# HC-M-20-CT-M - Contact insert module

1414372

https://www.phoenixcontact.com/ae/products/1414372

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Contact insert module, number of positions: 20, power contacts: 20, control contacts: 0, Pin, Crimp connection, 690 V, 16 A, 0.5 $mm^2$ ... 4 $mm^2$, application: Power

## Commercial data

| | |
|---|---|
| Item number | 1414372 |
| Packing unit | 2 pc |
| Minimum order quantity | 2 pc |
| Sales key | AF7 |
| Product key | AF7ACE |
| GTIN | 4055626025254 |
| Weight per piece (including packing) | 19.35 g |
| Weight per piece (excluding packing) | 19.3 g |
| Customs tariff number | 85389099 |
| Country of origin | PL |

## Technical data

### Notes

| | |
|---|---|
| General | For HEAVYCON housing type B6 to B48, HC-M-B...MF-... hinged module carrier frame required, CK2,5-ED... imp contacts, crimp contacts not supplied as standard. |
| 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 | Modular contact insert |
| Series | HC-M-20 |
| Application | Power |
| Number of positions | 20 |
| Connection profile | 20 |
| Contact numbering | 1 - 20 |
| Number of module slots | 2 |
| No. of power contacts | 20 |
| No. of control contacts | 0 |
| Contact material type | turned |

#### Insulation characteristics

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

### Connection data

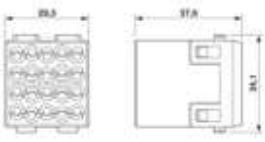
#### Connection technology

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

#### Conductor connection

| | |
|---|---|
| Conductor cross section | 0.5 mm² ... 4 mm² |
| Connection cross section AWG | 20 ... 12 |
| Stripping length of the individual wire | 7.5 mm |

### Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Width | 34.2 mm |
| Height | 37.6 mm |

| | |
|---|---|
| Length | 29.4 mm |

Mechanical characteristics

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

## Electrical properties

| | |
|---|---|
| Rated voltage (III/3) | 690 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

| | |
|---|---|
| Ambient temperature (operation) | -40 °C ... 125 °C |

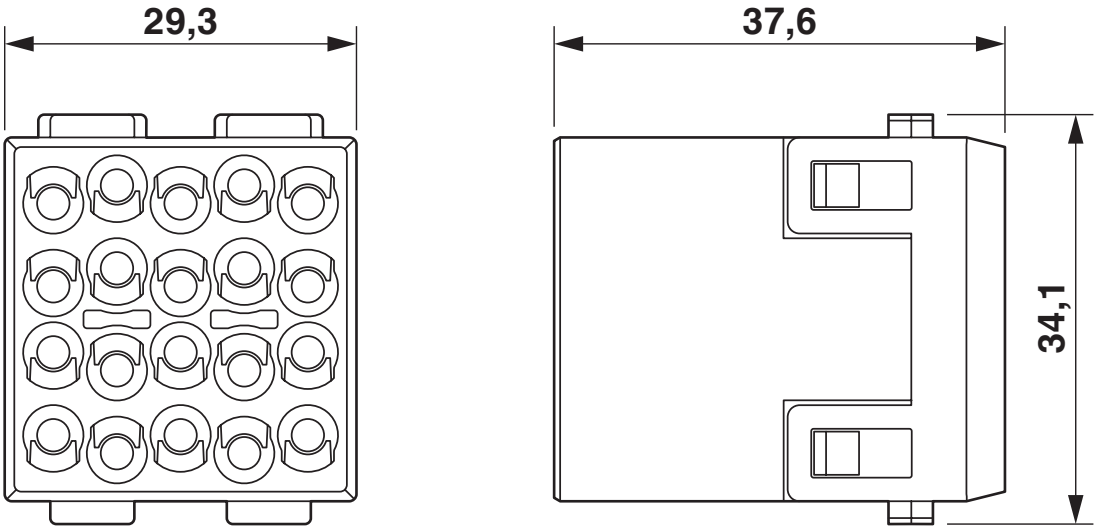
## Standards and regulations

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) |

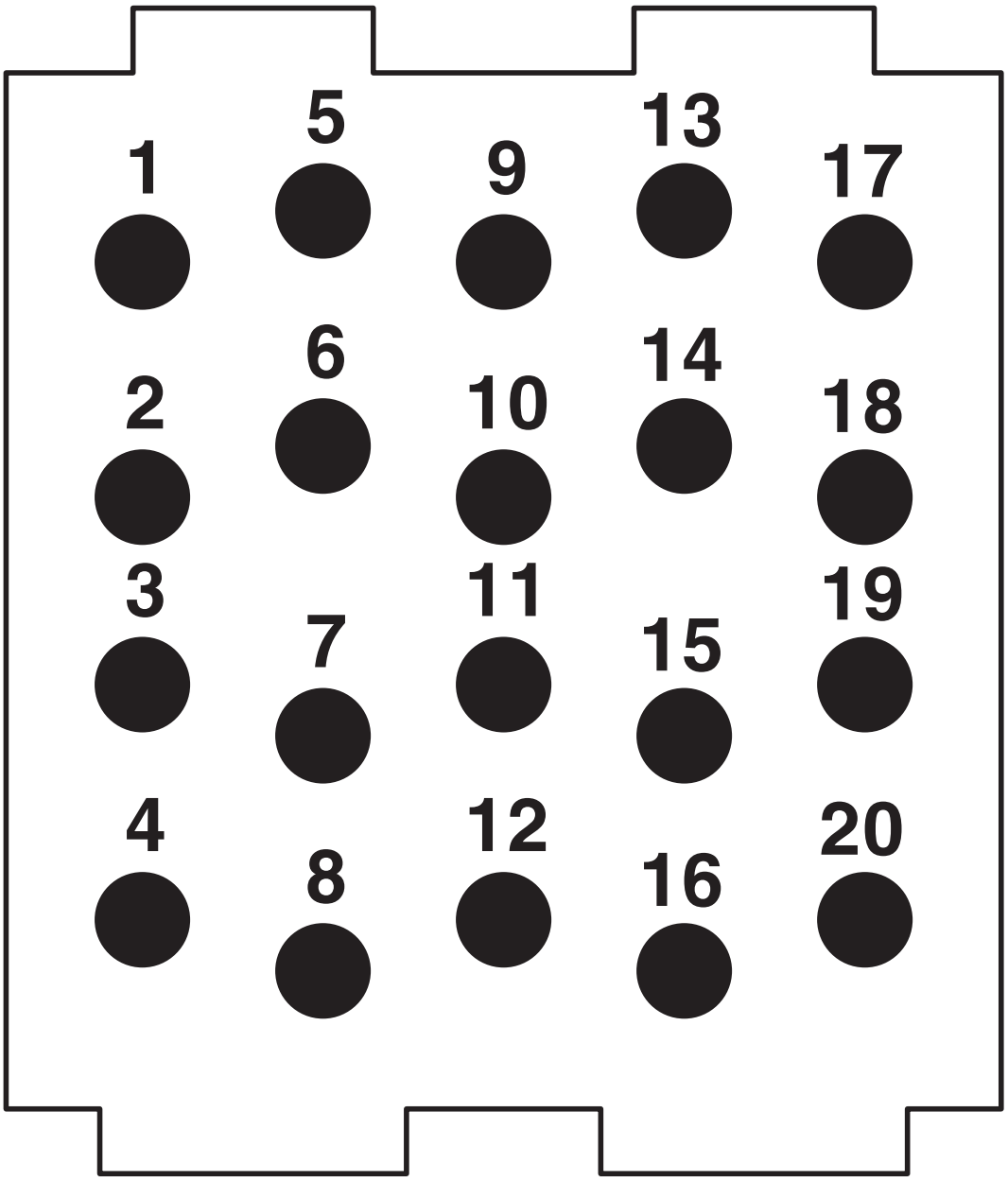
## Drawings

Dimensional drawing



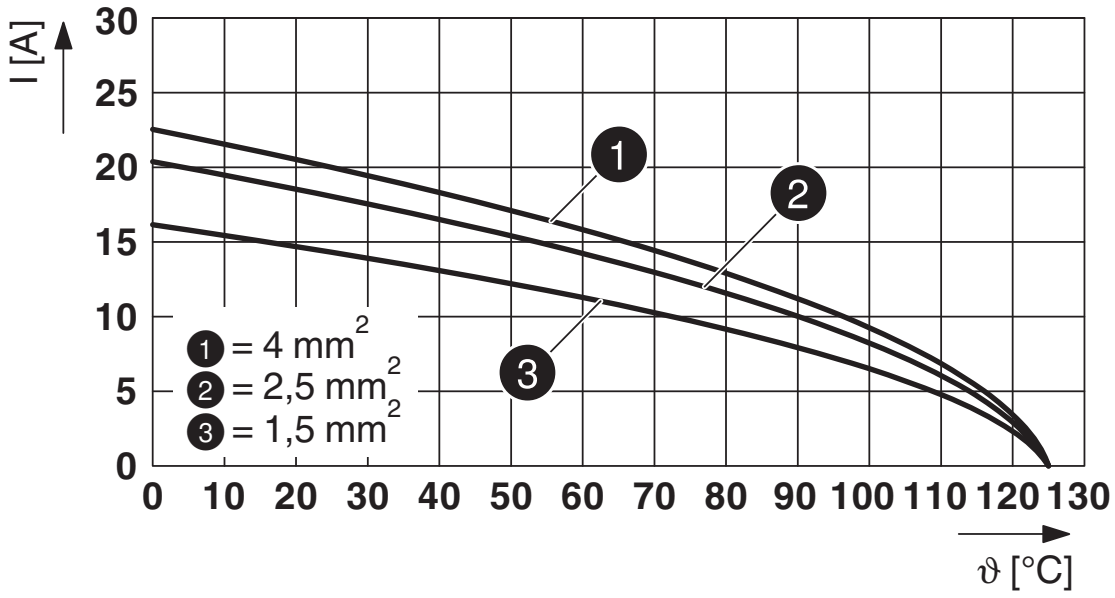

Male insert

Schematic diagram




Connector pin assignment, connection side

Diagram




Derating diagram

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/ae/products/1414372

**DNV**
Approval ID: TAE000037S

**CSA**
Approval ID: 13631

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 14 A | - 12 | - |

**UL Recognized**
Approval ID: E118976

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 17.5 A | - 12 | - |

**UL Recognized**
Approval ID: E468743

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| keine | | | | |
| | 600 V | 17.5 A | - | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27440217 |
| ECLASS-15.0 | 27440217 |

### ETIM

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

### UNSPSC

| | |
|---|---|
| UNSPSC 21.0 | 39121400 |

## 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% |

EF3.0 Climate Change

| | |
|---|---|
| CO2e kg | 0.105 kg CO2e |


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