

Printed-circuit board connector - PC 35 HC/ 5-STF-15,00 - 1762628

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PCB connector, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm², number of positions: 5, pitch: 15 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver




Your advantages

- ✓ Well-known connection principle allows worldwide use
- ✓ Low temperature rise, thanks to maximum contact force
- ✓ Allows connection of two conductors
- ✓ Integrated double steel spring provides additional safety in the event of temperature and power fluctuations
- ✓ Screwable flange for superior mechanical stability
- ✓ Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve



Key Commercial Data

Packing unit	10 pc
GTIN	 4 046356 441247
GTIN	4046356441247

Technical data

Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 35
Type of contact	Female connector
Range of articles	PC 35 HC/...STF
Pitch	15 mm
Number of positions	5
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M5
Locking	Screw flange

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Technical data

Item properties

Number of levels	1
Number of connections	5
Number of potentials	5

Electrical parameters

Nominal current	125 A
Nom. voltage	1000 V
Rated voltage	1000 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.5 mm ² ... 16 mm ²
Single-conductor/terminal point multi-stranded	0.5 mm ² ... 35 mm ²
Conductor cross section flexible	0.5 mm ² ... 35 mm ²
Conductor cross section AWG / kcmil	20 ... 2
Conductor cross section flexible, with ferrule without plastic sleeve	1 mm ² ... 35 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	1.5 mm ² ... 35 mm ²
2 conductors with same cross section, solid	0.5 mm ² ... 6 mm ²
2 conductors with same cross section, flexible	0.5 mm ² ... 6 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm ² ... 4 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 6 mm ²
Cylindrical gauge a x b / diameter	- / 8.0 mm
Stripping length	20 mm
Torque	2.5 Nm ... 4.5 Nm ($\leq 25 \text{ mm}^2 = 2.5 \text{ Nm}$; $> 25 \text{ mm}^2 = 4.5 \text{ Nm}$)

Flange specifications

Type of locking	Screw locking
Mounting flange	Screw flange
Torque	0.8 Nm

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	Selective coating
Metal surface terminal point (top layer)	Tin (5 - 7 μm Sn)

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Material data - contact

Metal surface terminal point (middle layer)	Nickel (2 - 4 µm Ni)
Metal surface contact area (top layer)	Silver (4 - 8 µm Ag)

Material data - housing

Housing color	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 for the product

Length [l]	52 mm
Width [w]	99.4 mm
Height [h]	40 mm
Pitch	15 mm
Height (without solder pin)	40 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	10
Denomination packing units	Pcs.

Ambient conditions

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

Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.5 mm ² / solid / > 20 N
	0.5 mm ² / flexible / > 20 N
	35 mm ² / stranded / > 190 N
	35 mm ² / flexible / > 190 N

Mechanical tests according to standard

Test specification	IEC 61984
Visual inspection	IEC 60512-1-1:2002-02

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Mechanical tests according to standard

Dimension check	IEC 60512-1-2:2002-02
Resistance of inscriptions	IEC 60068-2-70:1995-12
Insertion and withdrawal force	IEC 60512-13-2:2006-02
No. of cycles	50
Insertion strength per pos. approx.	14 N
Withdraw strength per pos. approx.	9 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	57 N

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	12.5 mm
Minimum creepage distance value (III/2)	8 mm
Minimum creepage distance value (II/2)	5.5 mm

Current carrying capacity / derating curves

Caption	PC 35 HC/...STF-15,0 with IPC 35 HC/...STGF-15,0 Derating curve, representation based on DIN EN 60512-5-2:2003-01 Connected conductor cross section = 35 mm ² Reduction factor = 0.8 Number of positions: see diagram
Specification	IEC 61984:2008-10
Reduction factor	0.8
Note	Representation based on IEC 60512-5-2:2002-02
	For number of positions, see diagram

Mechanical tests (A)

Test specification	IEC 61984
Insertion strength per pos. approx.	14 N
Withdraw strength per pos. approx.	9 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

Durability tests (B)

Specification	IEC 60512-9-1:2010-03
Contact resistance R ₁	0.17 mΩ
Insertion/withdrawal cycles	50
Contact resistance R ₂	0.15 mΩ
Impulse withstand voltage at sea level	9.8 kV

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Durability tests (B)

Power-frequency withstand voltage	4.26 kV
Insulation resistance, neighboring positions	> 5 TΩ

Thermal tests (C)

Specification	IEC 60512-5-1:2002-02
Number of positions	6
Conductor cross section	35 mm ²
Test current	125 A DC
Upper limiting temperature requirements <100 °C	Test passed

Climatic tests (D)

Specification	ISO 6988:1985-02
Cold stress	-40 °C/2 h
Thermal stress	100 °C/168 h
Corrosive stress	0.2 dm ³ SO ₂ on 300 dm ³ /40 °C/1 cycle
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Finger safety with IP20 test finger

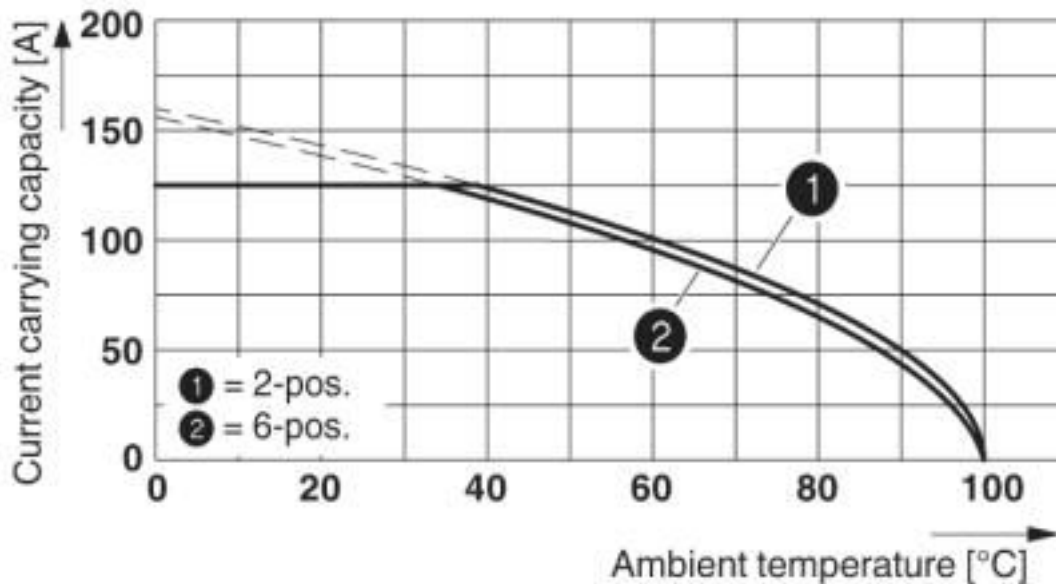
Environmental Product Compliance

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

Drawings

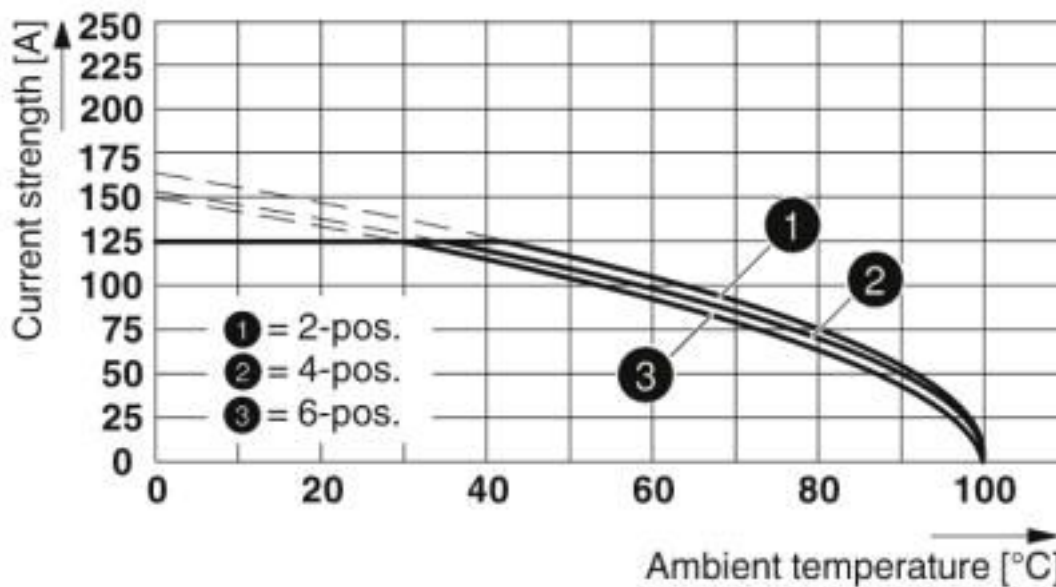
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Diagram



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

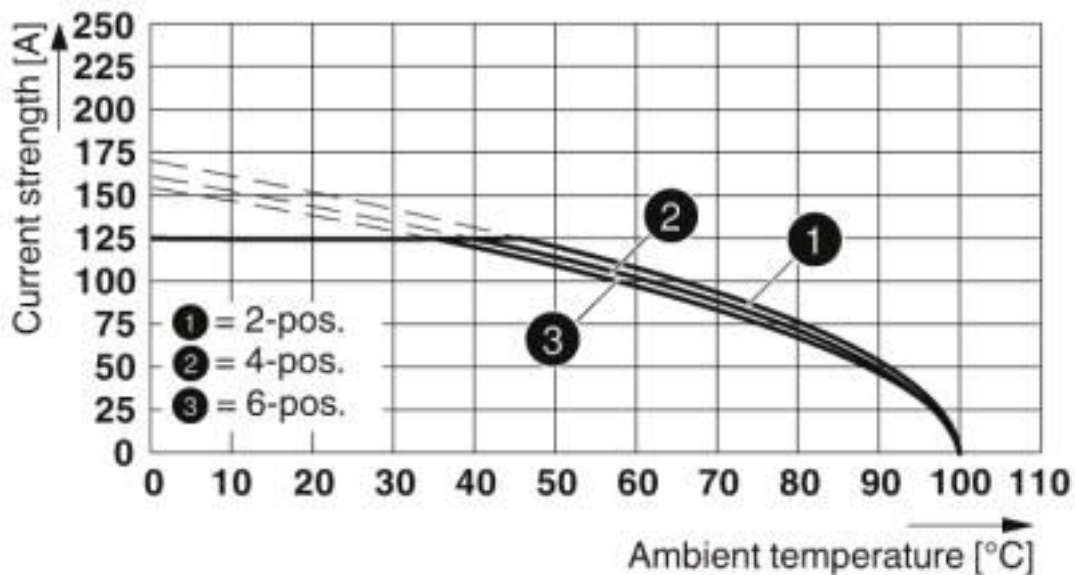
Diagram



PC 35 HC/...-STF-15,0 with IPC 35 HC/...-STGF-15,0
 Derating curve, representation based on DIN EN 60512-5-2:2003-01
 Connected conductor cross section = 35 mm²
 Reduction factor = 0.8
 Number of positions: see diagram

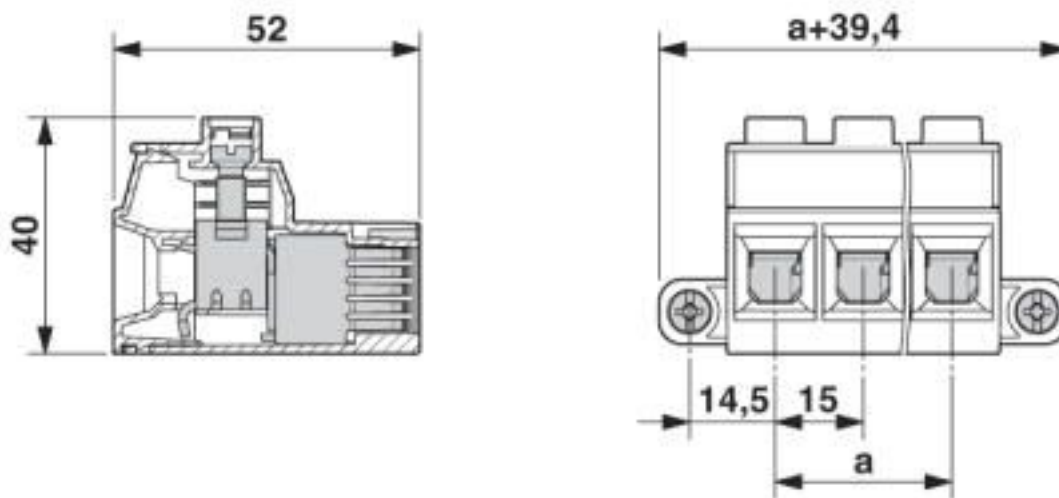
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Diagram



Type: PC 35 HC/...-STF-15,00 with PCV 35 HC/...-GF-15,00

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440309
eCl@ss 4.0	27260700
eCl@ss 4.1	27260700
eCl@ss 5.0	27260700
eCl@ss 5.1	27260700
eCl@ss 6.0	27260700

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Classifications

eCl@ss

eCl@ss 7.0	27440309
eCl@ss 8.0	27440309
eCl@ss 9.0	27440309

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002638
ETIM 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

UNSPSC

UNSPSC 6.01	30211810
UNSPSC 7.0901	39121409
UNSPSC 11	39121409
UNSPSC 12.01	39121409
UNSPSC 13.2	39121409
UNSPSC 18.0	39121409
UNSPSC 19.0	39121409
UNSPSC 20.0	39121409
UNSPSC 21.0	39121409

Approvals

Approvals


Approvals

CCA / IECCE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

CCA	CCA/ DE1 34354
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IECEE CB Scheme		http://www.iecee.org/	CB DE1-63848
Nominal voltage UN	1000 V		
Nominal current IN	125 A		

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Approvals

VDE Gutachten mit Fertigungsüberwachung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40039053
Nominal voltage UN		1000 V	
Nominal current IN		125 A	
mm ² /AWG/kcmil		0.5-35	

EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20101007
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	115 A	115 A	
mm ² /AWG/kcmil	16-2	16-2	

Accessories

Accessories

Coding element

Coding profile - CP-HC - 1686478



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

Screwdriver tools

Screwdriver - SF-TX 20X80 VDE - 1200158



Screwdriver, Torx[®], VDE-insulated, TX 20 x 80, two-component handle

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Accessories

Screw insert - SF-BIT-TX 20-50 - 1212578



Screw bit, Torx[®], E6.3-1/4" drive, size: TX 20 x 50 mm, hardened, suitable for holder according to DIN 3126-F6.3/ISO 1173

Terminal marking

Marker strip - SK 10,0 WH:REEL - 0812188



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 90000 mm, lettering field size: continuous x 10#mm, Number of individual labels: 54000

Tool set

Tool set - SF-M SET - 1212543



Bit screwdriver set with quick-action chuck, 89 mm long slotted/crosshead (PZ and PH)/hex/Torx[®] bits, 17-part, in folding belt pouch, contents: PH 1,2,3 x 89; PZ 1,2,3 x 89; SL 1.5 x 5.5 x 89; TX 10-30 x 89; SW 3,4,5,6 x 89

Tool set - SF-LTX SET - 1200162



Offset screwdriver set, Torx, metric, TX 8, 9, 10, 15, 20, 25; 27, 30, 40 mm, 9-piece, BlackLaser surface, in practical holder

Additional products

Printed-circuit board connector - PC 35 HC/ 5-GF-15,00 - 1762770



PCB headers, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm², number of positions: 5, pitch: 15 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.6 mm

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Accessories

Printed-circuit board connector - PCV 35 HC/ 5-GF-15,00 - 1762822



PCB headers, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm², number of positions: 5, pitch: 15 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.6 mm

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