

HDFK 50-VP-DP - Panel feed-through terminal block



0708988

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Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Cable lug connection, number of positions: 1, load current: 150 A, cross section: 16 mm² - 50 mm², connection direction of the conductor to plug-in direction: 0 °, width: 18.8 mm

The figure shows a similar product

Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Tool-free snap-in principle enables easy mounting on the device panel
- Automatic panel thickness compensation enables universal use
- Reliable seal even with low-viscosity molding compounds

Commercial data

Item number	0708988
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	AA28
Product key	AA1FAB
GTIN	4017918004842
Weight per piece (including packing)	93.43 g
Weight per piece (excluding packing)	93.43 g
Customs tariff number	85369010
Country of origin	GR

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Technical data

Product properties

Product type	Panel feed-through terminal block
Product family	HDFK 50-VP
Number of positions	1
Pitch	18.8 mm
Number of connections	2
Number of rows	1

Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Properties

Nominal current I_N	150 A
Nominal voltage U_N	690 V
Rated voltage (III/3)	690 V
Rated surge voltage (III/3)	8 kV

Connection data

Connection technology

Connector system	HDFK 50
Nominal cross section	50 mm ²

Conductor connection exterior

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross-section rigid	16 mm ² ... 50 mm ²
Conductor cross-section flexible	16 mm ² ... 50 mm ²
Conductor cross-section, flexible, with ferrule, without plastic sleeve	10 mm ² ... 50 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	10 mm ² ... 50 mm ²
2 conductors with same cross section, rigid	6 mm ² ... 16 mm ²
2 conductors with same cross section, flexible	10 mm ² ... 16 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	6 mm ² ... 16 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	6 mm ² ... 10 mm ²
Internal cylindrical gage	B10
Stripping length	24 mm
Tightening torque	6 Nm ... 8 Nm

Conductor connection interior

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Connection method	Cable lug connection
Connection direction of the conductor to plug-in direction	0 °

Mounting

Panel thickness	1 mm...6 mm
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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

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

Notes

Safety note

Safety note	<ul style="list-style-type: none">• Only electrically qualified personnel may install and operate the product. To recognize and prevent danger, the qualified personnel must be familiar with the basics of electrical engineering.• Observe the technical data provided here and refer to the documents listed under "Downloads". The download area contains important information, such as installation notes, technical drawings, and 3D data.• The cable entry funnel is not safe to touch. Never connect or disconnect the terminal when it is energized. Take appropriate steps to ensure touch protection.• To maintain the nominal voltage, align the cable lugs straight and centered, and cast the terminals on the inside.• There is no electrical contact to the housing. Make sure that protective grounding is provided for green/yellow color variants and articles marked with PE.
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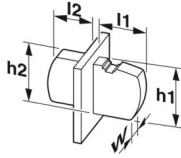
Dimensions

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Dimensional drawing	
Pitch	18.8 mm
Width [w]	18.8 mm

Mechanical tests

Test for conductor damage and slackening

Specification	IEC 60947-7-1:2009-04
Result	Test passed

Pull-out test

Specification	IEC 60947-7-1:2009-04
Conductor cross-section/conductor type/tractive force setpoint/actual value	16 mm ² / stranded / > 100 N
	16 mm ² / flexible / > 100 N
	50 mm ² / stranded / > 236 N
	50 mm ² / flexible / > 236 N

Electrical tests

Temperature-rise test

Specification	IEC 60947-7-1:2009-04
Requirement temperature-rise test	Increase in temperature ≤ 45 K

Short-time withstand current

Specification	IEC 60947-7-1:2009-04
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Air clearances and creepage distances | 1. Insulation coordination

Application	Metal wall 4.5 mm ... 6.0 mm
	Internal part molded
Specification	IEC 60947-7-1:2002-07
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	690 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	8 mm

Air clearances and creepage distances | 2. Insulation coordination

Application	Metal panel 2.0 mm ... 4.5 mm
	Internal part molded
Specification	IEC 60947-7-1:2002-07
Insulating material group	I

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Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	800 V
Rated surge voltage (III/3)	8 kV
minimum clearance value - non-homogenous field (III/3)	8 mm
minimum creepage distance (III/3)	10 mm

Air clearances and creepage distances | 3. Insulation coordination

Application	Metal panel 1.0 mm ... 2.0 mm
	Internal part molded
Specification	IEC 60947-7-1:2002-07
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

Air clearances and creepage distances | 4. Insulation coordination

Application	Plastic panel 1.0 ... 6.0 mm
	Internal part molded
Specification	IEC 60947-7-1:2002-07
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

Air clearances and creepage distances | 5. Insulation coordination

Application	Metal wall 1.0 mm ... 6.0 mm
	Internal part not molded
Specification	IEC 60947-7-1:2002-07
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

Air clearances and creepage distances | 6. Insulation coordination

Application	Plastic panel 1.0 ... 6.0 mm
	Internal part not molded
Specification	IEC 60947-7-1:2002-07
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	250 V

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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

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 60695-2-11:2014-02
Temperature	960 °C
Time of exposure	30 s

Ambient conditions

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

Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °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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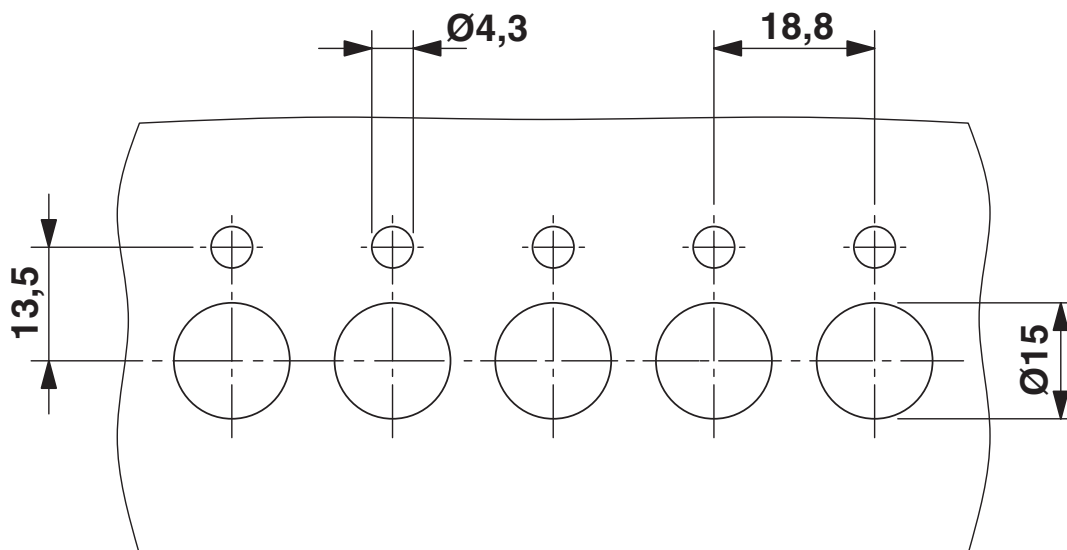


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Drawings

Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/0708988>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	125 A	6 - 1/0	-
C	600 V	125 A	6 - 1/0	-

 UL Recognized Approval ID: E60425-19890329				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	170 A	6 - 2/0	-
C	600 V	170 A	6 - 2/0	-

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Classifications

ECLASS

ECLASS-13.0	27141134
ECLASS-15.0	27141134

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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