

HC-M-02-AT-M-16 - Contact insert module



1417297

<https://www.phoenixcontact.com/us/products/1417297>

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Contact insert module, number of positions: 2, power contacts: 2, control contacts: 0, Pin, Axial screw connection, 690 V, 70 A, 4 mm² ... 25 mm², application: Power

Your advantages

- Plug module is shock proof

Commercial Data

Item number	1417297
Packing unit	1 pc
Minimum order quantity	2 pc
Sales Key	BF62
Product Key	BF7ACE
Catalog Page	Page 573 (C-2-2019)
GTIN	4055626112404
Weight per Piece (including packing)	31.75 g
Weight per Piece (excluding packing)	31.75 g
Customs tariff number	85366990
Country of origin	PL

Technical Data

Notes

General	For HEAVYCON HC-B6 to B48 housing, HC-M-MHR... hinged retaining frame required, axial connection for 2.5 mm Allen key
General	Connectors may be operated only when there is no load/voltage.
General	The axial screw connection must be established using a 2.5 mm Allen key (for stranded conductors only)

Mounting

Assembly instructions	To ensure correct use, installation in housing with IP54 protection or better is required
	<p>Note regarding axial connection technology:</p> <p>Only for stranded wires. The specified conductor cross sections refer to the geometric cross section of the cable used. Cables with a geometric cross section which deviates significantly from the nominal cable cross section must be checked before use.</p> <p>The axial connection technology connection space is designed for fine strand cables according to VDE 0295 Class 5. Deviating cable structures (e.g., Class 6 cables) must be checked before use.</p> <p>Assembly instructions</p> <p>Before assembly, ensure that the tapered screw is fully loosened (chamber is open). Cables must not be twisted. The wires must be pushed into the contact chamber as far as they will go (until the insulation touches the contact). Hold the wires in position and tighten using an Allen key. The used wire end must be cut off before reconnection. The terminal screw must only be retightened once to prevent the litz wires from breaking. To prevent damage to the contact, the wire/cable must be mechanically held at an appropriate distance from the connection point (e.g., when used in a plate cut out). For notes on correct execution, see DIN VDE 0100-520:2003-06. Unused connections must be tightened with maximum torque.</p>
Hexagonal socket	SW2,5

Product properties

Product type	Modular contact insert
Number of positions	2
Connection profile	2
Contact numbering	1 - 2
Application	Power
Number of module slots	1
No. of power contacts	2
No. of control contacts	0
Series	HC-M-02

Insulation characteristics

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Overvoltage category	III
Degree of pollution	3

Connection data

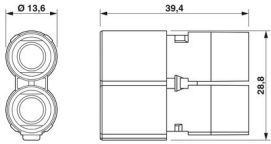
Connection technology

Connection technology	Axial screw connection
Connection in acc. with standard	IEC / EN

Conductor connection

Conductor cross section	4 mm ² ... 25 mm ² (The cross section specification refers to the geometric cross section of the cable used)
Connection cross section AWG	16 ... 4
Tightening torque	2 Nm (4 ... 6 mm ²) 3 Nm (10 mm ² ... 25 mm ²)
Stripping length of the individual wire	12 mm 0.5 mm (4 mm ² ... 16 mm ²) 12 mm +0,5 mm (25 mm ²)

Dimensions

Dimensional drawing	
Width	34.2 mm
Height	45 mm
Length	14.6 mm

Mechanical characteristics

Minimum housing height	72 mm
Contact diameter	6 mm

Electrical properties

Rated voltage (III/2) contacts	1000 V
Rated voltage (III/3)	690 V
Rated surge voltage (III/2)	8 kV
Rated surge voltage (III/3)	6 kV
Rated surge voltage	6 kV
Rated current	70 A

Mechanical properties

Mechanical data

Insertion/withdrawal cycles	≥ 500
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Material specifications

Color	light grey
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Flammability rating according to UL 94	V0
Contact material	Copper alloy
Contact surface material	Ag
Contact carrier material	PC
Standards/regulations	PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 125 °C
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Standards and regulations

Testing

Standards/regulations	PC: Fire protection in rail vehicles - requirement sets R22, R23, and R24 acc. to DIN EN 45545-2 (Risk level HL1 - HL3)
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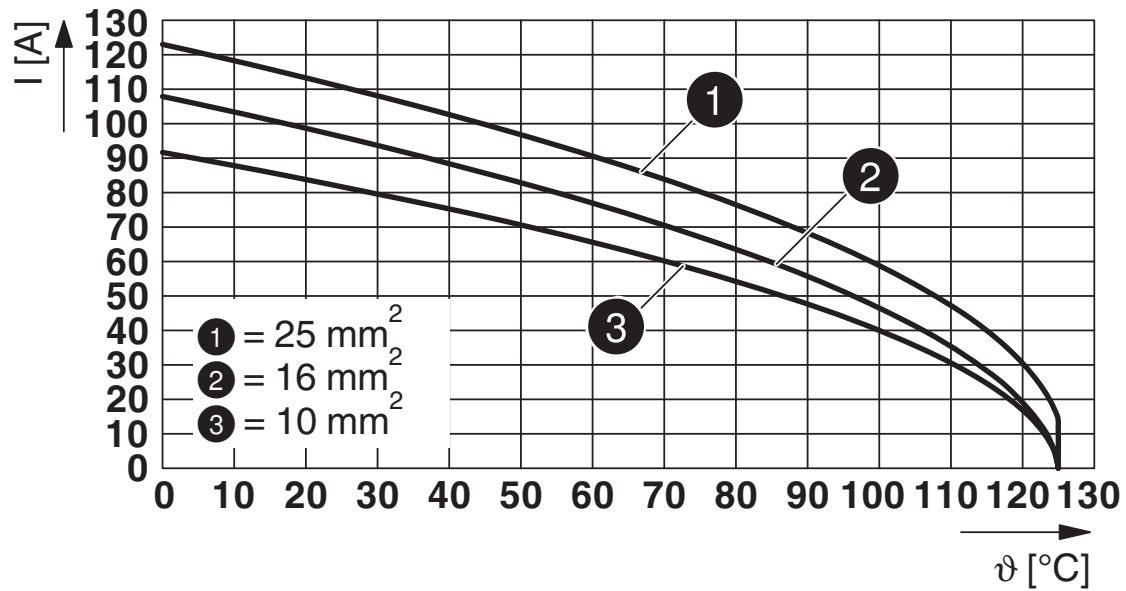


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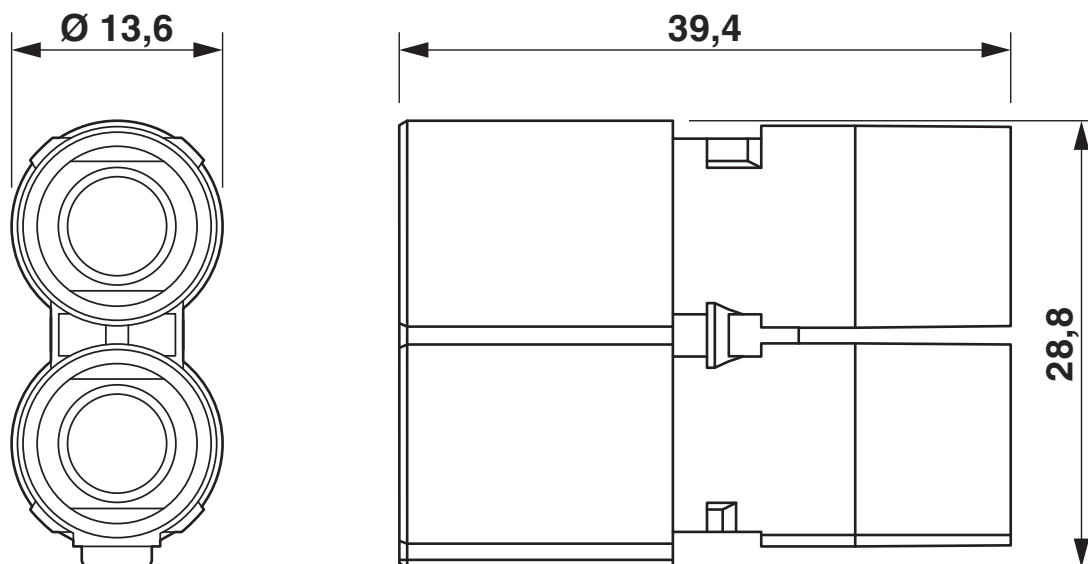
Drawings

Diagram



Derating diagram

Dimensional drawing



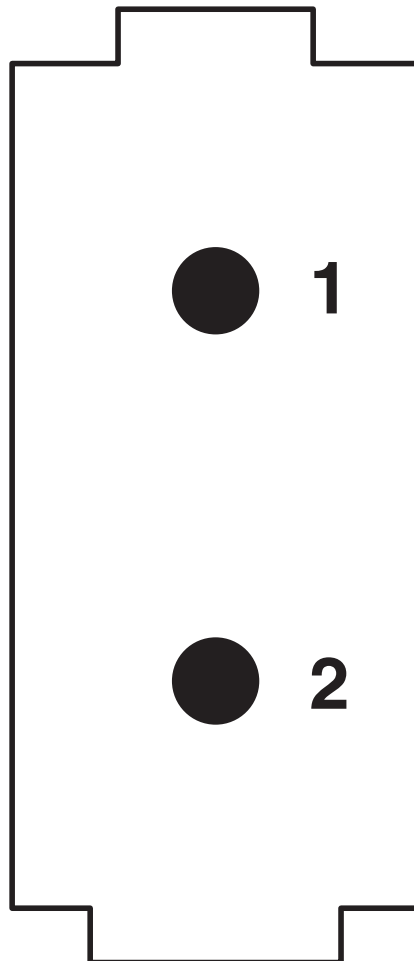
Pin module

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Schematic diagram



Connector pin assignment, connection side

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Schematic diagram



Axial screw connection

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Approvals

 CSA Approval ID: 13631	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	54 A	- 6	-

 UL Recognized Approval ID: E118976	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	600 V	69 A	- 6	-

 EAC Approval ID: RU C-DE.AI30.B.01102

 EAC Approval ID: RU C-DE.BL08.B.00511

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Classifications

ECLASS

ECLASS-11.0	27440217
ECLASS-12.0	27440217
ECLASS-13.0	27440217

ETIM

ETIM 8.0	EC000438
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UNSPSC

UNSPSC 21.0	39121400
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Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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Accessories

HC-CBU-MOD - Coding element

1636130

<https://www.phoenixcontact.com/us/products/1636130>



Coding socket for coding up to 16 connectors, for HC Modular

HC-CST-MOD - Coding element

1636127

<https://www.phoenixcontact.com/us/products/1636127>



Coding peg for coding up to 16 connectors, for HC Modular

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SF-BIT-HEX 2,5-89 S - Screw insert

1200301

<https://www.phoenixcontact.com/us/products/1200301>



Screw bit, hexagon, E6.3-1/4" drive, size: Hex 2.5 x 89 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

TSD-M 3NM - Torque screwdriver

1212225

<https://www.phoenixcontact.com/us/products/1212225>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 1.2 - 3 Nm

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TSD-M 6NM - Torque screwdriver

1212226

<https://www.phoenixcontact.com/us/products/1212226>



Torque screw driver, accuracy as per EN ISO 6789 standard, adjustable from 3 - 6 Nm

SF-THEX 2,5-100 - Screwdriver

1212638

<https://www.phoenixcontact.com/us/products/1212638>



T-handle screwdriver, for Allen screws, hexagonal (with chamfer), size: hex 2.5 x 100 mm, ergonomically shaped handle, matt chrome-plated

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SF-BIT-HEX 2,5-50 - Screw insert

1212646

<https://www.phoenixcontact.com/us/products/1212646>



Screw bit, hexagon, E6.3-1/4" drive, size: Hex 2.5 x 50 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

HC-M-MHR-PE16 - Cable lug

1636981

<https://www.phoenixcontact.com/us/products/1636981>



Cable lug for HEAVYCON-MODULAR; PE connection extension to 16 mm², for crimping with crimp pliers

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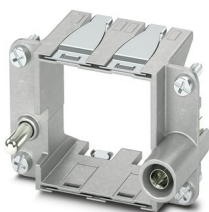
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HC-M-B06-MFH-B - Module carrier frame

1182085

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Module carrier frame, size: B6, type : for the panel mounting side (a, b, c, ...), 4 mm² ... 6 mm², application: Module carrier frame

HC-M-B10-MFH-B - Module carrier frame

1182088

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Module carrier frame, size: B10, type : for the panel mounting side (a, b, c, ...), 4 mm² ... 6 mm², application: Module carrier frame

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HC-M-B16-MFH-B - Module carrier frame

1182090

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Module carrier frame, size: B16, type : for the panel mounting side (a, b, c, ...), 4 mm² ... 6 mm², application: Module carrier frame



HC-M-B24-MFH-B - Module carrier frame

1182094

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Module carrier frame, size: B24, type : for the panel mounting side (a, b, c, ...), 4 mm² ... 6 mm², application: Module carrier frame



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HC-M-B06-MFH-H - Module carrier frame

1182087

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Module carrier frame, size: B6, type : for the sleeve side (A, B, C, ...), 4 mm² ... 6 mm², application: Module carrier frame

HC-M-B10-MFH-H - Module carrier frame

1182089

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Module carrier frame, size: B10, type : for the sleeve side (A, B, C, ...), 4 mm² ... 6 mm², application: Module carrier frame

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HC-M-B16-MFH-H - Module carrier frame

1182093

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Module carrier frame, size: B16, type : for the sleeve side (A, B, C, ...), 4 mm² ...
6 mm², application: Module carrier frame



HC-M-B24-MFH-H - Module carrier frame

1182095

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Module carrier frame, size: B24, type : for the sleeve side (A, B, C, ...), 4 mm² ...
6 mm², application: Module carrier frame



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HC-M-02-AT-F-16 - Contact insert module

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Contact insert module, number of positions: 2, power contacts: 2, control contacts: 0, Socket, Axial screw connection, 690 V, 70 A, 4 mm² ... 25 mm², application: Power

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