

1717205

https://www.phoenixcontact.com/us/products/1717205

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 documentation. Our general terms of use for downloads are valid.



Printed circuit board terminal, nominal current: 12 A, rated voltage (III/2): 400 V, nominal cross section: 1.5 mm², number of potentials: 5, number of rows: 1, number of positions per row: 5, product range: SMKDSNF 1,5, pitch: 5.08 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: Wave soldering, conductor/PCB connection direction: 325 °, color: light gray, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard

Your advantages

- · Well-known connection principle allows worldwide use
- · Low temperature rise, thanks to maximum contact force
- · Allows connection of two conductors
- · Extremely small design for the respective conductor cross-section

Commercial data

Item number	1717205
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Product key	AALFHJ
GTIN	4055626461113
Weight per piece (including packing)	6.289 g
Weight per piece (excluding packing)	5.831 g
Country of origin	DE



1717205

https://www.phoenixcontact.com/us/products/1717205

Technical data

Product properties

Product type	Printed circuit board terminal
Product family	SMKDSNF 1,5
Product line	COMBICON Terminals S
Number of positions	5
Pitch	5.08 mm
Number of connections	5
Number of rows	1
Number of potentials	5
Pin layout	Linear pinning
Solder pins per potential	1

Electrical properties

Properties

Nominal current I _N	12 A
Nominal voltage U _N	400 V
Rated voltage (III/3)	250 V
Rated surge voltage (III/3)	4 kV
Rated voltage (III/2)	400 V
Rated surge voltage (III/2)	4 kV
Rated voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV

Connection data

Connection technology

Туре	PC termination block
Nominal cross section	1.5 mm²

Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross-section rigid	0.14 mm² 1.5 mm²
Conductor cross-section flexible	0.14 mm² 1.5 mm²
Conductor cross-section AWG	26 16
Conductor cross-section flexible, with ferrule without plastic sleeve	0.25 mm ² 1.5 mm ²
Conductor cross-section, flexible, with ferrule, with plastic sleeve	0.25 mm² 1.5 mm²
2 conductors with same cross section, solid	0.14 mm² 0.75 mm²
2 conductors with same cross section, flexible	0.14 mm² 0.75 mm²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.25 mm² 0.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² 1 mm²



1717205

https://www.phoenixcontact.com/us/products/1717205

Stripping length	8 mm
Drive form screw head	Slotted (L)
Tightening torque	0.5 Nm 0.6 Nm
Mounting	
Mounting type	Wave soldering

Linear pinning

Material specifications

Pin layout

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
Metal surface terminal point (top layer)	Tin (5 - 7 μm Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 µm Ni)
Metal surface soldering area (top layer)	Tin (5 - 7 μm Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 µm Ni)

Material data - housing

Color (Housing)	light gray (7035)
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

Note on application	For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing).
---------------------	--

Dimensions

Dimensional drawing	h h
Pitch	5.08 mm



1717205

https://www.phoenixcontact.com/us/products/1717205

Width [w] 26.4 mm Height [th] 15.5 mm Length [th] 16 mm Installed height 12 mm Solder pin length [P] 3.5 mm Pin dimensions 0.5 x 1 mm PCB design Hole diameter Hole diameter 1.3 mm Mechanical tests IEC 60099-1:1990-05 Test for conductor damage and slackening Specification IEC 60099-1:1990-05 Result Test passed Pull-out test Specification Conductor cross-section/loadulator type/tractive force Specification Let colspan="2">Let mm² / solid /> > N 1.5 mm² / solid /> > 10 N 1.5 mm² / flexible /> > 7 N 1.5 mm² / flexible /> > 40 N Torque test Specification IEC 60099-1:1990-05 Electrical tests Temperature-rise test Specification IEC 60099-1:1990-05 Increase		
Length	Width [w]	26.4 mm
Installed height 12 mm Solder pin length [P] 3.5 mm 0.5 x 1	Height [h]	15.5 mm
Solder pin length [P] 3.5 mm 0.5 x 1 m	Length [l]	16 mm
Pin dimensions 0.5 x 1 mm PCB design 1.3 mm Hole diameter 1.3 mm Mechanical tests Test for conductor damage and slackening Specification IEC 60999-1:1990-05 Result Test passed Pull-out test Specification IEC 60999-1:1990-05 Conductor cross-section/conductor type/fractive force setpoin/bactual value 0.14 mm² / solid / > 7 N Conductor cross-section/conductor type/fractive force setpoin/bactual value 0.14 mm² / flexible / > 7 N 1.5 mm² / solid / > 40 N 1.5 mm² / solid / > 40 N 1.5 mm² / flexible / > 40 N 1.5 mm² / flexible / > 40 N Torque test Specification IEC 60999-1:1990-05 Electrical tests Temperature-rise test Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance IEC 60912-2:1985-00 Insulation resistance, neighboring positions 10° Ω Air clearances and creepage distances IEC 60664-1:2007-04 Insulation material group I Comparat	Installed height	12 mm
PCB design Hole diameter ### Mechanical tests Test for conductor damage and slackening	Solder pin length [P]	3.5 mm
Hole diameter	Pin dimensions	0.5 x 1 mm
Test for conductor damage and slackening IEC 60999-1:1990-05	PCB design	
Test for conductor damage and slackening IEC 60999-1:1990-05 Result Test passed	Hole diameter	1.3 mm
Specification IEC 60999-1:1990-05	Mechanical tests	
Pull-out test Pull-out test Specification IEC 60999-1:1990-05 Conductor cross-section/conductor type/tractive force setpoint/actual value 0.14 mm² / sloiid /> 7 N 0.14 mm² / flexible /> 7 N 1.5 mm² / flexible /> 40 N 1.5 mm² / flexible /> 40 N 1.5 mm² / flexible /> 40 N Torque test Specification IEC 60999-1:1990-05 Electrical tests Temperature-rise test Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance, neighboring positions Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10¹² Ω Air clearances and creepage distances Specification IEC 60664-1:2007-04 Insulation material group I Comparative tracking index (IEC 60112) CTI 600 Rated insulation voltage (III/2) 4 kV minimum clearance value - non-homogenous field	Test for conductor damage and slackening	
Pull-out test Specification Conductor cross-section/conductor type/tractive force setpoint/actual value 20.14 mm² / solid / > 7 N 1.5 mm² / flexible / > 7 N 1.5 mm² / flexible / > 40 N 1.5 mm² / flexible / > 40 N 1.5 mm² / flexible / > 40 N Torque test Specification IEC 60999-1:1990-05 Electrical tests Temperature-rise test Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10¹² Ω Air clearances and creepage distances Specification IEC 60684-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) minimum clearance value - non-homogenous field (III/3) Rated insulation voltage (III/2) Rated insulation voltage (III/2) Rated insulation voltage (III/2) Rated insulation voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) Rated insulation voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2)	Specification	IEC 60999-1:1990-05
Specification IEC 60999-1:1990-05	Result	Test passed
Conductor cross-section/conductor type/tractive force setpoint/actual value 0.14 mm² / solid / > 7 N 0.14 mm² / flexible / > 7 N 1.5 mm² / solid / > 40 N 1.5 mm² / flexible / > 7 N 1.5 mm² / flexible / > 7 N 1.5 mm² / flexible / > 7 N 1.5 mm² / flexible / > 4 N 1.5 mm² / flexible / > 4 N 1.5 mm² / flexible / > 4 N 1.5 mm² / flexible / > 7 N 1.5 mm² / flexible / > 1.5 mm² / flexible / > 4 N 1.5 mm² / flexible / > 1.5 mm² / flexible / * 1.5 mm² / flex	Pull-out test	
0.14 mm² / flexible / > 7 N 1.5 mm² / solid / > 40 N 1.5 mm² / flexible / > 7 N 1.5 mm² / solid / > 40 N 1.5 mm² / flexible / > 7 N 1.5 mm² / solid / > 40 N 1.5 mm² / flexible / > 7 N 1.5 mm² / flexible / > 7 N 1.5 mm² / flexible / > 40 N 1.5 mm² / flexible / 20 N 1.5 mm² / 20 N	Specification	IEC 60999-1:1990-05
1.5 mm² / solid / > 40 N 1.5 mm² / flexible / > 40 N 1.5 mm² / flexible / > 40 N Torque test Specification IEC 60999-1:1990-05 Electrical tests Temperature-rise test Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10 ¹² Ω Air clearances and creepage distances Specification IEC 60664-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) CTI 600 Rated insulation voltage (III/3) 4 kV minimum creepage distance value - non-homogenous field (III/3) 3.2 mm Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV		0.14 mm² / solid / > 7 N
1.5 mm² / flexible / > 40 N Torque test Specification IEC 60999-1:1990-05 Electrical tests Temperature-rise test Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 101² Ω Air clearances and creepage distances Specification IEC 60684-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) CTI 600 Rated insulation voltage (III/3) 4 kV minimum clearance value - non-homogenous field (III/3) 3.2 mm Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	setpoint/actual value	0.14 mm² / flexible / > 7 N
Torque test Specification IEC 60999-1:1990-05 Electrical tests Temperature-rise test Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10 ¹² Ω Air clearances and creepage distances Specification IEC 60664-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) CTI 600 Rated insulation voltage (III/3) 250 V Rated surge voltage (III/3) 3 mm minimum creepage distance (III/3) 3.2 mm Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV		1.5 mm² / solid / > 40 N
Electrical tests Temperature-rise test Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions IEC 60512-2:1985-00 Insulation resistance, neighboring positions Air clearances and creepage distances Specification IEC 60664-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) CTI 600 Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2)		1.5 mm² / flexible / > 40 N
Electrical tests Temperature-rise test Specification Requirement temperature-rise test Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification Insulation resistance Specification Insulation resistance, neighboring positions Air clearances and creepage distances Specification IEC 60664-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) Cat 1600 Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2)	Torque test	
Temperature-rise test Specification Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance Specification Insulation resistance, neighboring positions IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10 ¹² Ω Air clearances and creepage distances Specification IEC 60664-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) CTI 600 Rated insulation voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) Rated surge voltage (III/2) 4 kV	Specification	IEC 60999-1:1990-05
Specification IEC 60999-1:1990-05 Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance IEC 60512-2:1985-00 Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10 ¹² Ω Air clearances and creepage distances IEC 60664-1:2007-04 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 Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	Electrical tests	
Requirement temperature-rise test Increase in temperature ≤ 45 K Insulation resistance IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10¹² Ω Air clearances and creepage distances Specification 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) 3.2 mm Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	Temperature-rise test	
Insulation resistance Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10 ¹² Ω Air clearances and creepage distances Specification IEC 60664-1:2007-04 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) 3.2 mm minimum creepage distance (III/3) 3.2 mm Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	Specification	IEC 60999-1:1990-05
Specification IEC 60512-2:1985-00 Insulation resistance, neighboring positions 10 ¹² Ω Air clearances and creepage distances IEC 60664-1:2007-04 Specification IEC 60664-1:2007-04 Insulating material group I Comparative tracking index (IEC 60112) CTI 600 Rated insulation voltage (III/3) 250 V Rated surge voltage (III/3) 3 mm minimum creepage distance (III/3) 3.2 mm Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	Requirement temperature-rise test	Increase in temperature ≤ 45 K
Insulation resistance, neighboring positions Air clearances and creepage distances Specification IEC 60664-1:2007-04 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 Rated insulation voltage (III/2) 4 kV Rated surge voltage (III/2) 4 kV	Insulation resistance	
Air clearances and creepage distances Specification IEC 60664-1:2007-04 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 Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	Specification	IEC 60512-2:1985-00
Specification IEC 60664-1:2007-04 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 Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	Insulation resistance, neighboring positions	10 ¹² Ω
Specification IEC 60664-1:2007-04 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 Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV	Air clearances and creenage distances I	
Insulating material group Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) A kV minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) A kV		IEC 60664-1:2007-04
Comparative tracking index (IEC 60112) Rated insulation voltage (III/3) Rated surge voltage (III/3) Rated surge voltage (III/3) minimum clearance value - non-homogenous field (III/3) minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV		
Rated insulation voltage (III/3) Rated surge voltage (III/3) Minimum clearance value - non-homogenous field (III/3) Minimum creepage distance (III/3) Rated insulation voltage (III/2) Rated surge voltage (III/2) 4 kV		
Rated surge voltage (III/3) 4 kV minimum clearance value - non-homogenous field (III/3) 3 mm minimum creepage distance (III/3) Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV		
minimum clearance value - non-homogenous field (III/3) 3 mm minimum creepage distance (III/3) 3.2 mm Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV		
Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV		3 mm
Rated insulation voltage (III/2) 400 V Rated surge voltage (III/2) 4 kV		3.2 mm
	Rated insulation voltage (III/2)	400 V
minimum clearance value - non-homogenous field (III/2) 3 mm	Rated surge voltage (III/2)	4 kV
	minimum clearance value - non-homogenous field (III/2)	3 mm



1717205

https://www.phoenixcontact.com/us/products/1717205

minimum creepage distance (III/2)	2 mm
Rated insulation voltage (II/2)	630 V
Rated surge voltage (II/2)	4 kV
minimum clearance value - non-homogenous field (II/2)	3 mm
minimum creepage distance (II/2)	3.2 mm

Environmental and real-life conditions

Vibration test

Specification	IEC 60068-2-6:1982 + AMD 2:1985
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

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



1717205

https://www.phoenixcontact.com/us/products/1717205

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/1717205

	CULus Recognized Approval ID: E60425-19770427			
	Nominal voltage U_N	Nominal current I _N	Cross section AWG	Cross section mm ²
В				
Screw connection	300 V	10 A	30 - 14	-
2 conductors with the same cross-section	300 V	10 A	- 18	-
D				
Screw connection	300 V	10 A	30 - 14	-
2 conductors with the same cross-section	300 V	10 A	- 18	-

	VDE approval of drawings Approval ID: 40055535				
		Nominal voltage U _N	Nominal current I _N	Cross section AWG	Cross section mm ²
keine					
		400 V	13.5 A	-	0.2 - 1.5



1717205

https://www.phoenixcontact.com/us/products/1717205

Classifications

ECLASS

	ECLASS-13.0	27460101	
	ECLASS-15.0	27460101	
ETIM			
	ETIM 9.0	EC002643	
UNSPSC			
	UNSPSC 21.0	39121400	



1717205

https://www.phoenixcontact.com/us/products/1717205

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions	
China DallO		
China RoHS		
Environment friendly use period (EFUP)	EFUP-E	
	No hazardous substances above the limits	
EU REACH SVHC		
ESTREMON SYNO		
REACH candidate substance (CAS No.)	No substance above 0.1 wt%	
EF3.0 Climate Change		
CO2e kg	0.06 kg CO2e	

Phoenix Contact 2025 @ - all rights reserved https://www.phoenixcontact.com

Phoenix Contact USA 586 Fulling Mill Road Middletown, PA 17057, United States (+717) 944-1300 info@phoenixcon.com