

QTCU 2,5-TWIN-MT - Knife-disconnect terminal block



3050304

<https://www.phoenixcontact.com/sg/products/3050304>

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Knife-disconnect terminal block, nom. voltage: 400 V, nominal current: 20 A, connection method: Quick connection, Rated cross section: 2.5 mm², cross section: 0.5 mm² - 2.5 mm², connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 6 mm², mounting: NS 35/7,5, NS 35/15, color: gray

Your advantages

- The hybrid versions combine the advantages of the different connection technologies
- The time-saving QUICKON fast connection is used on the control cabinet side
- The screw connection is used on the connection side

Commercial data

Item number	3050304
Packing unit	50 pc
Minimum order quantity	50 pc
Note	Made to order (non-returnable)
Sales key	*****
Product key	BE3119
Catalog page	Page 265 (C-1-2019)
GTIN	4046356837064
Weight per piece (including packing)	15.35 g
Weight per piece (excluding packing)	14 g
Customs tariff number	85369010
Country of origin	CN

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Technical data

Product properties

Product type	Disconnect terminal block
Number of connections	3
Number of rows	1
Potentials	1

Data management status

Article revision	03
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	3
Frequency of connections with the same cross section	100
Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Material wire insulation	PVC / PE
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.5 mm ² ... 2.5 mm ²
Cross section AWG	20 ... 14 (converted acc. to IEC)
Conductor cross section flexible	0.5 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	20 ... 14 (converted acc. to IEC)
Nominal current	20 A
Maximum load current	20 A (with a 2.5 mm ² conductor cross section)
Nominal voltage	400 V
Nominal cross section	2.5 mm ²
Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Stripping length	9 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm ² ... 6 mm ²
Cross section AWG	26 ... 10 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm ² ... 4 mm ²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 4 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 4 mm ²
2 conductors with same cross section, solid	0.14 mm ² ... 1.5 mm ²

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2 conductors with same cross section, flexible	0.14 mm ² ... 1.5 mm ²
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	0.14 mm ² ... 1.5 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 2.5 mm ²
Nominal current	20 A
Maximum load current	20 A (with 2.5 mm ² conductor connection cross section)
Nominal voltage	400 V
Nominal cross section	2.5 mm ²

Dimensions

Width	6.2 mm
End cover width	2.2 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Relative insulation material temperature index (Elec., UL 746 B)	130 °C
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
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

Electrical tests

Surge voltage test

Test voltage setpoint	6 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

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Mechanical data

Open side panel	Yes
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	4 mm ² / 0.9 kg
	6 mm ² / 1.4 kg
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	0.5 mm ² / 0.3 kg
	2.5 mm ² / 0.7 kg
Result	Test passed

Environmental and real-life conditions

Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	1.857 (m/s ²)/Hz
Acceleration	0.8g
Test duration per axis	5 h
Test directions	X-, Y- and Z-axis
Result	Test passed

Shocks

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Pulse shape	Half-sine
Acceleration	5g

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Shock duration	30 ms
Number of shocks per direction	3
Test directions	X-, Y- and Z-axis (pos. and neg.)
Result	Test passed

Ambient conditions

Ambient temperature (operation)	-60 °C ... 105 °C (max. short-term operating temperature RTI Elec.)
Ambient temperature (storage/transport)	-25 °C ... 60 °C (for a short time, not exceeding 24 h, -60 °C to +70 °C)
Ambient temperature (assembly)	-5 °C ... 70 °C
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

Connection in acc. with standard	IEC 60947-7-1
	IEC 60947-7-1

Mounting

Mounting type	NS 35/7,5
	NS 35/15

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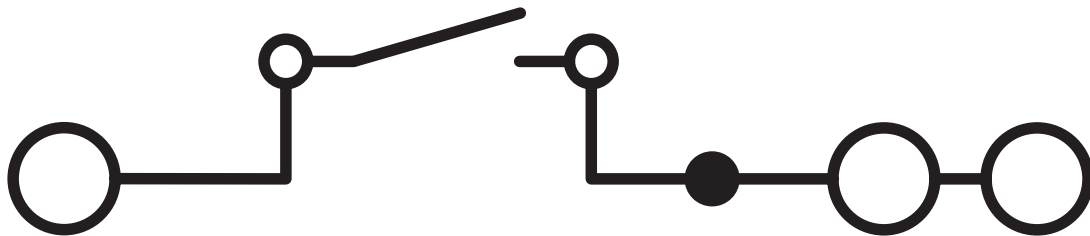


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Drawings

Circuit diagram



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Classifications

ECLASS

ECLASS-11.0

27141126

ETIM

ETIM 8.0

EC000902

UNSPSC

UNSPSC 21.0

39121400

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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	9c8c4e6b-6b89-42e6-8754-be793f63aac4

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