

HV M6/2 - High-current connector

3049547

<https://www.phoenixcontact.com/us/products/3049547>

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High-current connector, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 2, connection method: Bolt connection, 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

Commercial data

Item number	3049547
Packing unit	25 pc
Minimum order quantity	25 pc
Sales key	BE42
Product key	BE4212
GTIN	4046356310291
Weight per piece (including packing)	76.8 g
Weight per piece (excluding packing)	66.232 g
Customs tariff number	85369010
Country of origin	IN

HV M6/2 - High-current connector



3049547

<https://www.phoenixcontact.com/us/products/3049547>

Technical data

Product properties

Product type	Bolt connection terminal block
Product family	HV
Pitch	18 mm
Number of connections	2
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	2
Nominal cross section	35 mm ²
Connection method	Bolt connection
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 cross section	35 mm ²
Nominal current	125 A
Maximum load current	125 A (with 35 mm ² conductor cross-section)
Nominal voltage	1000 V

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

HV M6/2 - High-current connector



3049547

<https://www.phoenixcontact.com/us/products/3049547>

Bolt length	22.5 mm
Bolt diameter	6 mm
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	64 mm
Depth	56.1 mm
Depth on NS 35/7,5	56.1 mm
Depth on NS 35/15	63.6 mm
Bolt length	17 mm
Pitch	18 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °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
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 M6/2 - High-current connector



3049547

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Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
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	Long life test category 1, class B, body mounted
Frequency	$f_1 = 5$ Hz to $f_2 = 150$ 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
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3

HV M6/2 - High-current connector



3049547

<https://www.phoenixcontact.com/us/products/3049547>

Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see RTI 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 (operation)	20 % ... 90 %
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

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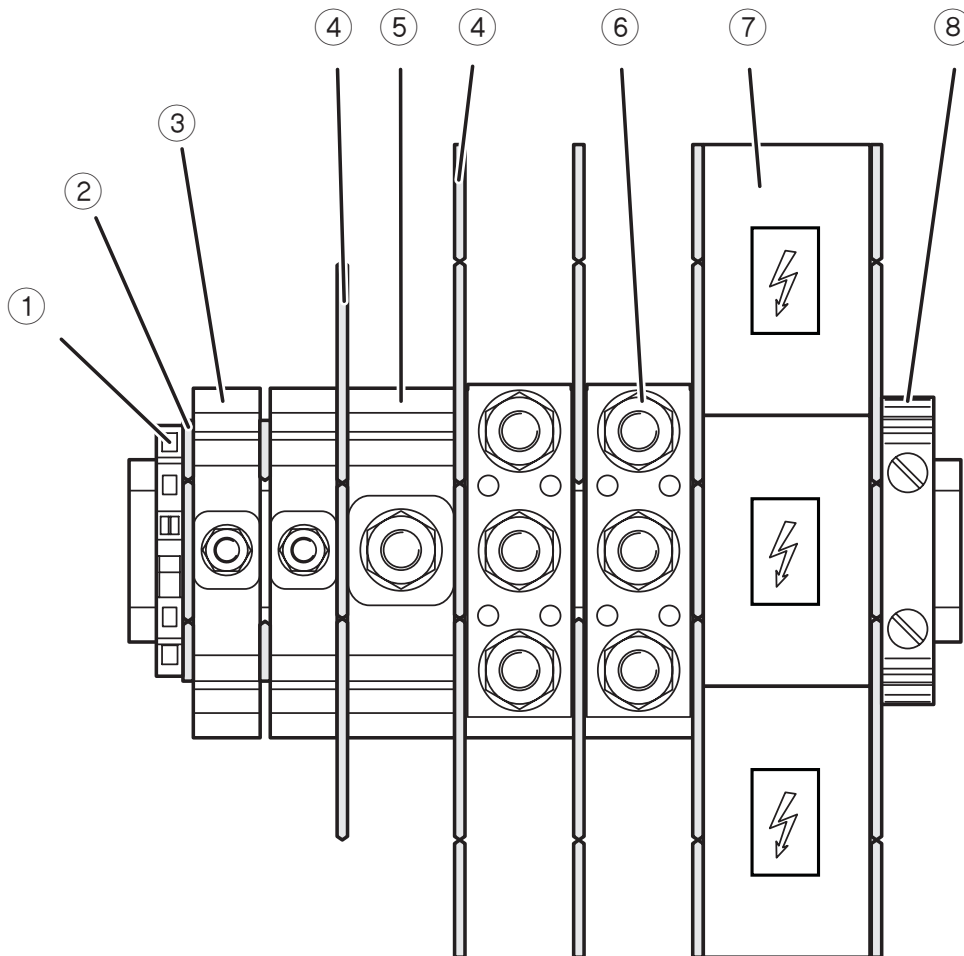
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Drawings

Application drawing



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Circuit diagram



HV M6/2 - High-current connector





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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3049547>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
C				
	1000 V	125 A	-	-

 cUL Recognized Approval ID: FILE E 60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
C				
	1000 V	125 A	-	-

 UL Recognized Approval ID: FILE E 60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
F				
	1000 V	125 A	-	-
E				
	1000 V	125 A	-	-

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

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

ETIM

ETIM 10.0	EC000897
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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EF3.1 Climate Change

CO2e kg	1.19 kg CO2e
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