

# HC-Q07-I-CT-F - Contact insert



1418623

<https://www.phoenixcontact.com/us/products/1418623>

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Contact insert, number of positions: 7+PE, size: D7, number of connections per position: 1, Socket, Crimp connection, 400 V, 12 A, 0.14 mm<sup>2</sup> ... 2.5 mm<sup>2</sup>

## Your advantages

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

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1418623       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF61          |
| Product key                          | AF7ABJ        |
| GTIN                                 | 4055626249360 |
| Weight per piece (including packing) | 18 g          |
| Weight per piece (excluding packing) | 16.964 g      |
| Customs tariff number                | 85389099      |
| Country of origin                    | CN            |

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## Technical data

### Notes

|         |   |
|---------|---|
| General | For HC-D7 housing, crimp contacts CK1,6-ED (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 |
|               | Four different coding options to prevent mismatching.                                     |
|               | Contact insert including IP67 sealing screw.  |

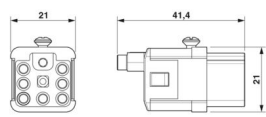
### Product properties

|                                    |  |
|------------------------------------|--|
| Product type                       | Contact insert with a fixed no. of positions |
| Series                             | HC-Q   |
| Type                               | D7   |
| Number of positions                | 7  |
| Connection profile                 | 7+PE   |
| Contact numbering                  | 1 - 7  |
| Number of connections per position | 1  |
| Contact material type              | turned                                       |
|                                    | rolled                                       |

### Insulation characteristics

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

### Dimensions

|                     |  |
|---------------------|--|
| Dimensional drawing |  |
| Width               | 21 mm  |
| Height              | 40.1 mm  |
| Length              | 21 mm  |

### Mechanical characteristics

|                  |        |
|------------------|--------|
| Contact diameter | 1.6 mm |
|------------------|--------|

### Connection data

#### Connection technology

|                       |                  |
|-----------------------|------------------|
| Connection technology | Crimp connection |
|-----------------------|------------------|

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|                                    |               |
|------------------------------------|---------------|
|                                    | PE connection |
| Number of connections per position | 1             |
| Connection in acc. with standard   | IEC / EN      |

## Conductor connection

|   |  |
|---|--|
| Conductor cross-section                 | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                             |
| Connection cross section AWG            | 26 ... 14  |
| Tightening torque                       | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing) |
| Stripping length of the individual wire | 8 mm   |
|   | 6 mm (2.5 mm <sup>2</sup> )  |

## Electrical properties

|                       |       |
|-----------------------|-------|
| Rated voltage (III/3) | 400 V |
| Rated surge voltage   | 6 kV  |
| Rated current         | 12 A  |
| Test voltage          | 6 kV  |

## Mechanical properties

### Mechanical data

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

## Material specifications

|  |                       |
|--|-----------------------|
| Flammability rating according to UL 94 | V0                    |
| Contact material                       | Copper alloy          |
| Contact surface material               | Ag (alternatively Au) |
| 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) |
|---------------------------------|--|

## 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)

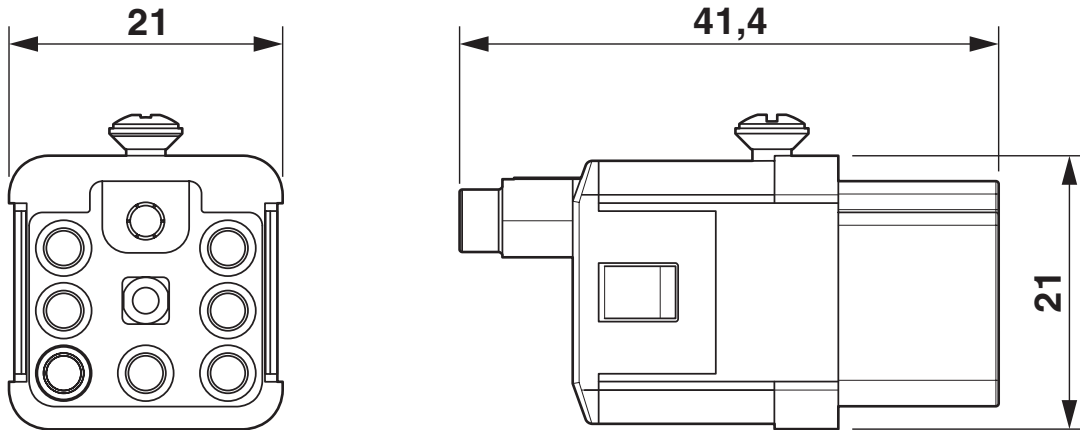
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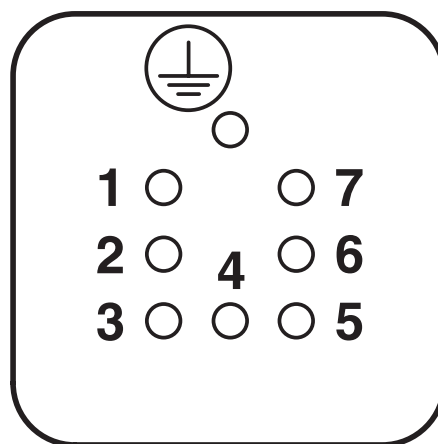
## Drawings

Dimensional drawing



Female insert (turned contacts)

Schematic diagram

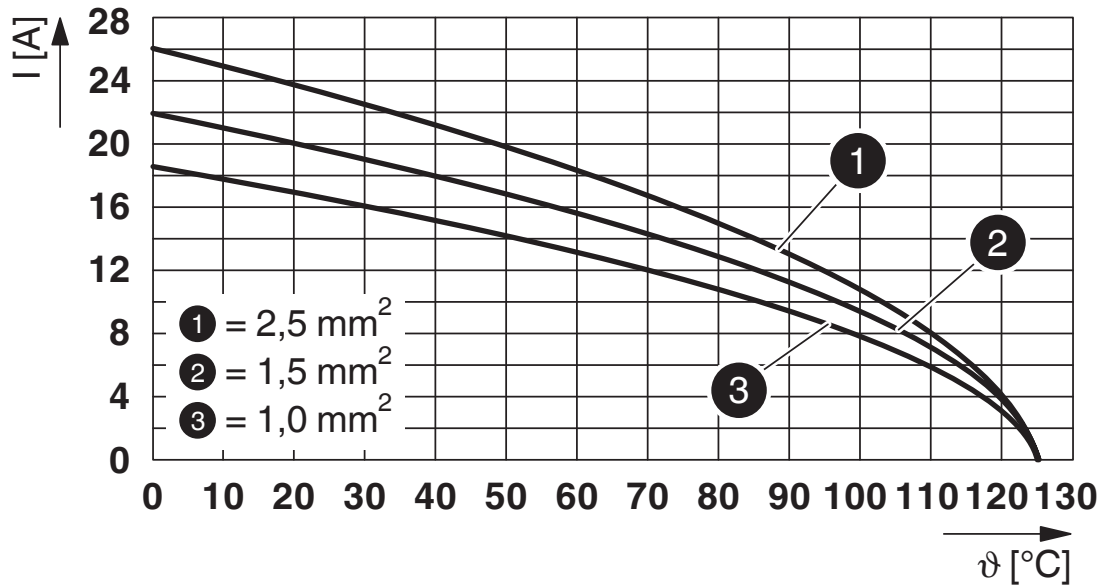


Connector pin assignment (connection side)

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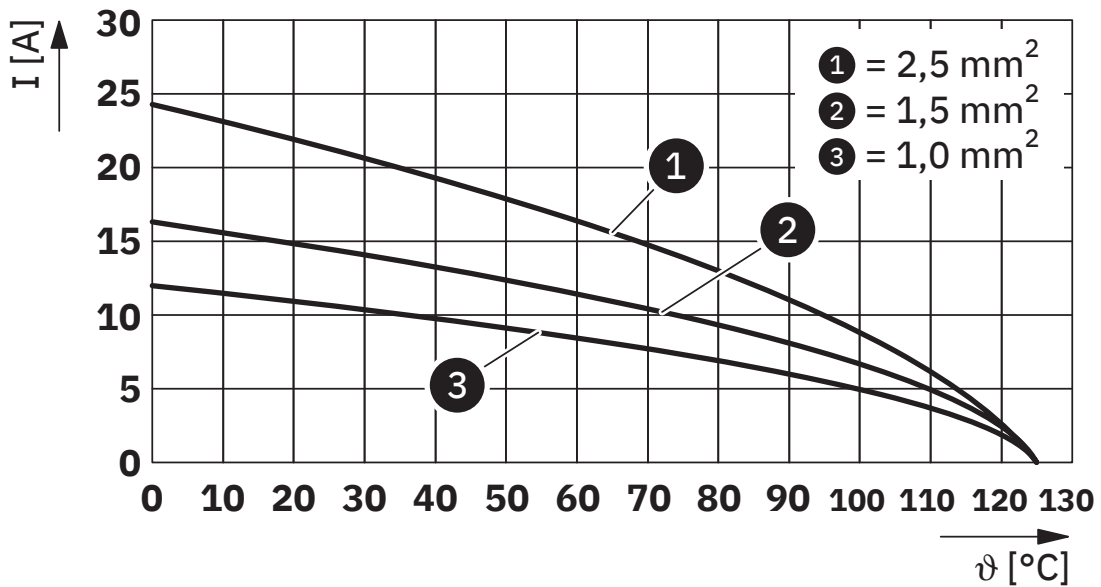
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Diagram



Derating diagram turned contacts

Diagram



Derating diagram rolled contacts

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1418623>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 158887

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 600 V                 | 13.5 A                | - 14              | -                           |



### UL Recognized

Approval ID: E118976

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 600 V                 | 17.5 A                | - 14              | -                           |



### UL Recognized

Approval ID: E468743

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 600 V                 | 15 A                  | -                 | -                           |

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 27440205 |
| ECLASS-15.0 | 27440205 |

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | 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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