MKDS 3/ 8-5,08 - PCB terminal block

1712708

https://www.phoenixcontact.com/in/products/1712708

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PCB terminal block, nominal current: 24 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm^2, number of potentials: 8, number of rows: 1, number of positions per row: 8, product range: MKDS 3, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Linear pinning, Solder pin [P]: 5 mm, number of solder pins per potential: 1, 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
- 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

Commercial Data

Item number	1712708
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	AAM
Product Key	AAMFIB
GTIN	4017918023836
Weight per Piece (including packing)	16.25 g
Weight per Piece (excluding packing)	15.245 g
Customs tariff number	85369010
Country of origin	DE

Technical Data

Product properties

Type	PC terminal block can be aligned
Product line	COMBICON Terminals M
Product type	Printed circuit board terminal
Product family	MKDS 3
Number of positions	8
Pitch	5.08 mm
Number of connections	8
Number of rows	1
Number of potentials	8
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Nominal current I_N	24 A
Nominal voltage U_N	400 V
Degree of pollution	3
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

Connection data

Connection technology

Type	PC terminal block can be aligned
Nominal cross section	2.5 mm²

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross section rigid	0.2 mm² ... 4 mm²
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	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	0.5 mm² ... 1.5 mm²

ferrule with plastic sleeve	
Stripping length	8 mm
Tightening torque	0.5 Nm ... 0.6 Nm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning
Drive form screw head	Slotted (L)
Drive form screw head	Slotted (L)

Material specifications

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 (4 - 8 µm Sn)
Metal surface soldering area (top layer)	Tin (4 - 8 µm Sn)

Material data - housing

Color (Housing)	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

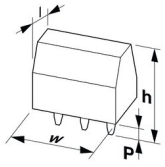
Material data – actuating element

Color ()	()

Notes

Note on application	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).

Dimensions

Dimensional drawing	
Pitch	5.08 mm
Width [w]	40.64 mm
Height [h]	23 mm
Length [l]	11.2 mm
Installed height	18 mm
Solder pin length [P]	5 mm

PCB design

Pin spacing	15.24 mm

Electrical tests

Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
minimum clearance value - non-homogenous field (III/3)	3 mm
minimum creepage distance (III/3)	3.2 mm
Note on connection cross section	With connected conductor 4 mm² (solid).
Rated insulation voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
minimum clearance value - non-homogenous field (III/2)	3 mm
minimum creepage distance (III/2)	3 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

Environmental and real-life conditions

Ambient conditions

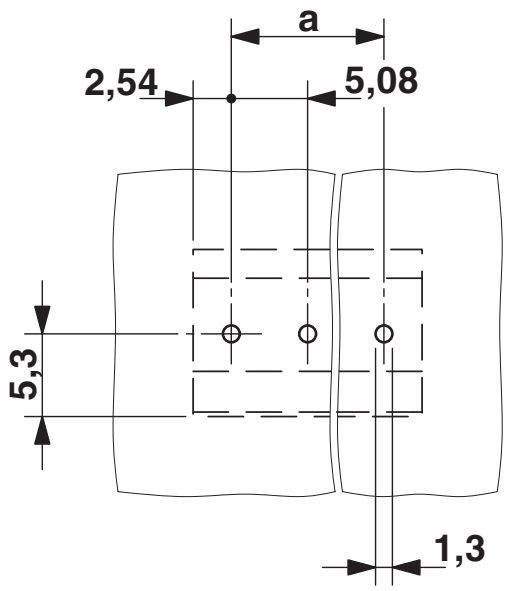
Ambient temperature (operation)	-40 °C ... 105 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

Packaging specifications

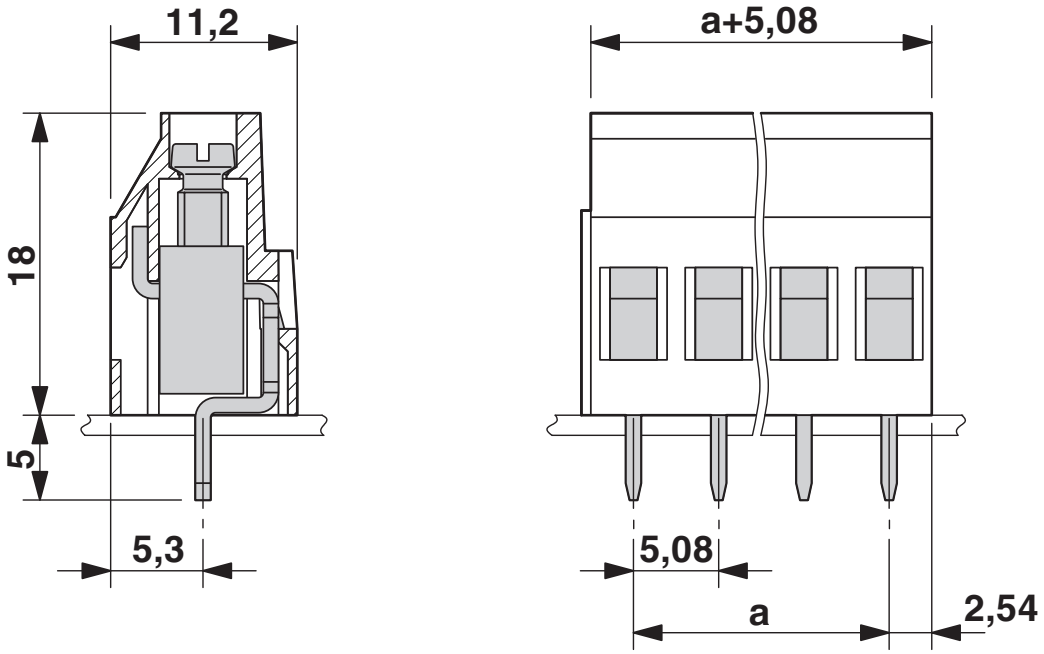
Type of packaging	packed in cardboard

Drawings

Drilling plan/solder pad geometry



Dimensional drawing



Approvals

CSA
Approval ID: 13631

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	300 V	10 A	28 - 12	-
	300 V	10 A	28 - 12	-

EAC
Approval ID: B.01687

cULus Recognized
Approval ID: E60425-19770427

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	300 V	15 A	30 - 18	-
	300 V	15 A	30 - 12	-
	300 V	10 A	30 - 18	-
	300 V	10 A	30 - 12	-

DNV GL
Approval ID: TAE00001EV

IECEE CB Scheme
Approval ID: DE1-66542

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	400 V	28 A	-	0.2 - 4

VDE Zeichengenehmigung
Approval ID: 40055394

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
	400 V	28 A	-	0.2 - 4

Classifications

ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

ETIM

ETIM 8.0	EC002643

UNSPSC

UNSPSC 21.0	39121400

Environmental Product Compliance

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

Accessories

Note: Applying some accessories below might limit this product.

EBP 2- 5 - Insertion bridge

1733169

https://www.phoenixcontact.com/in/products/1733169

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Max. current carrying capacity: 12 A

EBP 3- 5 - Insertion bridge

1733172

https://www.phoenixcontact.com/in/products/1733172

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Max. current carrying capacity: 12 A

EBP 4- 5 - Insertion bridge

1733185

https://www.phoenixcontact.com/in/products/1733185

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Max. current carrying capacity: 12 A

EBP 5- 5 - Insertion bridge

1733198

https://www.phoenixcontact.com/in/products/1733198

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Max. current carrying capacity: 12 A

EBP 6- 5 - Insertion bridge

1733208

https://www.phoenixcontact.com/in/products/1733208

Insertion bridge for connectors with 5.0 mm or 5.08 mm pitch

Max. current carrying capacity: 12 A

SZS 0,6X3,5 - Screwdriver

1205053

https://www.phoenixcontact.com/in/products/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

RZ 1,25-MKDS 3 - Pitch spacer

1703047

https://www.phoenixcontact.com/in/products/1703047

Pitch spacer, for adjusting the pitches between MKDS and GMKDS terminal blocks in mixed rows, 1.25 mm thick

SK 5,08/3,8:UNBEDRUCKT - Marker card

0805412

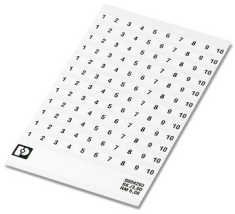
https://www.phoenixcontact.com/in/products/0805412

Marker card, white, unlabeled, can be labeled with: Marker pen, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

SK 5,08/3,8:FORTL.ZAHLEN - Marker card

0804293

https://www.phoenixcontact.com/in/products/0804293



Marker card, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 5.08 mm, lettering field size: 5.08 x 3.8 mm

B-STIFT - Marker pen

1051993

https://www.phoenixcontact.com/in/products/1051993

Marker pen, for manual labeling of unprinted Zack strips, smear-proof and waterproof, line thickness 0.5 mm

PHOENIX CONTACT (I) Pvt. Ltd.
A-58/2, Okhla Industrial Area, Phase - II, New Delhi-110 020

+91.1275.71420
info@phoenixcontact.co.in