

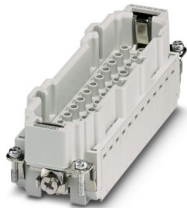
# HC-B 24-I-CT-M - Contact insert



1648335

<https://www.phoenixcontact.com/us/products/1648335>

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Contact insert, number of positions: 24+PE, size: B24, number of connections per position: 1, Pin, Crimp connection, 500 V, 16 A, 0.5 mm<sup>2</sup> ... 4 mm<sup>2</sup>, application: Power

## Your advantages

- For fast coding with plastic profile
- Shock and vibration-resistant in accordance with DIN EN 61373

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 1648335       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | BF61          |
| Product key                          | AF7ABC        |
| GTIN                                 | 4046356092463 |
| Weight per piece (including packing) | 67.7 g        |
| Weight per piece (excluding packing) | 67.3 g        |
| Customs tariff number                | 85366990      |
| Country of origin                    | CN            |

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## Technical data

### Mounting

|               |   |
|---------------|---|
| Assembly note | To ensure correct use, installation in housing with IP54 protection or better is required   |
|               | Remove the crimp contact using a screwdriver. The opening for the screwdriver is next to the opening where the conductor is inserted. |

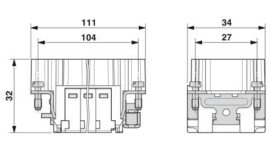
### Product properties

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

### Insulation characteristics

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

### Dimensions

|                                 |  |
|---------------------------------|--|
| Dimensional drawing             |  |
| Width                           | 34 mm  |
| Height                          | 32 mm  |
| Length                          | 111 mm   |
| Drill hole distance, horizontal | 104 mm   |

### Mechanical characteristics

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

### Connection data

#### Connection technology

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

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## Conductor connection

|   |  |
|---|--|
| Conductor cross-section                 | 0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>                                |
| Connection cross section AWG            | 20 ... 12  |
| Tightening torque                       | 0.8 Nm ... 1.2 Nm (PE connection)  |
|   | 0.5 Nm ... 0.8 Nm (Mounting screws for mounting in the HEAVYCON housing) |
| Stripping length of the individual wire | 7.5 mm   |

## Electrical properties

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

## 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

|                                 |  |
|---------------------------------|--|
| Degree of protection            | IP20   |
| 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) |
|-----------------------|---|

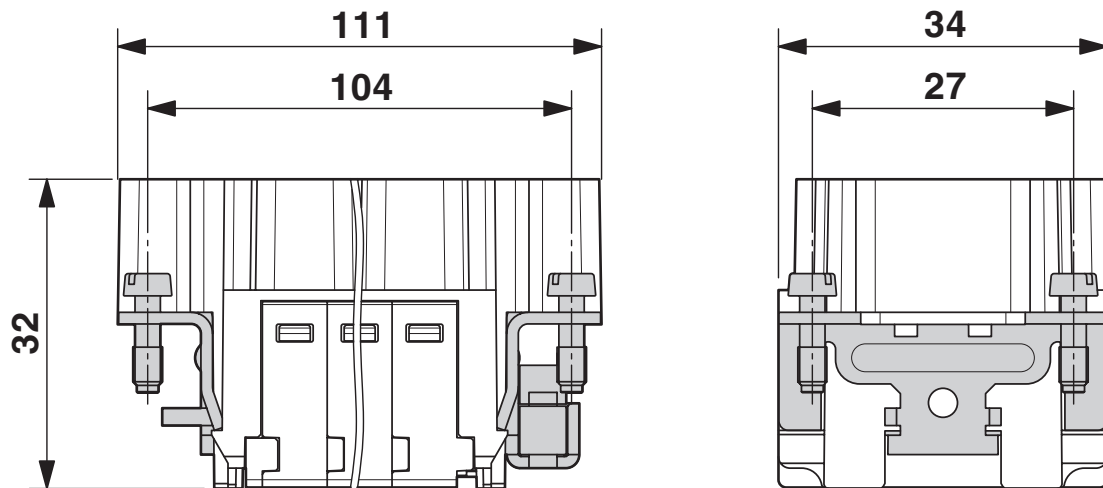
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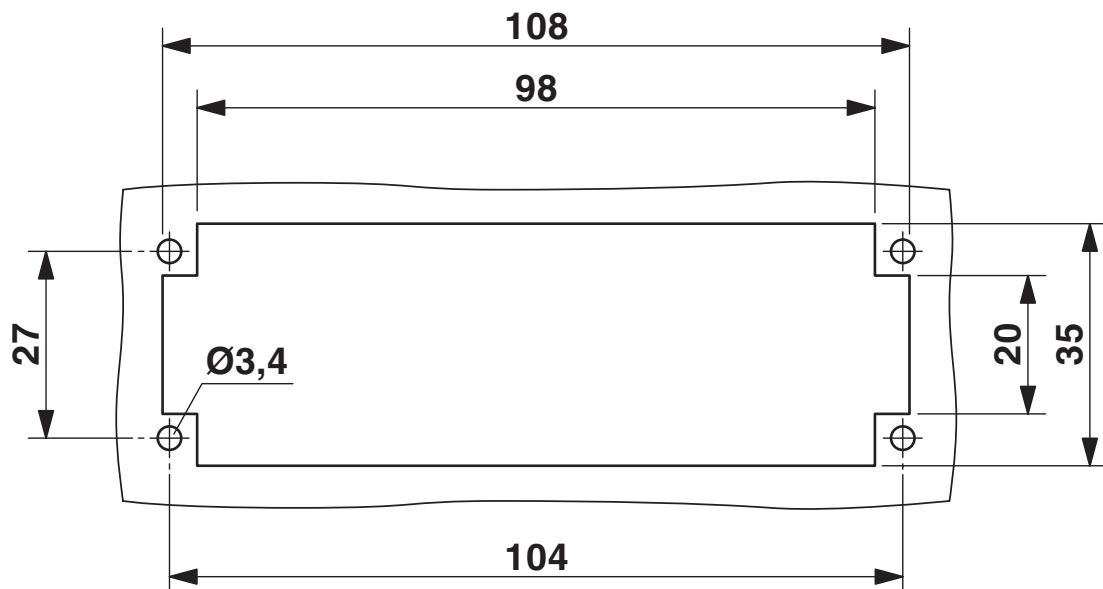
## Drawings

Dimensional drawing



## Male insert

Dimensional drawing



Mounting cutout when used without housing

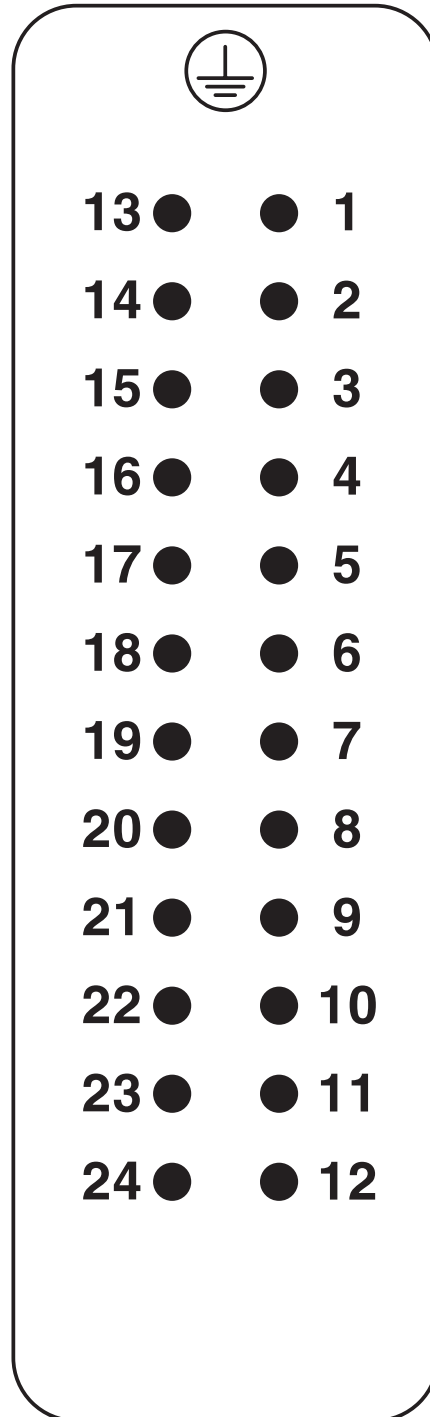
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Schematic diagram



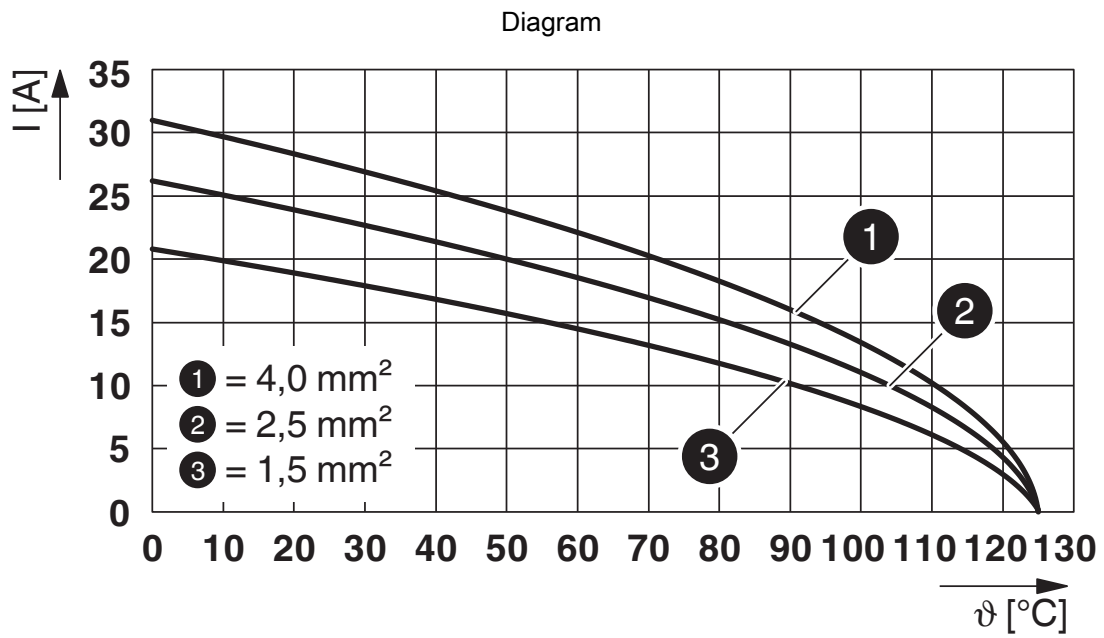
Connector pin assignment, connection side

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Derating diagram

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1648335>

### DNV

Approval ID: TAE000037S



### CSA

Approval ID: 013631\_6233\_01

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 600 V                 | 20 A                  | 20 - 12           | -                           |



### cULus Recognized

Approval ID: E468743

|       | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $\text{mm}^2$ |
|-------|-----------------------|-----------------------|-------------------|-----------------------------|
| keine |                       |                       |                   |                             |
|       | 600 V                 | 13 A                  | -                 | -                           |



### cULus Recognized

Approval ID: E468743

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