

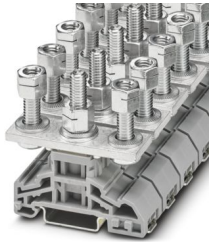
# HV M8/2 NFF - High-current connector



1055644

<https://www.phoenixcontact.com/pc/products/1055644>

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High-current connector, nom. voltage: 1000 V, nominal current: 150 A, number of connections: 2, connection method: Bolt connection, Rated cross section: 50 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	1055644
Packing unit	25 pc
Minimum order quantity	25 pc
Product key	BE4212
GTIN	4055626692753
Weight per piece (including packing)	142.552 g
Weight per piece (excluding packing)	142.552 g
Customs tariff number	85369010
Country of origin	CN

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## Technical data

### Notes

#### General

Note	The rated insulation voltage applies to insulated cable lugs acc. DIN 46237:1970-07 and for uninsulated cable lugs acc. DIN 46234:1980-03 with shrink sleeve.
	The rated insulation voltage applies to insulated cable lugs acc. DIN 46237:1970-07 and for uninsulated cable lugs acc. DIN 46234:1980-03 with shrink sleeve. When using uninsulated cable lugs with shrink sleeve the min. required air clearances and creepage distances have to be ensured by the enduser.
	The rated insulation voltage applies to insulated cable lugs acc. to DIN 46237:1970-07 and for uninsulated cable lugs acc. to DIN 46234:1980-03 with path extension.

### Product properties

Product type	Bolt connection terminal block
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	50 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	150 A
Maximum load current	150 A
Nominal voltage	1000 V
Nominal cross section	50 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
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Cross section	2.5 mm <sup>2</sup> ... 50 mm <sup>2</sup>
Cross section range AWG	12 ... 2 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	18 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	14.40 Nm
Connection in acc. with standard	DIN 46235:1983-07
Cross section	16 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Cross section range AWG	6 ... 2 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	20 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	14.40 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	12 ... 8 (converted acc. to IEC)
Hole diameter	8.4 mm
Width	14 mm
Bolt diameter	8 mm
Screw thread	M8
Tightening torque	14.40 Nm
Connection in acc. with standard	NF F00-363:1995-12-01
Cross section	... 50 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	M8
Tightening torque	14.40 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	21 mm
Height	68 mm
Depth	65.1 mm
Depth on NS 35/7,5	65.8 mm
Depth on NS 35/15	73.3 mm
Bolt length	32.5 mm

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## 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

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 50 mm <sup>2</sup>	6 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	50 mm <sup>2</sup> / 9.5 kg

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Result	Test passed
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## 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
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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## Drawings

### Circuit diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1055644>



**cULus Recognized**  
Approval ID: E60425



**CSA**  
Approval ID: 13631

	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group C				
	1000 V	150 A	14 - 1/0	-



**cULus Recognized**  
Approval ID: E60425

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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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