

LPT 6/ 7-7,5-ZB - PCB terminal block



1098172

<https://www.phoenixcontact.com/us/products/1098172>

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Printed circuit board terminal, nominal current: 41 A, rated voltage (III/2): 1000 V, nominal cross section: 6 mm², number of potentials: 7, number of rows: 1, number of positions per row: 7, product range: LPT 6/, pitch: 7.5 mm, connection method: Lever Push-in connection, mounting: Wave soldering, conductor/PCB connection direction: 0 °, color: green, Pin layout: Zigzag pinning W, Solder pin [P]: 3.6 mm, type of packaging: packed in cardboard

Your advantages

- Tool-free lever principle enables time-saving connection and release of conductors with/without ferrules
- Clear lever positions provide reliable feedback on opened or closed clamping spaces
- Defined contact force ensures that contact remains stable over the long term
- Time-saving push-in connection when lever is closed
- Intuitive operation, thanks to a color-coded actuation lever

Commercial data

Item number	1098172
Packing unit	25 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	AA14
Product key	AANTBA
GTIN	4055626941745
Weight per piece (including packing)	34.58 g
Weight per piece (excluding packing)	2.22 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Printed circuit board terminal
Product family	LPT 6/
Product line	COMBICON Terminals L
Number of positions	7
Pitch	7.5 mm
Number of connections	7
Number of rows	1
Number of potentials	7
Pin layout	Zigzag pinning W

Electrical properties

Nominal current I_N	41 A
Nominal voltage U_N	1000 V
Rated voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
Rated voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
Rated voltage (II/2)	1000 V
Rated surge voltage (II/2)	6 kV

Connection data

Connection technology

Nominal cross section	6 mm ²
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Conductor connection

Connection method	Lever Push-in connection
Conductor cross section rigid	0.2 mm ² ... 10 mm ² (Conductor connection with open terminal point)
	0.5 mm ² ... 10 mm ² (Push-in connection)
Conductor cross section flexible	0.34 mm ² ... 10 mm ²
Conductor cross section AWG	22 ... 8
Conductor cross section flexible, with ferrule without plastic sleeve	0.2 mm ² ... 6 mm ² (Conductor connection with open terminal point)
	1.5 mm ² ... 6 mm ² (Push-in connection)
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.2 mm ² ... 6 mm ² (Conductor connection with open terminal point)
	0.5 mm ² ... 6 mm ² (Push-in connection)
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 2.5 mm ²
Stripping length	12 mm ... 14 mm

Mounting

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Mounting type	Wave soldering
Pin layout	Zigzag pinning W

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 (10 - 16 µm Sn)
Metal surface soldering area (top layer)	Tin (10 - 16 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 (Actuating element)	orange (2003)
Insulating material	PA GF
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0

Dimensions

Dimensional drawing	
Pitch	7.5 mm
Width [w]	53.5 mm
Height [h]	27.85 mm
Length [l]	24.3 mm
Installed height	24.25 mm
Solder pin length [P]	3.6 mm
Pin dimensions	1.5 x 1.2 mm

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PCB design

Hole diameter	2 mm
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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 setpoint/actual value	0.2 mm ² / solid / > 10 N
	0.34 mm ² / flexible / > 15 N
	10 mm ² / solid / > 90 N
	10 mm ² / flexible / > 90 N

Electrical tests

Temperature-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
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Insulation resistance

Specification	IEC 60512-3-1:2002-02
Insulation resistance, neighboring positions	> 5 MΩ

Air clearances and creepage distances |

Specification	IEC 60947-7-4:2019-01
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	1000 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	12.5 mm
Rated insulation voltage (III/2)	1000 V
Rated surge voltage (III/2)	8 kV
minimum clearance value - non-homogenous field (III/2)	8 mm
minimum creepage distance (III/2)	8 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

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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	50 m/s ² (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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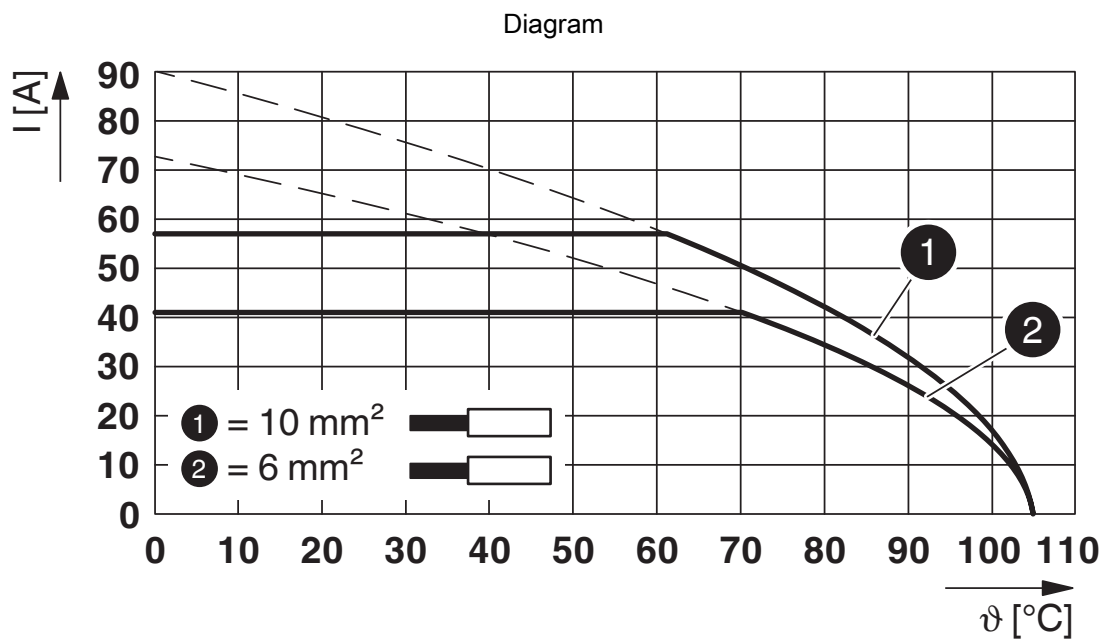
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Drawings



Type: LPT 6/...-7,5-ZB

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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1098172>

 UL Recognized Approval ID: E60425-20210507				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group F				
	1000 V	40 A	22 - 8	-

 cULus Recognized Approval ID: E60425-20210507				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	600 V	40 A	22 - 8	-
Use group C				
	600 V	40 A	22 - 8	-

 VDE approval of drawings Approval ID: 40054188				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	1000 V	41 A	-	0.2 - 6

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Classifications

ECLASS

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

ETIM

ETIM 9.0	EC002643
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UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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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%
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EF3.0 Climate Change

CO2e kg	1.021 kg CO2e
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