

# HV M10/2 - High-current connector

3049563

<https://www.phoenixcontact.com/gb/products/3049563>

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 connector, nom. voltage: 1000 V, nominal current: 269 A, number of connections: 2, connection method: Bolt connection, Rated cross section: 120 mm<sup>2</sup>, 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 mm<sup>2</sup>
- 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	3049563
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE4212
Product key	BE4212
GTIN	4046356310314
Weight per piece (including packing)	266.3 g
Weight per piece (excluding packing)	248.16 g
Customs tariff number	85369010
Country of origin	CN

# HV M10/2 - High-current connector



3049563

<https://www.phoenixcontact.com/gb/products/3049563>

## Technical data

### Product properties

Product type	Bolt connection terminal block
Product family	HV
Pitch	34 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	8.68 W

### Connection data

Number of connections per level	2
Nominal cross section	120 mm <sup>2</sup>
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 current	269 A
Maximum load current	269 A (with 120 mm <sup>2</sup> conductor cross-section)
Nominal voltage	1000 V
Nominal cross section	120 mm <sup>2</sup>

### Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	6 mm <sup>2</sup> ... 120 mm <sup>2</sup>
Cross section range AWG	8 ... 250 kcmil (converted acc. to IEC)
Hole diameter	10.5 mm
Width	24 mm
Bolt diameter	10 mm
Screw thread	M10
Tightening torque	10 ... 20 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	16 mm <sup>2</sup> ... 95 mm <sup>2</sup>
Cross section range AWG	4 ... 250 kcmil (converted acc. to IEC)
Hole diameter	10.5 mm
Width	32 mm
Bolt diameter	10 mm

# HV M10/2 - High-current connector



3049563

<https://www.phoenixcontact.com/gb/products/3049563>

Screw thread	M10
Tightening torque	10 ... 20 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	... 6 mm <sup>2</sup>
Cross section range AWG	... 8 (converted acc. to IEC)
Hole diameter	10.5 mm
Width	18 mm
Bolt diameter	10 mm
Screw thread	M10
Tightening torque	10 ... 20 Nm

## Dimensions

Width	32 mm
End cover width	2 mm
Height	90.5 mm
Depth	74.6 mm
Depth on NS 35/7,5	75.3 mm
Depth on NS 35/15	82.8 mm
Bolt length	31 mm
Pitch	34 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

### Temperature-rise test

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

# HV M10/2 - High-current connector



3049563

<https://www.phoenixcontact.com/gb/products/3049563>

Short-time withstand current 120 mm <sup>2</sup>	14.4 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	15 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	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	0.964 (m/s <sup>2</sup> )/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):2018-05
Pulse shape	Half-sine
Acceleration	5g
Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

### Ambient conditions

# HV M10/2 - High-current connector



3049563

<https://www.phoenixcontact.com/gb/products/3049563>

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
----------------------------------	---------------

## Mounting

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

# HV M10/2 - High-current connector

3049563

<https://www.phoenixcontact.com/gb/products/3049563>



## Drawings

### Circuit diagram



# HV M10/2 - High-current connector




3049563

<https://www.phoenixcontact.com/gb/products/3049563>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/gb/products/3049563>


 **CSA**  
Approval ID: 13631

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

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
C	1000 V	269 A	-	-

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

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
F	1000 V	269 A	-	-
E	1000 V	269 A	-	-

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

 **CSA**  
Approval ID: 13631

# HV M10/2 - High-current connector



3049563

<https://www.phoenixcontact.com/gb/products/3049563>

## Classifications

### ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

### ETIM

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

### UNSPSC

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

# HV M10/2 - High-current connector



3049563

<https://www.phoenixcontact.com/gb/products/3049563>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

### 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%
-------------------------------------	----------------------------

Phoenix Contact 2025 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT Ltd  
Halesfield 13, Telford  
Shropshire, TF7 4PG  
01952 681700  
[info@phoenixcontact.co.uk](mailto:info@phoenixcontact.co.uk)