HV M6/1 - High-current connector

3049204

https://www.phoenixcontact.com/pc/products/3049204

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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^2, mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Comprehensive, supplementary accessories
- For connecting up to four conductors

Commercial data

Item number	3049204
Packing unit	25 pc
Minimum order quantity	25 pc
Product key	BE4211
GTIN	4046356184038
Weight per piece (including packing)	34.148 g
Weight per piece (excluding packing)	20.976 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Product properties

Product type	Bolt connection terminal block
Product family	HV
Pitch	18 mm
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 mm²
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	125 A
Maximum load current	125 A (with 35 mm² conductor cross-section)
Nominal voltage	1000 V
Nominal cross section	35 mm²

Cable lug connection DIN 46234:1980-03

Connection in acc. with standard	DIN 46234:1980-03
Cross section	2.5 mm² ... 35 mm²
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 mm² ... 25 mm²
Cross section range AWG	(converted acc. to IEC)
Hole diameter	6.4 mm
Width	14 mm

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 mm² ... 6 mm²
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	56.8 mm
Depth on NS 35/15	64.3 mm
Bolt length	22.5 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
Short-time withstand current 35 mm²	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

Mechanical tests

Mechanical strength

Result	Test passed

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

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

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

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/pc/products/3049204

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	-	-

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

CSA
Approval ID: 13631

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
C				
	1000 V	125 A	-	-

Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

ETIM

ETIM 9.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

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%

Accessories

Note: Applying some accessories below might limit this product.

HV M6/1-VS 2 - Connection element

3049262

https://www.phoenixcontact.com/pc/products/3049262



Connection element, depth: 4 mm, width: 15 mm, height: 32 mm, number of positions: 2, color: silver-colored

Max. current carrying capacity: 125 A

HV M6/1-VS 3 - Connection element

3049275

https://www.phoenixcontact.com/pc/products/3049275



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

Max. current carrying capacity: 125 A

AGK PT 6X2,5/M6 - Pick-off terminal block

1346838

https://www.phoenixcontact.com/pc/products/1346838



Pick-off terminal block, nom. voltage: 1000 V, nominal current: 24 A, number of connections: 7, connection method: Push-in connection, Rated cross section: 2.5 mm^2, cross section: 0.34 mm^2 - 4 mm^2, Bolt connection, Line contact, mounting type: on base element, color: gray

HV M12/1-TP - Separating plate

3049602

https://www.phoenixcontact.com/pc/products/3049602



Separating plate, width: 1.5 mm, height: 50 mm, color: gray

HV M6/1-AP - Cover profile

3049903

https://www.phoenixcontact.com/pc/products/3049903

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



HV M12/2-TP - Separating plate

3049709

https://www.phoenixcontact.com/pc/products/3049709

Separating plate, width: 2 mm, height: 156 mm, color: gray

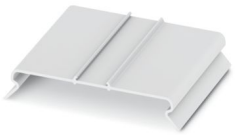


AP-BTO 5,5/14 - Cover profile

3281151

https://www.phoenixcontact.com/pc/products/3281151

Cover profile, material: PC, color: transparent



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

0801733

https://www.phoenixcontact.com/pc/products/0801733



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver

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

0801681

https://www.phoenixcontact.com/pc/products/0801681



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, passivated with a thick layer, Standard profile, color: silver-colored

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

1204119

https://www.phoenixcontact.com/pc/products/1204119



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: silver-colored

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

1204122

https://www.phoenixcontact.com/pc/products/1204122



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Steel, galvanized, white passivated, Standard profile, color: silver-colored

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

0801704

https://www.phoenixcontact.com/pc/products/0801704



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Aluminum, uncoated, Standard profile, color: silver-colored

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

1206421

https://www.phoenixcontact.com/pc/products/1206421



DIN rail perforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver-colored

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

1206434

https://www.phoenixcontact.com/pc/products/1206434



DIN rail, unperforated, Pack of 25 (50 m), acc. to EN 60715, material: Steel, galvanized, Standard profile, color: silver-colored

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

0801762

https://www.phoenixcontact.com/pc/products/0801762



DIN rail, unperforated, Pack of 10 (20 m), acc. to EN 60715, material: Copper, uncoated, Standard profile, color: copper-colored

NS 35/ 7,5 CAP - End cap

1206560

https://www.phoenixcontact.com/pc/products/1206560

DIN rail end piece, for DIN rail NS 35/7.5



ZB 12:UNPRINTED - Zack marker strip

0812120

https://www.phoenixcontact.com/pc/products/0812120



Zack marker strip, Strip, white, unmarked, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 12.2 mm, Number of individual labels: 5, text field height: 10.5 mm, text field width: 12.15 mm

ZB 12 CUS - Zack marker strip

0824942

https://www.phoenixcontact.com/pc/products/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, Number of individual labels: 5, text field height: 12.15 mm, text field width: 10.5 mm

ZB 12,LGS:L1-N,PE - Zack marker strip

0812146

https://www.phoenixcontact.com/pc/products/0812146



Zack marker strip, Strip, white, labeled, printed horizontally: L1, L2, L3, N, PE, mounting type: latching, for terminal block width: 12.2 mm, Number of individual labels: 5, text field height: 10.5 mm, text field width: 12.15 mm

UC-TM 12 - Marker for terminal blocks

0819194

https://www.phoenixcontact.com/pc/products/0819194



Marker for terminal blocks, Sheet, white, unmarked, can be labeled with: BLUEMARK E.CARD, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: latching, for terminal block width: 12 mm, Number of individual labels: 40, text field height: 10.5 mm, text field width: 11.45 mm

UC-TM 12 CUS - Marker for terminal blocks

0824613

https://www.phoenixcontact.com/pc/products/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, Number of individual labels: 40, text field height: 10.5 mm, text field width: 11.45 mm

UCT-TM 12 - Marker for terminal blocks

0829144

https://www.phoenixcontact.com/pc/products/0829144



Marker for terminal blocks, Sheet, white, unmarked, can be labeled with: BLUEMARK E.CARD, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME 2.0, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, TOPMARK NEO, TOPMARK LASER, mounting type: latching, for terminal block width: 12 mm, Number of individual labels: 30, text field height: 9.6 mm, text field width: 10.8 mm

UCT-TM 12 CUS - Marker for terminal blocks

0829630

https://www.phoenixcontact.com/pc/products/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, Number of individual labels: 30, text field height: 9.6 mm, text field width: 10.8 mm

WS-4K - Warning label

1004584

https://www.phoenixcontact.com/pc/products/1004584



Adhesive warning plate, self-adhesive, black print: lightning flash with mixed verson - "Vorsicht Spannung - Attention Danger" size of label: 13 x 23.5 mm

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstraße 8
D-32825 Blomberg
+49 (0) 5235-3 00
info@phoenixcontact.com