

# Printed-circuit board connector - IPC 35 HC/ 3-STF-15,00 - 1784800

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PCB connector, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm<sup>2</sup>, number of positions: 3, pitch: 15 mm, connection method: Screw connection with tension sleeve, color: green, contact surface: Silver



The figure shows a 5-pos. version of the product

## 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



## Key Commercial Data

Packing unit	25 pc
GTIN	
GTIN	4046356561112

## Technical data

### Item properties

Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 35
Type of contact	Male connector
Range of articles	IPC 35 HC/...STF
Pitch	15 mm
Number of positions	3
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M5
Locking	Screw flange

# Printed-circuit board connector - IPC 35 HC/ 3-STF-15,00 - 1784800

## Technical data

### Item properties

Number of levels	1
Number of connections	3
Number of potentials	3

### 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 <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section flexible	0.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section AWG / kcmil	20 ... 2
Conductor cross section flexible, with ferrule without plastic sleeve	1 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
2 conductors with same cross section, solid	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Stripping length	20 mm
Torque	2.5 Nm ... 4.5 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
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

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### 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 ]	58 mm
Width [ w ]	46.3 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	25
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 <sup>2</sup> / solid / > 20 N
	0.5 mm <sup>2</sup> / flexible / > 20 N
	35 mm <sup>2</sup> / stranded / > 190 N
	35 mm <sup>2</sup> / flexible / > 190 N

### Mechanical tests according to standard

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

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## Technical data

### Mechanical tests according to standard

No. of cycles	50
Insertion strength per pos. approx.	15 N
Withdraw strength per pos. approx.	8 N
Polarization and coding	IEC 60512-13-5:2006-02
Contact holder in insert	IEC 60512-15-1:2008-05
Test force per pos.	45 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	Derating curve for: IPC 35 HC/...-STF-15,0 with IPC 35 HC/...-GF-15,0
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.	15 N
Withdraw strength per pos. approx.	8 N
Polarization when inserted requirement >20 N	Test passed
Contact holder in insert requirements >20 N	Test passed

### Durability tests (B)

Specification	IEC 60512-5:1992-08
Contact resistance R <sub>1</sub>	0.15 mΩ
Insertion/withdrawal cycles	50
Contact resistance R <sub>2</sub>	0.18 mΩ
Impulse withstand voltage at sea level	9.8 kV
Power-frequency withstand voltage	4.26 kV
Insulation resistance, neighboring positions	>10 <sup>12</sup> Ω

### Thermal tests (C)

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

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## Technical data

### Thermal tests (C)

Conductor cross section	35 mm <sup>2</sup>
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 <sup>3</sup> SO <sub>2</sub> on 300 dm <sup>3</sup> /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)

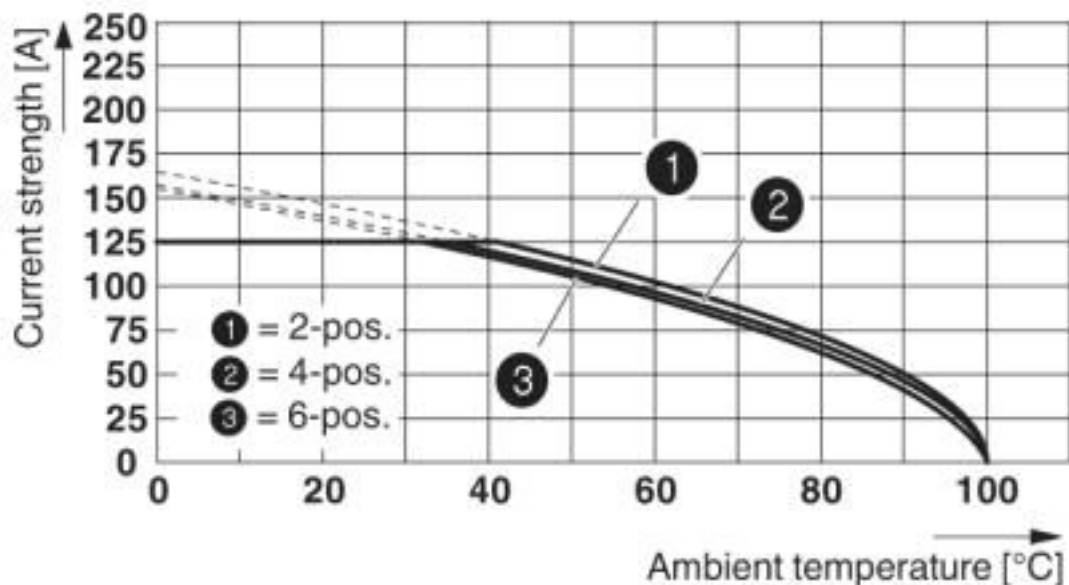
Specification	IEC 61984:2008-10
Result, degree of protection, IP code	IP10, except of the solder connection area

### Environmental Product Compliance

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

## Drawings

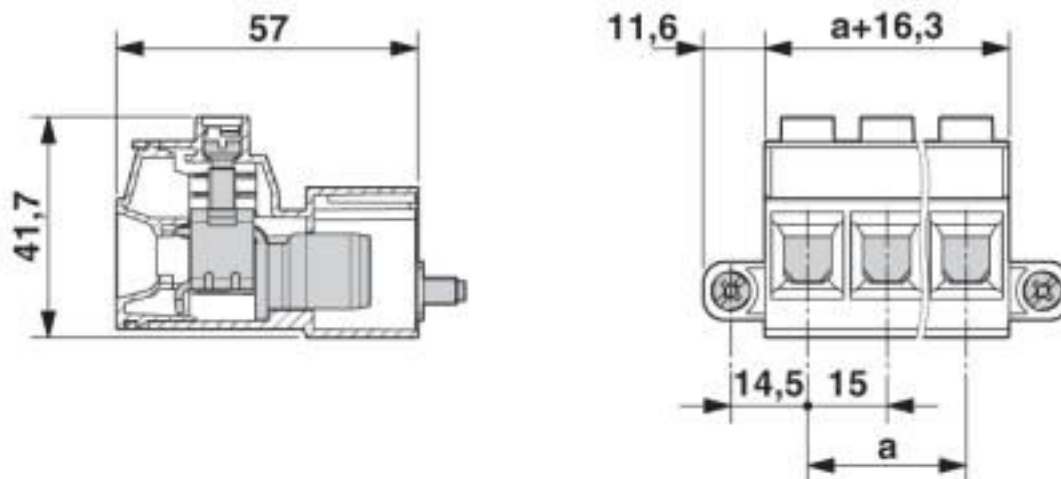
Diagram



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

# Printed-circuit board connector - IPC 35 HC/ 3-STF-15,00 - 1784800

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

ETIM

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

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## Approvals

### Approvals

#### Approvals

CCA / UL Recognized / IECEE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC

#### Ex Approvals

### Approval details

CCA	CCA/ DE1 34354
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UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	E60425-20101007
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	115 A	115 A	
mm <sup>2</sup> /AWG/kcmil	16-2	16-2	

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	CB DE1-63848
Nominal voltage UN	1000 V		
Nominal current IN	125 A		

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

EAC		B.01687
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## Accessories

### Accessories

## Printed-circuit board connector - IPC 35 HC/ 3-STF-15,00 - 1784800

### Accessories

#### Coding element

Coding profile - CP-HC - 1686478



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

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#### Mounting material

Screw - DFK-PC 35-SS - 1700368



Flange screw for PC 35... connectors

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#### Screwdriver tools

Screwdriver - SF-TX 20X80 VDE - 1200158



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

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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

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#### 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



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### Accessories

#### 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 - IPC 35 HC/ 3-GF-15,00 - 1784923



PCB headers, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm<sup>2</sup>, number of positions: 3, pitch: 15 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.6 mm

Printed-circuit board connector - IPCV 35 HC/ 3-GF-15,00 - 1793561



PCB headers, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm<sup>2</sup>, number of positions: 3, pitch: 15 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning, solder pin [P]: 4.6 mm

Printed-circuit board connector - DFK-IPC 35 HC/ 3-GF-15,00 - 1784978



Feed-through header, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm<sup>2</sup>, number of positions: 3, pitch: 15 mm, color: green, contact surface: Silver, mounting: Wave soldering, pin layout: Linear pinning

## Printed-circuit board connector - IPC 35 HC/ 3-STF-15,00 - 1784800

### Accessories

Printed-circuit board connector - DFK-IPCV 35 HC/ 3-GF-15,00 - 1793613



Feed-through header, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm<sup>2</sup>, number of positions: 3, 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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