

# HC-Q03-I-CT-M - Contact insert



1419896

<https://www.phoenixcontact.com/us/products/1419896>

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Contact insert, number of positions: 3+PE, size: D7, number of connections per position: 1, Pin, Crimp connection, 400 V, 40 A, 1.5 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Power

## Commercial data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1419896             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Sales key                            | BF61                |
| Product key                          | BF7ABJ              |
| Catalog page                         | Page 511 (C-2-2019) |
| GTIN                                 | 4055626256153       |
| Weight per piece (including packing) | 12.9 g              |
| Weight per piece (excluding packing) | 12.3 g              |
| Customs tariff number                | 85389099            |
| Country of origin                    | CN                  |

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## Technical data

### Notes

|         |                                                                                           |
|---------|-------------------------------------------------------------------------------------------|
| General | For HC-D7 housing, crimp contacts CK 4,0. Crimp contacts not included in scope of supply. |
| General | Connectors may be operated only when there is no load/voltage.                            |

### Mounting

|               |                                                                                           |
|---------------|-------------------------------------------------------------------------------------------|
| Assembly note | To ensure correct use, installation in housing with IP54 protection or better is required |
|---------------|-------------------------------------------------------------------------------------------|

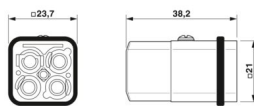
### Product properties

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| Product type                       | Contact insert with a fixed no. of positions |
| Series                             | HC-HS                                        |
| Application                        | Power                                        |
| Type                               | D7                                           |
| Number of positions                | 3                                            |
| Connection profile                 | 3+PE                                         |
| Contact numbering                  | 1 - 2                                        |
| Number of connections per position | 1                                            |
| Contact material type              | turned                                       |

### Insulation characteristics

|                      |     |
|----------------------|-----|
| Overvoltage category | III |
| Degree of pollution  | 3   |

### Dimensions

|                     |                                                                                      |
|---------------------|--------------------------------------------------------------------------------------|
| Dimensional drawing |  |
| Width               | 21 mm                                                                                |
| Height              | 40 mm                                                                                |
| Length              | 21 mm                                                                                |

### Mechanical characteristics

|                  |      |
|------------------|------|
| Contact diameter | 4 mm |
|------------------|------|

### Connection data

#### Connection technology

|                                    |                               |
|------------------------------------|-------------------------------|
| Connection technology              | Crimp connection              |
|                                    | Crimp connection (PE contact) |
| Number of connections per position | 1                             |

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|                                  |          |
|----------------------------------|----------|
| Connection in acc. with standard | IEC / EN |
|----------------------------------|----------|

## Conductor connection

|                                         |                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------|
| Conductor cross section                 | 1.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>                                |
| Connection cross section AWG            | 16 ... 10                                                                |
| Tightening torque                       | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing) |
| Stripping length of the individual wire | 9 mm (2,5 mm <sup>2</sup> ... 6,0 mm <sup>2</sup> )                      |
|                                         | 11 mm (for 10 mm <sup>2</sup> )                                          |

## Electrical properties

|                       |       |
|-----------------------|-------|
| Rated voltage (III/3) | 400 V |
| Rated surge voltage   | 6 kV  |
| Rated current         | 40 A  |

## Mechanical properties

### Mechanical data

|                             |       |
|-----------------------------|-------|
| Insertion/withdrawal cycles | ≥ 500 |
|-----------------------------|-------|

## Material specifications

|                                        |                                                                                                                         |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Flammability rating according to UL 94 | V0                                                                                                                      |
| Seal material                          | NBR, conductive                                                                                                         |
| 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

|                                 |                                                      |
|---------------------------------|------------------------------------------------------|
| Degree of protection            | IP20                                                 |
| Ambient temperature (operation) | -40 °C ... 125 °C (including heating up of contacts) |

## Standards and regulations

|                                        |                            |
|----------------------------------------|----------------------------|
| Constructional and testing regulations | DIN VDE 0627/86            |
|                                        | DIN VDE 0110/02.79         |
|                                        | DIN VDE 0110-1/04.97       |
|                                        | IEC 60664-1, DIN IEC 60512 |
|                                        | IEC 60352                  |
| Tests                                  | DIN VDE 0627/86            |
|                                        | DIN VDE 0110/02.79         |
|                                        | DIN VDE 0110-1/04.97       |
|                                        | IEC 60664-1, DIN IEC 60512 |
|                                        | IEC 60352                  |

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Testing

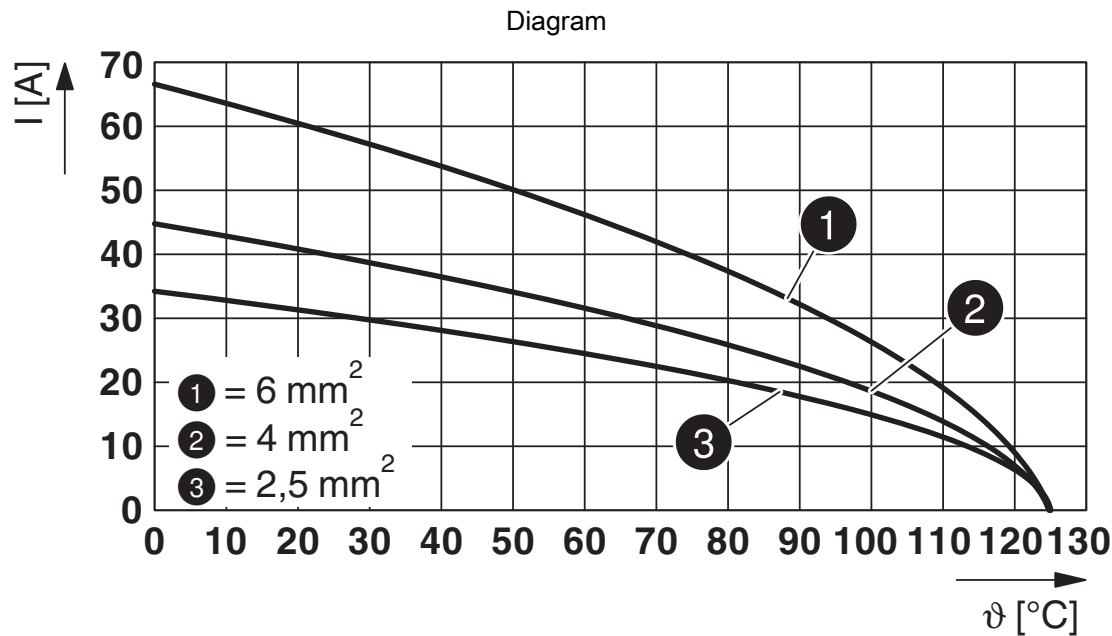
|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Standards/regulations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

HC-Q03-I-CT-M - Contact insert



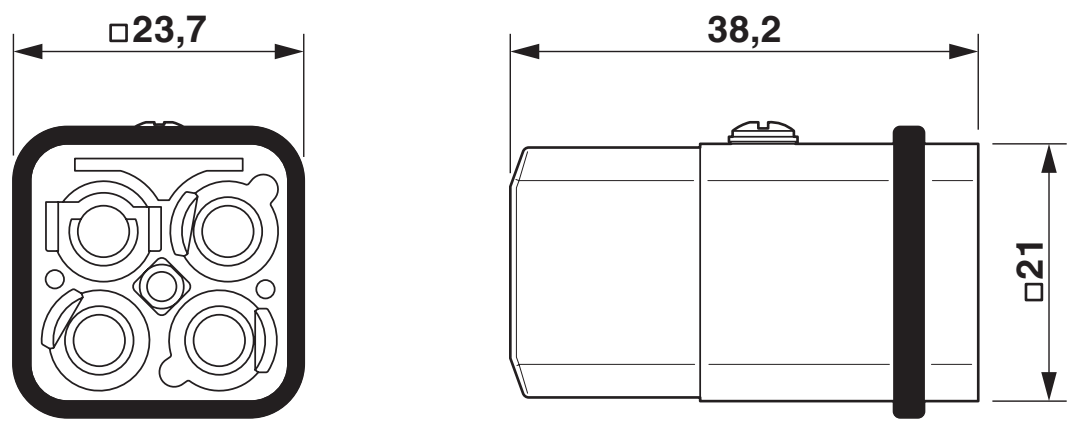
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Drawings



Derating diagram

Dimensional drawing



Male insert

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1419896>

|                                                                                   |                                              |                                |                   |                               |
|-----------------------------------------------------------------------------------|----------------------------------------------|--------------------------------|-------------------|-------------------------------|
|  | <b>UL Recognized</b><br>Approval ID: E118976 |                                |                   |                               |
|                                                                                   | Nominal voltage U <sub>N</sub>               | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|                                                                                   | 600 V                                        | 50 A                           | - 8               | -                             |

|                                                                                   |                                                 |
|-----------------------------------------------------------------------------------|-------------------------------------------------|
|  | <b>EAC</b><br>Approval ID: RU C-DE.BL08.B.00511 |
|-----------------------------------------------------------------------------------|-------------------------------------------------|

|                                                                                   |                                              |                                |                   |                               |
|-----------------------------------------------------------------------------------|----------------------------------------------|--------------------------------|-------------------|-------------------------------|
|  | <b>UL Recognized</b><br>Approval ID: E468743 |                                |                   |                               |
|                                                                                   | Nominal voltage U <sub>N</sub>               | Nominal current I <sub>N</sub> | Cross section AWG | Cross section mm <sup>2</sup> |
|                                                                                   | 600 V                                        | 45 A                           | -                 | -                             |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-11.0 | 27440205 |
| ECLASS-12.0 | 27440205 |
| ECLASS-13.0 | 27440205 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC000438 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 39121500 |
|-------------|----------|

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## 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%               |



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## Accessories

### HC-CP-D07-PL - Coding element

1095413

<https://www.phoenixcontact.com/us/products/1095413>

Coding element for HC-D07 contact inserts of the HC-A03... / HC-A04... / HC-Q03... / HC-Q04... / HC-Q07... series



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### HC-D07-SP-RBK - Profile gasket

1419622

<https://www.phoenixcontact.com/us/products/1419622>

Profile gasket, design: D7, for pin inserts



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## HC-D 7-DS-IP65 - Sealing screw

1686229

<https://www.phoenixcontact.com/us/products/1686229>



Sealing screw, size: Countersunk head, IP67, replacement part for D7 size HEAVYCON housing

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## CK4,0-ED-1,50ST AG - Crimp contact

1663239

<https://www.phoenixcontact.com/us/products/1663239>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 1.5 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, AWG 16

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1419896

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### CK4,0-ED-2,50ST AG - Crimp contact

1663242

<https://www.phoenixcontact.com/us/products/1663242>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 2.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, AWG 14

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### CK4,0-ED-4,00ST AG - Crimp contact

1663255

<https://www.phoenixcontact.com/us/products/1663255>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 4 mm<sup>2</sup> ... 4 mm<sup>2</sup>, AWG 12

## HC-Q03-I-CT-M - Contact insert

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### CK4,0-ED-6,00ST AG - Crimp contact

1663268

<https://www.phoenixcontact.com/us/products/1663268>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 6 mm<sup>2</sup> ... 6 mm<sup>2</sup>, AWG 10

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### CK4,0-ED-10,00ST AG - Crimp contact

1586198

<https://www.phoenixcontact.com/us/products/1586198>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, contact surface: silver-plated, connection cross section: 10 mm<sup>2</sup> ... 10 mm<sup>2</sup>, AWG 8

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### CK4,0-ED-1,50M AG - Crimp contact

1274097

<https://www.phoenixcontact.com/us/products/1274097>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 1.5 mm<sup>2</sup> ... 1.5 mm<sup>2</sup>, AWG 16

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### CK4,0-ED-2,50M AG - Crimp contact

1274094

<https://www.phoenixcontact.com/us/products/1274094>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 2.5 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>, AWG 14

# HC-Q03-I-CT-M - Contact insert

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<https://www.phoenixcontact.com/us/products/1419896>



## CK4,0-ED-4,00M AG - Crimp contact

1274093

<https://www.phoenixcontact.com/us/products/1274093>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 4 mm<sup>2</sup> ... 4 mm<sup>2</sup>, AWG 12

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## CK4,0-ED-6,00M AG - Crimp contact

1274092

<https://www.phoenixcontact.com/us/products/1274092>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 6 mm<sup>2</sup> ... 6 mm<sup>2</sup>, AWG 10

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## CK4,0-ED-10,00M AG - Crimp contact

1274091

<https://www.phoenixcontact.com/us/products/1274091>



Crimp contact, contact diameter: 4 mm, turned, Pin, contact material: Copper alloy, lead-free, contact surface: silver-plated, connection cross section: 10 mm<sup>2</sup> ... 10 mm<sup>2</sup>, AWG 8

## HC-Q03-I-CT-F - Contact insert

1419897

<https://www.phoenixcontact.com/us/products/1419897>



Contact insert, number of positions: 3+PE, size: D7, number of connections per position: 1, Socket, Crimp connection, 400 V, 40 A, 1.5 mm<sup>2</sup> ... 6 mm<sup>2</sup>, application: Power

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## UNIFOX RT-CK 4.0 - Contact removal tool

1072064

<https://www.phoenixcontact.com/us/products/1072064>

Contact removal tool, for rotated CK-4,0-... contacts



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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)