

1731734

https://www.phoenixcontact.com/us/products/1731734

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Printed circuit board terminal, nominal current: 24 A, rated voltage (III/2): 630 V, nominal cross section: 2.5 mm², number of potentials: 3, number of rows: 1, number of positions per row: 3, product range: GMKDS 3, pitch: 7.62 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
- · Larger pitch for increased voltage requirements
- · 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	1731734
Packing unit	100 pc
Minimum order quantity	100 pc
Sales key	AA13
Product key	AAMFJB
GTIN	4017918026417
Weight per piece (including packing)	7.05 g
Weight per piece (excluding packing)	6.57 g
Customs tariff number	85369010
Country of origin	DE



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Technical data

Product properties

Product type	Printed circuit board terminal
Product family	GMKDS 3
Product line	COMBICON Terminals M
Туре	PC terminal block can be aligned
Number of positions	3
Pitch	7.62 mm
Number of connections	3
Number of rows	1
Number of potentials	3
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Properties

Nominal current I _N	24 A
Nominal voltage U _N	630 V
Rated voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV
Rated voltage (III/2)	630 V
Rated surge voltage (III/2)	6 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

Connection data

Connection technology

without plastic sleeve

Туре	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 areas and an florible	0.02 0.52

-	
Conductor cross section flexible	0.2 mm ² 2.5 mm ²
Conductor cross section AWG	24 12
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm ² 2.5 mm ²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm² 2.5 mm²
2 conductors with same cross section, solid	0.2 mm ² 1.5 mm ²
2 conductors with same cross section, flexible	0.2 mm ² 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule	0.25 mm² 0.75 mm²



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2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 1.5 mm²
Stripping length	8 mm
Drive form screw head	Slotted (L)
Tightening torque	0.5 Nm 0.6 Nm

Mounting

Mounting type	Wave soldering
Pin layout	Linear pinning

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	1
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

Notes

Dimensions

Dimensional drawing	h p
Pitch	7.62 mm



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Width [w]	22.86 mm
Height [h]	23 mm
Length [I]	11.2 mm
Installed height	18 mm
Solder pin length [P]	5 mm
Pin dimensions	0.9 x 0.9 mm
PCB design	
Hole diameter	1.3 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60999-1:1999-11
Result	Test passed
Pull-out test	
Specification	IEC 60999-1:1999-11
Conductor cross section/conductor type/tractive force	0.2 mm² / solid / > 10 N
setpoint/actual value	0.2 mm² / flexible / > 10 N
	4 mm² / solid / > 60 N
	2.5 mm² / flexible / > 50 N

Electrical tests

Temperature-rise test

Rated surge voltage (III/3)

minimum creepage distance (III/3)

Note on connection cross section

Rated insulation voltage (III/2)

minimum clearance value - non-homogenous field (III/3)

I emperature-rise test	
Specification	IEC 60947-7-4:2019-01
Requirement temperature-rise test	The sum of ambient temperature and temperature rise of the PCB terminal block shall not exceed the upper limiting temperature.
Short-time withstand current	
Specification	IEC 60947-7-4:2019-01
Insulation resistance	
Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ
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)	500 V

6 kV

5.5 mm

6.3 mm

630 V

With connected conductor 4 mm² (solid).



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Rated surge voltage (III/2)	6 kV
minimum clearance value - non-homogenous field (III/2)	5.5 mm
minimum creepage distance (III/2)	5.5 mm
Rated insulation voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV
minimum clearance value - non-homogenous field (II/2)	5.5 mm
minimum creepage distance (II/2)	5.5 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz
Sweep speed	1 octave/min
Amplitude	0.35 mm (10 Hz 60.1 Hz)
Acceleration	5g (60.1 Hz 150 Hz)
Test duration per axis	2.5 h
Test directions	X-, Y- and Z-axis

Glow-wire test

Specification	IEC 60695-2-10:2013-04	
Temperature	850 °C	
Time of exposure	5 s	

Aging

Specification	IEC 60947-7-4:2019-01
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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

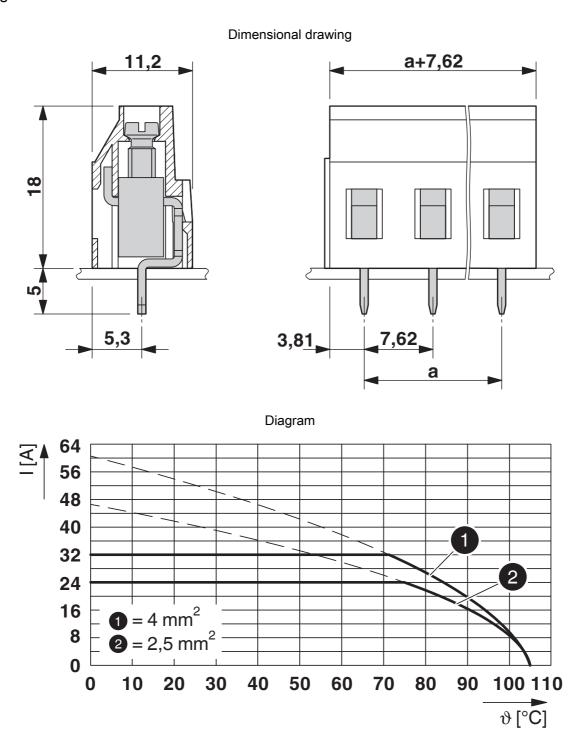
Type of packaging	packed in cardboard



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Drawings



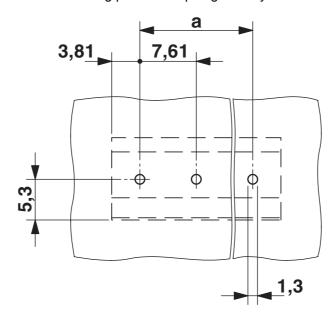
Type: GMKDS 3/...-7,62



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Drilling plan/solder pad geometry





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Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1731734

CSA Approval ID: 13631				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
Use group B				
	300 V	10 A	28 - 12	-
Use group D				
	300 V	10 A	28 - 12	-

CULus Recognized Approval ID: E60425-19870331					
	Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²	
Use group B					
	300 V	15 A	30 - 12	-	
Use group D					
	300 V	10 A	30 - 12	-	

	DNV GL Approval ID: TAE00001EV
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VDE approval of drawings Approval ID: 40055394				
	Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
	630 V	30 A	-	0.2 - 4



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Classifications

UNSPSC 21.0

ECLASS

	ECLASS-13.0	27460101	
	ECLASS-15.0	27460101	
ETIM			
	ETIM 9.0	EC002643	
UNSPSC			

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions		
China RoHS			
Environment friendly use period (EFUP)	EFUP-E		
	No hazardous substances above the limits		
EU REACH SVHC			
REACH candidate substance (CAS No.)	No substance above 0.1 wt%		
EF3.0 Climate Change			
CO2e kg	0.037 kg CO2e		

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