

SPT 35/ 1-V-15,0 BN - PCB terminal block

1712455

<https://www.phoenixcontact.com/us/products/1712455>

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

PCB terminal block, nominal current: 125 A, rated voltage (III/2): 1000 V, nominal cross section: 35 mm², number of potentials: 1, number of rows: 1, number of positions per row: 1, product range: SPT 35/..-V, pitch: 15 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 90 °, color: brown, Pin layout: Linear pinning, Solder pin [P]: 5.9 mm, number of solder pins per potential: 4, 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
- Vertical connection enables multi-row arrangement on the PCB

Commercial data

Item number	1712455
Packing unit	20 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	AAOBDA
GTIN	4055626289458
Weight per piece (including packing)	26.89 g
Weight per piece (excluding packing)	26.76 g
Country of origin	CN

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Technical data

Product properties

Product type	PCB terminal block
Product family	SPT 35/...-V
Product line	COMBICON Terminals XL
Number of positions	1
Pitch	15 mm
Number of connections	1
Number of rows	1
Number of potentials	1
Pin layout	Linear pinning
Solder pins per potential	4

Electrical properties

Properties

Nominal current I_N	125 A
Nominal voltage U_N	1000 V
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

Nominal cross section	35 mm ²
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Conductor connection

Connection method	Push-in spring connection
Conductor cross-section rigid	1.5 mm ² ... 16 mm ² (Conductor connection with open terminal point) 4 mm ² ... 35 mm ² (Push-in connection)
Single-conductor/terminal point multi-stranded	1.5 mm ² ... 35 mm ²
Conductor cross-section flexible	1.5 mm ² ... 35 mm ²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	1.5 mm ² ... 35 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	1.5 mm ² ... 35 mm ²
Stripping length	25 mm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

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Material specifications

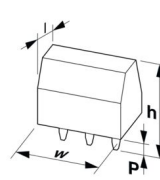
Material data - contact

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 (10 µm - 16 µm Sn)
Metal surface soldering area (top layer)	Tin (10 µm - 16 µm Sn)

Material data - housing

Color (Housing)	brown (8028)
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]	17.75 mm
Height [h]	44.2 mm
Length [l]	35.2 mm
Installed height	38.3 mm
Solder pin length [P]	5.9 mm
Pin dimensions	1.5 x 1.5 mm

PCB design

Pin spacing	16 mm
Hole diameter	2.2 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	1.5 mm ² / solid / flexible / > 40 N
	16 mm ² / solid / > 100 N
	35 mm ² / stranded / > 190 N
	35 mm ² / flexible / > 190 N
	4 mm ² / solid / > 60 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
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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)	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

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)

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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
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Ambient conditions

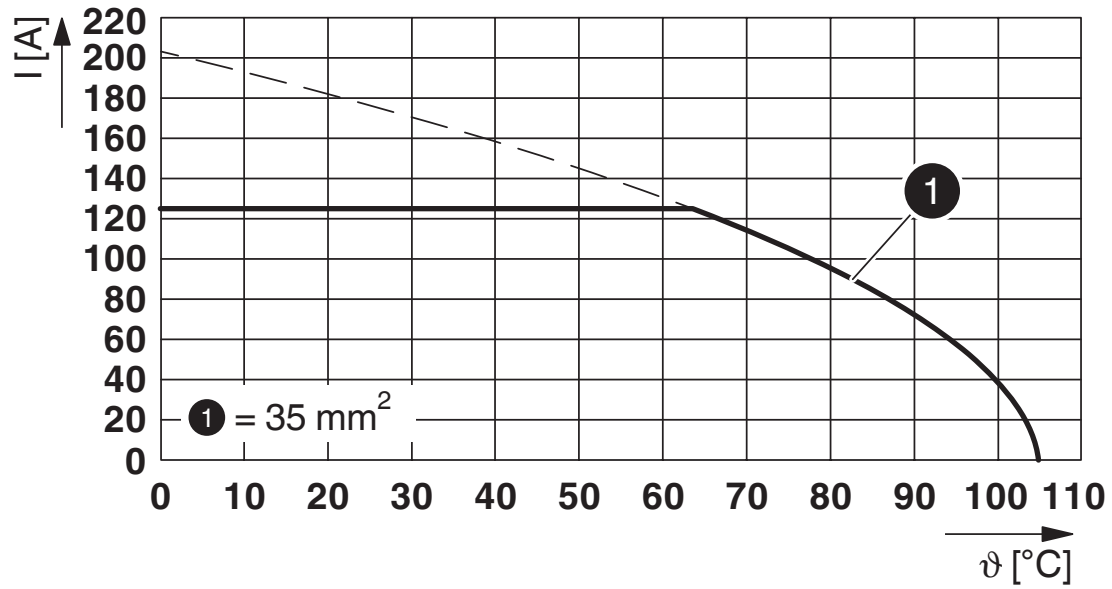
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

Packaging specifications

Type of packaging	packed in cardboard
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Drawings

Diagram



Type: SPT 35/...-V-15,00

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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	125 A	-	1.5 - 35

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Classifications

ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

ETIM

ETIM 10.0	EC002643
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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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