

PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

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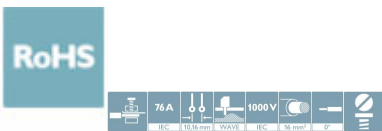


PCB terminal block, nominal current: 76 A, rated voltage (III/2): 1000 V, nominal cross section: 16 mm², pitch: 10.16 mm, number of positions: 3, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear double pinning, Solder pin [P]: 5 mm. The article can be aligned to create different nos. of positions!


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

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
- ✓ The latching on the side enables various numbers of positions to be combined
- ✓ Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve



Key Commercial Data

Packing unit	50 pc
GTIN	 4 046356 481588
GTIN	4046356481588

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	MKDSP 10N
Pitch	10.16 mm
Number of positions	3
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M4
Mounting type	Wave soldering
Pin layout	Linear double pinning

PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

Technical data

Item properties

Number of levels	1
Number of connections	3
Number of potentials	3

Electrical parameters

Nominal current	76 A
Nom. voltage	1000 V
Rated voltage	690 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	Screw connection with tension sleeve
pluggable	Yes
Conductor cross section solid	0.5 mm ² ... 16 mm ²
Conductor cross section flexible	0.5 mm ² ... 16 mm ²
Conductor cross section AWG / kcmil	20 ... 6
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm ² ... 16 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm ² ... 16 mm ²
2 conductors with same cross section, solid	0.5 mm ² ... 4 mm ²
2 conductors with same cross section, flexible	0.5 mm ² ... 4 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm ² ... 2.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 6 mm ²
Stripping length	10 mm
Torque	1.2 Nm ... 1.5 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	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

PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

Technical data

Material data - housing

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]	18.4 mm
Width [w]	30.48 mm
Height [h]	34.3 mm
Pitch	10.16 mm
Height (without solder pin)	29.3 mm
Solder pin [P]	5 mm
Pin dimensions	1 x 0.9 mm

Dimensions for PCB design

Hole diameter	1.5 mm
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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

Test for conductor damage and slackening	IEC 60998-2-1:2002-12
	Test passed

Pull-out test

Pull-out test	IEC 60998-2-1:2002-12
	Test passed
Conductor cross section / conductor type / tensile force	0.5 mm ² / solid / > 20 N
	0.5 mm ² / flexible / > 20 N
	16 mm ² / solid / > 100 N
	16 mm ² / flexible / > 100 N

Mechanical tests according to standard

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

PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

Technical data

Electrical tests

Rated current	76 A
Conductor cross section	16 mm ²
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 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

Temperature-rise test

Specification	IEC 60998-1:2002-12
Result	Test passed
Requirement temperature-rise test	Increase in temperature ≤ 45 K

Current carrying capacity / derating curves

Caption	Type: MKDSP 10N/...-10,16 Tested in accordance with DIN EN 60512-5-2:2003-01 Reduction factor = 1 No. of positions: 5
Specification	Following IEC 60512-5-2:2002-02
Number of positions	5
Reduction factor	1

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

Resistance to ageing, humidity and penetration of solids

Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Insulation resistance

Specification	IEC 60998-1:2002-12
Result	Test passed

PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

Technical data

Insulation resistance

Insulation resistance, neighboring positions	1 TΩ
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Glow-wire test

Specification	IEC 60998-1:2002-12
Result	Test passed
Temperature	850 °C
Time of exposure	5 s

Mechanical strength/tumbling barrel test

Specification	IEC 60998-1:2002-12
Height of fall	50 cm
Number of drop cycles	50
Rotation speed	5 rpm

Standards and Regulations

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

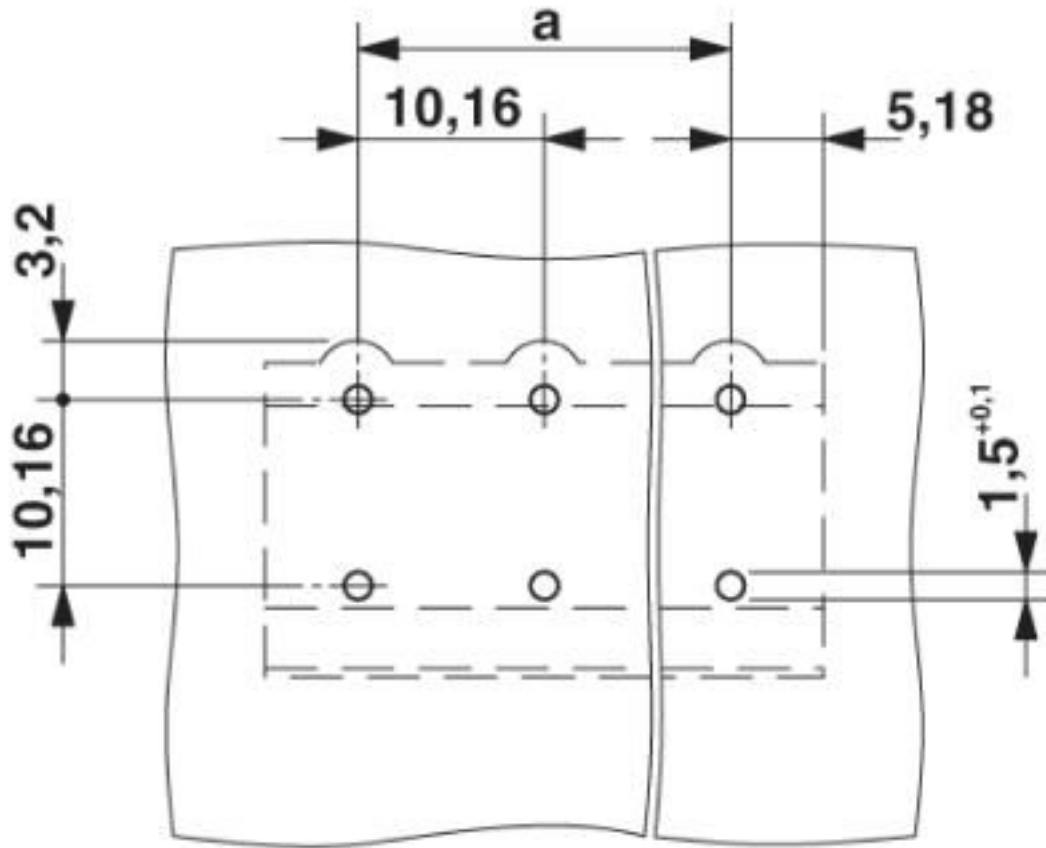
Environmental Product Compliance

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"

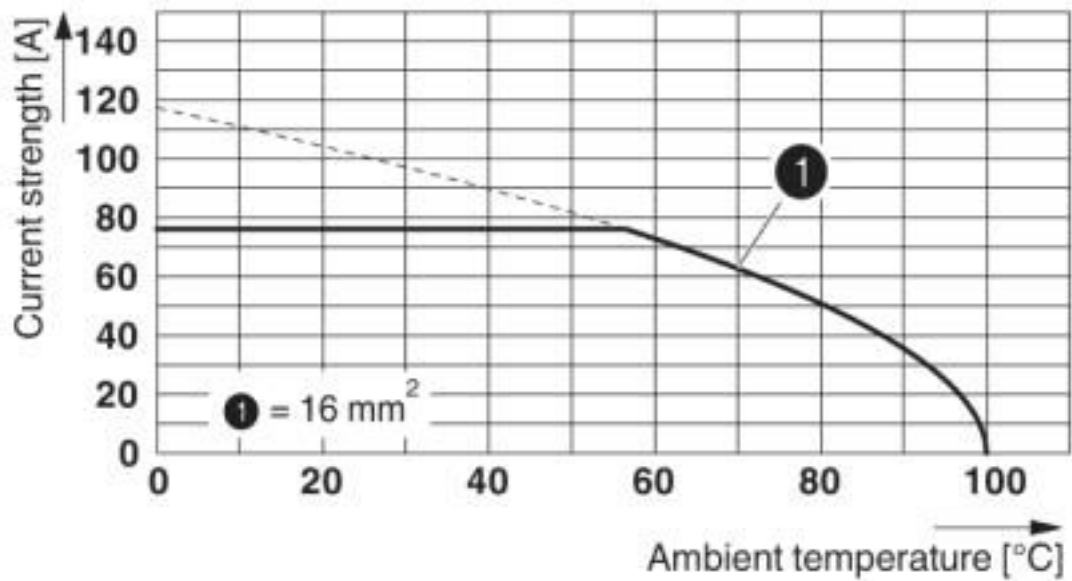
Drawings

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Drilling diagram



Diagram



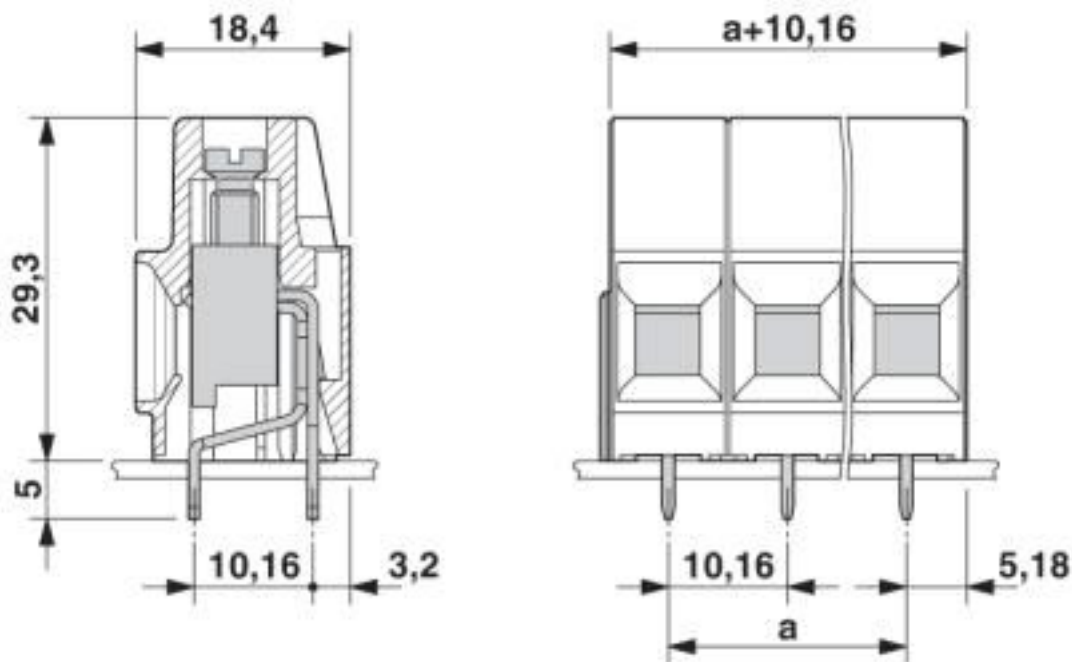
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Tested in accordance with DIN EN 60512-5-2:2003-01

Reduction factor = 1

No. of positions: 5

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
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
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PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

Classifications

UNSPSC

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


CCA / IEC EE CB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / cULus Recognized

Ex Approvals

Approval details

CCA	CCA/ DE1 34205
Nominal voltage UN	1000 V
Nominal current IN	76 A
mm ² /AWG/kcmil	0.5-16

IECEE CB Scheme		http://www.iecee.org/	DE1-58858
Nominal voltage UN	1000 V		
Nominal current IN	76 A		
mm ² /AWG/kcmil	0.5-16		

VDE Gutachten mit Fertigungsüberwachung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40035740
Nominal voltage UN	1000 V		
Nominal current IN	76 A		

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Approvals

mm²/AWG/kcmil	0.5-16
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EAC		B.01687
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19770427
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	B	C	D
Nominal voltage UN	300 V	300 V	600 V
Nominal current IN	60 A	60 A	5 A
mm²/AWG/kcmil	20-6	20-6	20-6

Accessories

Accessories

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

Crimping pliers - CRIMPFOX 16 S - 1207983



Crimping pliers for ferrules up to 16 mm²

Insulating sleeve

Insulating sleeve - MPS-IH WH - 0201663

Insulating sleeve, color: white



PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

Accessories

Insulating sleeve - MPS-IH RD - 0201676

Insulating sleeve, color: red



Insulating sleeve - MPS-IH BU - 0201689

Insulating sleeve, color: blue



Insulating sleeve - MPS-IH YE - 0201692

Insulating sleeve, color: yellow



Insulating sleeve - MPS-IH GN - 0201702

Insulating sleeve, color: green



Insulating sleeve - MPS-IH GY - 0201728

Insulating sleeve, color: gray



PCB terminal block - MKDSP 10N/ 3-10,16 - 1774137

Accessories

Insulating sleeve - MPS-IH BK - 0201731

Insulating sleeve, color: black



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

Test plugs - MPS-MT - 0201744



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

Reducing plug - RPS - 0201647



Reducing plug, color: gray

Mouser Electronics

Authorized Distributor

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