000 mm, color: silver

High Current Connectors - HV M5/1 - 3049107

Accessories

DIN rail perforated - NS 35/ 7,5 ZN PERF 2000MM - 1206421



DIN rail perforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 ZN UNPERF 2000MM - 1206434



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Steel, galvanized, length: 2000 mm, color: silver

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM - 0801762



DIN rail, unperforated, Standard profile, width: 35 mm, height: 7.5 mm, acc. to EN 60715, material: Copper, uncoated, length: 2000 mm, color: copper-colored

End cap - NS 35/ 7,5 CAP - 1206560



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

End block

End clamp - CLIPFIX 35-5 - 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

High Current Connectors - HV M5/1 - 3049107

Accessories

Labeled terminal marker

Warning label - WS-4K - 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

Zack marker strip - ZB 12 CUS - 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

Zack marker strip - ZB 12,LGS:L1-N,PE - 0812146



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, 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

Marker for terminal blocks - UC-TM 12 CUS - 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

Marker for terminal blocks - UCT-TM 12 CUS - 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

High Current Connectors - HV M5/1 - 3049107

Accessories

Partition plate

Separating plate - HV M12/1-TP - 3049602



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

Terminal marking

Zack marker strip - ZB 12:UNPRINTED - 0812120



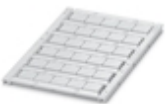
Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into tall marker groove, for terminal block width: 12.2 mm, lettering field size: 12 x 10.5 mm, Number of individual labels: 5

Marker for terminal blocks - UC-TM 12 - 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: 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

Marker for terminal blocks - UCT-TM 12 - 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: 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