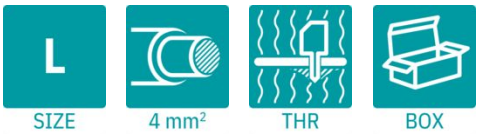
PC 4/12-GU-6,35 P26 THR - PCB header

1247577

https://www.phoenixcontact.com/in/products/1247577

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PCB headers, nominal cross section: 4 mm², color: black, nominal current: 24 A, rated voltage (III/2): 800 V, contact surface: Sn, contact connection type: Pin, number of rows: 1, number of positions: 12, product range: PC 4/..-GU-THR, pitch: 6.35 mm, mounting: THR soldering / wave soldering, pin layout: Zigzag pinning M, solder pin [P]: 2.6 mm, number of solder pins per potential: 1, plug-in system: COMBICON PC 4, Pin connector pattern alignment: reversed, locking: without, mounting method: without, type of packaging: packed in cardboard

Your advantages

- Designed for integration into the SMT soldering process
- Increased touch protection in the pin connector pattern for maximum safety even when not plugged in
- Easy PCB replacement thanks to plug-in modules

Commercial data

Item number	1247577
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Product key	AADTBB
GTIN	4063151350413
Weight per piece (including packing)	20.088 g
Weight per piece (excluding packing)	35 g
Country of origin	CN

Technical data

Product properties

Product type	PCB headers
Product family	PC 4/..-GU-THR
Product line	COMBICON Connectors L
Number of positions	12
Pitch	6.35 mm
Number of rows	1
Pin layout	Zigzag pinning M
Solder pins per potential	1

Electrical properties

Properties

Nominal current I_N	24 A
Nominal voltage U_N	800 V
Contact resistance	0.81 mΩ
Rated voltage (III/3)	630 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	800 V
Rated surge voltage (III/2)	6 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

Mounting

Mounting type	THR soldering / wave soldering
Pin layout	Zigzag pinning M

Processing notes

Process	Reflow/wave soldering
Moisture Sensitive Level	MSL 1
Classification temperature T_c	260 °C
Solder cycles in the reflow	3

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	Tin-plated
Metal surface contact area (top layer)	Tin (3 µm - 5 µm Sn)
Metal surface contact area (middle layer)	Nickel (1.3 µm - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (3 µm - 5 µm Sn)

Metal surface soldering area (middle layer)	Nickel (1.3 µm - 3 µm Ni)

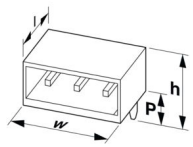
Material data - housing

Color (Housing)	black (9005)
Insulating material	LCP
Insulating material group	IIIa
CTI according to IEC 60112	175
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	200 °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	6.35 mm
Width [w]	79.15 mm
Height [h]	12.8 mm
Length [l]	25 mm
Installed height	10.2 mm
Solder pin length [P]	2.6 mm
Pin dimensions	1.2 x 1 mm

PCB design

Hole diameter	1.7 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 Requirements >20 N	Test passed

Insertion and withdrawal forces

Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	25
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 60664-1:2020-05
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 175
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)	10 mm
Rated insulation voltage (III/2)	800 V
Rated surge voltage (III/2)	6 kV
minimum clearance value - non-homogenous field (III/2)	5.5 mm
minimum creepage distance (III/2)	8 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)	10 mm

Environmental and real-life conditions

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	9.8 kV
Contact resistance R_1	0.81 mΩ
Contact resistance R_2	0.95 mΩ
Insertion/withdrawal cycles	25
Insulation resistance, neighboring positions	> 5 MΩ

Climatic test

Specification	EN ISO 22479:2022-06
Corrosive stress	0.2 dm^3 SO_2 on 300 dm^3/40 °C/1 cycle
Thermal stress	105 °C/168 h
Power-frequency withstand voltage	4.26 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	50 m/s² (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Ambient conditions

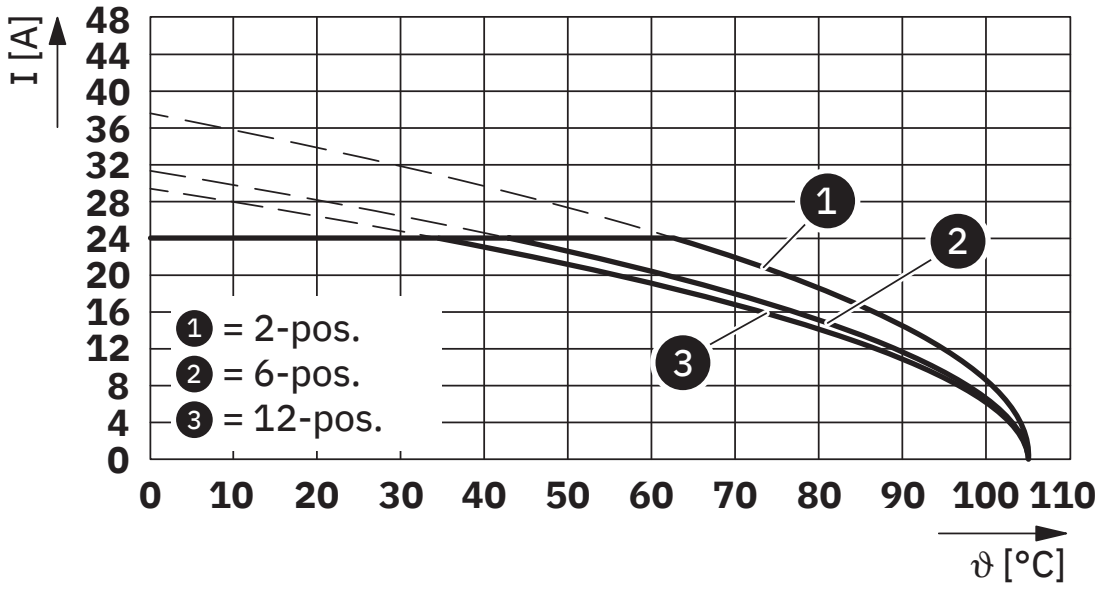
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the derating curve)

Packaging specifications

Type of packaging	packed in cardboard

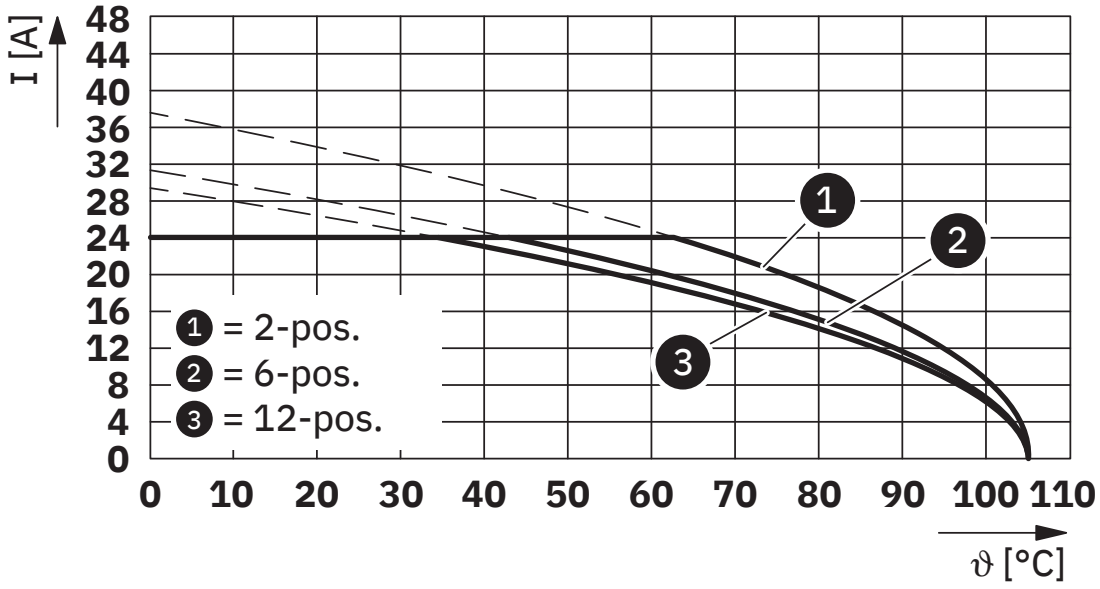
Drawings

Diagram



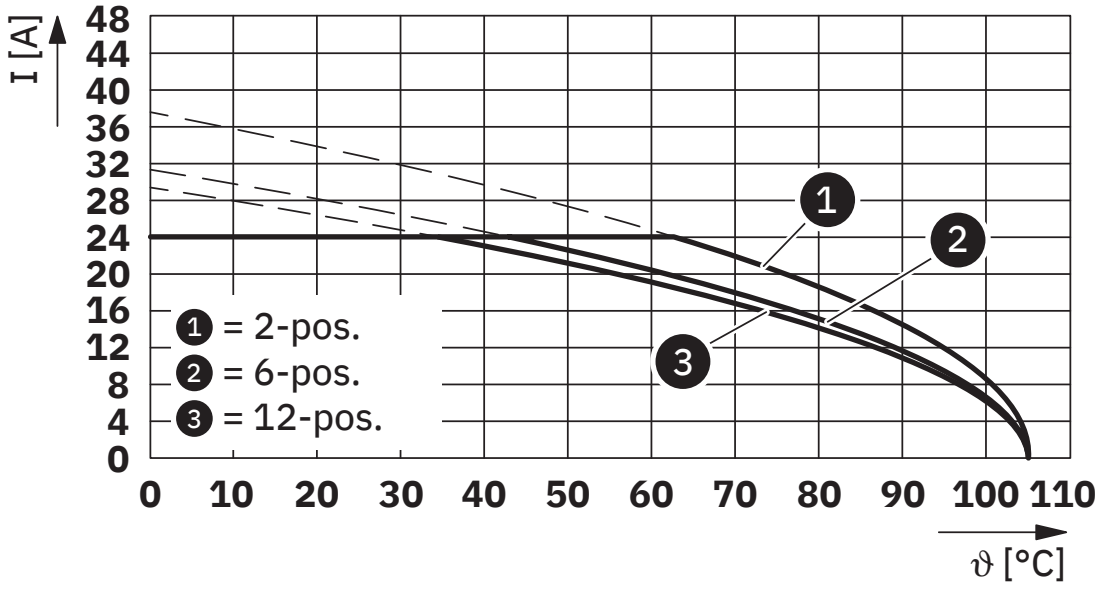
Type: SPC 4/...-ST-6,35 with PC 4/...-GU-6,35 P... THR

Diagram



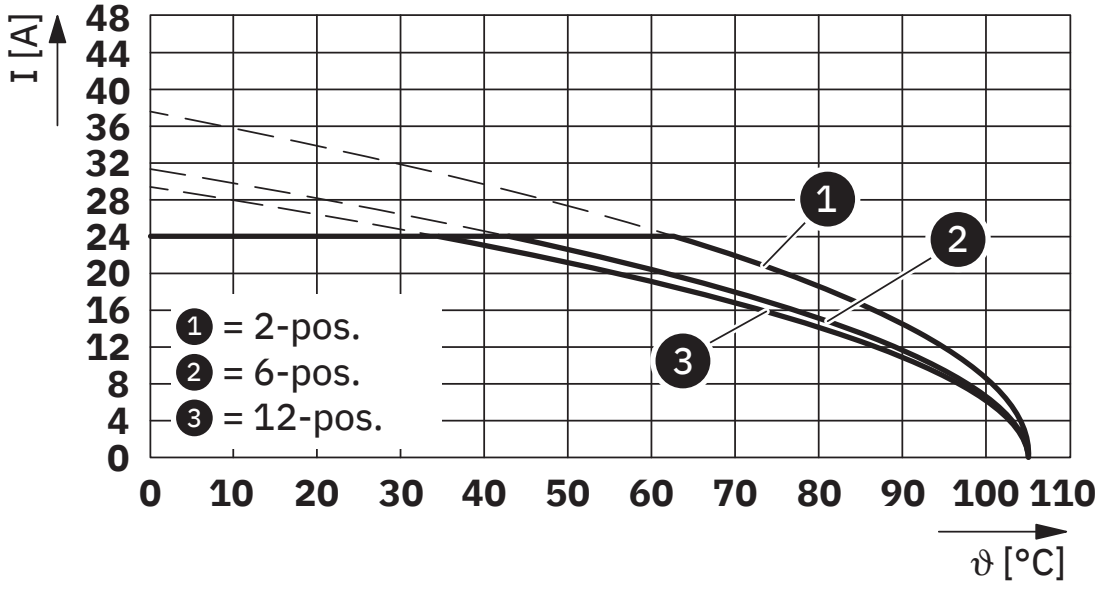
Type: SPC 4/...-STL...-6,35 with PC 4/...-GU-6,35 P... THR

Diagram



Type: SPC 4/...-STTL-6,35 with PC 4/...-GU-6,35 P... THR

Diagram



Type: SPC 4/...-STL...-SH-6,35 with PC 4/...-GU-6,35 P... THR

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/in/products/1247577

UL Recognized
Approval ID: E60425-20240415

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
F				
	600 V	23 A	-	-

cULus Recognized
Approval ID: E60425-20240415

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	23 A	-	-
C				
	300 V	23 A	-	-
D				
	600 V	5 A	-	-

VDE Zeichengenehmigung
Approval ID: 40061144

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	1000 V	24 A	-	-

Classifications

ECLASS

ECLASS-13.0	27460201
ECLASS-15.0	27460201

ETIM

ETIM 10.0	EC002637

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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