

HDFK 50-VP - Panel feed-through terminal block



0709123

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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, color: gray

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	0709123
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	AA1
Product key	AA1FAB
Catalog page	Page 619 (C-1-2013)
GTIN	4017918004941
Weight per piece (including packing)	91.7 g
Weight per piece (excluding packing)	86.14 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
Number of potentials	1

Data management status

Article revision	06
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical 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, solid	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

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Tightening torque	6 Nm ... 8 Nm
Conductor connection interior	
Connection method	Cable lug connection
Connection direction of the conductor to plug-in direction	0 °

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

Color (Housing)	gray (7042)
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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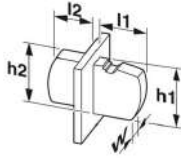
Dimensions

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Dimensional drawing	
Pitch	18.8 mm
Width [w]	18.8 mm

External dimensions

Height [h1]	54 mm
Length [l1]	43 mm

Internal dimensions

Height [h2]	37 mm
Length [l2]	35 mm

Electrical tests

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
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

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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
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

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

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Packaging specifications

Type of packaging
packed in cardboard

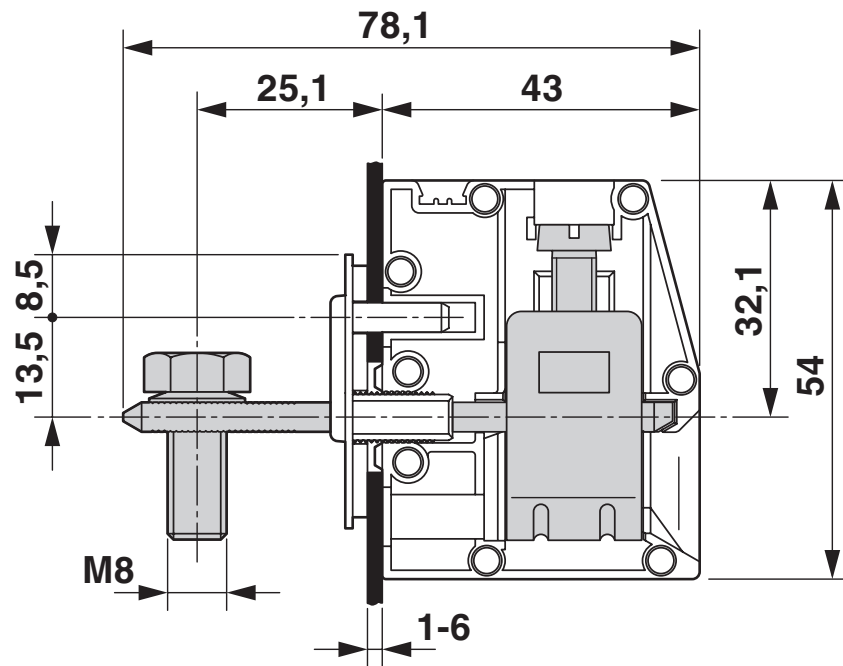
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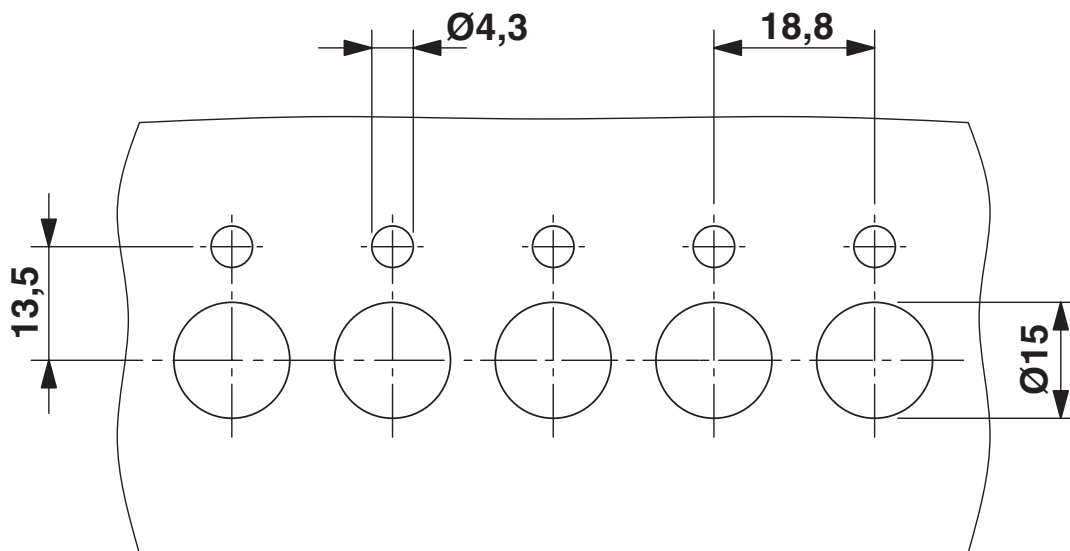
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Drawings

Dimensional drawing



Dimensional drawing



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/in/products/0709123>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	125 A	6 - 1/0	-
Use group 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
Use group B	600 V	170 A	6 - 2/0	-
Use group C	600 V	170 A	6 - 2/0	-

 KEMA-KEUR Approval ID: 2169260.01				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	690 V	150 A	-	- 50

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Classifications

ECLASS

ECLASS-11.0	27141134
ECLASS-13.0	27141134
ECLASS-12.0	27141134

ETIM

ETIM 9.0	EC001283
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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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Accessories

SZS 1,2X8,0 VDE - Screwdriver

1205082

<https://www.phoenixcontact.com/in/products/1205082>



Screwdriver, slot-headed, VDE insulated, size: 1.2 x 8.0 x 175 mm, 2-component grip, with non-slip grip

UKH 50 EP - Insertion profile

3009228

<https://www.phoenixcontact.com/in/products/3009228>



Insertion profile, color: silver

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UC-TM 16 - Marker for terminal blocks

0819217

<https://www.phoenixcontact.com/in/products/0819217>



Marker for terminal blocks, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

UC-TM 16 CUS - Marker for terminal blocks

0824621

<https://www.phoenixcontact.com/in/products/0824621>



Marker for terminal blocks, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snap into tall marker groove, for terminal block width: 16 mm, lettering field size: 15.45 x 10.5 mm, Number of individual labels: 32

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ZB 16:UNPRINTED - Zack marker strip

0827461

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Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 16 mm, lettering field size: 16 x 10.5 mm, Number of individual labels: 50

ZBF 16 CUS - Zack Marker strip, flat

0827465

<https://www.phoenixcontact.com/in/products/0827465>



Zack Marker strip, flat, can be ordered: Strip, white, labeled according to customer specifications, mounting type: snap into flat marker groove, for terminal block width: 16 mm, lettering field size: 5.15 x 16 mm, Number of individual labels: 5

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ZB 12:UNPRINTED - Zack marker strip

0812120

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Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 12.2 mm, lettering field size: 12 x 10.5 mm, Number of individual labels: 5

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