

# IPC 35 HC/ 6-GF-15,00 - PCB header



1784952

<https://www.phoenixcontact.com/pc/products/1784952>

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PCB headers, nominal cross section: 35 mm<sup>2</sup>, color: green, nominal current: 125 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Socket, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: IPC 35 HC/.-GF, pitch: 15 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.6 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 35, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

## Your advantages

- Well-known mounting principle allows worldwide use
- Inverted header with socket contacts for touch-proof device outputs or PCB/PCB connections
- Double flange for space-optimized screw connection on the housing panel and with the connector
- Integrated double steel spring provides additional safety in the event of temperature and power fluctuations

## Commercial Data

Item number	1784952
Packing unit	10 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	AAESFB
Catalog Page	Page 592 (C-1-2013)
GTIN	4046356561266
Weight per Piece (including packing)	166.32 g
Weight per Piece (excluding packing)	166.32 g
Customs tariff number	85366930
Country of origin	PL

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## Technical Data

### Product properties

Type	Headers
Product line	COMBICON Connectors XL
Product type	PCB headers
Product family	IPC 35 HC/...GF
Number of positions	6
Pitch	15 mm
Number of connections	6
Number of rows	1
Mounting flange	Threaded flange
Number of potentials	6
Pin layout	Linear pinning
Solder pins per potential	3

### Electrical properties

Nominal current $I_N$	125 A
Nominal voltage $U_N$	1000 V
Degree of pollution	3
Contact resistance	0.15 mΩ
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	8 kV

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

### Flange

Tightening torque	0.8 Nm
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### Attachment to feed-through panel

Tightening torque	1 Nm
Screw	1700368 DFK-PC 35 SS

### Attachment on the PCB

Tightening torque	1 Nm
Screw	1700368 DFK-PC 35 SS

### Material specifications

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## Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Metal surface contact area (top layer)	Silver (4 - 8 µm Ag)
Metal surface soldering area (top layer)	Silver (4 - 8 µm Ag)

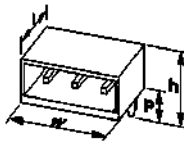
## Material data - housing

Color (Housing)	green (6021)
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	225
Flammability rating according to UL 94	V0

## 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.
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## Dimensions

Dimensional drawing	
Pitch	15 mm
Width [w]	114.4 mm
Height [h]	33.1 mm
Length [l]	44.9 mm
Installed height	28.5 mm
Solder pin length [P]	4.6 mm
Pin dimensions	2.4 x 2.5 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

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## 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

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	15 N
Withdraw strength per pos. approx.	8 N

## Electrical tests

### Thermal test | Test group C

Specification	IEC 60512-5-1:2002-02
Tested number of positions	6

### Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	$>10^{12} \Omega$

### Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 225
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	16 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	10 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	8 kV
minimum clearance value - non-homogenous field (II/2)	8 mm
minimum creepage distance (II/2)	10 mm

## Environmental and real-life conditions

### Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz

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Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)
Sweep speed	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

## Durability test

Specification	IEC 60512-5:1992-08
Impulse withstand voltage at sea level	9.8 kV
Contact resistance R <sub>1</sub>	0.15 mΩ
Contact resistance R <sub>2</sub>	0.18 mΩ
Insertion/withdrawal cycles	50

## Climatic test

Specification	ISO 6988:1985-02
Corrosive stress	0.2 dm <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /40 °C/1 cycle
Thermal stress	100 °C/168 h
Power-frequency withstand voltage	4.26 kV

## Shocks

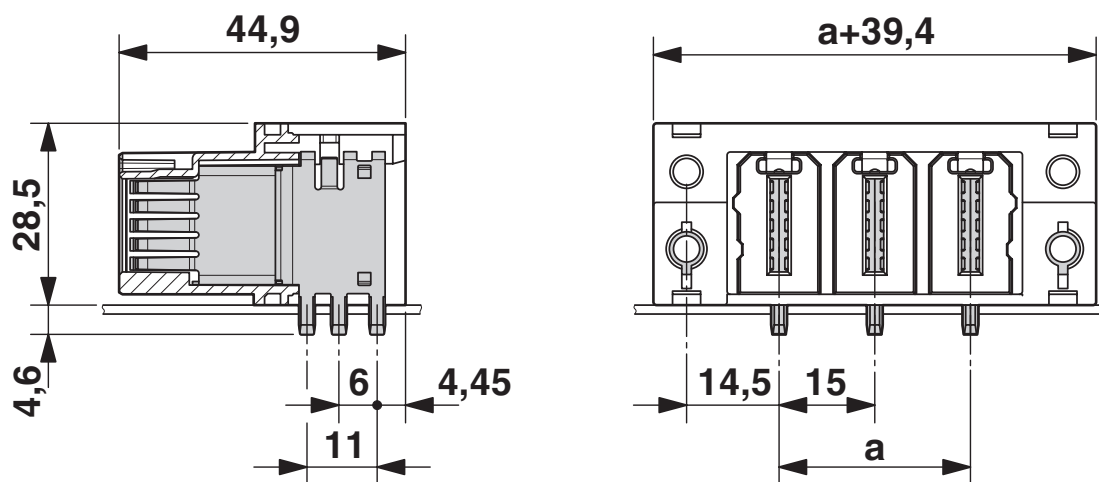
Specification	IEC 61373:1999-01
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

## Ambient conditions

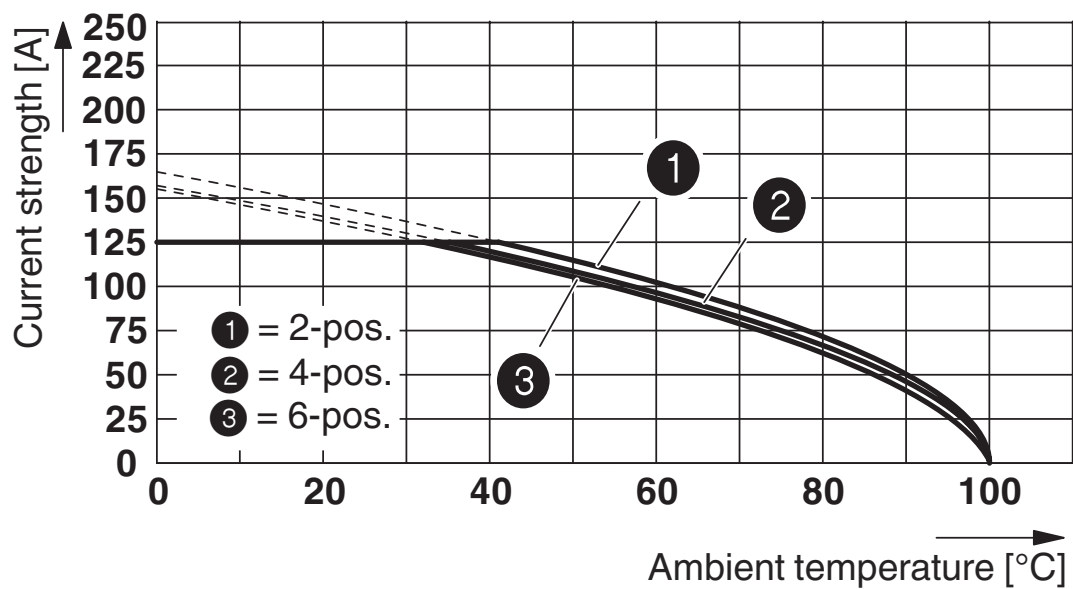
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Drawings

Dimensional drawing



Diagram



Derating curve for: IPC 35 HC/...-STF-15,0 with IPC 35 HC/...-GF-15,0

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/1784952>

 <b>UL Recognized</b> Approval ID: E60425-20101007				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
Use group B	600 V	115 A	-	-
Use group C	600 V	115 A	-	-

 <b>IECEE CB Scheme</b> Approval ID: DE1-63848				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
	1000 V	125 A	-	-

 <b>EAC</b> Approval ID: B.01687				
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 <b>VDE Gutachten mit Fertigungsüberwachung</b> Approval ID: 40039053				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $mm^2$
	1000 V	125 A	-	-

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## Classifications

### ECLASS

ECLASS-11.0	27460201
ECLASS-12.0	27460201
ECLASS-13.0	27460201

### ETIM

ETIM 8.0	EC002637
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### UNSPSC

UNSPSC 21.0	39121400
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## Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

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## Accessories

### CP-HC - Coding profile

1686478

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



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

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### PC 35 HC/ 6-GF-15,00 - PCB header

1762783

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PCB headers, nominal cross section: 35 mm<sup>2</sup>, color: green, nominal current: 125 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: PC 35 HC/...-GF, pitch: 15 mm, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.6 mm, number of solder pins per potential: 3, plug-in system: COMBICON PC 35, Pin connector pattern alignment: Standard, locking: Screw locking, mounting: Threaded flange, type of packaging: packed in cardboard

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## PCV 35 HC/ 6-GF-15,00 - PCB header

1762835

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## IPC 35 HC/ 6-STF-15,00 - PCB connector

1784839

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PCB connector, nominal cross section: 35 mm<sup>2</sup>, color: green, nominal current: 125 A, rated voltage (III/2): 1000 V, contact surface: Silver, type of contact: Pin, number of potentials: 6, number of rows: 1, number of positions: 6, number of connections: 6, product range: IPC 35 HC/..-STF, pitch: 15 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, conductor/PCB connection direction: 0 °, locking clip: - without locking clip, plug-in system: COMBICON PC 35, locking: Screw locking, mounting: Screw flange, type of packaging: packed in cardboard

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