

# HV M6/1 NFF - High-current connector



1056836

<https://www.phoenixcontact.com/sg/products/1056836>

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High-current connector, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 1, connection method: Bolt connection, Rated cross section: 35 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: gray

## Your advantages

- HFR nut screw locking
- Conical washer CS

## Commercial data

Item number	1056836
Packing unit	25 pc
Minimum order quantity	25 pc
Sales key	*****
Product key	BE4211
GTIN	4055626698113
Weight per piece (including packing)	34.512 g
Weight per piece (excluding packing)	25.86 g
Customs tariff number	85369010
Country of origin	CN

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## Technical data

### Product properties

Product type	Bolt connection terminal block
Number of connections	1
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	1
Nominal cross section	35 mm <sup>2</sup>
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	125 A
Maximum load current	125 A
Nominal voltage	1000 V
Nominal cross section	35 mm <sup>2</sup>
Connection in acc. with standard	NF F61-017
Maximum total current	101 A
Nominal voltage	1000 V
Nominal cross section	25 mm <sup>2</sup>

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

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Cross section range AWG	14 ... 2 (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	8.00 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	6 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Cross section range AWG	10 ... 2 (converted acc. to IEC)
Hole diameter	6.5 mm

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Width	14 mm
Bolt length	22.5 mm
Bolt diameter	6 mm
Screw thread	M6
Tightening torque	8.00 Nm
Connection in acc. with standard	DIN 46237:1970-07
Cross section	2.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Cross section range AWG	14 ... 10 (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	8.00 Nm
Connection in acc. with standard	NF F00-363:1995-12-01
Cross section	... 25 mm <sup>2</sup>
Additional text	The stripping length is based on the specifications of the cable lug manufacturer.
Cross section range AWG	(converted acc. to IEC)
Bolt diameter	6 mm
Screw thread	M6
Tightening torque	8.00 Nm
Connection in acc. with standard	NF F00-363
Cross section	0.5 mm <sup>2</sup> ... 25 mm <sup>2</sup>
Additional text	Release list on request
Cross section range AWG	(converted acc. to IEC)

## Dimensions

Width	16 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	22.5 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

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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

Result	Test passed
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### Temperature-rise test

Requirement temperature-rise test	Increase in temperature $\leq 45$ K
Result	Test passed
Short-time withstand current 35 mm <sup>2</sup>	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

Result	Test passed
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### Test for conductor damage and slackening

Rotation speed	10 (+/- 2) rpm
Revolutions	135
Conductor cross section/weight	35 mm <sup>2</sup> / 6.8 kg
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):2022-06
Spectrum	Service life test category 2, bogie-mounted

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Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
Acceleration	3.12g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

## Shocks

Pulse shape	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
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
	NF F61-017

## Mounting

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

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## Approvals

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 <b>cULus Recognized</b> Approval ID: E60425				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group C				
	1000 V	125 A	14 - 1	-
Use group F				
	1000 V	125 A	14 - 1	-
Use group E				
	1000 V	125 A	14 - 1	-

 <b>CSA</b> Approval ID: 13631				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group C				
	1000 V	125 A	14 - 1	-

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## Classifications

### ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250101

### ETIM

ETIM 9.0	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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