

# VDFK 6 BK - Panel feed-through terminal block



1712418

<https://www.phoenixcontact.com/us/products/1712418>

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Panel feed-through terminal block, connection method: Screw connection with tension sleeve, Solder connection, number of positions: 1, load current: 41 A, cross section: 0.2 mm<sup>2</sup> - 10 mm<sup>2</sup>, connection direction of the conductor to plug-in direction: 0 °, width: 10 mm, color: black

## Your advantages

- Easy fixing using plastic knurled nut or quick mounting wedge
- Touch-proof insulating housing
- Terminal blocks can be grouped
- Spacer plates increase clearances and creepage distances
- Strain relief can be snapped on as an option
- Universal screw connection with screw locking

## Commercial data

Item number	1712418
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	AA28
Product key	AA1BBA
GTIN	4055626298429
Weight per piece (including packing)	7.571 g
Weight per piece (excluding packing)	6.8 g
Customs tariff number	85369010
Country of origin	PL

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## Technical data

### Product properties

Product type	Panel feed-through terminal block
Product family	VDFK 6
Number of positions	1
Pitch	10 mm

### Electrical properties

#### Properties

Nominal current $I_N$	41 A
Nominal voltage $U_N$	500 V
Rated voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV

### Connection data

#### Connection technology

Connector system	VDFK 6
Nominal cross section	6 mm <sup>2</sup>

#### Conductor connection exterior

Connection method	Screw connection with tension sleeve
Connection direction of the conductor to plug-in direction	0 °
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>
2 conductors with same cross section, solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Internal cylindrical gage	A5
Stripping length	9 mm
Tightening torque	1.5 Nm ... 1.8 Nm

#### Conductor connection interior

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

### Mounting

Panel thickness	1 mm...4 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

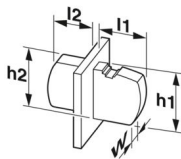
Color (Housing)	black (9005)
Insulating material	PA
Insulating material group	I
CTI according to IEC 60112	600
Flammability rating according to UL 94	V0
Glow wire flammability index GWFI according to EN 60695-2-12	850
Glow wire ignition temperature GWIT according to EN 60695-2-13	775
Temperature for the ball pressure test according to EN 60695-10-2	125 °C

## Notes

### Safety note

Safety note	<ul style="list-style-type: none"><li>• <b>WARNING:</b> 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.</li><li>• The installation notes/Design In documents online on the download page at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> must be observed for this product.</li><li>• 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.</li><li>• To maintain the nominal voltage, cast the terminals on the inside.</li><li>• 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.</li></ul>
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## Dimensions

Dimensional drawing	
Pitch	10 mm

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Width [w]	10 mm
Height [h]	31.5 mm
Length [l]	30.2 mm

## External dimensions

Height [h1]	31.5 mm
Length [l1]	15.5 mm

## Internal dimensions

Length [l2]	10.4 mm
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## 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	0.2 mm <sup>2</sup> / solid / > 10 N
	0.2 mm <sup>2</sup> / flexible / > 10 N
	10 mm <sup>2</sup> / solid / > 90 N
	6 mm <sup>2</sup> / flexible / > 80 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	Internal part molded
Specification	IEC 60947-7-1:2009-04
Insulating material group	I
Comparative tracking index (IEC 60112)	CTI 600
Rated insulation voltage (III/3)	500 V
Rated surge voltage (III/3)	6 kV
minimum clearance value - non-homogenous field (III/3)	5.5 mm
minimum creepage distance (III/3)	6.3 mm

## Environmental and real-life conditions

### Vibration test

Specification	IEC 60068-2-6:2007-12
Frequency	10 - 150 - 10 Hz

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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 (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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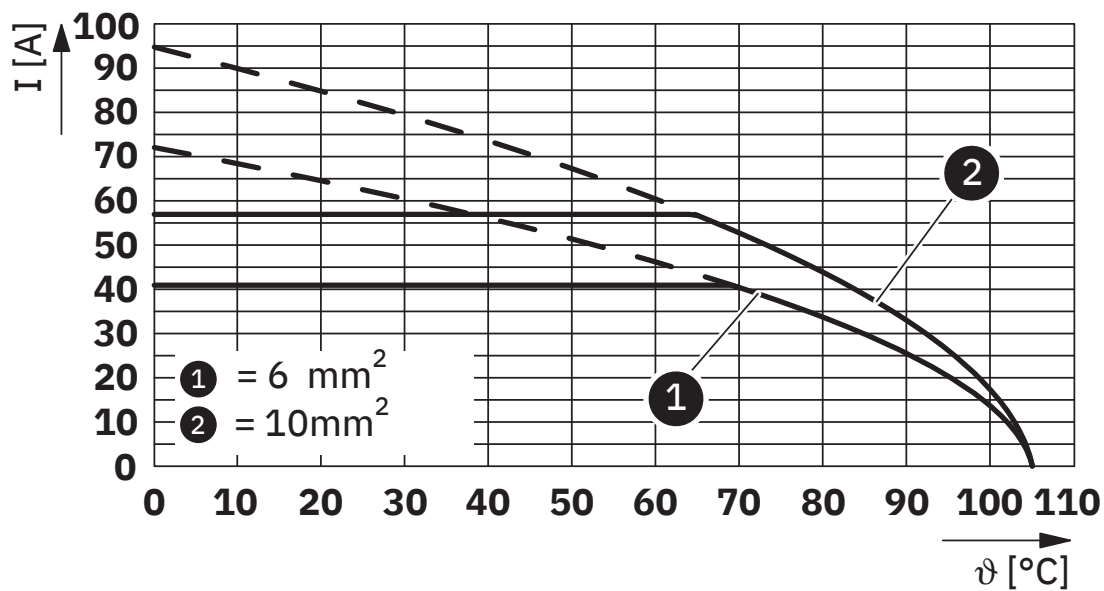


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## Drawings

Diagram



Type: VDFK 6

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1712418>

 <b>CSA</b> Approval ID: 13631				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B				
	300 V	50 A	26 - 8	-
C				
	150 V	50 A	26 - 8	-
D				
	300 V	10 A	26 - 8	-

 <b>cULus Recognized</b> Approval ID: E60425-19770427				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
B				
	300 V	50 A	26 - 8	-
C				
	150 V	50 A	26 - 8	-
D				
	300 V	10 A	26 - 8	-

 <b>KEMA-KEUR</b> Approval ID: 2169260.01				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
keine				
	500 V	41 A	-	- 6

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## Classifications

### ECLASS

ECLASS-13.0	27141134
ECLASS-15.0	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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### EF3.0 Climate Change

CO2e kg	0.089 kg CO2e
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