

High Current Connectors - HV M10/1 - 3049408

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High Current Connectors, nom. voltage: 1000 V, nominal current: 269 A, connection method: Bolt connection, number of connections: 1, cross section: 1.5 mm² - 120 mm², width: 32 mm, height: 74.6 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	10 pc
GTIN	 4 046356 184076
GTIN	4046356184076
Weight per Piece (excluding packing)	92.000 g
Custom tariff number	85369010
Country of origin	China

Technical data

General

Number of levels	1
Number of connections	1
Nominal cross section	120 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV

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Technical data

General

Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	8.68 W
Connection in acc. with standard	IEC 60947-7-1
Nominal current I _N	269 A
Maximum load current	269 A
Nominal voltage U _N	1000 V
Open side panel	No
Result of surge voltage test	Test passed
Surge voltage test setpoint	9.8 kV
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
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	15 N
Result of voltage-drop test	Test passed
Requirements, voltage drop	≤ 3.2 mV
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	120 mm ²
Short-time current	14.4 kA
Result of thermal test	Test passed
Proof of thermal characteristics (needle flame) effective duration	30 s
Oscillation, broadband noise test result	Test passed
Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 1, class B, body mounted
Test frequency	f ₁ = 5 Hz to f ₂ = 150 Hz
ASD level	0.964 (m/s ²) ² /Hz
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2018-05
Shock form	Half-sine
Acceleration	5g

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General

Shock duration	30 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
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
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
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

Dimensions

Length	64 mm
Width	32 mm
Height	74.6 mm
Height NS 35/7,5	74.6 mm
Height NS 35/15	83.5 mm
Bolt length	41 mm

Connection data

Connection method	Bolt connection
Conductor cross section solid min.	1.5 mm ²
Conductor cross section solid max.	120 mm ²
Conductor cross section flexible min.	6 mm ²
Conductor cross section flexible max.	120 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	6 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	120 mm ²
Cable lug connection according to standard	DIN 46234
Min. cross section for cable lug connection	6 mm ²

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Technical data

Connection data

Max. cross section for cable lug connection	120 mm ²
Bolt length	40.5 mm
Bolt diameter	10 mm
Tightening torque, min	10 Nm
Tightening torque max	20 Nm
Cable lug connection according to standard	DIN 46235
Min. cross section for cable lug connection	10 mm ²
Max. cross section for cable lug connection	95 mm ²
Bolt length	40.5 mm
Bolt diameter	10 mm
Tightening torque, min	10 Nm
Tightening torque max	20 Nm
Cable lug connection according to standard	DIN 46237
Max. cross section for cable lug connection	6 mm ²
Bolt length	40.5 mm
Bolt diameter	10 mm
Tightening torque, min	10 Nm
Tightening torque max	20 Nm
Screw thread	M10
Tightening torque, min	10 Nm
Tightening torque max	20 Nm

Standards and Regulations

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

Environmental Product Compliance

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

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Classifications

eCl@ss

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 8.0	27141120
eCl@ss 9.0	27141120

ETIM

ETIM 2.0	EC000897
ETIM 3.0	EC000897
ETIM 4.0	EC000897
ETIM 5.0	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

Approvals

Approvals

Approvals

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

Ex Approvals

Approval details

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Approvals

EAC			RU C- DE.A*30.B.01742
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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
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	C
Nominal voltage UN	1000 V
Nominal current IN	269 A

CSA		http://www.csagroup.org/services-industries/product-listing/	158887
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	C
Nominal voltage UN	1000 V
Nominal current IN	269 A

cULus Recognized			
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Accessories

Accessories

Bridge

Connection element - HV M10/1 M6/1-STL2 - 3071081



Connection element, number of positions: 3, color: silver

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Accessories

Connection element - HV M10/1-VS 2 - 3049466



Connection element, length: 62 mm, width: 25 mm, height: 4 mm, number of positions: 2, color: silver

Connection element - HV M10/1-VS 3 - 3049479



Connection element, length: 96 mm, width: 25 mm, height: 4 mm, number of positions: 3, color: silver

Cover profile

Cover profile - HV M10/1-AP - 3049495



Cover profile, for single-bolt terminal block M10, length: 156 mm, width: 32 mm, height: 6.5 mm, color: gray

DIN rail

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

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Accessories

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

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

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Accessories

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 - E/AL-NS 35 - 1201662



End clamp, for end support of UKH 50 to UKH 240, is pushed onto DIN rail NS 35 and fixed with 2 screws, width: 10 mm, color: aluminum

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

Warning label - WS-2K - 1004513



Adhesive warning plate, self-adhesive, black print: lightning flash with mixed version - "Vorsicht Spannung - Attention Danger" size of label: 32 x 26 mm

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Accessories

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

Partition plate

Separating plate - HV M12/2-TP - 3049709



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

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Accessories

Pick-off terminal block

Pick-off terminal block - AGK PT 4X6/M10 - 1017448



Pick-off terminal block, nom. voltage: 1000 V, nominal current: 41 A, connection method: Push-in connection, Bolt connection, number of connections: 5, cross section: 0.5 mm² - 10 mm², AWG: 20 - 8, width: 31 mm, height: 32.3 mm, color: gray, mounting type: on base element

Pick-off terminal block - AGK PT 8X6/M10 - 1017450



Pick-off terminal block, nom. voltage: 1000 V, nominal current: 41 A, connection method: Push-in connection, Bolt connection, number of connections: 9, cross section: 0.5 mm² - 10 mm², AWG: 20 - 8, width: 31 mm, height: 32.3 mm, color: gray, mounting type: on base element

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

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Accessories

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