

PCB terminal block - SPTA 5/10-7,5-ZB - 1819163

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PCB terminal block, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm², pitch: 7.5 mm, number of positions: 10, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 30 °, color: green, Pin layout: linear double pinning, Solder pin [P]: 4.6 mm

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

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
- Angled connection enables multi-row arrangement on the PCB



Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356787277

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	SPTA 5/
Pitch	7.5 mm
Number of positions	10
Connection method	Push-in spring connection
Mounting type	Wave soldering
Pin layout	linear double pinning
Number of levels	1
Number of connections	10
Number of potentials	10

PCB terminal block - SPTA 5/10-7,5-ZB - 1819163

Technical data

Electrical parameters

Nominal current	41 A
Nom. voltage	1000 V
Rated voltage	800 V
Rated voltage (III/2)	1000 V
Rated voltage (II/2)	1000 V
Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	6 kV

Connection capacity

Connection method	Push-in spring connection
Conductor cross section solid	0.2 mm ² ... 6 mm ²
Conductor cross section flexible	0.2 mm ² ... 6 mm ²
Conductor cross section AWG / kcmil	24 ... 8
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 6 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 4 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.25 mm ² ... 1.5 mm ²
Stripping length	15 mm

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

Material data - housing

Housing color	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 for the product

Length [l]	29 mm
Width [w]	76.8 mm
Height [h]	38.6 mm
Pitch	7.5 mm
Height (without solder pin)	34 mm

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Dimensions for the product

Solder pin [P]	4.6 mm
Pin spacing	14 mm
Pin dimensions	1.7 x 0.8 mm

Dimensions for PCB design

Hole diameter	2.1 mm
Pin spacing	14 mm

Packaging information

Type of packaging	packed in cardboard
Pieces per package	50
Denomination packing units	Pcs.

Ambient conditions

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

Termination and connection method

Conductor connection test	The stripped-off ends of the largest conductor can be completely inserted in the opening of the terminal point without using excessive force.
Test result	Test passed
Test – repeated connection and release	IEC 60999-1:1999-11
	Test passed
Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm ² / solid / > 10 N
	0.2 mm ² / flexible / > 10 N
	6 mm ² / solid / > 80 N
	6 mm ² / flexible / > 80 N

Mechanical tests according to standard

Test specification	IEC 60947-7-4
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Electrical tests

Rated current	41 A
Conductor cross section	6 mm ²
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

PCB terminal block - SPTA 5/10-7,5-ZB - 1819163

Technical data

Air clearances and creepage distances

Clearances and creepage distances	IEC 60664-1:2007-04
Specification	IEC 60664-1:2007-04
Minimum clearance - inhomogeneous field (III/3)	8 mm
Minimum clearance - inhomogeneous field (III/2)	8 mm
Minimum clearance - inhomogeneous field (II/2)	5.5 mm
Minimum creepage distance value (III/3)	10 mm
Minimum creepage distance value (III/2)	8 mm
Minimum creepage distance value (II/2)	5.5 mm

Temperature-rise test

Specification	IEC 60947-7-4:2013-08
Result	Test passed
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.

Current carrying capacity / derating curves

Caption	Type: SPTA 5/...-7,5(-ZB)
Specification	IEC 60947-7-4:2013-08
Number of positions	4
Reduction factor	1
Note	Representation based on IEC 60512-5-2:2002-02

Vibration test

Specification	IEC 60068-2-6:2007-12
Result	Test passed
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5 g (60.1 - 150 Hz)
Test duration per axis	2.5 h

Insulation resistance

Specification	IEC 60512-3-1:2002-02
Result	Test passed
Insulation resistance, neighboring positions	> 1 TΩ

Glow-wire test

Specification	IEC 60695-2-10:2000-10
Result	Test passed
Temperature	850 °C
Time of exposure	5 s

Alternating climate test

Result	Test passed
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PCB terminal block - SPTA 5/10-7,5-ZB - 1819163

Technical data

Alternating climate test

Specification	ISO 6988:1985-02
Corrosive stress	KFW 0.2 S/1 cycle

Standards and Regulations

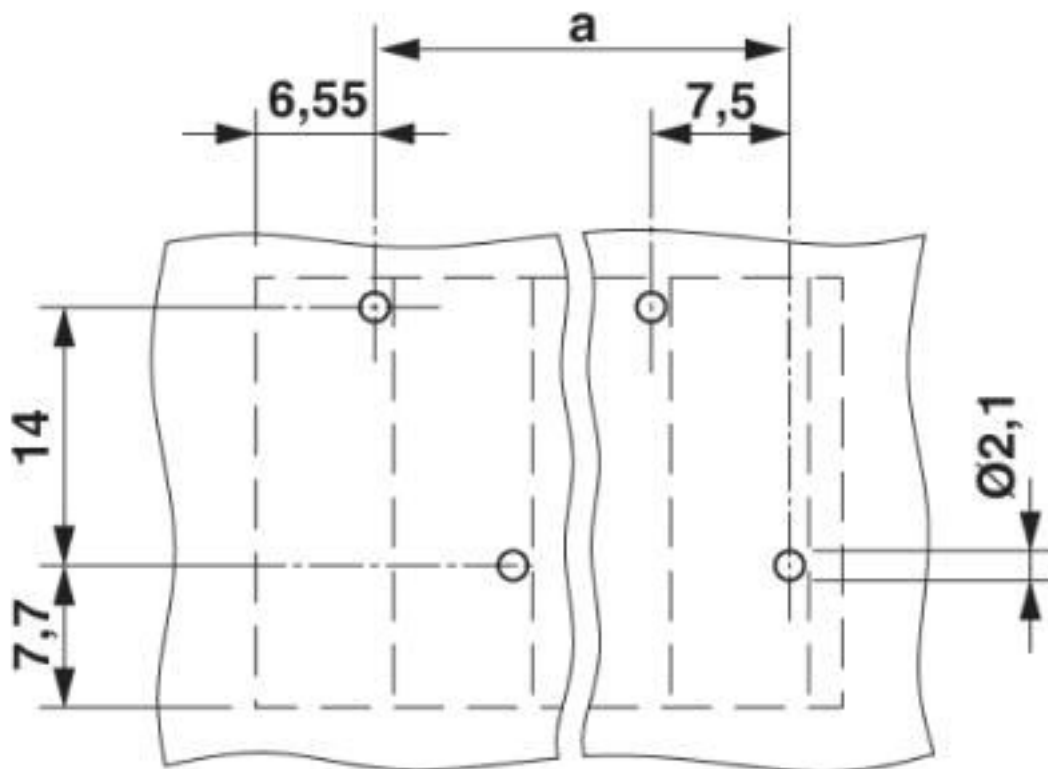
Connection in acc. with standard	EN-VDE
Flammability rating according to UL 94	V0

Environmental Product Compliance

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

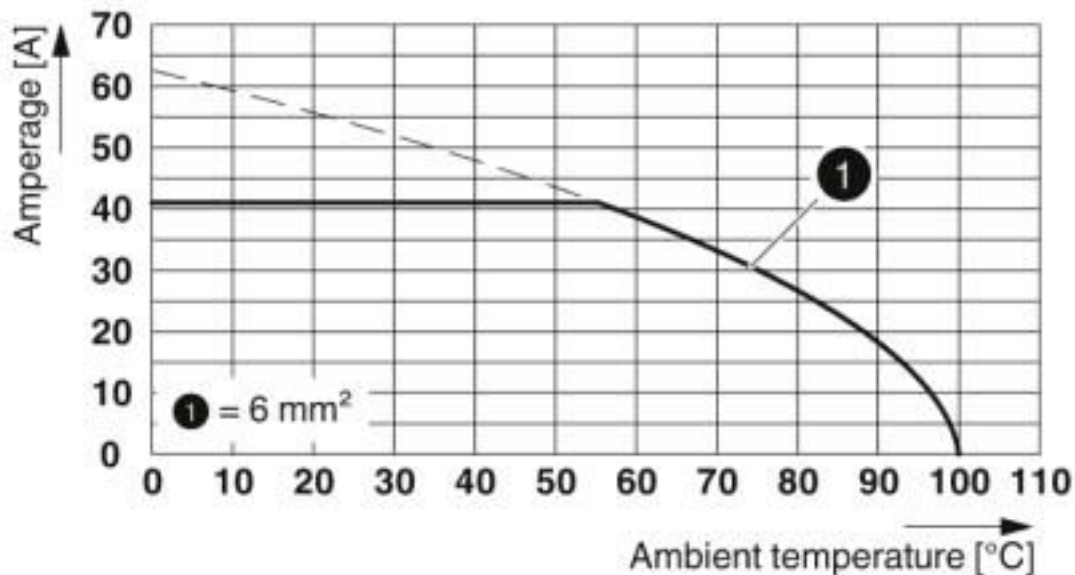
Drawings

Drilling diagram

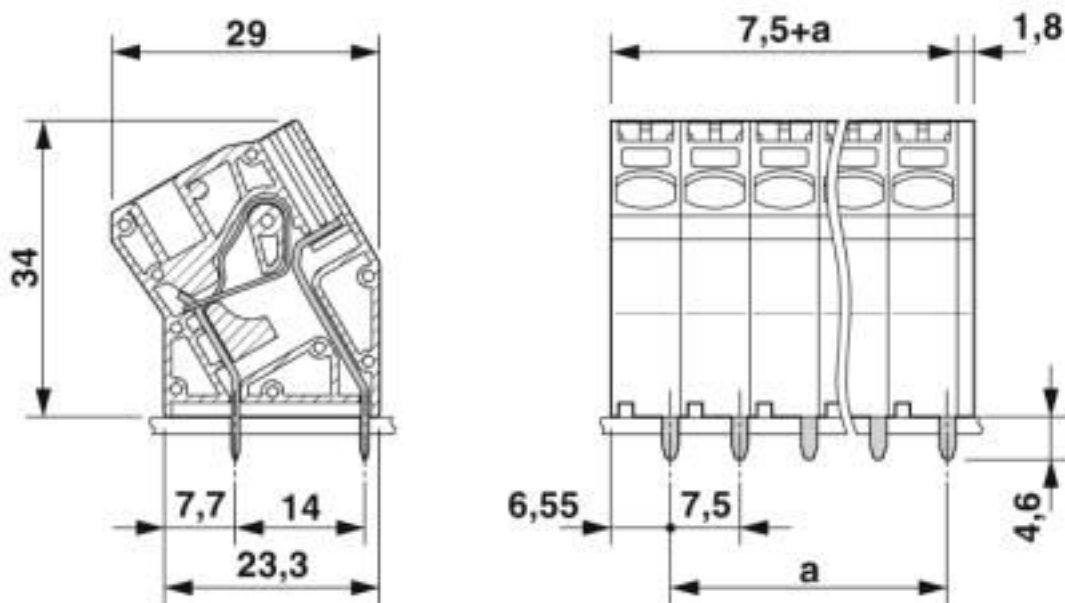


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Diagram



Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27261100

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Classifications

eCl@ss

eCl@ss 6.0	27261100
eCl@ss 7.0	27440401
eCl@ss 8.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643
ETIM 5.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	39121432
UNSPSC 12.01	39121432
UNSPSC 13.2	39121432
UNSPSC 18.0	39121432
UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

Approvals


Approvals

Approvals

IECEE CB Scheme / VDE Zeichengenehmigung / EAC / cULus Recognized

Ex Approvals

Approval details

IECEE CB Scheme		http://www.iecee.org/	CB DE1-61015
Nominal voltage UN	1000 V		
Nominal current IN	41 A		

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Approvals

mm²/AWG/kcmil	0.2-6
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VDE Zeichengenehmigung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40041641
Nominal voltage UN	1000 V		
Nominal current IN	41 A		
mm²/AWG/kcmil	0.2-6		

EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-20061129
	B	C	
Nominal voltage UN	600 V	600 V	
Nominal current IN	33 A	33 A	
mm²/AWG/kcmil	24-8	24-8	

Accessories

Accessories

Bridge

Plug-in bridge - FBSK 2-7,5 - 1928343



Bridge, fully insulated, pitch 7.5 mm, 2-pos.

Plug-in bridge - FBSK 3-7,5 - 1928356



Bridge, fully insulated, pitch 7.5 mm, 3-pos.

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Accessories

Plug-in bridge - FBSK 4-7,5 - 1928369



Bridge, fully insulated, pitch 7.5 mm, 4-pos.

Plug-in bridge - FBSK 5-7,5 - 1928372



Bridge, fully insulated, pitch 7.5 mm, 5-pos.

Plug-in bridge - FBSK 10-7,5 - 1928385



Bridge, fully insulated, pitch 7.5 mm, 10-pos.

Crimping tool

Crimping pliers - CRIMPFOX 6 - 1212034



Crimping pliers, for ferrules without insulating collar according to DIN 46228 Part 1 and ferrules with insulating collar according to DIN 46228 Part 4, 0.25 mm² ... 6.0 mm², lateral entry, trapezoidal crimp

Screwdriver tools

Screwdriver - SZF 1-0,6X3,5 - 1204517



Actuation tool, for ST terminal blocks, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

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