

MKDS 10 HV/ 1-F-10,16 BN - 1705211

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PCB terminal block, nominal current: 76 A, nom. voltage: 1000 V, pitch: 10.16 mm, number of positions: 1, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0°, color: brown

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
- Unrestricted 600-V-UL approval thanks to compact zig-zag pinning
- Integrated protective guide prevents incorrect insertion of the conductor underneath the tension sleeve



Key Commercial Data

Packing unit	1
GTIN	
GTIN	4046356760256
Custom tariff number	85369010

Technical data

Item properties

Brief article description	PCB terminal block
Range of articles	MKDS 10 HV
Pitch	10.16 mm
Number of positions	1
Connection method	Screw connection with tension sleeve
Drive form screw head	Slotted (L)
Screw thread	M4
Mounting type	Wave soldering
Pin layout	Linear back pinning

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Technical data

Item properties

Number of levels	1
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Electrical parameters

Rated current	76 A
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

Connection capacity

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 ... 6 mm ²
2 conductors with same cross section, flexible	0.5 mm ² ... 6 mm ²
2 conductors with same cross section, stranded, ferrules without plastic sleeve	0.5 mm ² ... 4 mm ²
2 conductors with same cross section, stranded, with TWIN ferrules 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

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	Schematic representation – for additional information, see product range drawing in the Download Center
Length [l]	18.7 mm

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Technical data

Dimensions for the product

Width [w]	10.16 mm
Height [h]	35.8 mm
Pitch	10.16 mm
Height (without solder pin)	30.8 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

Termination and connection method

Connection test	IEC 60998-2-2:2002-12
Test result	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 / stranded / > 20 N
	10 mm ² / flexible / > 90 N
	16 mm ² / solid / > 100 N

Mechanical tests according to standard

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

Rated current	76 A
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV

Air clearances and creepage distances

Insulating material group	I
Voltage	800 V
Rated insulation voltage (III/3)	800 V
Rated insulation voltage (III/2)	1000 V
Rated insulation voltage (II/2)	1000 V

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Technical data

Air clearances and creepage distances

Rated surge voltage (III/3)	8 kV
Rated surge voltage (III/2)	8 kV
Rated surge voltage (II/2)	8 kV

Current carrying capacity / derating curves

Specification	IEC 60998-2-1 (in parts)
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Vibration test

Resistance to ageing, to humidity conditions, to ingress of solid objects and to harmful ingress of water	Test passed IEC 60998-1:2002-12 168 h/100°C 48 h/30 °C/92 %
Test result	Test passed
Test specification	IEC 60998-1:2002-12
Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Resistance to ageing, humidity and penetration of solids

Test result	Test passed
Test specification	IEC 60998-1:2002-12
Dry heat	168 h/100°C
Humid heat	48 h/30 °C/92 %

Standards and Regulations

Connection in acc. with standard	EN-VDE
	CUL

Environmental Product Compliance

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

Classifications

eCl@ss

eCl@ss 4.0	27141109
eCl@ss 4.1	27141109
eCl@ss 5.0	27141190
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

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Classifications

ETIM

ETIM 3.0	EC001121
ETIM 4.0	EC002643
ETIM 5.0	EC002643
ETIM 6.0	EC002643

UNSPSC

UNSPSC 6.01	30211801
UNSPSC 7.0901	39121432
UNSPSC 11	39121432
UNSPSC 12.01	39121432
UNSPSC 13.2	39121432

Approvals


Approvals


Approvals

IECEE CB Scheme / SEV / EAC / cULus Recognized

Ex Approvals


Approval details

IECEE CB Scheme		http://www.iecee.org/	CH-8225
Nominal voltage UN	400 V		
Nominal current IN	76 A		
mm ² /AWG/kcmil	10		

SEV		https://www.electrosuisse.ch/de/meta/shop/produktezertifikate.html	IK-3542-M1
Nominal voltage UN	400 V		
Nominal current IN	76 A		
mm ² /AWG/kcmil	10		

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Approvals

EAC		B.01742
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cULus Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	E60425-19770427
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	D	B	C
Nominal voltage UN	300 V	300 V	150 V
Nominal current IN	10 A	60 A	60 A
mm ² /AWG/kcmil	20-6	20-6	20-6