# PC 5/ 2-G-7,62 BK - PCB header

1809474

https://www.phoenixcontact.com/us/products/1809474

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PCB headers, nominal cross section: 6 mm$^2$, color: black, nominal current: 32 A, rated voltage (III/2): 630 V, contact surface: Sn, contact connection type: Pin, number of rows: 1, number of positions: 2, product range: PC 5/..-G, pitch: 7.62 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 5 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 5, Pin connector pattern alignment: Standard, locking: without, mounting method: without, type of packaging: packed in cardboard

## Your advantages

- Well-known mounting principle allows worldwide use
- Standard header – also suitable for connectors with automatically locking Click and Lock system
- Maximum flexibility when it comes to device design – one header for connectors with different connection technologies

## Commercial data

| | |
|---|---|
| Item number | 1809474 |
| Packing unit | 50 pc |
| Minimum order quantity | 50 pc |
| Sales key | AA04 |
| Product key | AADSBA |
| GTIN | 4046356701846 |
| Weight per piece (including packing) | 4.66 g |
| Weight per piece (excluding packing) | 4.563 g |
| Customs tariff number | 85366930 |
| Country of origin | GR |

# Technical data

## Product properties

| | |
|---|---|
| Product type | PCB headers |
| Product family | PC 5/..-G |
| Product line | COMBICON Connectors L |
| Number of positions | 2 |
| Pitch | 7.62 mm |
| Number of rows | 1 |
| Mounting type | without |
| Pin layout | Linear pinning |
| Solder pins per potential | 3 |

Fitting of components

| | |
|---|---|
| Partial assembly | No |

## Electrical properties

Properties

| | |
|---|---|
| Nominal current $I_N$ | 32 A |
| Nominal voltage $U_N$ | 630 V |
| Contact resistance | 0.8 mΩ |
| Rated voltage (III/3) | 630 V |
| Rated surge voltage (III/3) | 6 kV |
| Rated voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |
| Rated voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |

## Mounting

| | |
|---|---|
| Mounting type | Wave soldering |
| Pin layout | Linear pinning |

## Material specifications

Material data - contact

| | |
|---|---|
| Note | WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material | Cu alloy |
| Surface characteristics | hot-dip tin-plated |
| Metal surface contact area (top layer) | Tin (4 µm - 8 µm Sn) |
| Metal surface soldering area (top layer) | Tin (4 µm - 8 µm Sn) |

Material data - housing

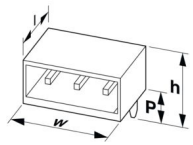
| | |
|---|---|
| Color (Housing) | black (9005) |
| Insulating material | PA |

| | |
|---|---|
| Insulating material group | I |
| CTI according to IEC 60112 | 600 |
| Flammability rating according to UL 94 | V0 |
| Glow wire flammability index GWFI according to EN 60695-2-12 | 850 |
| Glow wire ignition temperature GWIT according to EN 60695-2-13 | 775 |
| Temperature for the ball pressure test according to EN 60695-10-2 | 125 °C |

## Notes

| | |
|---|---|
| Notes on operation | In accordance with IEC 61984, COMBICON connectors have no switching power (COC). During designated use, they must not be plugged in or disconnected when carrying voltage or under load. |

## Dimensions

| | |
|---|---|
| Dimensional drawing |  |
| Pitch | 7.62 mm |
| Width [w] | 18.04 mm |
| Height [h] | 19.29 mm |
| Length [l] | 29.25 mm |
| Installed height | 14.29 mm |
| Solder pin length [P] | 5 mm |
| Pin dimensions | 0.8 x 1 mm |

### PCB design

| | |
|---|---|
| Hole diameter | 1.3 mm |

## Mechanical tests

### Visual inspection

| | |
|---|---|
| Specification | IEC 60512-1-1:2002-02 |
| Result | Test passed |

### Dimension check

| | |
|---|---|
| Specification | IEC 60512-1-2:2002-02 |
| Result | Test passed |

### Resistance of inscriptions

| | |
|---|---|
| Specification | IEC 60068-2-70:1995-12 |
| Result | Test passed |

### Polarization and coding

| | |
|---|---|
| Specification | IEC 60512-13-5:2006-02 |

| | |
|---|---|
| Result | Test passed |

Contact holder in insert

| | |
|---|---|
| Specification | IEC 60512-15-1:2008-05 |
| Contact holder in insert<br>Requirements >20 N | Test passed |

Insertion and withdrawal forces

| | |
|---|---|
| Specification | IEC 60512-13-2:2006-02 |
| Result | Test passed |
| No. of cycles | 50 |
| Insertion strength per pos. approx. | 8 N |
| Withdraw strength per pos. approx. | 6 N |

## Electrical tests

Thermal test | Test group C

| | |
|---|---|
| Specification | IEC 60512-5-1:2002-02 |
| Tested number of positions | 12 |

Insulation resistance

| | |
|---|---|
| Specification | IEC 60512-3-1:2002-02 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Air clearances and creepage distances |

| | |
|---|---|
| Specification | IEC 60664-1:2007-04 |
| Insulating material group | I |
| Comparative tracking index (IEC 60112) | CTI 600 |
| Rated insulation voltage (III/3) | 630 V |
| Rated surge voltage (III/3) | 6 kV |
| minimum clearance value - non-homogenous field (III/3) | 5.5 mm |
| minimum creepage distance (III/3) | 8 mm |
| Rated insulation voltage (III/2) | 630 V |
| Rated surge voltage (III/2) | 6 kV |
| minimum clearance value - non-homogenous field (III/2) | 5.5 mm |
| minimum creepage distance (III/2) | 5.5 mm |
| Rated insulation voltage (II/2) | 1000 V |
| Rated surge voltage (II/2) | 6 kV |
| minimum clearance value - non-homogenous field (II/2) | 5.5 mm |
| minimum creepage distance (II/2) | 5.5 mm |

## Environmental and real-life conditions

Durability test

| | |
|---|---|
| Specification | IEC 60512-9-1:2010-03 |
| Impulse withstand voltage at sea level | 7.3 kV |
| Contact resistance $R_1$ | 0.8 mΩ |

| | |
|---|---|
| Contact resistance $R_2$ | 0.8 mΩ |
| Insertion/withdrawal cycles | 50 |
| Insulation resistance, neighboring positions | > 5 MΩ |

Climatic test

| | |
|---|---|
| Specification | ISO 6988:1985-02 |
| Corrosive stress | 0.2 $dm^3$ $SO_2$ on 300 $dm^3$/40 °C/1 cycle |
| Thermal stress | 100 °C/168 h |
| Power-frequency withstand voltage | 3.31 kV |

Vibration test

| | |
|---|---|
| Specification | IEC 60068-2-6:2007-12 |
| Frequency | 10 - 150 - 10 Hz |
| Sweep speed | 1 octave/min |
| Amplitude | 0.35 mm (10 Hz ... 60.1 Hz) |
| Acceleration | 5g (60.1 Hz ... 150 Hz) |
| Test duration per axis | 2.5 h |
| Test directions | X-, Y- and Z-axis |

Ambient conditions

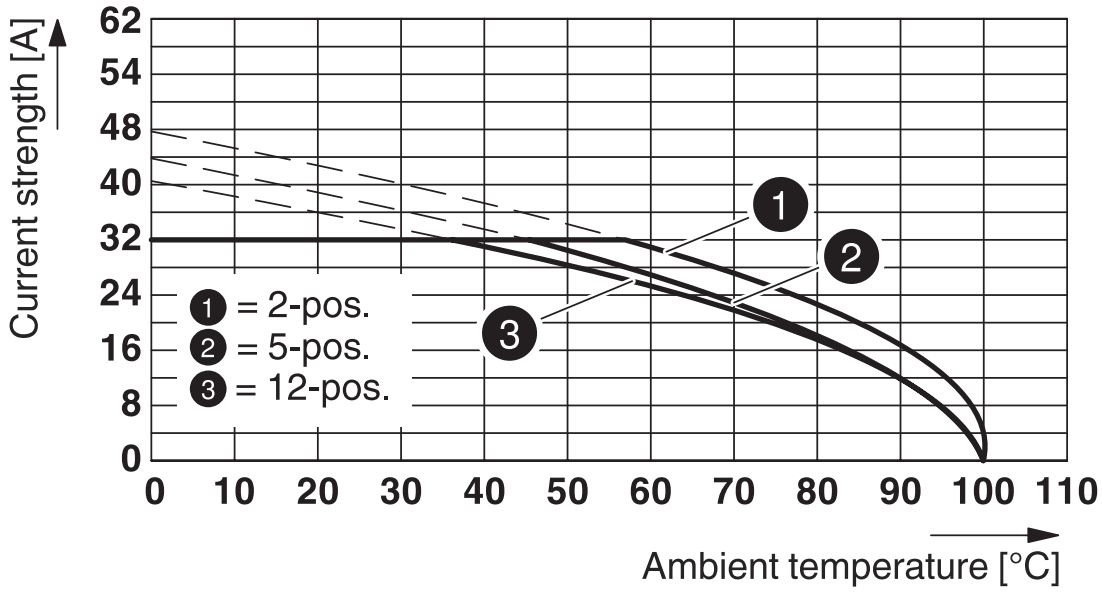
| | |
|---|---|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C |
| Relative humidity (storage/transport) | 30 % ... 70 % |
| Ambient temperature (assembly) | -5 °C ... 100 °C |
| Ambient temperature (operation) | -40 °C ... 100 °C (dependent on the derating curve) |

## Packaging specifications

| | |
|---|---|
| Type of packaging | packed in cardboard |

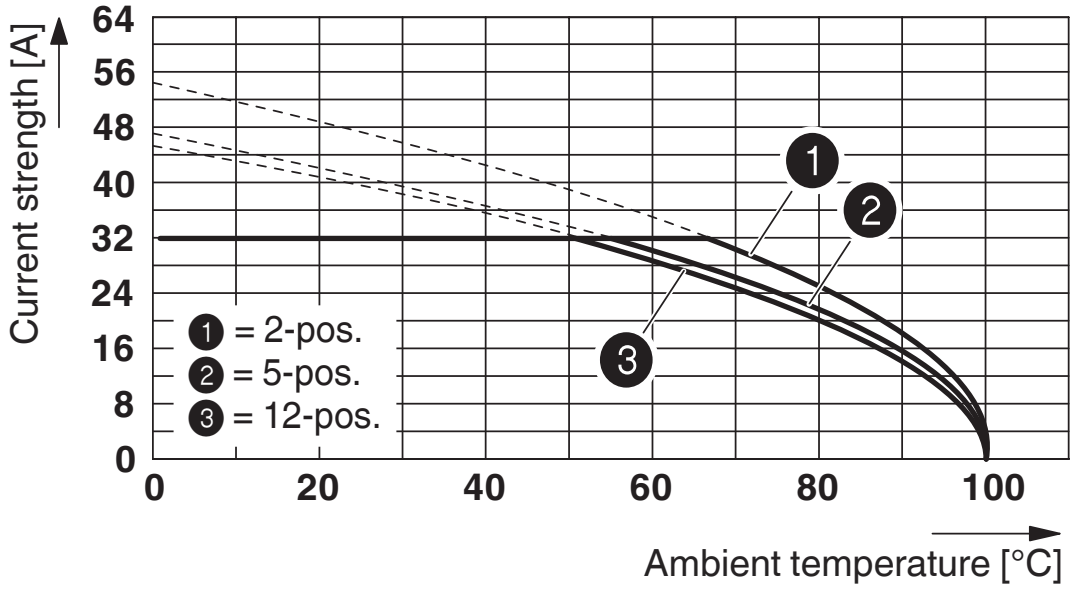
## Drawings

Diagram



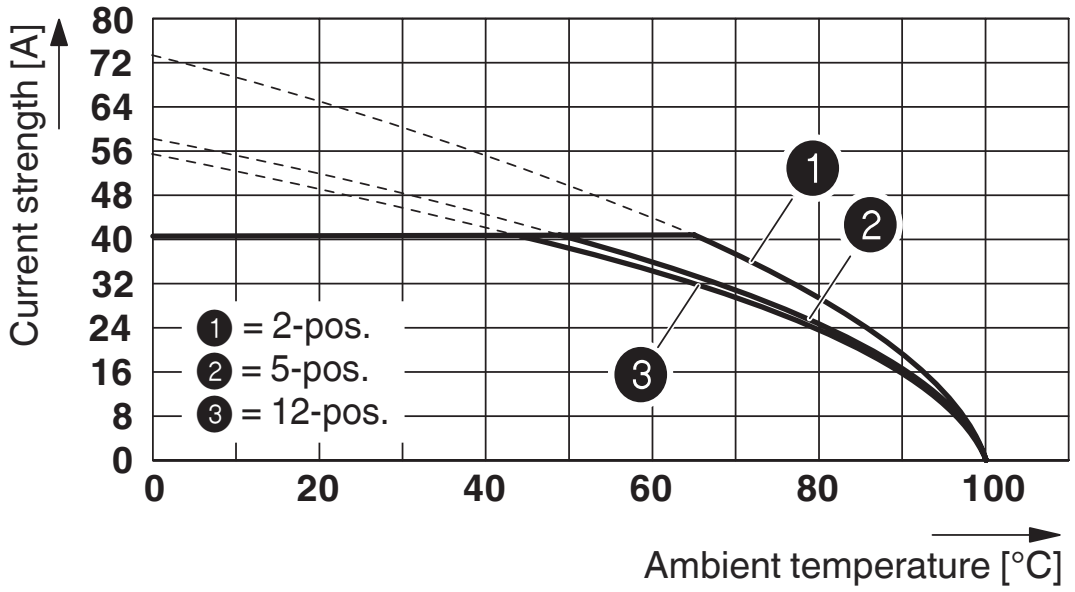

Type: SPC 5/...-ST-7,62 with PC 5/...-G-7,62

Diagram



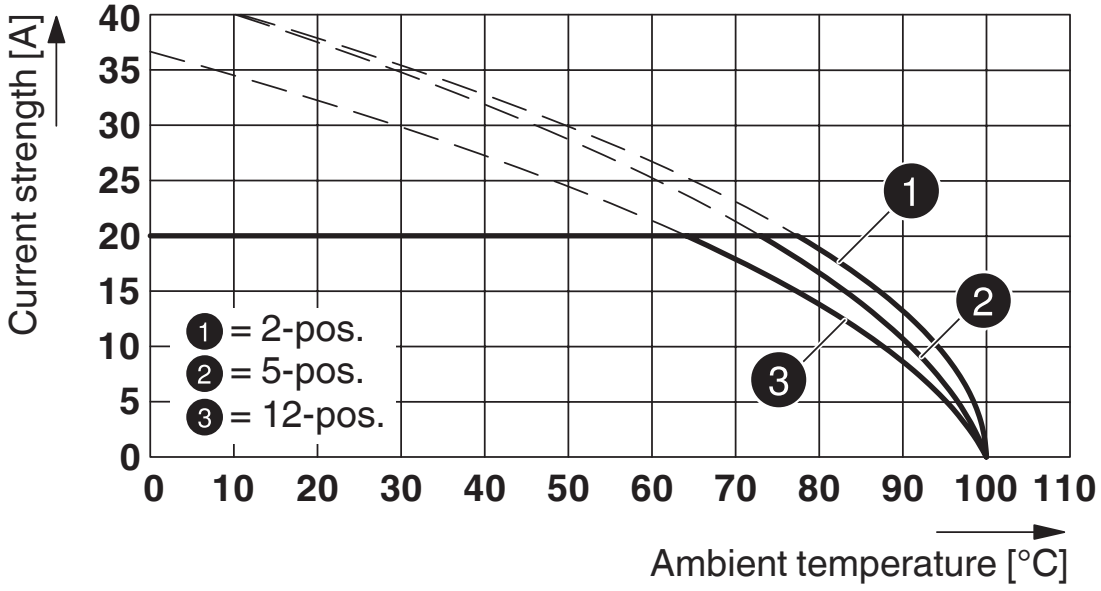

Type: PC 5/...-ST1-7,62 with PC 5/...-G-7,62
Conductor cross-section: 6 $mm^2$

Diagram



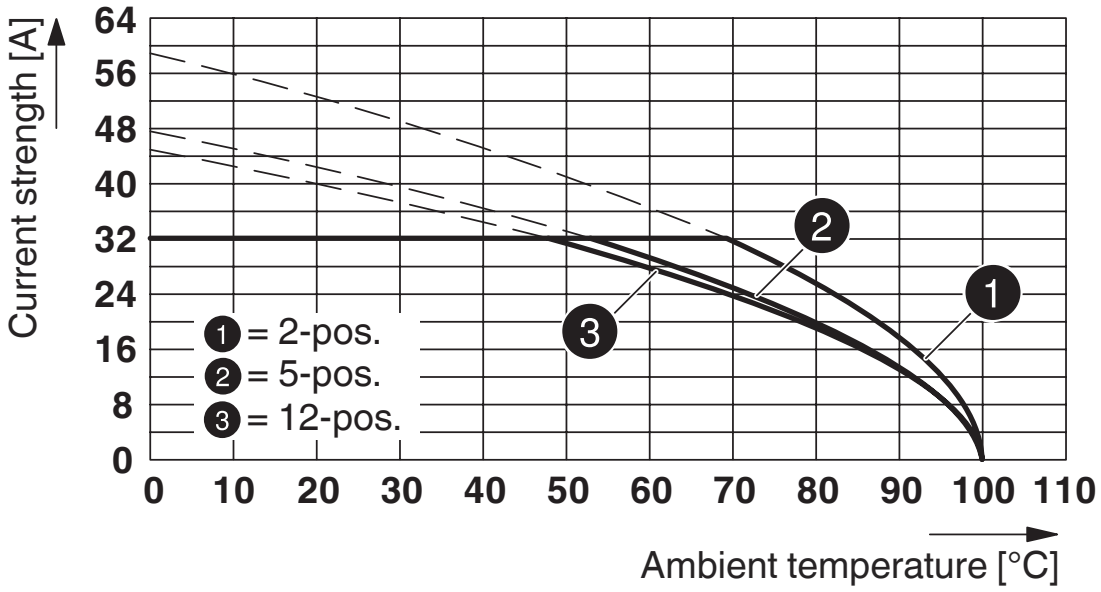

Type: PC 5/...-ST1-7,62 with PC 5/...-G-7,62
Conductor cross-section: 10 mm$^2$

Diagram



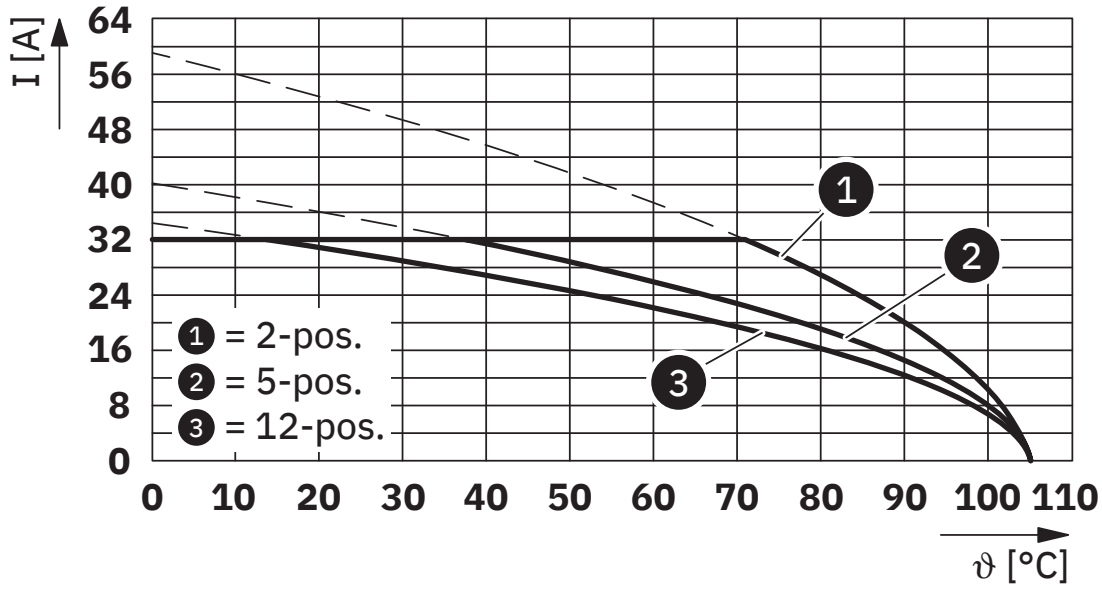

Type: PC 4/...-ST-7,62 with PC 5/...-G-7,62

Diagram



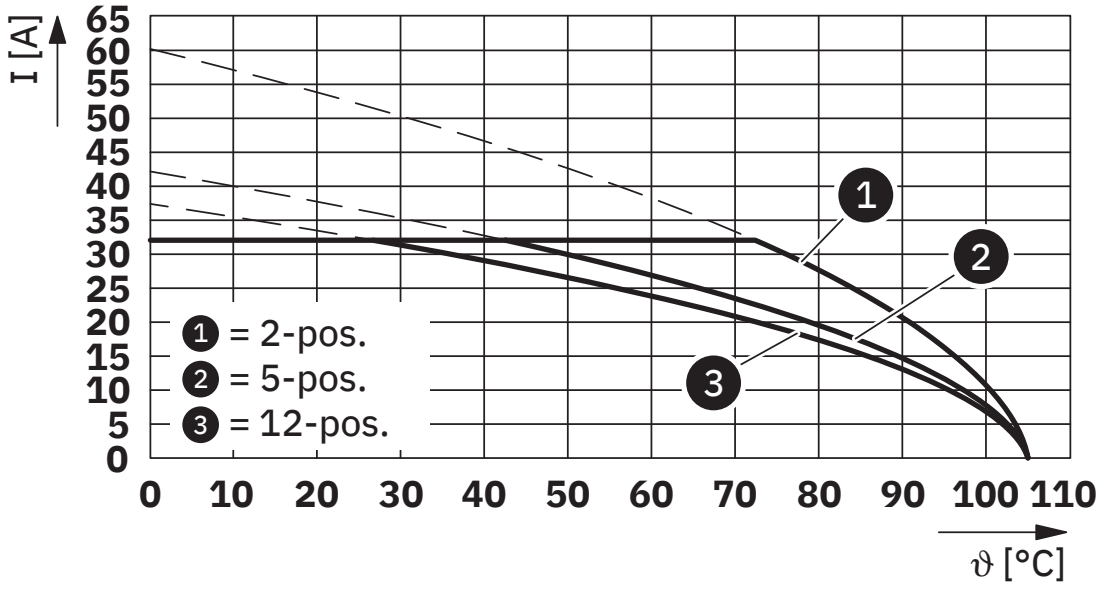

Type: TSPC 5/...-ST-7,62 with PC 5/...-G-7,62

Diagram




Type: IPC 5/...-G-7,62 with PC 5/...-G-7,62

Diagram




Type: IPCV 5/...-G-7,62 with PC 5/...-G-7,62

## Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1809474

**cULus Recognized**
Approval ID: E60425-19920722

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| B | | | | |
| | 300 V | 41 A | - | - |
| C | | | | |
| | 150 V | 41 A | - | - |
| D | | | | |
| | 600 V | 5 A | - | - |

**UL Recognized**
Approval ID: E60425-19920722

| | Nominal voltage $U_N$ | Nominal current $I_N$ | Cross section AWG | Cross section $mm^2$ |
|---|---|---|---|---|
| F | | | | |
| | 600 V | 41 A | - | - |

## Classifications

### ECLASS

| | |
|---|---|
| ECLASS-13.0 | 27460201 |
| ECLASS-15.0 | 27460201 |

### ETIM

| | |
|---|---|
| ETIM 10.0 | EC002637 |

### 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% |

EF3.1 Climate Change

| | |
|---|---|
| CO2e kg | 0.034 kg CO2e |


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