

High Current Connectors - HV M6/2 - 3049547

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High Current Connectors, nom. voltage: 1000 V, nominal current: 125 A, connection method: Bolt connection, 1 level, Rated cross section: 35 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- ✓ Comprehensive range of accessories for safe and user-friendly wiring of conductors up to 120 mm²
- ✓ Two different partition plates can be used for the range of single and double-bolt terminal blocks
- ✓ 2 and 3-pos. connection rails can be used for potential distribution
- ✓ Secure connection of up to 4 conductors with cable lugs according to DIN 46234, 46235, and 46237 in a small amount of space
- ✓ Spring washers are used to prevent hexagonal nuts from loosening
- ✓ The feed-through window provided in the partition plates can be easily removed for mounting the connection rails



Key Commercial Data

Packing unit	25 pc
GTIN	 4 046356 310291
GTIN	4046356310291

Technical data

General

Number of rows	1
Number of connections	2
Nominal cross section	35 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	8 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I

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Technical data

General

Maximum power dissipation for nominal condition	4.06 W
Connection in acc. with standard	IEC 60947-7-1
Nominal current I_N	125 A
Maximum load current	125 A (with 35 mm ² conductor cross section)
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	10 N
Result of voltage-drop test	Test passed
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	35 mm ²
Short-time current	4.2 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	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	0.964 (m/s ²) ² /Hz
Acceleration	5.72g
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):2008-03
Shock form	Half-sine
Acceleration	5g
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

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Technical data

General

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	16 mm
Height	56.1 mm
Height NS 35/7,5	56.1 mm
Height NS 35/15	63.6 mm
Bolt length	17 mm

Connection data

Connection method	Bolt connection
Cable lug connection according to standard	DIN 46234:1980-03
Min. cross section for cable lug connection	2.5 mm ²
Max. cross section for cable lug connection	35 mm ²
Hole diameter, min.	6.5 mm
Cable lug width, max.	15 mm
Bolt length	17 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque, min	3 Nm
Tightening torque max	6 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	25 mm ²
Hole diameter, min.	6.4 mm
Cable lug width, max.	14 mm
Bolt length	17 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque, min	3 Nm
Tightening torque max	6 Nm
Cable lug connection according to standard	DIN 46237:1970-07
Min. cross section for cable lug connection	2.5 mm ²
Max. cross section for cable lug connection	6 mm ²

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Technical data

Connection data

Hole diameter, min.	6.5 mm
Cable lug width, max.	11 mm
Bolt length	16 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque, min	3 Nm
Tightening torque max	6 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 RTI Elec.)
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	IEC 60947-7-1
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Environmental Product Compliance

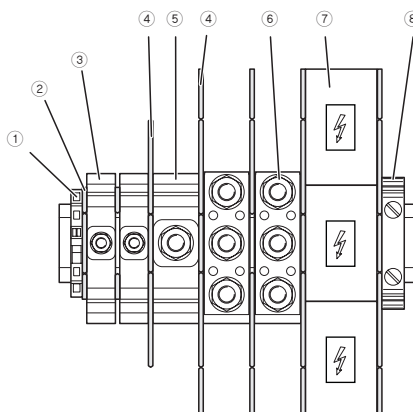
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Circuit diagram



Application drawing



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Classifications

eCl@ss

eCl@ss 10.0.1	27141120
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

Approvals

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

Ex Approvals

Approval details

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Approvals

CSA		http://www.csagroup.org/services-industries/product-listing/	158887
		C	
Nominal voltage UN		1000 V	
Nominal current IN		125 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		125 A	

EAC		RU C- DE.BL08.B.00540	
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cULus Recognized			
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Accessories

Accessories

Bridge

Connection element - HV M6/1-VS 2 - 3049262



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

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Accessories

Connection element - HV M6/1-VS 3 - 3049275



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

Cover profile

Cover profile - HV M6/1-AP - 3049903



Cover profile, for single-bolt terminal block M6, length: 70 mm, width: 16 mm, height: 6.5 mm, color: gray

Cover profile carrier

Cover profile carrier - APH-HV - 1069621



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

Cover profile carrier - APH-HV-M - 1136699



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

DIN rail

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



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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Accessories

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



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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



DIN rail perforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 WH UNPERF 2000MM-VPE 10 - 1204122



DIN rail, unperforated, acc. to EN 60715, material: Steel, Galvanized, white passivated, Standard profile, color: silver

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



DIN rail, unperforated, acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver

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



DIN rail perforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

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Accessories

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



DIN rail, unperforated, acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver

DIN rail, unperforated - NS 35/ 7,5 CU UNPERF 2000MM-VPE 10 - 0801762



DIN rail, unperforated, acc. to EN 60715, material: Copper, uncoated, Standard profile, 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

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

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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

Terminal marking

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Accessories

Zack marker strip - ZB 12:UNPRINTED - 0812120



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, 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, 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, for terminal block width: 12 mm, lettering field size: 10.8 x 9.6 mm, Number of individual labels: 30

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>