

# HC-Q02-I-AT-HV-M - Contact insert



1496725

<https://www.phoenixcontact.com/us/products/1496725>

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Contact insert, number of positions: 2+PE, size: D7, power contacts: 2, number of connections per position: 1, Pin, Axial screw connection, 830 V, 40 A, 1.5 mm<sup>2</sup> ... 10 mm<sup>2</sup>, application: Power

## Your advantages

- Shock and vibration-resistant in accordance with DIN EN 61373

## Commercial data

Item number	1496725
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	BF61
Product key	AF7ABJ
GTIN	4063151946678
Weight per piece (including packing)	24.2 g
Weight per piece (excluding packing)	22.22 g
Customs tariff number	85366990
Country of origin	PL

## Technical data

### Mounting

<p>Assembly note</p>	<p>To ensure correct use, installation in housing with IP54 protection or better is required</p> <p><b>Note regarding axial connection technology:</b></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><b>Assembly instructions</b></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>
<p>Hexagonal socket</p>	<p>SW2,0</p>

### Product properties

<p>Product type</p>	<p>Contact insert with a fixed no. of positions</p>
<p>Series</p>	<p>HC-Q</p>
<p>Application</p>	<p>Power</p>
<p>Type</p>	<p>D7</p>
<p>Number of positions</p>	<p>2</p>
<p>Connection profile</p>	<p>2+PE</p>
<p>Number of connections per position</p>	<p>1</p>
<p>No. of power contacts</p>	<p>2</p>
<p>Contact material type</p>	<p>turned</p>
<p>Insulation characteristics</p>	
<p>Overvoltage category</p>	<p>III</p>
<p>Degree of pollution</p>	<p>3</p>

### Dimensions

<p>Mechanical characteristics</p>	
<p>Contact diameter</p>	<p>4 mm</p>

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## Connection data

### Connection technology

Connection technology	Axial screw connection
Number of connections per position	1
Connection in acc. with standard	IEC / EN

### Conductor connection

Conductor cross-section	1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup> (The cross section specification refers to the geometric cross section of the cable used)
Tightening torque	0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing)
	0.5 Nm (1.5 mm <sup>2</sup> )
	0.8 Nm (2.5 mm <sup>2</sup> ... 4 mm <sup>2</sup> )
	1.5 Nm (6 mm <sup>2</sup> ... 10 mm <sup>2</sup> )
Stripping length of the individual wire	6 mm
Stripping length	5 mm ... 7 mm

## Electrical properties

Rated voltage (III/3)	830 V
Rated surge voltage	6 kV
Rated current	40 A
Nominal voltage U <sub>N</sub>	800 V (The UL voltage specification is based on the specifications of UL 840 in accordance with UL 2237.)

## Mechanical properties

### Mechanical data

Insertion/withdrawal cycles	≥ 500
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## Material specifications

Flammability rating according to UL 94	V0
Seal material	NBR
Contact material	Copper alloy
Contact surface material	Ag
Contact carrier material	PC
Standards/regulations	PC

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 125 °C (including heating up of contacts)
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## Standards and regulations

### Testing

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## Standards/regulations

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

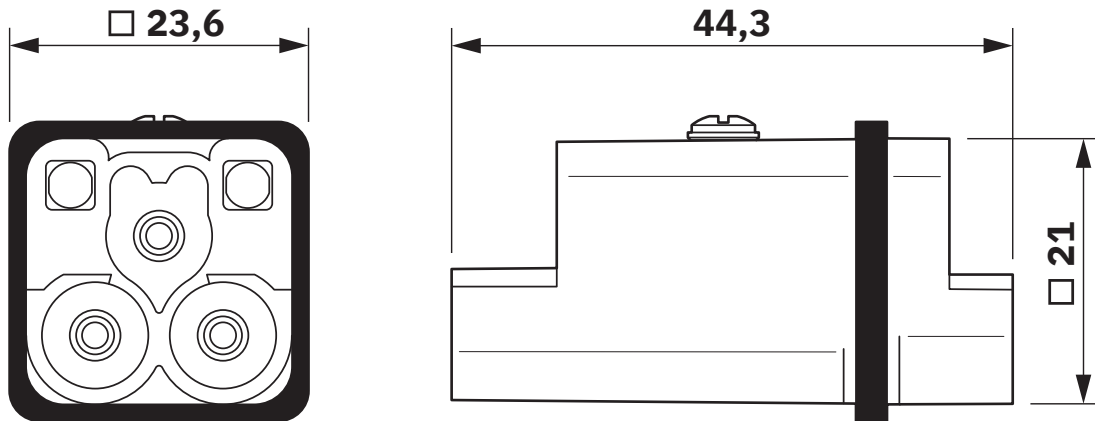
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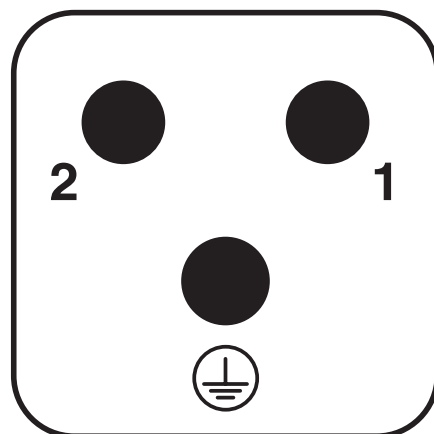
## Drawings

Dimensional drawing



Male insert

Schematic diagram



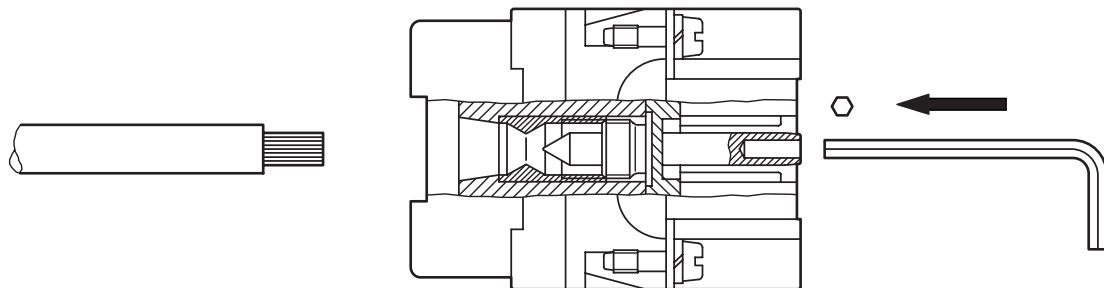
Connector pin assignment

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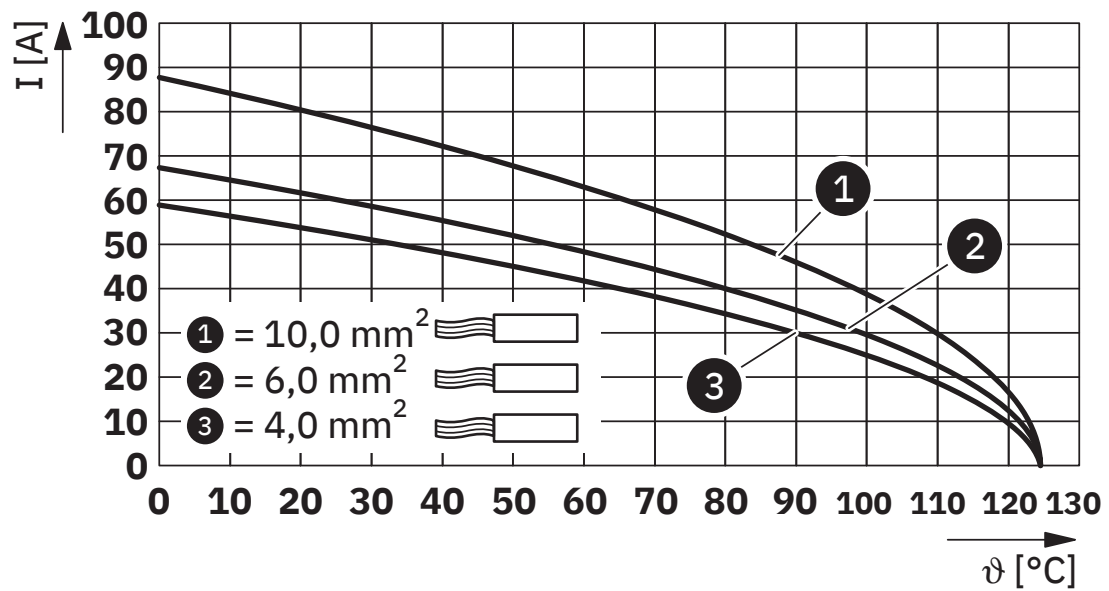
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Schematic diagram



Axial screw connection

Diagram



Derating diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1496725>

 <b>UL Recognized</b> Approval ID: E468743				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine				
Power	800 V	45 A	- 8	-
PE connection	-	-	- 10	-

 <b>CSA</b> Approval ID: 158887				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $mm^2$
keine				
Power	800 V	45 A	- 8	-
PE connection	-	-	- 10	-

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## Classifications

### ECLASS

ECLASS-13.0	27440205
ECLASS-15.0	27440205

### ETIM

ETIM 10.0	EC000438
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### UNSPSC

UNSPSC 21.0	39121500
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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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