

# PCB terminal block - ZFKDSA 1-3,81-20 - 1933765

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PCB terminal block, nominal current: 12 A, rated voltage (III/2): 200 V, nominal cross section: 1 mm<sup>2</sup>, pitch: 3.81 mm, number of positions: 20, connection method: Spring-cage connection, mounting: Wave soldering, conductor/PCB connection direction: 45 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 3.5 mm


The figure shows the 10-position version

## 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
- ✓ Angled connection enables multi-row arrangement on the PCB
- ✓ The latching on the side enables various numbers of positions to be combined
- ✓ Two solder pins reduce the mechanical strain on the soldering spots



## Key Commercial Data

Packing unit	50 pc
GTIN	 4 017918 889616
GTIN	4017918889616

## Technical data

### Item properties

Brief article description	PCB terminal block
Range of articles	ZFKDS(A) 1
Pitch	3.81 mm
Number of positions	20
Connection method	Spring-cage connection
Mounting type	Wave soldering
Pin layout	Linear double pinning
Number of levels	1
Number of connections	20
Number of potentials	20

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## Technical data

### Electrical parameters

Nominal current	12 A
Nom. voltage	200 V
Rated voltage	200 V
Rated voltage (III/2)	200 V
Rated voltage (II/2)	400 V
Rated surge voltage (III/3)	2.5 kV
Rated surge voltage (III/2)	2.5 kV
Rated surge voltage (II/2)	2.5 kV

### Connection capacity

Connection method	Spring-cage connection
pluggable	Yes
Conductor cross section solid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1 mm <sup>2</sup>
Conductor cross section AWG / kcmil	26 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Stripping length	7.5 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	hot-dip 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 ]	16.9 mm
Width [ w ]	79.24 mm
Height [ h ]	18.5 mm
Pitch	3.81 mm
Height (without solder pin)	15 mm

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## Technical data

### Dimensions for the product

Solder pin [P]	3.5 mm
Pin dimensions	0.7 x 0.8 mm

### Dimensions for PCB design

Hole diameter	1.2 mm
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### Packaging information

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

### Electrical tests

Rated current	12 A
Conductor cross section	1 mm <sup>2</sup>
Rated voltage (III/2)	200 V
Rated surge voltage (III/2)	2.5 kV

### 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)	8 mm
Minimum creepage distance value (III/2)	5 mm
Minimum creepage distance value (II/2)	5 mm

### Standards and Regulations

Connection in acc. with standard	EN-VDE
	CUL

### Environmental Product Compliance

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

## 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
eCl@ss 6.0	27261100

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## Classifications

### eCl@ss

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

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#### Approvals

EAC / cULus Recognized

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#### Ex Approvals


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### Approval details

EAC		B.01687
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### Approvals

cULus Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> E60425-19941110
	B	D
Nominal voltage UN	250 V	300 V
Nominal current IN	10 A	10 A
mm <sup>2</sup> /AWG/kcmil	26-16	26-16

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