

IPCV 35 HC/ 2-GF-15,00 - PCB header



1793558

<https://www.phoenixcontact.com/us/products/1793558>

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PCB headers, nominal cross section: 35 mm², color: green, nominal current: 125 A, rated voltage (III/2): 1000 V, contact surface: Ag, contact connection type: Socket, number of potentials: 2, number of rows: 1, number of positions: 2, number of connections: 2, product range: IPCV 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 mechanism, 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	1793558
Packing unit	25 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA05
Product key	AAESFA
Catalog page	Page 593 (C-1-2013)
GTIN	4046356621298
Weight per piece (including packing)	66.48 g
Weight per piece (excluding packing)	66.44 g
Customs tariff number	85366930
Country of origin	PL

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Technical data

Product properties

Product type	PCB headers
Product family	IPCV 35 HC/...-GF
Product line	COMBICON Connectors XL
Type	Headers
Number of positions	2
Pitch	15 mm
Number of connections	2
Number of rows	1
Number of potentials	2
Mounting flange	Threaded flange
Pin layout	Linear pinning
Solder pins per potential	3

Data management status

Article revision	01
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Electrical properties

Nominal current I_N	125 A
Nominal voltage U_N	1000 V
Contact resistance	0.1 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

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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
Metal surface contact area (top layer)	Silver (4 - 8 µm Ag)
Metal surface soldering area (top layer)	Tin (3 - 5 µm Sn)
Metal surface soldering area (middle layer)	Nickel (1.3 - 3 µm Ni)

Material data - housing

Color (Housing)	green (6021)
Insulating material	PBT
Insulating material group	IIIa
CTI according to IEC 60112	175
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]	54.4 mm
Height [h]	49.5 mm
Length [l]	28.5 mm
Installed height	44.9 mm
Solder pin length [P]	4.6 mm
Pin dimensions	2.4 x 2.5 mm

PCB design

Hole diameter	3.6 mm
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Mechanical tests

Visual inspection

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

Dimension check

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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

Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	14 N
Withdraw strength per pos. approx.	7 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	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 175
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

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Environmental and real-life conditions

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

Durability test

Specification	IEC 60512-9-1:2010-03
Impulse withstand voltage at sea level	9.8 kV
Contact resistance R_1	0.1 mΩ
Contact resistance R_2	0.1 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	4.26 kV

Shocks

Specification	IEC 60068-2-27:2008-02
Pulse shape	Semi-sinusoidal
Acceleration	30g
Shock duration	18 ms
Test directions	X-, Y- and Z-axis (pos. and neg.)

Ambient conditions

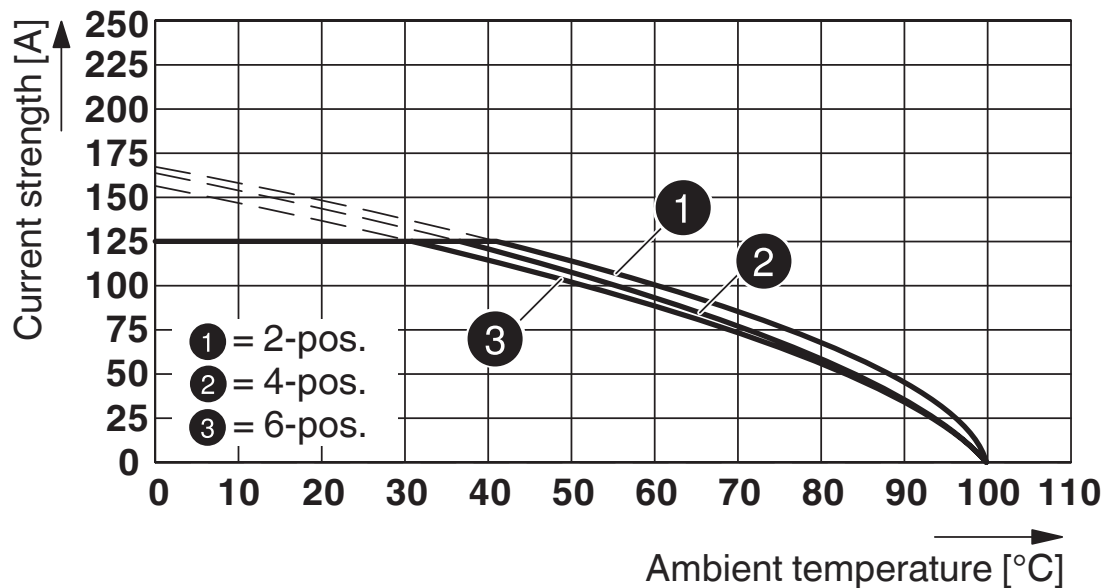
Ambient temperature (operation)	-40 °C ... 100 °C (dependent on the derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

Type of packaging	packed in cardboard
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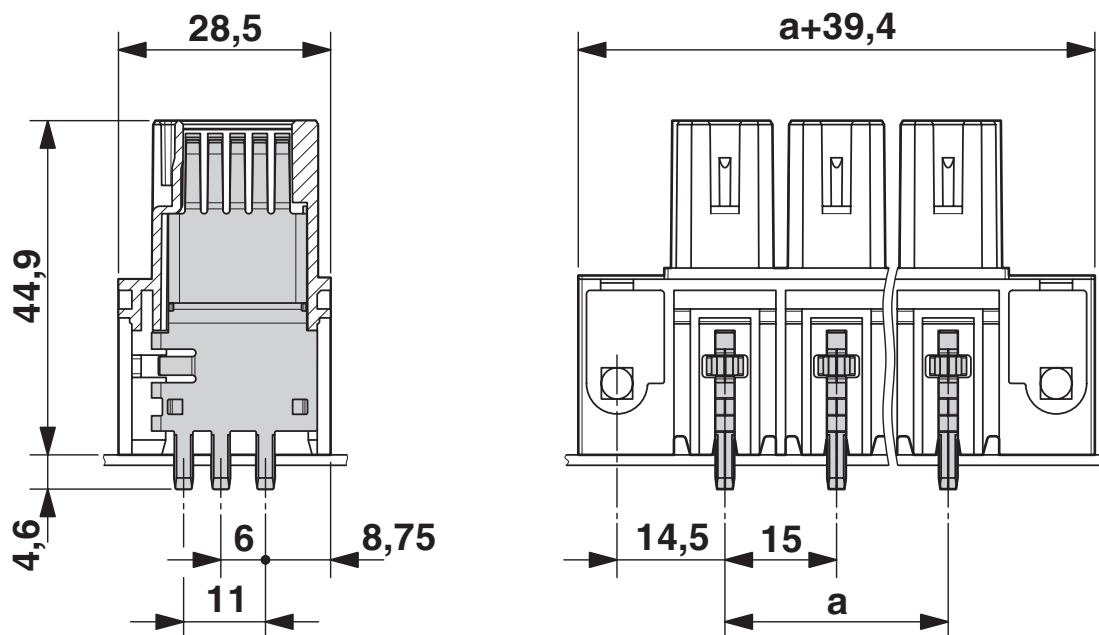
Drawings

Diagram



Type: IPC 35 HC/...-STF-15,00 with IPCV 35 HC/...-GF-15,00

Dimensional drawing



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Approvals

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 UL Recognized 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	-	-

 VDE Gutachten mit Fertigungsüberwachung 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 9.0	EC002637
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UNSPSC

UNSPSC 21.0	39121400
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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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