1704415

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PCB terminal block, nominal current: 12 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 3, number of rows: 3, number of positions per row: 1, product range: ZFK3DS(A) 1,5, pitch: 5.08 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. Single module for the custom grouping of different numbers of positions. An end terminal block is also needed to terminate the block (see accessories). Blocked items with different numbers of positions are also available.

## Your advantages

- · Defined contact force ensures that contact remains stable over the long term
- · Clamping space opened by means of fixed screwdriver enables convenient conductor connection
- · Conductor connection on several levels enables higher contact density
- · The latching on the side enables various numbers of positions to be combined

### **Commercial Data**

Item number	1704415
Packing unit	100 pc
Minimum order quantity	100 pc
Sales Key	AAL
Product Key	AALMDA
Catalog Page	Page 133 (C-1-2013)
GTIN	4017918116651
Weight per Piece (including packing)	4.793 g
Weight per Piece (excluding packing)	4.483 g
Customs tariff number	85369010
Country of origin	DE



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## Technical Data

### Product properties

Туре	PC terminal block can be aligned
Product line	COMBICON Terminals S
Product type	Printed circuit board terminal
Product family	ZFK3DS(A) 1,5
Number of positions	1
Pitch	5.08 mm
Number of connections	3
Number of rows	3
Number of potentials	3
Pin layout	Linear pinning
Solder pins per potential	1

### **Electrical properties**

Nominal current I <sub>N</sub>	12 A
Nominal voltage U <sub>N</sub>	400 V
Degree of pollution	3
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	
Туре	PC terminal block can be aligned
Nominal cross section	1.5 mm <sup>2</sup>
Conductor connection	
Connection method	Spring-cage connection
Conductor cross section rigid	0.2 mm <sup>2</sup> 2.5 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Conductor cross section AWG	24 14
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² 1.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> 1.5 mm <sup>2</sup>
Stripping length	7.5 mm

### Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

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### Material specifications

Contact material Cu alloy   Surface characteristics hot-dip tin-plated	
Surface characteristics hot-dip tin-plated	
Metal surface terminal point (top layer) Tin (10 - 16 µm S	n)
Metal surface soldering area (top layer) Tin (10 - 16 µm S	n)

Color (Housing)	green (6021)
Insulating material	PA
Insulating material group	1
CTI according to IEC 60112	600
Flammability rating according to UL 94	VO
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) green (6021)

#### Dimensions

Dimensional drawing	h h p
Pitch	5.08 mm
Width [w]	5.08 mm
Height [h]	40 mm
Length [I]	32.2 mm
Installed height	36.6 mm
Solder pin length [P]	3.4 mm

### Electrical tests

#### 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)	250 V



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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)	1.6 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

Ambient conditions	
Ambient temperature (operation)	-40 °C 100 °C (Depending on the current carrying capacity/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

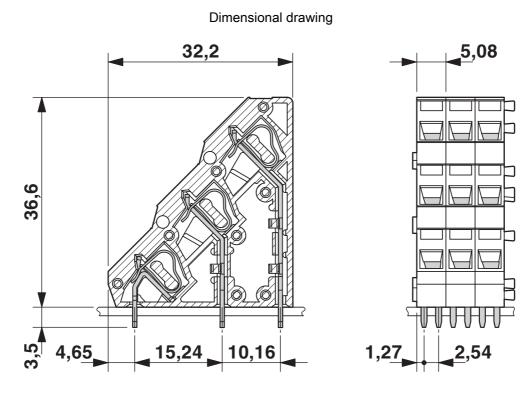
Type of packaging	packed in cardboard
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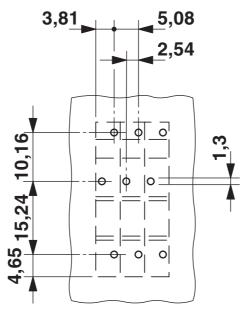
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## Drawings



Drilling plan/solder pad geometry





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## Approvals

S CSA Approval II	D: 13631			
	Nominal Voltage U	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
	300 V	10 A	28 - 12	-
	300 V	10 A	28 - 12	-

EHC	EAC
LIIL	Approval ID: B.01687

c <b>911</b> us	CULus Recognized Approval ID: E60425-19941110				
		Nominal Voltage U <sub>N</sub>	Nominal Current I <sub>N</sub>	Cross Section AWG	Cross Section mm <sup>2</sup>
		250 V	10 A	26 - 12	-
		300 V	10 A	26 - 12	-



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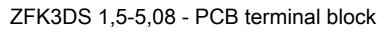
## Classifications

#### ECLASS

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

### ETIM

	ETIM 8.0	EC002643
U	NSPSC	
	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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### Mandatory Accessories

ZFK3DSA 1,5-6,08 - PCB terminal block

1704554

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PCB terminal block, nominal current: 12 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 3, number of rows: 3, number of positions per row: 1, product range: ZFK3DS(A) 1,5, pitch: 5.08 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. End terminal block for terminating custom-grouped blocks.

### Accessories

SK 5,08/3,8:FORTL.ZAHLEN - Marker card

0804293

https://www.phoenixcontact.com/in/products/0804293



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size:  $5.08 \times 3.8$  mm

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

#### 1204517

https://www.phoenixcontact.com/in/products/1204517



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

#### ZFK3DSA 1,5-5,08-DS - PCB terminal block

1706167 https://www.phoenixcontact.com/in/products/1706167



PCB terminal block, nominal current: 12 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 3, number of rows: 3, number of positions per row: 1, product range: ZFK3DS(A) 1,5, pitch: 5.08 mm, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

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