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Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Screw connection with tension sleeve, number of positions: 1, load current: 57 A, cross section: 0.5 mm² - 16 mm², connection direction of the conductor to plug-in direction: -90 °, width: 10.1 mm, color: gray

#### Your advantages

- ✓ Well-known connection principle allows worldwide use
- Tool-free snap-in principle enables easy mounting on the device panel
- Automatic panel thickness compensation enables universal use



#### **Key Commercial Data**

Packing unit	50 pc
GTIN	4 0 4 6 3 5 6 1 8 0 1 6 0
GTIN	4046356180160

#### Technical data

#### Item properties

Brief article description	Panel feed-through terminal block
Range of articles	HDFKV 10
Pitch	10.1 mm
Number of positions	1
Connection method	Screw connection with tension sleeve
Number of connections	2
Number of potentials	1

#### Electrical parameters

Nominal current	57 A
Nom. voltage	400 V (With metal panels of 1 mm 2.5 mm)
Rated voltage	400 V
Rated surge voltage (III/3)	6 kV



#### Technical data

#### Connection capacity, external

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	-90 °
Conductor cross section solid	0.5 mm <sup>2</sup> 16 mm <sup>2</sup>
Conductor cross section flexible	0.5 mm <sup>2</sup> 10 mm <sup>2</sup>
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm <sup>2</sup> 10 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm <sup>2</sup> 10 mm <sup>2</sup>
2 conductors with same cross section, solid	0.5 mm² 4 mm²
2 conductors with same cross section, flexible	0.5 mm² 4 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm² 2.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 6 mm²
Internal cylindrical gage	B6
Stripping length	11 mm
Torque	1.5 Nm 1.8 Nm

#### Connection capacity, internal

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	-90 °
Conductor cross section solid	0.5 mm² 16 mm²
Conductor cross section flexible	0.5 mm² 10 mm²
Conductor cross section flexible, with ferrule without plastic sleeve	0.5 mm² 10 mm²
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.5 mm² 10 mm²
2 conductors with same cross section, solid	0.5 mm² 4 mm²
2 conductors with same cross section, flexible	0.5 mm² 4 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.5 mm² 2.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 6 mm²
Internal cylindrical gage	B6
Stripping length	11 mm
Torque	1.5 Nm 1.8 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

#### Material data - housing

Housing color	gray (7042)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600



#### Technical data

#### Material data - housing

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

#### Dimensions for the product

Length [1]	49 mm
Width [ w ]	10.1 mm
Height [ h ]	34.3 mm
Pitch	10.1 mm

#### Packaging information

Pieces per package	50
Denomination packing units	Pcs.

#### General product information

Type of note	Notes on safety
Note	The cable entry funnel is not touch-proof. Never connect or disconnect the terminal when it is energized. Take appropriate steps to ensure touch proofness.

#### 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 60947-7-1:2009-04
	Test passed

#### Pull-out test

Pull-out test	IEC 60947-7-1:2009-04
	Test passed
Conductor cross section / conductor type / tensile force	0.5 mm² / solid / > 20 N
	0.5 mm² / flexible / > 20 N
	16 mm² / solid / > 100 N
	10 mm² / flexible / > 90 N

### Mechanical tests according to standard

Test specification IEC 60947-7-1
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#### Electrical tests

Rated current	57 A
Conductor cross section	10 mm²

Air clearances and creepage distances



#### Technical data

#### Air clearances and creepage distances

Clearances and creepage distances	Metal wall 1.0 mm 2.5 mm IEC 60947-1:2007-06 + A1:2010-12
Application	Metal wall 1.0 mm 2.5 mm
Specification	IEC 60947-1:2007-06 + A1:2010-12
Minimum clearance - inhomogeneous field (III/3)	5.5 mm
Minimum creepage distance value (III/3)	5.5 mm

#### Temperature-rise test

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

#### Current carrying capacity / derating curves

Caption	Type: HDFKV 10
Specification	IEC 60947-7-1:2009-04
Number of positions	5
Reduction factor	1
Note	Representation based on IEC 60512-5-2:2002-02

### Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0
Safety note	WARNING: Only electrically qualified personnel may install and operate the product. They must observe the following safety notes. The qualified personnel must be familiar with the basics of electrical engineering. They must be able to recognize and prevent danger. The relevant symbol on the packaging indicates that only personnel familiar with electrical engineering are allowed to install and operate the product.
	The installation notes/Design In documents online on the download page at phoenixcontact.com/products must be observed for this product.
	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.
	# There is no electrical contact to the housing. Ensure protective grounding is established for green-yellow color versions.

#### Vibration test

Specification	IEC 60068-2-6:2007-12
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

#### Glow-wire test

Specification	IEC 60695-2-11:2014-02



#### Technical data

#### Glow-wire test

Result	Test passed
Temperature	960 °C
Time of exposure	30 s

#### Needle flame test

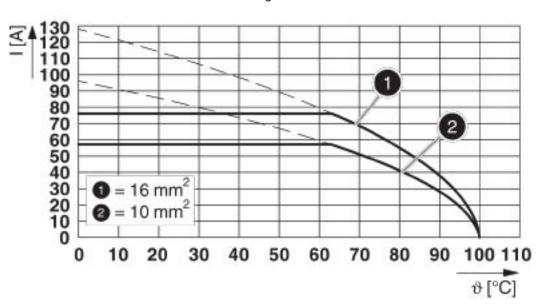
Specification	IEC 60947-7-1:2009-04
Result	Test passed
Time of exposure	30 s

#### **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"

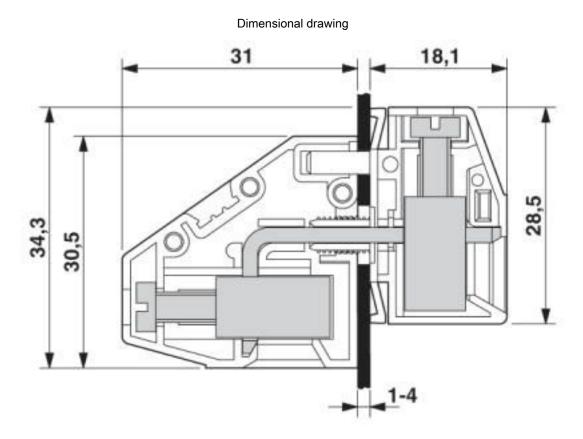
### **Drawings**

#### Diagram

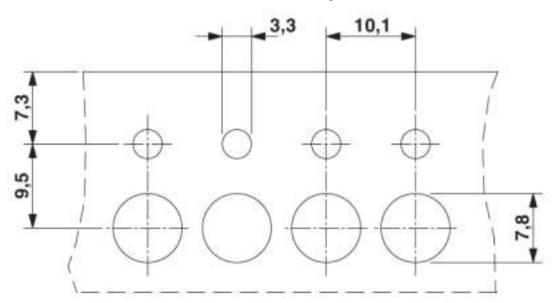


Type: HDFKV 10





#### Dimensional drawing



### Classifications

eCl@ss

eCl@ss 10.0.1	27141134
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#### Classifications

#### eCl@ss

eCl@ss 4.0	27141100
eCl@ss 4.1	27141100
eCl@ss 5.0	27141100
eCl@ss 5.1	27141100
eCl@ss 6.0	27141100
eCl@ss 7.0	27141134
eCl@ss 8.0	27141134
eCl@ss 9.0	27141134

#### **ETIM**

ETIM 2.0	EC001283
ETIM 3.0	EC001283
ETIM 4.0	EC001283
ETIM 5.0	EC001283
ETIM 6.0	EC001283
ETIM 7.0	EC001283

#### **UNSPSC**

UNSPSC 6.01	30211811
UNSPSC 7.0901	39121410
UNSPSC 11	39121410
UNSPSC 12.01	39121410
UNSPSC 13.2	39121410
UNSPSC 18.0	39121410
UNSPSC 19.0	39121410
UNSPSC 20.0	39121410
UNSPSC 21.0	39121410

### **Approvals**

Approvals

Approvals

CSA / EAC / cULus Recognized

Ex Approvals

Approval details



#### Approvals

CSA	<b>(P</b>	http://www.csagroup.org/services-industries/product-listing/ 13631		13631
Nominal voltage UN			300 V	
Nominal current IN			65 A	
mm²/AWG/kcmil			22-6	

EAC	EAC		B.01687
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cULus Recognized http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm E60425-1987091			
	В	С	D
Nominal voltage UN	300 V	150 V	300 V
Nominal current IN	65 A	65 A	10 A
mm²/AWG/kcmil	24-6	24-6	24-6

#### Accessories

Accessories

Insertion bridge

Insertion bridge - EB 2-10 - 0203153



Insertion bridge, pitch: 10 mm, number of positions: 2, color: gray

Insertion bridge - EB 3-10 - 0203328



Insertion bridge, pitch: 10 mm, number of positions: 3, color: gray



#### Accessories

Insertion bridge - EB 10-10 - 0203137



Insertion bridge, pitch: 10 mm, number of positions: 10, color: gray

#### Terminal marking

Zack marker strip - ZB 8:UNBEDRUCKT - 1052002



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snap into tall marker groove, for terminal block width: 8.2 mm, lettering field size: 10.5 x 8.15 mm, Number of individual labels: 10

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