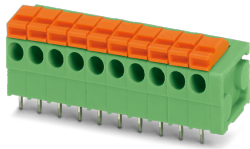


PCB terminal block - FFKDSA1/H-3,81- 7 - 1991707

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PCB terminal block, nominal current: 12 A, rated voltage (III/2): 160 V, nominal cross section: 1 mm², number of potentials: 7, number of rows: 1, number of positions per row: 7, product range: FFKDS(A) 1,5/...-H, pitch: 3.81 mm, connection method: Push-in spring connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 3.4 mm, number of solder pins per potential: 2, type of packaging: packed in cardboard

The figure shows the 10-position version

Your advantages

- ✓ Time saving push-in connection, tools not required
- ✓ Defined contact force ensures that contact remains stable over the long term
- ✓ Intuitive use through colour coded actuation lever
- ✓ Operation and conductor connection from one direction enable integration into front of device
- ✓ Two solder pins reduce the mechanical strain on the soldering spots
- ✓ The latching on the side enables various numbers of positions to be combined



Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4017918964832

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	FFKDS(A) 1,5/...-H
Pitch	3.81 mm
Number of positions	7
Pin layout	Linear double pinning
Number of rows	1
Number of connections	7
Number of potentials	7

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Technical data

Electrical parameters

Nominal current	12 A
Nom. voltage	160 V
Contact resistance	Test passed IEC 60512-2-2:2003-05
Rated voltage (III/3)	160 V
Rated voltage (III/2)	160 V
Rated voltage (II/2)	320 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	Push-in spring connection
pluggable	yes
Conductor cross section solid	0.14 mm ² ... 1 mm ²
Conductor cross section flexible	0.14 mm ² ... 1 mm ²
Conductor cross section AWG / kcmil	26 ... 18
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² ... 0.34 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm ² ... 0.34 mm ²
Stripping length	10 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 (5 - 7 µm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (5 - 7 µm Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 µm Ni)

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

Caption	Schematische Abbildung - weitere Details siehe Produktfamilienzeichnung im Download Center
Length [l]	13.65 mm

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Technical data

Dimensions for the product

Width [w]	29.17 mm
Height [h]	16.1 mm
Pitch	3.81 mm
Height (without solder pin)	12.7 mm
Solder pin [P]	3.4 mm
Pin spacing	5.08 mm
Pin dimensions	0.5 x 1 mm

Dimensions for PCB design

Hole diameter	1.3 mm
Pin spacing	5.08 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
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)

Termination and connection method

Test for conductor damage and slackening	IEC 60999-1:1999-11
	Test passed

Pull-out test

Pull-out test	IEC 60999-1:1999-11
Conductor cross section / conductor type / tensile force	0.14 mm² / solid / > 10 N
	0.14 mm² / flexible / > 10 N
	1 mm² / solid / > 35 N
	1 mm² / flexible / > 35 N

Mechanical tests according to standard

Test specification	IEC 60947-7-4
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Electrical tests

Rated current	12 A
Conductor cross section	1 mm²
Rated voltage (III/2)	160 V
Rated surge voltage (III/2)	2.5 kV

Air clearances and creepage distances

Clearances and creepage distances	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
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Technical data

Air clearances and creepage distances

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Minimum clearance - inhomogeneous field (III/3)	1.5 mm
Minimum clearance - inhomogeneous field (III/2)	1.5 mm
Minimum clearance - inhomogeneous field (II/2)	1.5 mm
Minimum creepage distance value (III/3)	2 mm
Minimum creepage distance value (III/2)	1.5 mm
Minimum creepage distance value (II/2)	1.6 mm

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.

Current carrying capacity / derating curves

Caption	Type: FFKDS/H-3,81
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Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 - 60.1 Hz)
Acceleration	5g (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	> 5 MΩ

Glow-wire test

Specification	IEC 60695-2-10:2013-04
Temperature	850 °C
Time of exposure	5 s

Alternating climate test

Result	Test passed
Specification	ISO 6988:1985-02

Standards and Regulations

Connection in acc. with standard	EN-VDE
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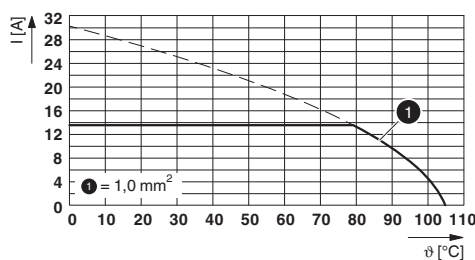
Environmental Product Compliance

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

Drawings

PCB terminal block - FFKDSA1/H-3,81- 7 - 1991707

Diagram



Type: FFKDS/H-3,81

Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 11.0	27460101
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
eCl@ss 7.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 3.0	EC001121
ETIM 4.0	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	39121400

Approvals

Approvals

PCB terminal block - FFKDSA1/H-3,81- 7 - 1991707

Approvals

Approvals

CSA / CCA / KEMA-KEUR / IECCEB Scheme / EAC / cULus Recognized

Ex Approvals

Approval details

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
		B	
Nominal voltage UN		150 V	
Nominal current IN		10 A	
mm²/AWG/kcmil		26-18	

CCA			NTR NL-7074
Nominal voltage UN		130 V	
mm²/AWG/kcmil		1	

KEMA-KEUR		http://www.dekra-certification.com	2160724.01
Nominal voltage UN		130 V	
mm²/AWG/kcmil		1	

IECEE CB Scheme		http://www.iecee.org/	NL-25836
Nominal voltage UN		130 V	
mm²/AWG/kcmil		1	

EAC			B.01687
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Approvals

cULus Recognized  http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-19870330		
	B	D
Nominal voltage UN	300 V	300 V
Nominal current IN	6 A	6 A
mm²/AWG/kcmil	26-16	26-16

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