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

1784839

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PCB connector, nominal cross section: 35 mm^2, color: green, nominal current: 125 A, rated voltage (III/2): 1000 V, contact surface: Ag, contact connection type: 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 mechanism, mounting method: Screw flange, type of packaging: packed in cardboard

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Inverted connector with pin contacts for touch-proof device outputs or free-hanging cable/cable connections
- Screwable flange for superior mechanical stability

Commercial data

Item number	1784839
Packing unit	10 pc
Minimum order quantity	25 pc
Note	Made to order (non-returnable)
Sales key	AA05
Product key	AAEADA
Catalog page	Page 588 (C-1-2013)
GTIN	4046356561143
Weight per piece (including packing)	195.2 g
Weight per piece (excluding packing)	188.236 g
Customs tariff number	85366990
Country of origin	PL

Technical data

Product properties

Product type	PCB connector
Product family	IPC 35 HC/..-STF
Product line	COMBICON Connectors XL
Type	Standard
Number of positions	6
Pitch	15 mm
Number of connections	6
Number of rows	1
Number of potentials	6
Mounting flange	Screw flange

Electrical properties

Properties

Nominal current I_N	125 A
Nominal voltage U_N	1000 V
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)	6 kV

Connection data

Connection technology

Type	Standard
Connector system	COMBICON PC 35
Nominal cross section	35 mm²
Contact connection type	Pin

Interlock

Locking type	Screw locking mechanism
Mounting flange	Screw flange
Tightening torque	0.8 Nm

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor/PCB connection direction	0 °
Conductor cross section rigid	0.5 mm² ... 35 mm²
Conductor cross section flexible	0.5 mm² ... 35 mm²

Conductor cross section AWG	20 ... 2
Conductor cross section flexible, with ferrule without plastic sleeve	1 mm² ... 35 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	1.5 mm² ... 35 mm²
2 conductors with same cross section, solid	0.5 mm² ... 6 mm²
2 conductors with same cross section, flexible	0.5 mm² ... 6 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm² ... 4 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 6 mm²
Cylindrical gauge a x b / diameter	- / 8.0 mm
Stripping length	20 mm
Drive form screw head	Slotted (L)
Tightening torque	2.5 Nm ... 4.5 Nm (≤ 25 mm² = 2.5 Nm; > 25 mm² = 4.5 Nm)

Material specifications

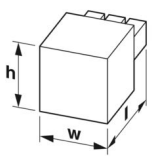
Material data - contact

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

Material data - housing

Color (Housing)	green (6021)
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

Dimensions

Dimensional drawing	
Pitch	15 mm
Width [w]	91.3 mm
Height [h]	40 mm

Length [l]	58 mm

Mounting

Flange

Tightening torque	0.8 Nm

Notes

General	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.

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed

Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force setpoint/actual value	0.5 mm² / solid / > 20 N
	0.5 mm² / flexible / > 20 N
	35 mm² / stranded / > 190 N
	35 mm² / flexible / > 190 N

Insertion and withdrawal forces

Specification	IEC 60512-13-2:2006-02
Result	Test passed
No. of cycles	50
Insertion strength per pos. approx.	15 N
Withdraw strength per pos. approx.	8 N

Torque test

Specification	IEC 60999-1:1999-11

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

Visual inspection

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

Dimension check

Specification	IEC 60512-1-2:2002-02

Result	Test passed

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 60512-5:1992-08
Impulse withstand voltage at sea level	9.8 kV
Contact resistance R_1	0.15 mΩ
Contact resistance R_2	0.18 mΩ
Insertion/withdrawal cycles	50

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 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

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	$>10^{12}$ Ω

Air clearances and creepage distances |

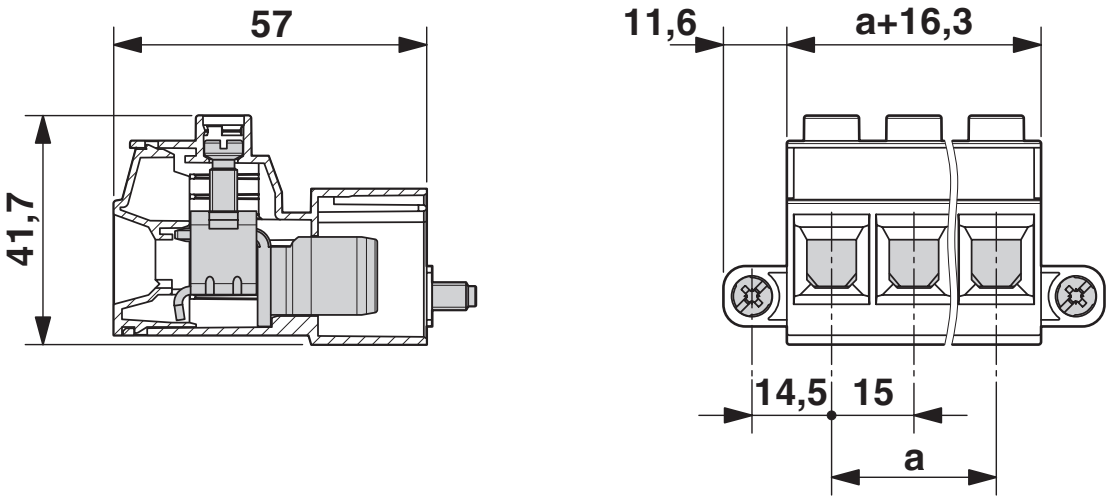
Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation 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)	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)	5.5 mm

Packaging specifications

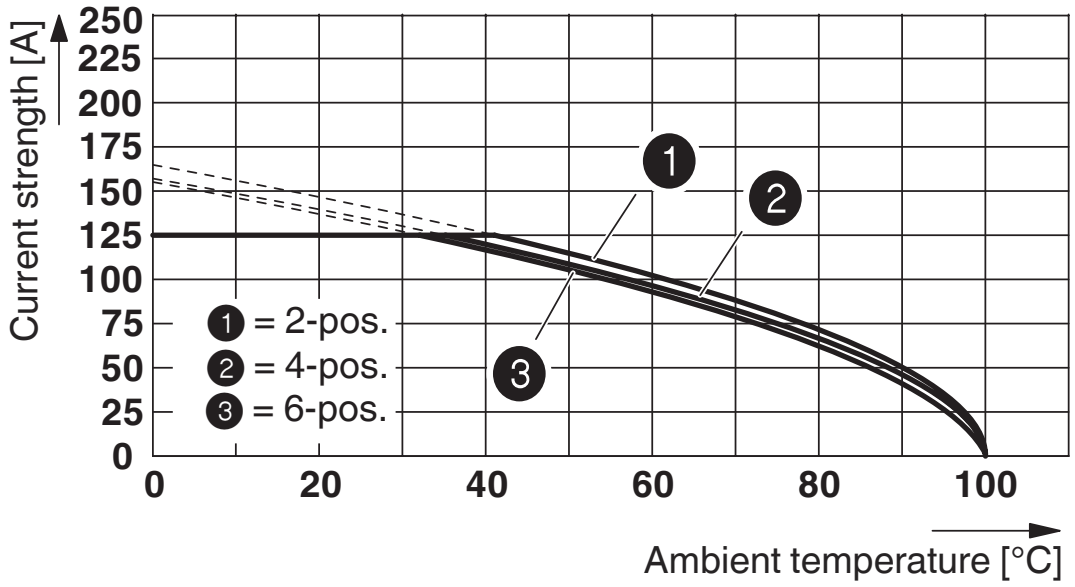
Type of packaging	packed in cardboard

Drawings

Dimensional drawing

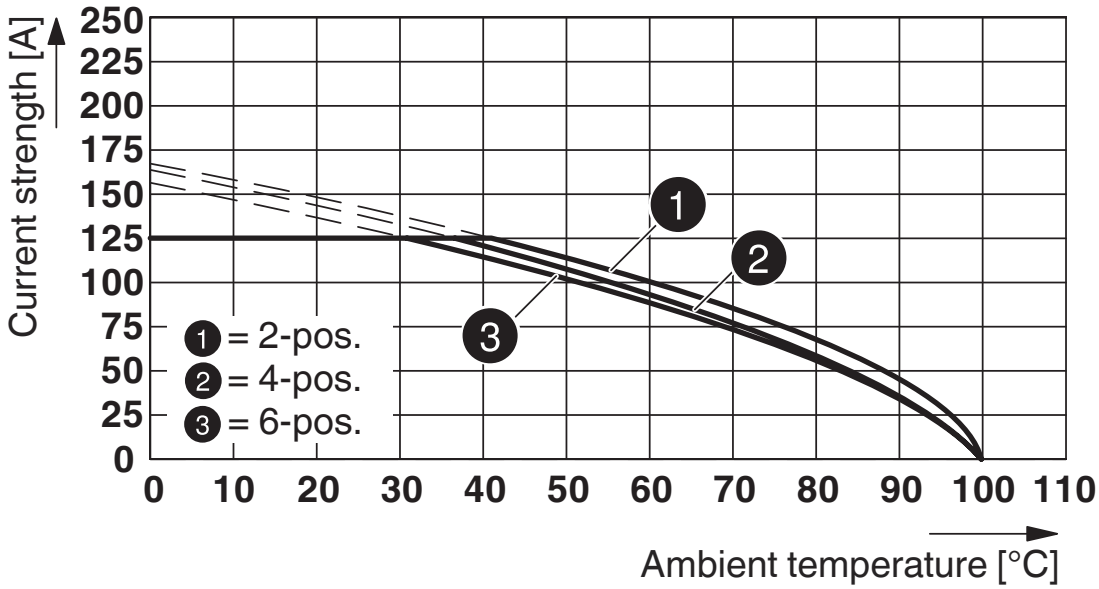


Diagram



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

Diagram



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

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1784839

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	16 - 2	-
Use group C				
	600 V	115 A	16 - 2	-

VDE report with production monitoring
Approval ID: 40039053

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1000 V	125 A	-	0.5 - 35

Classifications

ECLASS

ECLASS-13.0	27460202

ETIM

ETIM 9.0	EC002638

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%

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