PCB terminal block - MKDSP 3/ 4 - 1714133

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The figure shows a 3-position version

PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm², Number of potentials: 4, Number of rows: 1, Number of positions per row: 4, product range: MKDSP 3, pitch: 5 mm, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 5 mm, type of packaging: packed in cardboard. The article can be aligned to create different nos. of positions!

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Quick and convenient testing using integrated test option
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve
- The latching on the side enables various numbers of positions to be combined



Key Commercial Data

Packing unit	1
GTIN	4 017918 240257
GTIN	4017918240257
Custom tariff number	85369010

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	MKDSP 3
Pitch	5 mm
Number of positions	4

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Technical data

Item properties

Drive form screw head	Slotted (L)
Screw thread	M3
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	1
Number of connections	4
Number of potentials	4

Electrical parameters

Nominal current	24 A
Nom. voltage	400 V
Rated voltage (III/3)	250 V
Rated voltage (III/2)	400 V
Rated voltage (II/2)	630 V
Rated surge voltage (III/3)	4 kV
Rated surge voltage (III/2)	4 kV
Rated surge voltage (II/2)	4 kV

Connection capacity

Connection method	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.2 mm² ... 4 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm² ... 2.5 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² ... 2.5 mm²
2 conductors with same cross section, solid	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible	0.2 mm² ... 1.5 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² ... 0.75 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1.5 mm²
Stripping length	8 mm
Torque	0.5 Nm ... 0.6 Nm

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

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Technical data

Material data - contact

Metal surface terminal point (top layer)	Tin (5 - 7 µm Sn)
Metal surface soldering area (top layer)	Tin (5 - 7 µm Sn)

Material data - housing

Housing color	green (6021)
Insulating material	PA
Insulating material group	II
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]	12.8 mm
Width [w]	20 mm
Height [h]	23 mm
Pitch	5 mm
Height (without solder pin)	18 mm
Solder pin [P]	5 mm
Pin dimensions	0.9 x 0.9 mm

Dimensions for PCB design

Hole diameter	1.3 mm

Packaging information

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

General product information

Type of note	Note on application
Note	For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing).

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 70 °C

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Technical data

Ambient conditions

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

Test for conductor damage and slackening	IEC 60998-2-1:1990-04
	Test passed

Pull-out test

Pull-out test	IEC 60998-2-1:1990-04
Conductor cross section / conductor type / tensile force	0.2 mm² / solid / > 10 N
	0.2 mm² / flexible / > 10 N
	4 mm² / solid / > 60 N
	2.5 mm² / flexible / > 50 N

Mechanical tests according to standard

Test specification	IEC 60998-2-1 (in parts)

Electrical tests

Rated current	24 A
Conductor cross section	2.5 mm²
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 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)	3 mm
Minimum clearance - inhomogeneous field (III/2)	3 mm
Minimum clearance - inhomogeneous field (II/2)	3 mm
Minimum creepage distance value (III/3)	3.2 mm
Minimum creepage distance value (III/2)	3 mm
Minimum creepage distance value (II/2)	3.2 mm

Temperature-rise test

Specification	IEC 60998-2-1:1990-04
Requirement temperature-rise test	Increase in temperature ≤ 45 K

Current carrying capacity / derating curves

Caption	Type: MKDSP 3/...-5,08 Test according to DIN EN 60947-7-4 (VDE 0611-7-4):2014-08 Illustration according to DIN EN 60512-5-2:2003-01 Reduction factor = 1

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Technical data

Current carrying capacity / derating curves

	Number of positions: 4

Vibration test

Specification	IEC 60068-2-6:1995-03
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 60998-2-1:1990-04
Result	Test passed
Insulation resistance, neighboring positions	10^9 Ω

Glow-wire test

Specification	IEC 60998-2-1:1990-04
Temperature	850 °C
Time of exposure	5 s

Mechanical strength/tumbling barrel test

Specification	IEC 60998-2-1:1990-04
Number of drop cycles	50

Standards and Regulations

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

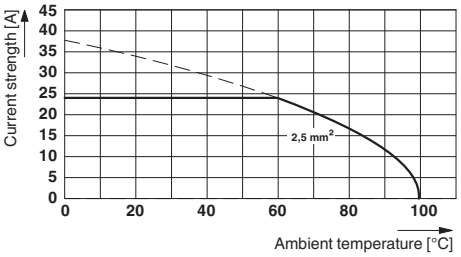
Environmental Product Compliance

REACh SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

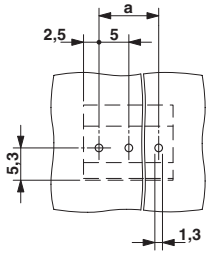
Drawings

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Diagram

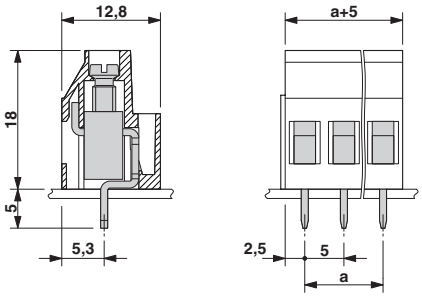


Drilling diagram



Type: MKDSP 3/...-5,08
Test according to DIN EN 60947-7-4 (VDE 0611-7-4):2014-08
Illustration according to DIN EN 60512-5-2:2003-01
Reduction factor = 1
Number of positions: 4

Dimensional drawing



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 8.0	27440401
eCl@ss 9.0	27440401

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643

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Classifications

ETIM

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

RS / SEV / EAC / cULus Recognized / IECEE CB Scheme

Ex Approvals

Approval details

RS		http://www.rs-head.spb.ru/en/index.php	17.00014.272

SEV		https://www.eurofins.ch/de/	IK-4497

Nominal voltage UN	250 V
Nominal current IN	32 A
mm²/AWG/kcmil	4

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Approvals

EAC		B.01687

cULus Recognized	http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19870331

	B	D
Nominal voltage UN	250 V	300 V
Nominal current IN	15 A	10 A
mm²/AWG/kcmil	30-12	30-12

IECEE CB Scheme	http://www.iecee.org/	CH-10787

Nominal voltage UN	250 V
Nominal current IN	32 A
mm²/AWG/kcmil	4

Accessories

Accessories

Bridge

Insertion bridge - EBP 2- 5 - 1733169



Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Labeled terminal marker

Marker card - SK 5/3,8:FORTL.ZAHLEN - 0804183



Marker card, Card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5 mm, lettering field size: 5 x 3.8 mm

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Accessories

Screwdriver tools

Screwdriver - SZS 0,6X3,5 - 1205053



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

Test plug terminal block

Reducing plug - RPS - 0201647



Reducing plug, color: gray

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, color: gray

Test plugs - ST-MKDSP 3/5 - 1718207



Test plugs, number of positions: 1, pitch: 0 mm, color: black

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Accessories

Accessories - SPB 10-MKDSP - 1301355



Accessories, number of positions: 10, pitch: 0 mm, color: gray

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