

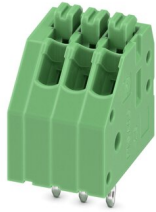
PTSA 0,5/ 3-2,5-F - PCB terminal block



1989751

<https://www.phoenixcontact.com/in/products/1989751>

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PCB terminal block, nominal current: 2 A, rated voltage (III/2): 250 V, nominal cross section: 0.5 mm², number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: PTSA 0,5, pitch: 2.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.6 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. Soldering legs in front area, one-rowed

Your advantages

- Time saving push-in connection, tools not required
- Defined contact force ensures that contact remains stable over the long term
- Angled connection enables multi-row arrangement on the PCB

Commercial Data

Item number	1989751
Packing unit	250 pc
Minimum order quantity	250 pc
Sales Key	AAK
Product Key	AAKBDA
Catalog Page	Page 411 (C-1-2013)
GTIN	4017918973353
Weight per Piece (including packing)	1.287 g
Weight per Piece (excluding packing)	1.16 g
Customs tariff number	85369010
Country of origin	PL

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Technical Data

Product properties

Type	PC termination block
Product line	COMBICON Terminals XS
Product type	Printed circuit board terminal
Product family	PTSA 0,5
Number of positions	3
Pitch	2.5 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I_N	2 A
Nominal voltage U_N	250 V
Degree of pollution	3
Rated voltage (III/3)	63 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	250 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Type	PC termination block
Nominal cross section	0.5 mm ²

Conductor connection

Connection method	Push-in spring connection
Conductor cross section rigid	0.14 mm ² ... 0.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 0.5 mm ²
Conductor cross section AWG	24 ... 20
Stripping length	9 mm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

Material specifications

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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	hot-dip 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)	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

Material data – actuating element

Color ()	()
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Dimensions

Dimensional drawing	
Pitch	2.5 mm
Width [w]	9 mm
Height [h]	16.7 mm
Length [l]	12 mm
Installed height	13.1 mm
Solder pin length [P]	3.6 mm

PCB design

Pin spacing	2.5 mm
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Mechanical tests

Connection test

Specification	IEC 60998-2-2:1991-10
Result	Test passed

Test for conductor damage and slackening

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Specification	IEC 60998-2-2:1991-10
Result	Test passed

Pull-out test

Specification	IEC 60998-2-2:1991-10
Conductor cross section/conductor type/tractive force setpoint/actual value	0.14 mm ² / solid / > 7 N
	0.2 mm ² / flexible / > 10 N
	0.5 mm ² / solid / > 30 N
	0.5 mm ² / flexible / > 30 N

Electrical tests

Temperature-rise test

Specification	IEC 60998-2-1:1990-04
Requirement temperature-rise test	Increase in temperature ≤ 45 K

Insulation resistance

Specification	IEC 60998-2-2:1991-10
Insulation resistance, neighboring positions	10 ⁹ Ω

Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	63 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	1.6 mm
Rated insulation voltage (III/2)	250 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	1.5 mm
Rated insulation voltage (II/2)	320 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	1.6 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)
Sweep speed	5g (60.1 Hz ... 150 Hz)
Test duration per axis	2.5 h

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Glow-wire test

Specification	IEC 60998-2-2:1991-10
Temperature	850 °C
Time of exposure	5 s

Ambient conditions

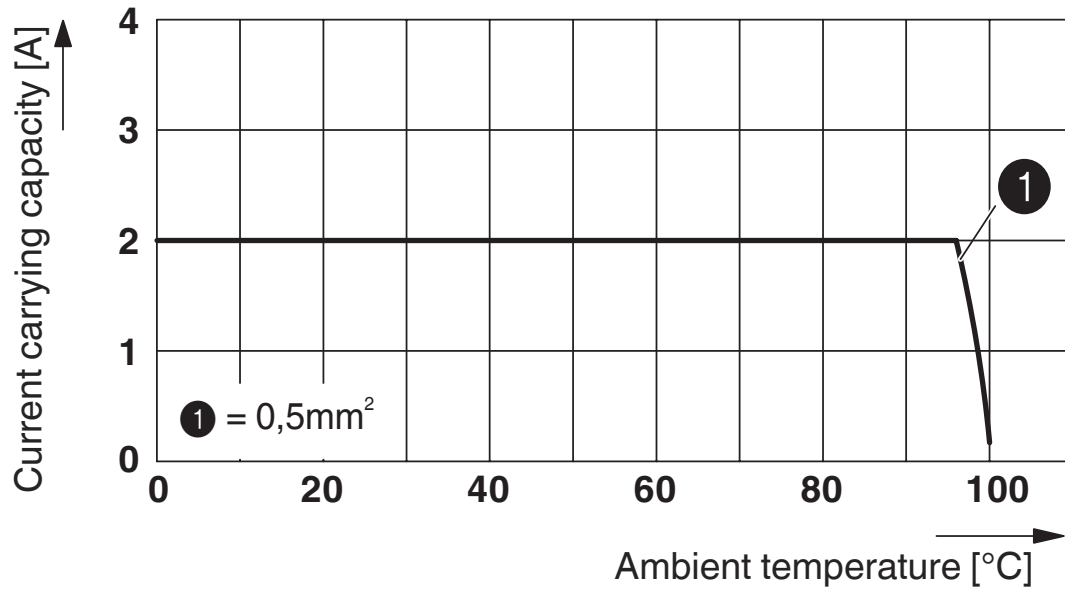
Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 55 °C

Packaging specifications

Type of packaging	packed in cardboard
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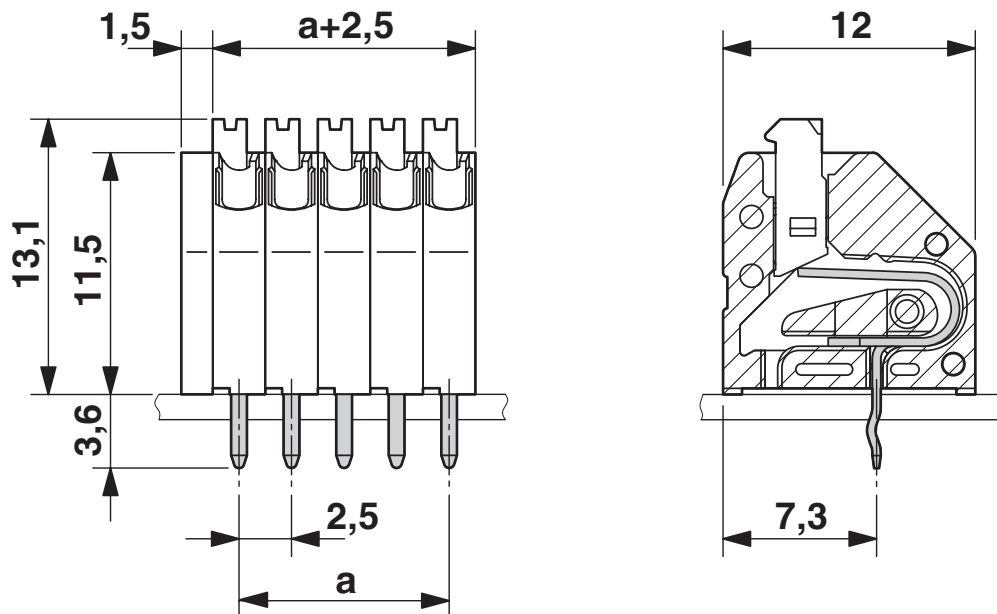
Drawings

Diagram



Derating diagram for 5 pins;reduction factor=1

Dimensional drawing



The figure shows the 5-pos. version

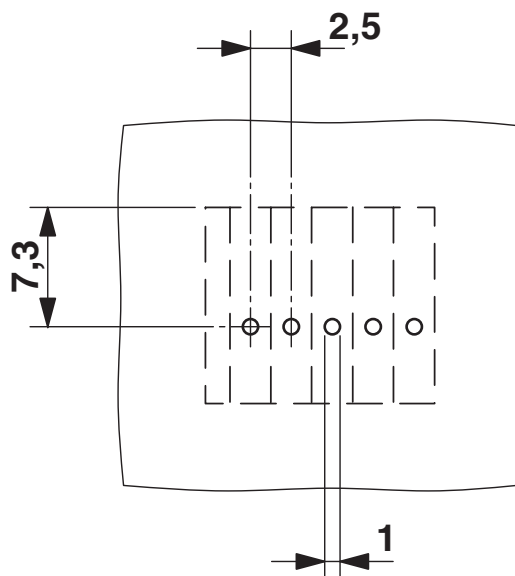
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Drilling plan/solder pad geometry



The figure shows the 5-pos. version

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Approvals



EAC

Approval ID: B.01687



cULus Recognized

Approval ID: E60425-20030527

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	150 V	1 A	26 - 20	-
	150 V	2 A	26 - 20	-



VDE Gutachten mit Fertigungsüberwachung

Approval ID: 40013932

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	130 V	2 A	-	- 0.5

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Classifications

ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

ETIM

ETIM 8.0	EC002643
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UNSPSC

UNSPSC 21.0	39121400
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Environmental Product Compliance

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

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Accessories

SZF 0-0,4X2,5 - Screwdriver

1204504

<https://www.phoenixcontact.com/in/products/1204504>



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.4 x 2.5 x 75 mm, 2-component grip, with non-slip grip

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