PTSA 1,5/ 3-3,5-Z YE - PCB terminal block

1790852

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The figure shows a 10-position version of the product

PCB terminal block, nominal current: 8 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm^2, number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: PTSA 1,5, pitch: 3.5 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: yellow, Pin layout: Zigzag pinning M, Solder pin [P]: 3.5 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
- Angled connection enables multi-row arrangement on the PCB

Commercial data

Item number	1790852
Packing unit	300 pc
Minimum order quantity	250 pc
Note	Made to order (non-returnable)
Sales key	AA12
Product key	AALBDA
GTIN	4046356609012
Weight per piece (including packing)	1.72 g
Weight per piece (excluding packing)	1.593 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Product properties

Product type	PCB terminal block
Product family	PTSA 1,5
Product line	COMBICON Terminals S
Type	PC termination block
Number of positions	3
Pitch	3.5 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Pin layout	Zigzag pinning M
Solder pins per potential	1

Fitting of components

Partial assembly	No

Electrical properties

Properties

Nominal current I_N	8 A
Nominal voltage U_N	400 V
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

Connection data

Connection technology

Type	PC termination block
Nominal cross section	1.5 mm²

Conductor connection

Connection method	Push-in spring connection
Conductor cross-section rigid	0.2 mm² ... 1.5 mm²
Conductor cross-section flexible	0.2 mm² ... 1.5 mm²
Conductor cross-section AWG	24 ... 16
Conductor cross-section, flexible, with ferrule, without plastic sleeve	0.25 mm² ... 1 mm²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 0.5 mm²
Stripping length	9 mm

Mounting

Mounting type	Wave soldering
Pin layout	Zigzag pinning M

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	hot-dip tin-plated
Metal surface terminal point (top layer)	Tin (4 µm - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 µm - 8 µm Sn)

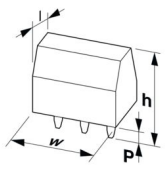
Material data - housing

Color (Housing)	yellow (1018)
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 (Actuating element)	yellow (1018)

Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	12 mm
Height [h]	16.7 mm
Length [l]	12 mm
Installed height	13.1 mm
Solder pin length [P]	3.5 mm
Pin dimensions	0.4 x 0.75 mm

PCB design

Pin spacing	3.5 mm

Hole diameter	1 mm

Mechanical tests

Test for conductor damage and slackening

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

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
	1.5 mm² / solid / > 40 N
	1.5 mm² / flexible / > 40 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)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 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)
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 60695-2-10:2021-10
Temperature	850 °C
Time of exposure	5 s

Aging

Specification	IEC 60947-7-4:2019-01

Ambient conditions

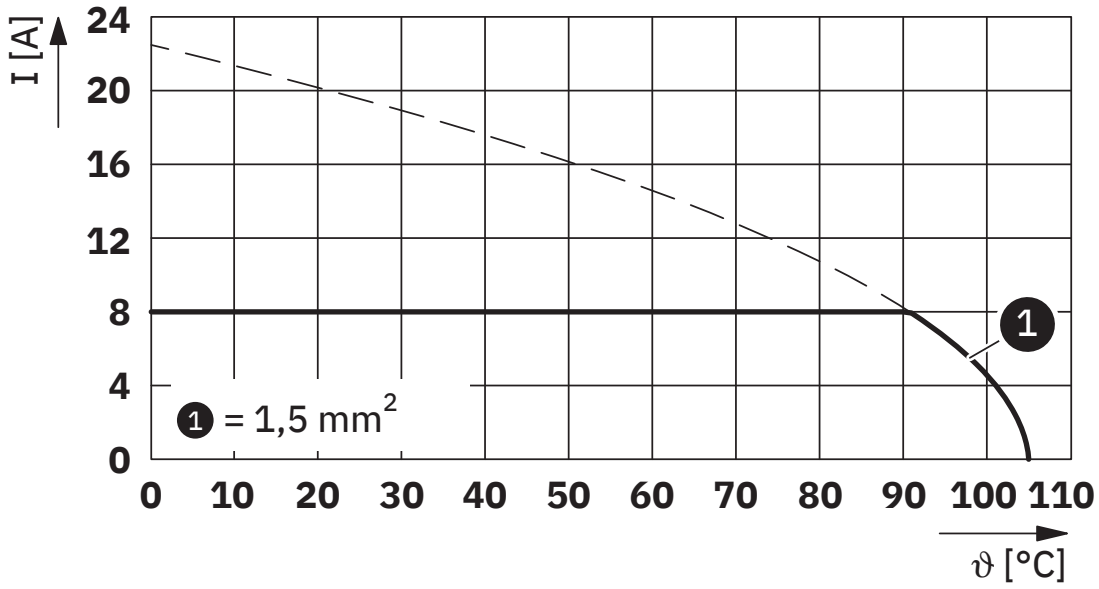
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 85 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

Packaging specifications

Type of packaging	packed in cardboard

Drawings

Diagram



Type: PTSA 1.5/...-3.5-Z

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1790852

cULus Recognized
Approval ID: E60425-20030527

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	300 V	5 A	24 - 16	-
D				
	300 V	5 A	24 - 16	-

VDE report with production monitoring
Approval ID: 40018594

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	250 V	2 A	-	0.5 - 0.75

VDE approval of drawings
Approval ID: 40057505

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	400 V	8 A	-	0.2 - 1.5

Classifications

ECLASS

ECLASS-13.0	27460101
ECLASS-15.0	27460101

ETIM

ETIM 10.0	EC002643

UNSPSC

UNSPSC 21.0	39121400

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%

EF3.1 Climate Change

CO2e kg	0.039 kg CO2e

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