

# Contact insert - HC-B 24-I-UT-F

1648306

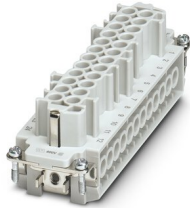
<https://www.phoenixcontact.com/pc/products/1648306>



Please be informed that the data shown in this PDF document is generated from our Online Catalog. Please find the complete data in the user documentation. Our General Terms of Use for Downloads are valid.

---

HEAVYCON female insert, B24 series, 24-pos., screw connection



---

## Your advantages

- For fast coding with plastic profile<br/>
- For test pin 2 mm

# Contact insert - HC-B 24-I-UT-F



1648306

<https://www.phoenixcontact.com/pc/products/1648306>

## Commercial Data

|                                      |                     |
|--------------------------------------|---------------------|
| Item number                          | 1648306             |
| Packing unit                         | 1 pc                |
| Minimum order quantity               | 1 pc                |
| Product Key                          | BF7ABC              |
| Catalog Page                         | Page 547 (C-2-2019) |
| GTIN                                 | 4046356092432       |
| Weight per Piece (including packing) | 123 g               |
| Weight per Piece (excluding packing) | 121 g               |
| Customs tariff number                | 85366990            |
| Country of origin                    | CN                  |

# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>

## Technical Data

### Notes

|         |  |
|---------|--|
| General | for flexible conductors with or without ferrules               |
| General | Connectors may be operated only when there is no load/voltage. |

### Product properties

|                                    |  |
|------------------------------------|--|
| Type                               | B24<br>B48                                   |
| Product type                       | Contact insert with a fixed no. of positions |
| Number of positions                | 24   |
| Connection profile                 | 24+PE  |
| Application                        | Power  |
| Number of connections per position | 1  |
| Contact type                       | turned                                       |
| Series                             | HC-B   |
| Screwdriver blade                  | 0.5 x 3.5 mm                                 |

### Insulation characteristics

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

### Connection data

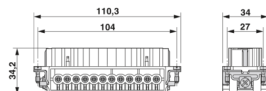
#### Connection technology

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

#### Conductor connection

|   |                   |
|---|-------------------|
| Connection cross section AWG            | 20 ... 14         |
| Tightening torque                       | 0.5 Nm ... 0.8 Nm |
| Stripping length of the individual wire | 8 mm              |

### Dimensions

|                                 |  |
|---------------------------------|--|
| Dimensional drawing             |  |
| Width                           | 34 mm  |
| Height                          | 34.6 mm  |
| Length                          | 111 mm   |
| Drill hole distance, horizontal | 104 mm   |
| Drill hole distance, vertical   | 27 mm  |

# Contact insert - HC-B 24-I-UT-F



1648306

<https://www.phoenixcontact.com/pc/products/1648306>

## Mechanical characteristics

|                  |        |
|------------------|--------|
| Contact diameter | 2.5 mm |
|------------------|--------|

## Electrical properties

|                       |                |
|-----------------------|----------------|
| Rated voltage (III/3) | 500 V          |
| Rated surge voltage   | 6 kV           |
| Rated current         | 16 A           |
| SCCR                  | 5 kA (UL 2237) |

## Material specifications

|  |   |
|--|---|
| 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) |

## Connector

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

## Cable / line

### Cable structure

|   |      |
|---|------|
| Stripping length of the individual wire | 8 mm |
|---|------|

## Mounting

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

## Ambient conditions

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

## Standards and regulations

|  |              |
|--|--------------|
| Constructional and testing regulations | DIN EN 61984 |
|  | DIN EN 60664 |
|  | IEC 60352    |
| Tests                                  | DIN EN 61984 |
|  | DIN EN 60664 |
|  | IEC 60352    |

## 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) |
|-----------------------|---|

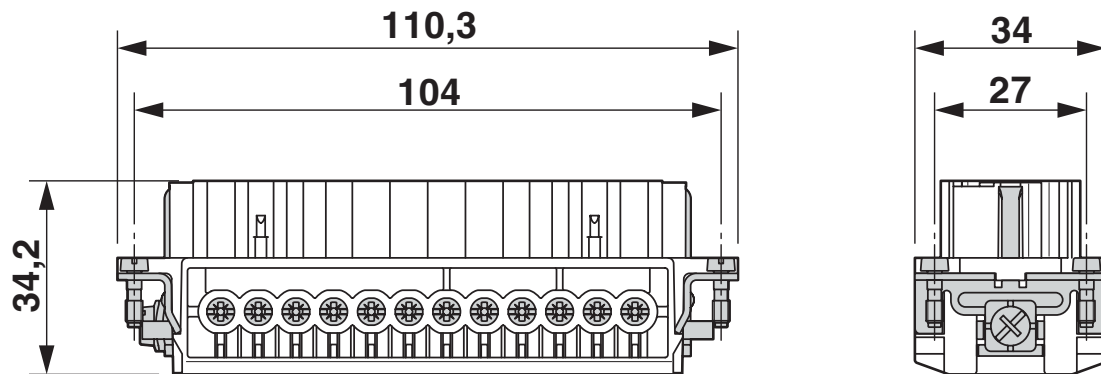
# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>

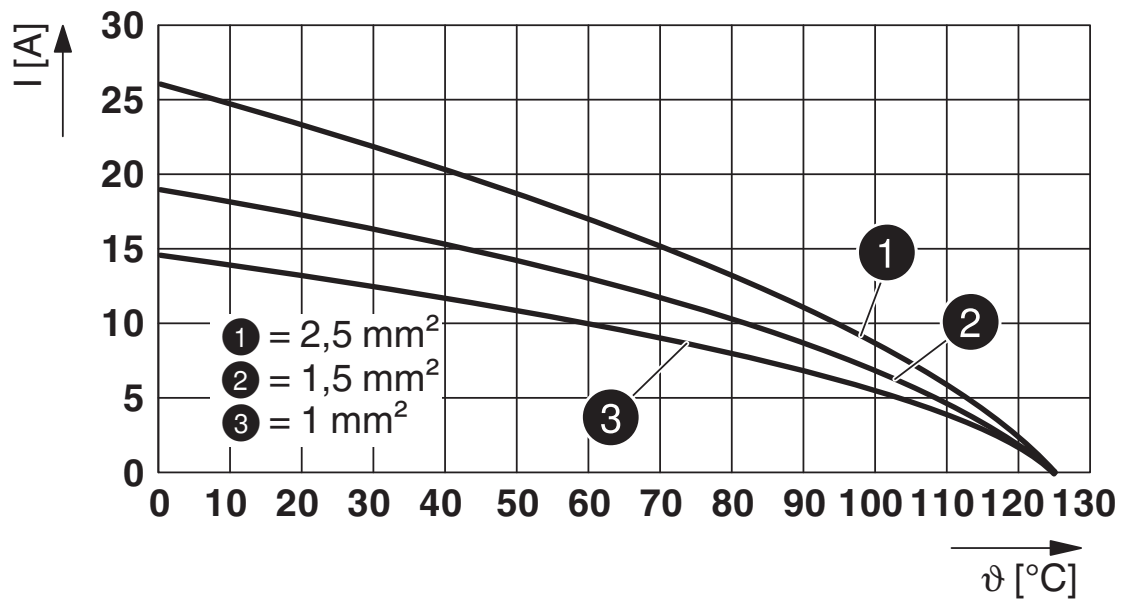
## Drawings

Dimensional drawing



Female insert

Diagram

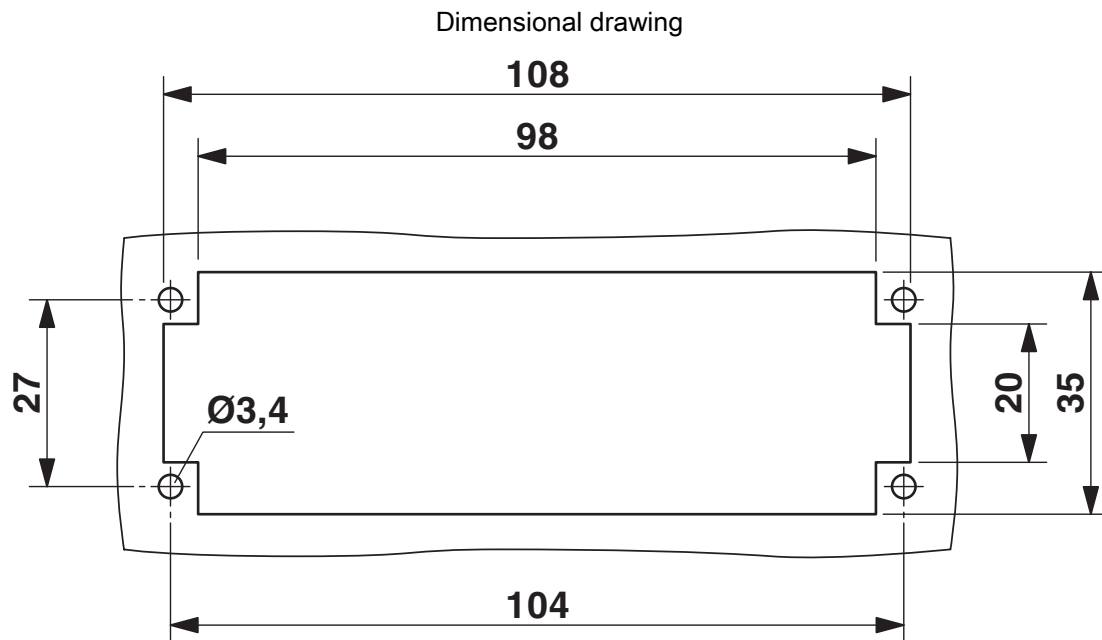


Derating diagram

# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>



Mounting cutout when used without housing

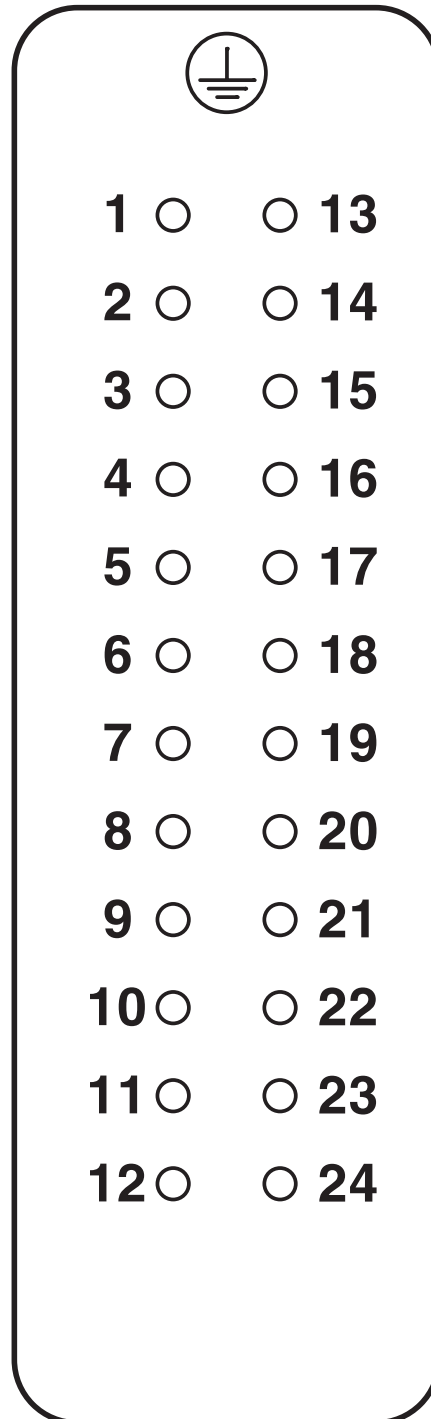
# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>



Schematic diagram



Connector pin assignment, connection side

# Contact insert - HC-B 24-I-UT-F



1648306

<https://www.phoenixcontact.com/pc/products/1648306>

## Approvals

**DNV**

Approval ID: TAE000037S



**CSA**

Approval ID: 013631\_6233\_01

|  | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 13 A                  | 22 - 14           | -                           |



**UL Recognized**

Approval ID: FILE E 118976

|  | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 16 A                  | - 14              | -                           |



**EAC**

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



**cULus Recognized**

Approval ID: E468743

|  | Nominal Voltage $U_N$ | Nominal Current $I_N$ | Cross Section AWG | Cross Section $\text{mm}^2$ |
|--|-----------------------|-----------------------|-------------------|-----------------------------|
|  | 600 V                 | 14 A                  | - 14              | -                           |



**EAC**

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



# Contact insert - HC-B 24-I-UT-F



1648306

<https://www.phoenixcontact.com/pc/products/1648306>

## Classifications

### ECLASS

|               |          |
|---------------|----------|
| ECLASS-9.0    | 27440205 |
| ECLASS-10.0.1 | 27440205 |
| ECLASS-11.0   | 27440205 |

### ETIM

|          |          |
|----------|----------|
| ETIM 8.0 | EC000438 |
|----------|----------|

### UNSPSC

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

# Contact insert - HC-B 24-I-UT-F



1648306

<https://www.phoenixcontact.com/pc/products/1648306>

## 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" |

# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>



## Accessories

### Coding bolt

Coding bolt - HC-CB - 1772722

<https://www.phoenixcontact.com/pc/products/1772722>



Coding pin, prevents mismating of up to six connectors with an identical number of positions

---

### Strain relief clamp

Strain relief clamp - HC-B-ZG - 1685327

<https://www.phoenixcontact.com/pc/products/1685327>



Strain relief clamps contact inserts of series: B-, BB-, D 40, D 64, DD and HV, straight cable exit

# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>

## Strain relief clamp

Strain relief clamp - HC-B-ZS - 1685330

<https://www.phoenixcontact.com/pc/products/1685330>



Strain relief clamps contact inserts of series: B-, BB-, D 40, D 64, DD and HV, lateral cable exit

---

## Screw

Screw - HC-B-PES - 1604997

<https://www.phoenixcontact.com/pc/products/1604997>



PE screw, for contact inserts HC-B / HC-BB / HC-DD / HC-D40 / HC-D64

# Contact insert - HC-B 24-I-UT-F

1648306

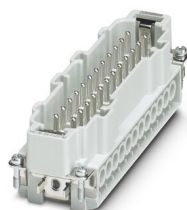
<https://www.phoenixcontact.com/pc/products/1648306>



## Contact insert

Contact insert - HC-B 24-I-UT-M - 1648296

<https://www.phoenixcontact.com/pc/products/1648296>



HEAVYCON pin insert, B24 series, 24-pos., screw connection

---

## DIN rail mounting frame

DIN rail mounting frame - HC-CIF-B24-HFWL-PL - 1424337

<https://www.phoenixcontact.com/pc/products/1424337>



DIN rail mounting frame, type: B24, for contact inserts, Top frame

# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>



## DIN rail mounting frame

DIN rail mounting frame - HC-CIF-B06-24-BFAFL-PL - 1424338

<https://www.phoenixcontact.com/pc/products/1424338>



DIN rail mounting frame, type: B6 - B24, for contact inserts, Base frame

---

## Docking frames

Docking frames - HC-B 24-ANDOCK - 1586141

<https://www.phoenixcontact.com/pc/products/1586141>



Docking frame for racks, for contact inserts of B24 type, with four M5 flat headed screws, rack balance x/y axis  $\pm 1.5$  mm

# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>



## Adapter

Adapter - HC-B-PE-PT - 1054672

<https://www.phoenixcontact.com/pc/products/1054672>



PE adapter with PT connection, for 1 PE connection, for HC-B / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

---

## Coding element

Coding element - HC-CST - 1676857

<https://www.phoenixcontact.com/pc/products/1676857>



Coding peg for coding up to 16 connectors

# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>



## Coding element

Coding element - HC-CBU - 1676860

<https://www.phoenixcontact.com/pc/products/1676860>



Coding socket for coding up to 16 connectors

---

## Coding profile

Coding profile - CP-HC - 1686478

<https://www.phoenixcontact.com/pc/products/1686478>



Coding profile, 4 coding profiles per strip, for insertion in coding keyways



# Contact insert - HC-B 24-I-UT-F

1648306

<https://www.phoenixcontact.com/pc/products/1648306>



## PE multiplier

PE multiplier - HC-B-2PE-PT - 1054675

<https://www.phoenixcontact.com/pc/products/1054675>



PE adapter with PT connection, for 2 PE connections, for HC-B / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

---

## PE multiplier

PE multiplier - HC-B-3PE - 1644326

<https://www.phoenixcontact.com/pc/products/1644326>



PE multiplier, for 3 PE connections, for HC-B / HC-BB / HC-DD / HC-D40 / HC-D64 contact inserts

---

Phoenix Contact 2022 © - all rights reserved  
<https://www.phoenixcontact.com>

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