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PCB hybrid connector, nominal current: 41 A, number of positions: 10, pitch: 7.62 mm, connection method: Push-in spring connection, color: green

Figure shows a 3+4-pos. version

### Your advantages

- ☑ Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- Clear lever positions provide reliable feedback on opened or closed clamping spaces
- ☑ Defined contact force ensures that contact remains stable over the long term



## **Key Commercial Data**

Packing unit	25 pc
Minimum order quantity	25 pc
GTIN	4 055626 536644
GTIN	4055626536644
Weight per Piece (excluding packing)	34.000 g
Custom tariff number	85366990
Note	Made to Order (non-returnable)

#### Technical data

#### Item properties

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Brief article description	Printed-circuit board connector
Plug-in system	POWER COMBICON 6 Hybrid
Type of contact	Female connector
Range of articles	LPCH 6/ST
Pitch	7.62 mm
	3.81 mm
Number of positions	10
Connection method	Push-in spring connection



## Technical data

#### Item properties

Number of levels	1
	2
Number of connections	10
Number of potentials	10

#### Electrical parameters

Rated current	41 A
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

## Connection capacity

Conductor cross section solid	0.75 mm² 10 mm²
Conductor cross section flexible	0.75 mm² 6 mm²
Conductor cross section AWG / kcmil	18 8
Conductor cross section flexible, with ferrule without plastic sleeve	0.75 mm² 6 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.75 mm² 6 mm²
Cylindrical gauge a x b / diameter	4.3 mm x 4.0 mm / 4.0 mm
Stripping length	18 mm

#### 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	Tin-plated
Metal surface terminal point (top layer)	Tin (4 - 8 µm Sn)
Metal surface contact area (top layer)	Tin (4 - 8 µm Sn)

## Material data - housing

Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

## Material data - actuating element

Insulating material	PA GF
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

## Dimensions for the product

Length [1]	48 mm
Width [w]	44.11 mm
Height [ h ]	35.65 mm
Pitch	7.62 mm
Dimension a	22.86 mm



# Technical data

## 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

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
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	0.75 mm² / solid / > 30 N
	0.75 mm² / flexible / > 30 N
	10 mm² / solid / > 90 N
	6 mm² / flexible / > 80 N

## Mechanical tests according to standard

Visual examination	Test passed IEC 60512-1-1:2002-02
Dimensional test	Test passed IEC 60512-1-2:2002-02
Resistance of marking	Test passed IEC 60068-2-70:1995-12
Result	Test passed
Specification	IEC 60512-13-2:2006-02
No. of cycles	25
Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	4 N
Polarization and coding	Test passed IEC 60512-13-5:2006-02
Result	Test passed
Specification	IEC 60512-15-1:2008-05
Test force per pos.	20 N

## Air clearances and creepage distances

Specification	IEC 60664-1:2007-04
Rated insulation voltage (III/3)	800 V



## Technical data

## Air clearances and creepage distances

Rated insulation voltage (III/2)	1000 V
Rated insulation 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
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)	10 mm
Minimum creepage distance value (III/2)	5 mm
Minimum creepage distance value (II/2)	5 mm

#### Electrical tests - Function

Specification	IEC 60999-1:1999-11
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## Temperature cycles

Specification	IEC 60999-1:1999-11
Test current (minimum cross section)	9 A DC
Test current (maximum cross section)	41 A DC
Temperature cycles	192

### Mechanical tests (A)

Insertion strength per pos. approx.	7 N
Withdraw strength per pos. approx.	4 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 <sub>1</sub>	0.42 mΩ
Insertion/withdrawal cycles	25
Contact resistance R <sub>2</sub>	0.46 mΩ
Impulse withstand voltage at sea level	7.3 kV
Power-frequency withstand voltage	3.31 kV

## 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	7.3 kV
Power-frequency withstand voltage	3.31 kV

Environmental and durability tests (E)



## Technical data

Environmental and durability tests (E)

Specification	IEC 61984:2008-10
Result, degree of protection, IP code	Back of hand safety with IP10 access probe

## Classifications

## eCl@ss

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 5.0	EC002638
ETIM 6.0	EC002638
ETIM 7.0	EC002638

# Approvals

## Approvals

Approvals

cULus Recognized

Ex Approvals

## Approval details

cULus Recognized c us	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-20010727	
	В	С
Nominal voltage UN	600 V	600 V
Nominal current IN	35 A	35 A
mm²/AWG/kcmil	18-8	18-8

## Accessories

Accessories

Cable end sleeve



#### Accessories

Ferrule - AI 6 -18 YE - 3200603



Ferrule, sleeve length: 18 mm, length: 26 mm, color: yellow

#### Coding element

Coding profile - CP-PC RD - 1701967



Coding profile, for plugging into the coding ribs of the plug at a later date, insulating material, color: Red

#### Crimping tool

Crimping pliers - CRIMPFOX CENTRUS 6S - 1213144



Crimping pliers, for uninsulated and insulated ferrules, DIN 46228 Part 1 and 4, from 0.14 mm<sup>2</sup> ... 6 mm<sup>2</sup>, also for TWIN ferrules up to 2 x 4 mm<sup>2</sup>, automatic cross section adjustment, lateral insertion, equipped with fall protection

#### Stripping tool

Stripping tool - WIREFOX 10 - 1212150



Stripping tool, for cables and conductors from 0.02 - 10 mm², self-adjusting, stripping length of up to 18 mm, cutting capacity of up to 10 mm² stranded/1.5 mm² solid, replaceable stripping blade

### Additional products

PCB hybrid header - PCH 6/ 4+6-G-7,62 - 1717106



PCB hybrid header, nominal current: 41 A, number of positions: 10, pitch: 7.62 mm, color: black, contact surface: Tin, mounting: Wave soldering



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