

# PCB terminal block - MK3DS 3/ 2-5,08 GY35 BD274-282 - 1033198

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PCB terminal block, nominal current: 17.5 A, rated voltage (III/2): 400 V, nominal cross section: 2.5 mm<sup>2</sup>, pitch: 5.08 mm, number of positions: 2, connection method: Screw connection with tension sleeve, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: light gray, Pin layout: Linear pinning, Solder pin [P]: 5 mm


The figure shows a 2-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
- Conductor connection on several levels enables higher contact density
- 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	50 pc
Minimum order quantity	50 pc
GTIN	 4 055626 538815
GTIN	4055626538815

## Technical data

### Item properties

Brief article description	PCB terminal block
Range of articles	MK3DS 3
Pitch	5.08 mm
Number of positions	2
Connection method	Screw connection with tension sleeve
Mounting type	Wave soldering
Pin layout	Linear pinning
Number of levels	3

# PCB terminal block - MK3DS 3/ 2-5,08 GY35 BD274-282 - 1033198

## Technical data

### Electrical parameters

Nominal current	17.5 A
Nom. voltage	400 V
Rated voltage	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 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG / kcmil	24 ... 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.75 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Stripping length	7 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	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

Housing color	light gray (7035)
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

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## Technical data

### Dimensions for the product

Caption	Schematic representation – for additional information, see product range drawing in the Download Center
Length [ l ]	33.6 mm
Width [ w ]	12.7 mm
Height [ h ]	49.8 mm
Pitch	5.08 mm
Height (without solder pin)	44.8 mm
Solder pin [P]	5 mm
Pin spacing	25.4 mm
Pin dimensions	0.9 x 0.9 mm

### Dimensions for PCB design

Hole diameter	1.3 mm
Pin spacing	25.4 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
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
	Test passed
Conductor cross section / conductor type / tensile force	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	4 mm <sup>2</sup> / solid / > 60 N
	2.5 mm <sup>2</sup> / flexible / > 50 N

### Mechanical tests according to standard

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

Rated current	17.5 A
Conductor cross section	2.5 mm <sup>2</sup>
Rated voltage (III/2)	400 V

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## Technical data

### Electrical tests

Rated surge voltage (III/2)	4 kV
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### 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
Result	Test passed
Requirement temperature-rise test	Increase in temperature $\leq 45$ K

### Current carrying capacity / derating curves

Caption	Type: MK3DS 3/2 and MK3DS 3/3 Test following 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 60068-2-6:1995-03
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/25 °C/92%

### Insulation resistance

Specification	IEC 60998-2-1:1990-04
Result	Test passed
Insulation resistance, neighboring positions	$10^9 \Omega$

### Glow-wire test

Specification	IEC 60998-2-1:1990-04
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## Technical data

### Glow-wire test

Result	Test passed
Temperature	850 °C
Time of exposure	5 s

### Mechanical strength/tumbling barrel test

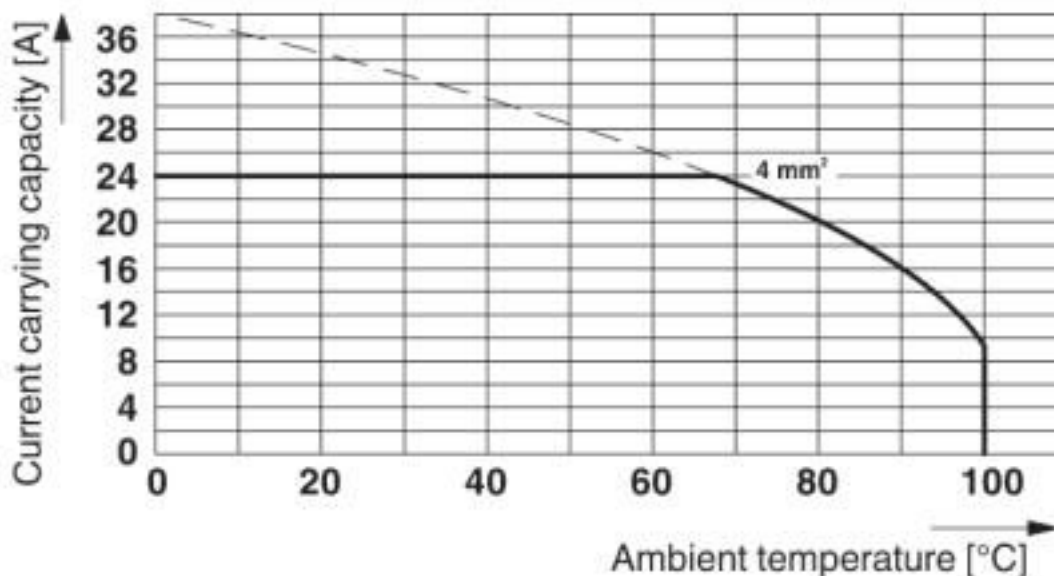
Specification	IEC 60998-2-1:1990-04
Height of fall	50 cm
Number of drop cycles	50

### 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

Diagram



Type: MK3DS 3/2 and MK3DS 3/3  
 Test following DIN EN 60512-5-2:2003-01  
 Reduction factor = 1  
 No. of positions: 5

## Classifications

eCl@ss

eCl@ss 10.0.1	27440401
eCl@ss 5.1	27261100

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## Classifications

### eCl@ss

eCl@ss 6.0	27261100
eCl@ss 7.0	27440401
eCl@ss 8.0	27440401
eCl@ss 9.0	27440401

### ETIM

ETIM 5.0	EC002643
ETIM 6.0	EC002643
ETIM 7.0	EC002643

## Approvals


### Approvals


#### Approvals

CSA / UL Recognized / cUL Recognized / IECCEB Scheme / SEV / EAC / cULus Recognized

#### Ex Approvals

### Approval details

CSA		<a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a>	13631
	B	D	
Nominal voltage UN	300 V	300 V	
Nominal current IN	10 A	10 A	
mm <sup>2</sup> /AWG/kcmil	28-12	28-12	

UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	D	
Nominal voltage UN	125 V	300 V	
Nominal current IN	20 A	10 A	
mm <sup>2</sup> /AWG/kcmil	30-12	30-12	

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## Approvals

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 60425
	B	D	
Nominal voltage UN	125 V	300 V	
Nominal current IN	20 A	10 A	
mm <sup>2</sup> /AWG/kcmil	30-12	30-12	

IECEE CB Scheme		<a href="http://www.iecee.org/">http://www.iecee.org/</a>	CH-10724-A1
Nominal voltage UN	250 V		
Nominal current IN	24 A		
mm <sup>2</sup> /AWG/kcmil	4		

SEV		<a href="https://www.eurofins.ch/de/">https://www.eurofins.ch/de/</a>	IK-4486-A1
Nominal voltage UN	250 V		
Nominal current IN	24 A		
mm <sup>2</sup> /AWG/kcmil	4		

EAC		B.01687
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cULus Recognized	
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