

## Contact insert - VC-TFS 7-PEA - 1607481

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)


Contact insert with integrated sleeve frame, type VC 4, 6-pos. + PE, 690 V / 70 A



### Your advantages

- Compact design
- Universal connection
- Proven COMBICON technology
- Can be keyed to prevent incorrect connection

### Key Commercial Data

Packing unit	5 pc
GTIN	 4 017918 969134
GTIN	4017918969134

### Technical data

#### General

Note	Connectors may only be connected/disconnected when under no load.
Connection technology	Screw connection
Connection method	Screw connection
Tightening torque	1.2 Nm ... 1.8 Nm
Degree of pollution	3
Number of positions	6+PE
Insertion/withdrawal cycles	≥ 50
Size	VC4
Conductor cross section AWG min.	20
Conductor cross section AWG max.	6
2 conductors with same cross section, solid min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, solid max.	6 mm <sup>2</sup>

# Contact insert - VC-TFS 7-PEA - 1607481

## Technical data

### General

2 conductors with same cross section, stranded min.	0.5 mm <sup>2</sup>
2 conductors with same cross section, stranded max.	4 mm <sup>2</sup>
Conductor cross section	0.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
Connection cross section AWG	20 ... 6
Stripping length of the individual wire	14 mm

### Ambient conditions

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

### Material data

Housing material	PA
Contact material	CuZn
Contact surface material	hard-silver plated
Contact carrier material	PA

### Electrical characteristics

Rated voltage (III/3)	690 V
Rated surge voltage	6 kV
	6 kV
Rated current	70 A
	70 A

### Standards and Regulations

Connection in acc. with standard	CUL
Flammability rating according to UL 94	V0
Safety note	WARNING: The connectors may not be plugged in or disconnected under load. Ignoring the warning or improper use may damage persons and/or property.
	<ul style="list-style-type: none"> <li>• WARNING: Commission properly functioning products only. The products must be regularly inspected for damage. Decommission defective products immediately. Replace damaged products. Repairs are not possible.</li> </ul>
	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
	<ul style="list-style-type: none"> <li>• The products are suitable for applications in plant, controller, and electrical device engineering.</li> </ul>
	<ul style="list-style-type: none"> <li>• When operating the connectors in outdoor applications, they must be separately protected against environmental influences.</li> </ul>
	<ul style="list-style-type: none"> <li>• Assembled products may not be manipulated or improperly opened.</li> </ul>
	<ul style="list-style-type: none"> <li>• Only use mating connectors that are specified in the technical data of the standards listed (e.g. the ones listed in the product accessories online at phoenixcontact.com/products).</li> </ul>
	<ul style="list-style-type: none"> <li>• When using the product in direct connection with third-party manufacturers, the user is responsible.</li> </ul>

# Contact insert - VC-TFS 7-PEA - 1607481

## Technical data

### Standards and Regulations

	<ul style="list-style-type: none"> <li>• For operating voltages &gt; 50 V AC, conductive connector housings must be grounded</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure that the protective or functional ground has been properly connected.</li> </ul>
	<ul style="list-style-type: none"> <li>• VDE 0100/1.97 § 411.1.3.2 and DIN EN 60 204/11.98 § 14.1.3 are applicable when combining several circuits in a cable and/or connector</li> </ul>
	<ul style="list-style-type: none"> <li>• Observe the corresponding technical data. You will find information:                             <ul style="list-style-type: none"> <li>o On the product</li> <li>o On the packing label</li> <li>o In the supplied documentation</li> <li>o Online at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a> under the product</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>• Only use tools recommended by Phoenix Contact</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>
	<ul style="list-style-type: none"> <li>• Use a protective cap to protect connectors that are not in use. The suitable accessories are available online in the accessory section of the product at <a href="https://www.phoenixcontact.com/products">phoenixcontact.com/products</a></li> </ul>
	<ul style="list-style-type: none"> <li>• Operate the connector only when it is fully plugged in.</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure that when laying the cable, the tensile load on the connectors does not exceed the upper limit specified in the standards.</li> </ul>
	<ul style="list-style-type: none"> <li>• Observe the minimum bending radius of the cable. Lay the cable without twisting it.</li> </ul>

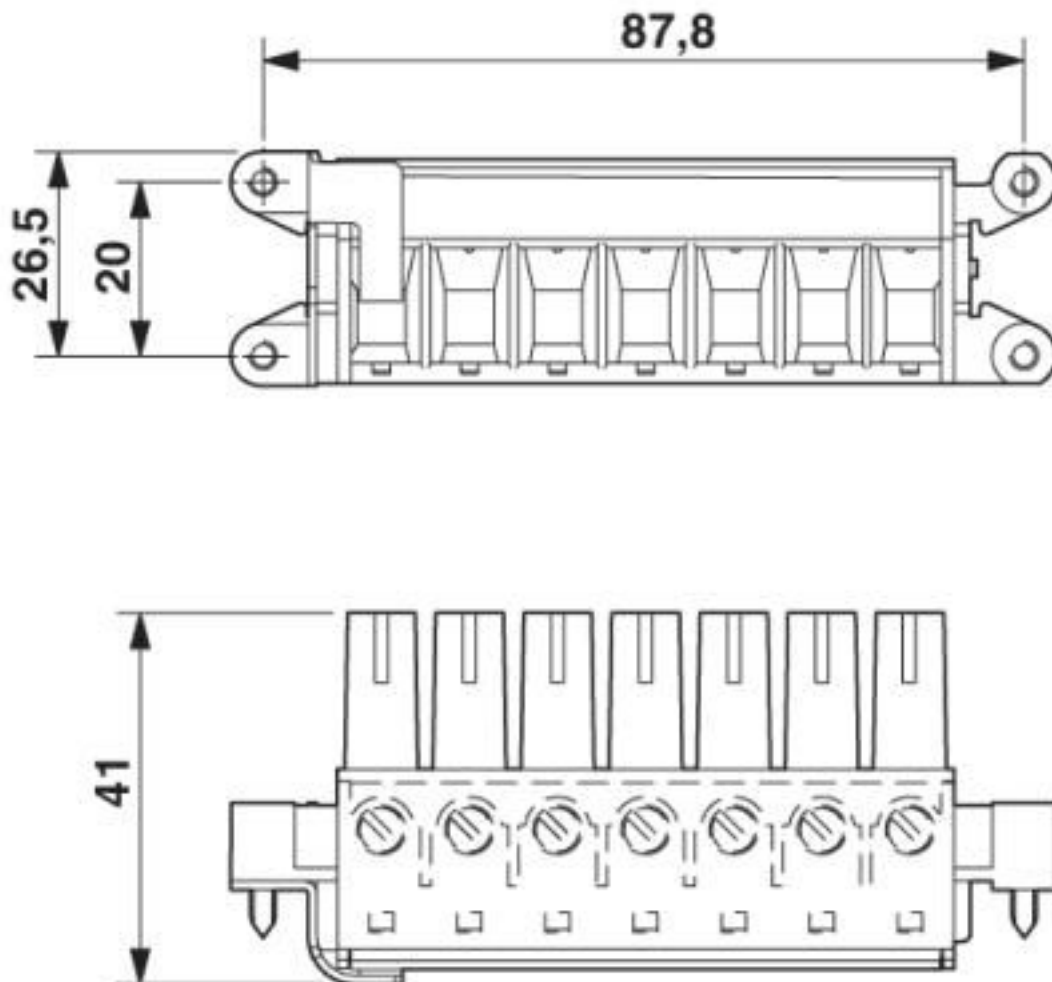
### Environmental Product Compliance

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

## Contact insert - VC-TFS 7-PEA - 1607481

Dimensional drawing



### Classifications

#### eCl@ss

eCl@ss 10.0.1	27440205
eCl@ss 4.0	27140800
eCl@ss 4.1	27140800
eCl@ss 5.0	27143400
eCl@ss 5.1	27261200
eCl@ss 6.0	27261200
eCl@ss 7.0	27440205
eCl@ss 8.0	27440205
eCl@ss 9.0	27440205

#### ETIM

ETIM 2.0	EC000438
----------	----------

# Contact insert - VC-TFS 7-PEA - 1607481

## Classifications

### ETIM

ETIM 3.0	EC000438
ETIM 4.0	EC000438
ETIM 5.0	EC000438
ETIM 6.0	EC000438
ETIM 7.0	EC000438

### UNSPSC

UNSPSC 6.01	30211923
UNSPSC 7.0901	39121522
UNSPSC 11	39121522
UNSPSC 12.01	39121522
UNSPSC 13.2	39121522
UNSPSC 18.0	39121522
UNSPSC 19.0	39121522
UNSPSC 20.0	39121522
UNSPSC 21.0	39121522

## Approvals


### Approvals

#### Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized


#### Ex Approvals

### Approval details


UL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 118976
Nominal voltage UN	600 V		
Nominal current IN	55 A		
mm <sup>2</sup> /AWG/kcmil	20-6		


# Contact insert - VC-TFS 7-PEA - 1607481

## Approvals

cUL Recognized		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 118976
----------------	---	---	---------------

Nominal voltage UN	600 V
Nominal current IN	45 A
mm <sup>2</sup> /AWG/kcmil	20-6

EAC		B.01687
-----	---	---------

cULus Recognized	
------------------	---

Phoenix Contact 2020 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Heavy Duty Power Connectors](#) category:*

*Click to view products by [Phoenix Contact](#) manufacturer:*

Other Similar products are found below :

[647757-1](#) [6643411-1](#) [6646058-2](#) [6646137-1](#) [6646138-1](#) [6646479-1](#) [6646608-1](#) [6646786-1](#) [6646940-1](#) [6651091-1](#) [6651525-1](#) [6651529-1](#)  
[6651788-1](#) [696475-1](#) [702-32-01109](#) [703-25-02205](#) [73000005059](#) [73000005642](#) [765-15-0080A](#) [765-16-0080B](#) [765-18-0080D](#) [829992-1](#)  
[902-77-02113](#) [PS00/A0620/6300](#) [129-1J](#) [1409400](#) [AN0024023](#) [E6374G1](#) [e6389g2](#) [157-43GW8](#) [MS3117-14AC](#) [1643543-1](#) [1650540-1](#)  
[1651811-2](#) [1766260-1](#) [1766282-1](#) [1766966-1](#) [1791340000](#) [NLDFT-3-BL-L-S120-M40A](#) [NLDFT-N-W-L-C240-M40B](#) [NLS-2-R-C240-](#)  
[M40B](#) [NLS-N-W-C240-M40B](#) [NPS-3-BL-T6](#) [1986615-1](#) [2-1589900-8](#) [2199314-1](#) [KA8102](#) [9300480317](#) [SBS50BRN#6](#) [29131](#)