SPT 5/ 2-V-7,5-ZB BU - PCB terminal block

1764927

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Printed circuit board terminal, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm^2, number of rows: 1, number of positions per row: 2, product range: SPT 5/..-V, pitch: 7.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: blue, Pin layout: Zigzag pinning W, Solder pin [P]: 4.6 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- Vertical connection enables multi-row arrangement on the PCB

Commercial data

Item number	1764927
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA
Product key	AANBBB
GTIN	4046356418614
Weight per piece (including packing)	7.96 g
Weight per piece (excluding packing)	7.46 g
Customs tariff number	85369010
Country of origin	DE

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Technical data

Product properties

Product type	Printed circuit board terminal
Product family	SPT 5/..-V
Product line	COMBICON Terminals L
Number of positions	2
Pitch	7.5 mm
Number of rows	1
Pin layout	Zigzag pinning W
Solder pins per potential	1

Electrical properties

Properties

Nominal current I_N	41 A
Nominal voltage U_N	1000 V
Rated voltage (III/3)	800 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

Nominal cross section	6 mm²

Conductor connection

Connection method	Push-in spring connection
Conductor cross-section rigid	0.2 mm² ... 10 mm² (Conductor connection with open terminal point)
	0.75 mm² ... 10 mm² (Push-in connection)
Conductor cross-section flexible	0.2 mm² ... 6 mm²
Conductor cross-section AWG	24 ... 8
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm² ... 6 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 6 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm² ... 1.5 mm²
Stripping length	15 mm

Mounting

Mounting type	Wave soldering
Pin layout	Zigzag pinning W

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Material specifications

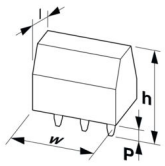
Material data - contact

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

Material data - housing

Color (Housing)	blue (5015)
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	7.5 mm
Width [w]	16.8 mm
Height [h]	28.75 mm
Length [l]	18.5 mm
Installed height	24.15 mm
Solder pin length [P]	4.6 mm
Pin dimensions	1.7 x 0.8 mm

PCB design

Pin spacing	14 mm
Hole diameter	2.1 mm

Mechanical tests

Test for conductor damage and slackening

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

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Pull-out test

Specification	IEC 60999-1:1999-11
Conductor cross-section/conductor type/tractive force setpoint/actual value	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	10 mm² / solid / > 90 N
	6 mm² / flexible / > 80 N
	0.75 mm² / solid / > 30 N

Electrical tests

Temperature-rise test

Specification	IEC 60947-7-4:2019-01
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

Short-time withstand current

Specification	IEC 60947-7-4:2019-01

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60947-7-4:2019-01
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	10 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

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:1995-03
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz ... 60.1 Hz)

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Acceleration	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Glow-wire test

Specification	IEC 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

Aging

Specification	IEC 60947-7-4:2019-01

Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

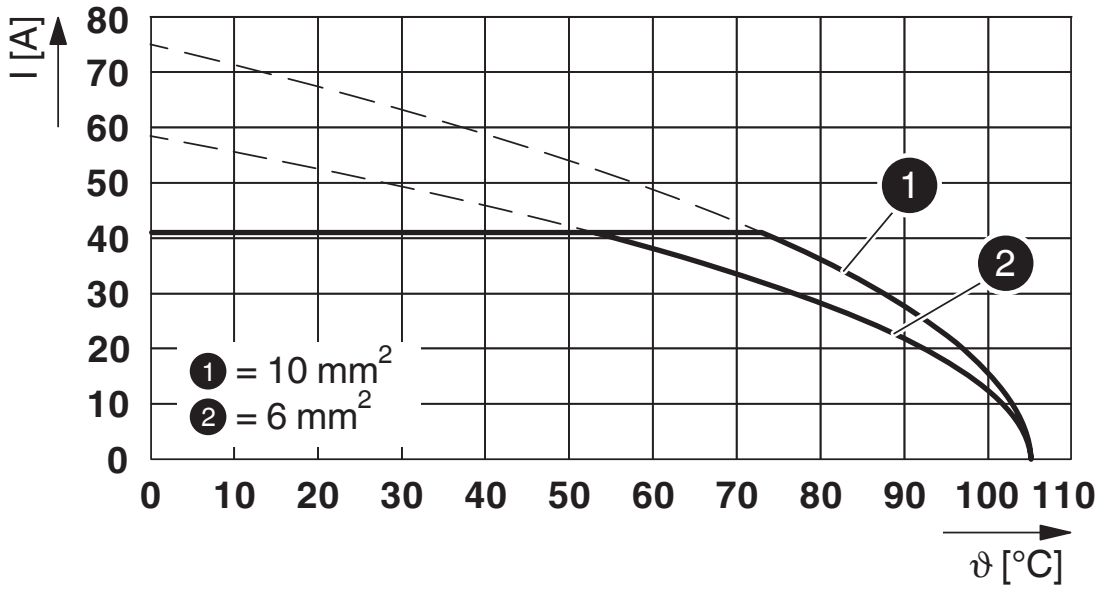
Packaging specifications

Type of packaging	packed in cardboard

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Drawings

Diagram



Type: SPT 5/...-V-7,5-ZB

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Approvals

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VDE Zeichengenehmigung
Approval ID: 40042909

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	1000 V	41 A	-	0.2 - 10

cULus Recognized
Approval ID: E60425-20061129

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	36 A	24 - 8	-
C				
	600 V	36 A	24 - 8	-

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Classifications

ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

ETIM

ETIM 9.0	EC002643

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%

EF3.0 Climate Change

CO2e kg	0.076 kg CO2e

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