

STU 2,5-TWIN BU - Feed-through terminal block



3033029

<https://www.phoenixcontact.com/us/products/3033029>

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Feed-through terminal block, nom. voltage: 800 V, nominal current: 24 A, connection method: Spring-cage connection, Rated cross section: 2.5 mm², cross section: 0.08 mm² - 4 mm², connection method: Screw connection, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 4 mm², mounting: NS 35/7,5, NS 35/15, color: blue

Your advantages

- Compact design

Commercial data

Item number	3033029
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE02
Product key	BE2119
Catalog page	Page 220 (C-1-2019)
GTIN	4017918960674
Weight per piece (including packing)	9.432 g
Weight per piece (excluding packing)	9.522 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Product properties

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

Data management status

Article revision	05
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	8 kV
Maximum power dissipation for nominal condition	0.77 W

Connection data

Number of connections per level	3
Nominal cross section	2.5 mm ²

Level 1 above 1+2

Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.08 mm ² ... 4 mm ²
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.08 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	28 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Nominal current	24 A
Maximum load current	28 A (The maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	800 V
Nominal cross section	2.5 mm ²

Level 1 below 1

Screw thread	M3
Tightening torque	0.6 ... 0.8 Nm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm ² ... 4 mm ²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²

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Conductor cross section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.5 mm ² ... 1.5 mm ²
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm ² ... 1.5 mm ²
2 conductors with same cross section, solid	0.14 mm ² ... 1.5 mm ²
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	0.25 mm ² ... 1.5 mm ²
Nominal current	24 A
Maximum load current	28 A (with 4 mm ² conductor cross section)
Nominal voltage	800 V
Nominal cross section	2.5 mm ²

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height	65.3 mm
Depth on NS 35/7,5	42.8 mm
Depth on NS 35/15	50.3 mm

Material specifications

Color	blue (RAL 5015)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA
Static insulating material application in cold	-60 °C
Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21))	130 °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
Calorimetric heat release NFPA 130 (ASTM E 1354)	28 MJ/kg
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	9.8 kV
Result	Test passed

Temperature-rise test

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3033029

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Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
Short-time withstand current 4 mm ²	0.48 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2 kV
Result	Test passed

Mechanical properties

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	0.08 mm ² / 0.1 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 0.9 kg
Result	Test passed

Environmental and real-life conditions

Aging

Temperature cycles	192
Result	Test passed

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 2, bogie-mounted
Frequency	$f_1 = 5$ Hz to $f_2 = 250$ Hz
ASD level	6.12 (m/s ²) ² /Hz

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Acceleration	3.12g
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	30g
Shock duration	18 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 ... 110 °C (Operating temperature range incl. self-heating; for max. short-term operating temperature, see 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 (operation)	20 % ... 90 %
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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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/3033029>

 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B	600 V	20 A	28 - 12	-
Use group C	600 V	20 A	28 - 12	-

 EAC Approval ID: RU C-DE.BL08.B.00644				
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 cULus Recognized Approval ID: E60425				
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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250201

ETIM

ETIM 9.0	EC000897
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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	4de6e9f4-1b56-4f77-ac65-ea5425eb71a1

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