

Knife disconnect terminal block - PT 2,5-TWIN-MT - 3210169

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>)



Knife disconnect terminal block, nom. voltage: 400 V, nominal current: 20 A, connection method: Push-in connection, cross section: 0.14 mm² - 4 mm², AWG: 22 - 12, length: 74 mm, width: 5.2 mm, color: gray, mounting: NS 35/7,5, NS 35/15

Your advantages

- ✓ The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors
- ✓ The compact design and front connection enable wiring in a confined space
- ✓ In addition to the testing facility in the double function shaft, all terminal blocks provide an additional test connection



Key Commercial Data

Packing unit	50 pc
GTIN	
GTIN	4046356333603

Technical data

General

Number of levels	1
Number of connections	3
Potentials	1
Nominal cross section	2.5 mm ²
Color	gray
Insulating material	PA
Flammability rating according to UL 94	V0
Rated surge voltage	6 kV
Degree of pollution	3
Overvoltage category	III
Insulating material group	I
Maximum power dissipation for nominal condition	0.77 W
Designation	Level 1 above 1+2 below 1

Knife disconnect terminal block - PT 2,5-TWIN-MT - 3210169

Technical data

General

Maximum load current	20 A ()
Nominal current I_N	20 A
Nominal voltage U_N	400 V
Open side panel	Yes
Shock protection test specification	DIN EN 50274 (VDE 0660-514):2002-11
Back of the hand protection	guaranteed
Finger protection	guaranteed
Result of surge voltage test	Test passed
Surge voltage test setpoint	7.3 kV
Result of power-frequency withstand voltage test	Test passed
Power frequency withstand voltage setpoint	1.89 kV
Result of the test for mechanical stability of terminal points (5 x conductor connection)	Test passed
Result of bending test	Test passed
Bending test rotation speed	10 rpm
Bending test turns	135
Bending test conductor cross section/weight	0.14 mm ² / 0.2 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Tensile test result	Test passed
Conductor cross section tensile test	0.14 mm ²
Tractive force setpoint	10 N
Conductor cross section tensile test	2.5 mm ²
Tractive force setpoint	50 N
Conductor cross section tensile test	4 mm ²
Tractive force setpoint	60 N
Result of tight fit on support	Test passed
Tight fit on carrier	NS 35
Setpoint	1 N
Result of voltage-drop test	Test passed
Result of temperature-rise test	Test passed
Short circuit stability result	Test passed
Conductor cross section short circuit testing	1.5 mm ²
Short-time current	0.18 kA
Conductor cross section short circuit testing	2.5 mm ²
Short-time current	0.3 kA
Result of thermal test	Test passed
Ageing test for screwless modular terminal block temperature cycles	192
Proof of thermal characteristics (needle flame) effective duration	30 s
Result of aging test	Test passed
Oscillation, broadband noise test result	Test passed

Knife disconnect terminal block - PT 2,5-TWIN-MT - 3210169

Technical data

General

Test specification, oscillation, broadband noise	DIN EN 50155 (VDE 0115-200):2018-05
Test spectrum	Service life test category 2, bogie-mounted
Test frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
Acceleration	3.12 g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Shock test result	Test passed
Test specification, shock test	DIN EN 50155 (VDE 0115-200):2018-05
Shock form	Half-sine
Acceleration	30g
Shock duration	18 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	125 °C
Static insulating material application in cold	-60 °C
Behavior in fire for rail vehicles (DIN 5510-2)	Test passed
Flame test method (DIN EN 60695-11-10)	V0
Oxygen index (DIN EN ISO 4589-2)	>32 %
NF F16-101, NF F10-102 Class I	2
NF F16-101, NF F10-102 Class F	2
Surface flammability NFPA 130 (ASTM E 162)	passed
Specific optical density of smoke NFPA 130 (ASTM E 662)	passed
Smoke gas toxicity NFPA 130 (SMP 800C)	passed
Calorimetric heat release NFPA 130 (ASTM E 1354)	27,5 MJ/kg
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Length	74 mm
Height NS 35/7,5	36.5 mm
Height NS 35/15	44 mm

Connection data

Connection	1 level
Connection method	Push-in connection

Knife disconnect terminal block - PT 2,5-TWIN-MT - 3210169

Technical data

Connection data

Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	4 mm ²
Conductor cross section AWG min.	22
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	4 mm ²
Min. AWG conductor cross section, flexible	22
Max. AWG conductor cross section, flexible	12
Conductor cross section flexible, with ferrule without plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule without plastic sleeve max.	2.5 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve min.	0.14 mm ²
Conductor cross section flexible, with ferrule with plastic sleeve max.	2.5 mm ²
2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max.	0.5 mm ²
Internal cylindrical gage	A3

Standards and Regulations

Connection in acc. with standard	CSA
	IEC 60947-7-1
Flammability rating according to UL 94	V0
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 3
Fire protection for rail vehicles (DIN EN 45545-2) R26	HL 1 - HL 3

Environmental Product Compliance

China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

Drawings

Circuit diagram



Knife disconnect terminal block - PT 2,5-TWIN-MT - 3210169

Approvals

Approvals

Approvals

DNV GL / CSA / BV / LR / NK / ABS / UL Recognized / cUL Recognized / IECCEB Scheme / VDE Gutachten mit Fertigungsüberwachung / EAC / RS / cULus Recognized

Ex Approvals

Approval details

DNV GL		https://approvalfinder.dnvgl.com/	TAE00003JE
--------	--	---	------------

CSA		http://www.csagroup.org/services-industries/product-listing/	13631
	B	C	D
Nominal voltage UN	300 V	300 V	600 V
Nominal current IN	20 A	20 A	5 A
mm²/AWG/kcmil	26-12	26-12	26-12

BV		http://www.veristar.com/portal/veristarinfo/generalinfo/approved/approvedProducts/equipmentAndMaterials	25278/B0 BV
----	--	---	-------------

LR		http://www.lr.org/en	14/20056
----	--	---	----------

NK		http://www.classnk.or.jp/hp/en/	14ME0912
----	--	---	----------

ABS		http://www.eagle.org/eagleExternalPortalWEB/	16-HG1591536-PDA
-----	--	---	------------------

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	D
Nominal voltage UN	300 V	300 V	600 V

Knife disconnect terminal block - PT 2,5-TWIN-MT - 3210169

Approvals

	B	C	D
Nominal current IN	20 A	20 A	5 A
mm ² /AWG/kcmil	26-12	26-12	26-12

cUL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 60425
	B	C	D
Nominal voltage UN	300 V	300 V	600 V
Nominal current IN	20 A	20 A	5 A
mm ² /AWG/kcmil	26-12	26-12	26-12

IECEE CB Scheme		http://www.iecee.org/	DE1-61293
Nominal voltage UN	400 V		
mm ² /AWG/kcmil	2.5		

VDE Gutachten mit Fertigungsüberwachung		http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx	40036792
Nominal voltage UN	400 V		
Nominal current IN	20 A		
mm ² /AWG/kcmil	0.2-2.5		

EAC			RU C-DE.AI30.B.01102
-----	--	--	----------------------

RS		http://www.rs-head.spb.ru/en/index.php	17.00013.272
----	--	---	--------------

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

Phoenix Contact 2019 © - all rights reserved
<http://www.phoenixcontact.com>

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