

PTDA 1,5/12-3,5 - PCB terminal block



1725042

<https://www.phoenixcontact.com/no/products/1725042>

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PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 240 V, nominal cross section: 1.5 mm², number of potentials: 12, number of rows: 1, number of positions per row: 12, product range: PTDA 1,5/, pitch: 3.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 2, 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
- Potentials can be easily looped through – ideal for BUS applications
- Quick and convenient testing using integrated test option
- Rounded type for individual device design
- Two solder pins reduce the mechanical strain on the soldering spots

Commercial data

Item number	1725042
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	31BAA
Product key	AALBBA
Catalog page	Page 407 (C-1-2013)
GTIN	4046356129053
Weight per piece (including packing)	13.651 g
Weight per piece (excluding packing)	13.58 g
Customs tariff number	85369010
Country of origin	DE

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Technical data

Product properties

Product line	COMBICON Terminals S
Product type	Printed circuit board terminal
Product family	PTDA 1,5/
Number of positions	12
Pitch	3.5 mm
Number of connections	24
Number of rows	1
Number of potentials	12
Pin layout	Linear pinning
Solder pins per potential	2

Electrical properties

Nominal current I_N	17.5 A
Nominal voltage U_N	240 V
Degree of pollution	3
Rated voltage (III/3)	200 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	240 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	400 V
Rated surge voltage (II/2)	2.5 kV

Connection data

Connection technology

Nominal cross section	1.5 mm ²
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Conductor connection

Connection method	Push-in spring connection
Conductor cross section rigid	0.2 mm ² ... 1.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 1.5 mm ²
Conductor cross section AWG	24 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm ² ... 1.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm ² ... 0.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 0.5 mm ²
Stripping length	10 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 (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

Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	43.4 mm
Height [h]	19.5 mm
Length [l]	16 mm
Installed height	16 mm
Solder pin length [P]	3.5 mm
Pin dimensions	1 x 0.4 mm

PCB design

Pin spacing	3.5 mm
Hole diameter	1.3 mm

Mechanical tests

Connection test

Specification	IEC 60998-2-2:2002-12
Result	Test passed

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Test for conductor damage and slackening

Specification	IEC 60998-2-2:2002-12
Result	Test passed

Pull-out test

Specification	IEC 60998-2-2:2002-12
Conductor cross section/conductor type/tractive force setpoint/actual value	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	1.5 mm ² / solid / > 40 N
	1.5 mm ² / flexible / > 40 N

Flexion test

Specification	IEC 60998-2-2:2002-12
Result	Test passed

Insulation holder for crimp connections

Result	Test passed
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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.

Insulation resistance

Specification	IEC 60998-1:2002-12
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60664-1:2007-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	200 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)	2.5 mm
Rated insulation voltage (III/2)	240 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)	1.25 mm
Rated insulation voltage (II/2)	400 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)	2 mm

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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

Glow-wire test

Specification	IEC 60998-1:2002-12
Temperature	850 °C
Time of exposure	5 s

Ambient conditions

Ambient temperature (operation)	-40 °C ... 105 °C (dependent on the 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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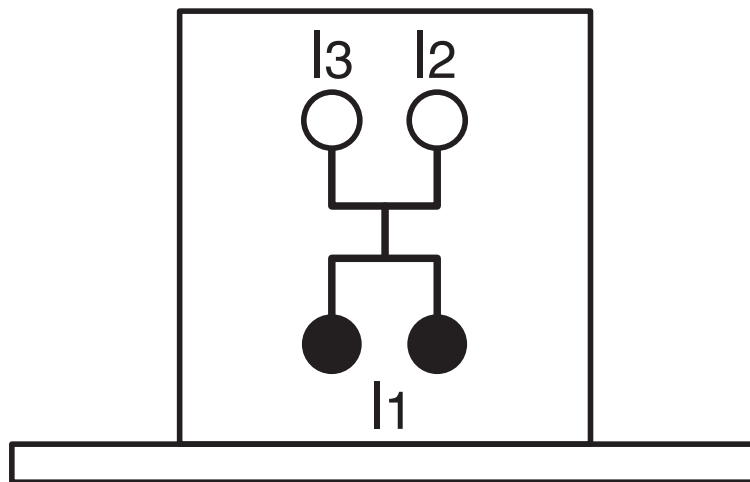
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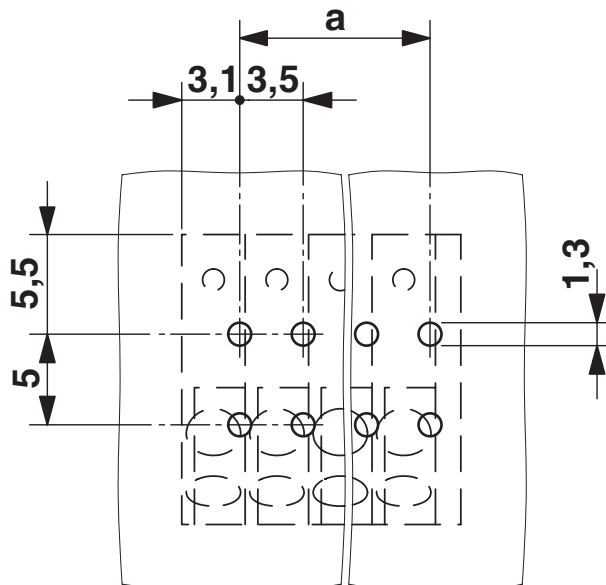


Drawings

Circuit diagram



Drilling plan/solder pad geometry

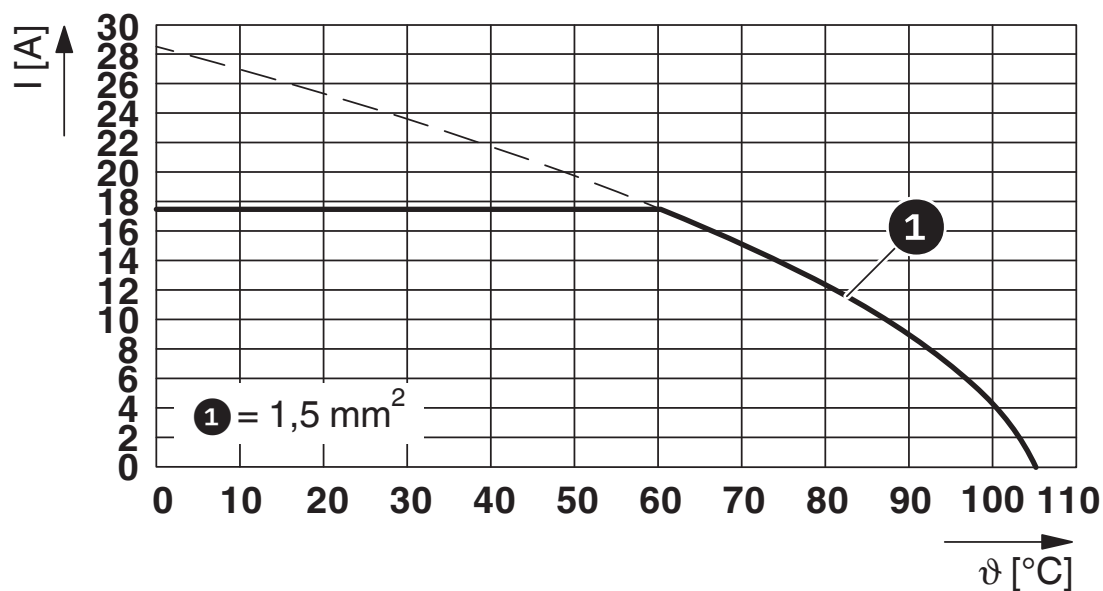


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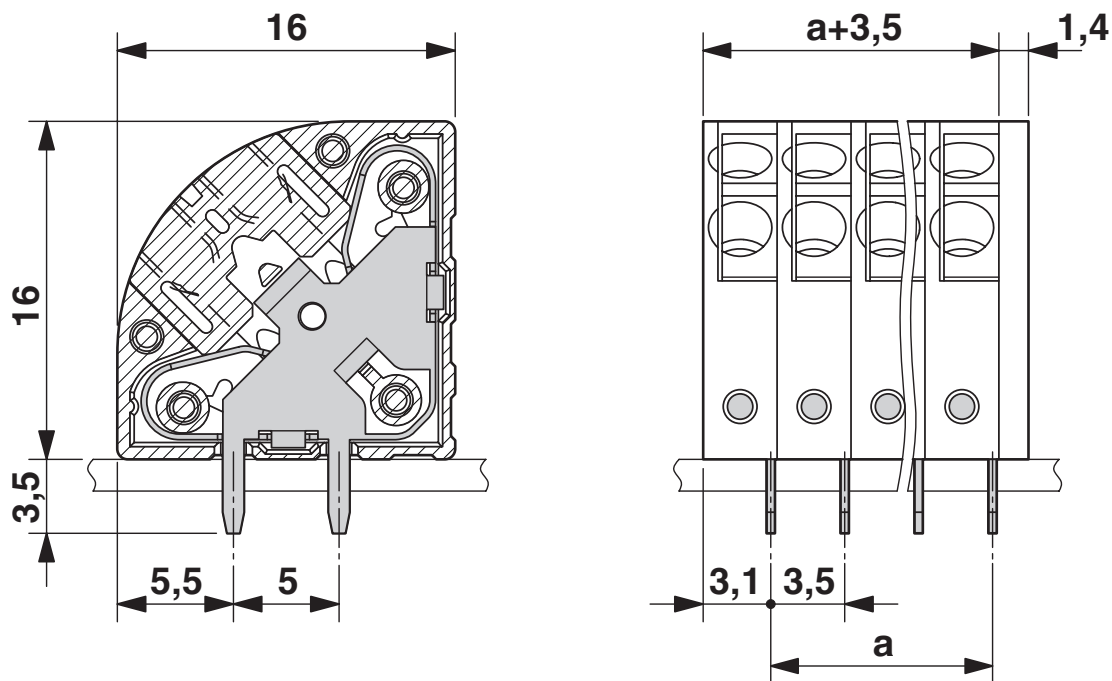
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Diagram



Type: PTDA 1,5/...-3,5

Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/no/products/1725042>

 cULus Recognized Approval ID: E60425-20030211				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
Standard	300 V	12 A	24 - 16	-
Use group C				
with pitch spacer	150 V	12 A	24 - 16	-
Use group D				
Standard	300 V	10 A	24 - 16	-

 VDE Gutachten mit Fertigungsüberwachung Approval ID: 40030462				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	130 V	17.5 A	-	0.2 - 1.5

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Classifications

ECLASS

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

ETIM

ETIM 9.0	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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