

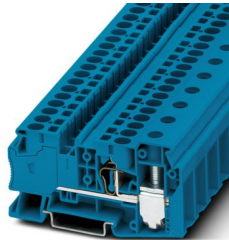
# STU 35/ 4X10 BU - Potential collective terminal



3033210

<https://www.phoenixcontact.com/sg/products/3033210>

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Potential collective terminal, nom. voltage: 1000 V, nominal current: 41 A, Load contact, connection method: Spring-cage connection, Rated cross section: 6 mm<sup>2</sup>, cross section: 0.2 mm<sup>2</sup> - 10 mm<sup>2</sup>, Line contact, connection method: Screw connection, Rated cross section: 35 mm<sup>2</sup>, cross section: 1.5 mm<sup>2</sup> - 50 mm<sup>2</sup>, mounting: NS 35/7,5, NS 35/15, color: blue

## Your advantages

- The STU 35/4x10 spring-cage hybrid terminal block is used to divide a 35 mm<sup>2</sup> supply line into four 10 mm<sup>2</sup> connections
- The system-internal distribution is via four spring-cage connections with a nominal cross section of 10 mm<sup>2</sup>
- Supplied using a 35 mm<sup>2</sup> screw connection
- Can be consistently bridged to standard terminal blocks in the ST spring-cage terminal block series
- The double bridge shaft supports further potential distributions

## Commercial data

Item number	3033210
Packing unit	25 pc
Minimum order quantity	25 pc
Note	Made to order (non-returnable)
Sales key	0163*
Product key	BE2119
Catalog page	Page 249 (C-1-2019)
GTIN	4046356296045
Weight per piece (including packing)	58.84 g
Weight per piece (excluding packing)	55.04 g
Customs tariff number	85369010
Country of origin	CN

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## Technical data

### Notes

#### General

Note	The maximum load current of a single clamping unit must not be exceeded.
	For power distribution applications, IEC 60364-4-43:2008; modified + corrigendum Okt. 2008 (DIN VDE 0100-430:2010-10) section 433.2 ff must be observed!

### Product properties

Product type	Hybrid terminal block
Number of connections	5
Number of rows	1
Potentials	1

#### Data management status

Article revision	04
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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	4.06 W

### Connection data

Number of connections per level	5
Nominal cross section	35 mm <sup>2</sup>

#### Load contact

Stripping length	12 mm
Internal cylindrical gage	A5
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Cross section AWG	24 ... 8 (converted acc. to IEC)
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	0.25 mm <sup>2</sup> ... 6 mm <sup>2</sup>
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Nominal current	41 A
Maximum load current	41 A (in case of a 10 mm <sup>2</sup> conductor cross section, the maximum load current must not be exceeded by the total current of all

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	connected conductors.)
Nominal voltage	1000 V
Nominal cross section	6 mm <sup>2</sup>

## Line contact

Screw thread	M6
Tightening torque	3.2 ... 3.7 Nm
Stripping length	18 mm
Internal cylindrical gage	B9
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	1.5 mm <sup>2</sup> ... 50 mm <sup>2</sup>
Cross section AWG	16 ... 1/0 (converted acc. to IEC)
Conductor cross section flexible	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross section, flexible [AWG]	16 ... 2 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Flexible conductor cross section (ferrule with plastic sleeve)	1.5 mm <sup>2</sup> ... 35 mm <sup>2</sup>
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>
2 conductors with same cross section, solid	1.5 mm <sup>2</sup> ... 16 mm <sup>2</sup>
2 conductors with same cross section, flexible	1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	1.5 mm <sup>2</sup> ... 10 mm <sup>2</sup>
Nominal current	125 A
Maximum load current	125 A (with 50 mm <sup>2</sup> conductor cross section)
Nominal voltage	1000 V
Nominal cross section	35 mm <sup>2</sup>

## Dimensions

Width	16.2 mm
Height	86 mm
Depth on NS 35/7,5	46.8 mm
Depth on NS 35/15	54.3 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)	125 °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

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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)	27,5 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

Requirement temperature-rise test	Increase in temperature $\leq$ 45 K
Result	Test passed
Short-time withstand current 10 mm <sup>2</sup>	1.2 kA
Short-time withstand current 6 mm <sup>2</sup>	0.72 kA
Result	Test passed

### Power-frequency withstand voltage

Test voltage setpoint	2 kV
Result	Test passed

## Mechanical properties

### Mechanical data

Open side panel	No
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## Mechanical tests

### Mechanical strength

Result	Test passed
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### Attachment on the carrier

DIN rail/fixing support	NS 35/7,5
Result	Test passed

### Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross section/weight	1.5 mm <sup>2</sup> / 0.4 kg
	35 mm <sup>2</sup> / 6.8 kg
	50 mm <sup>2</sup> / 9.5 kg
Result	Test passed

## Environmental and real-life conditions

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## 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):2018-05
Spectrum	Service life test category 1, class B, body mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 150 \text{ Hz}$
ASD level	$1.857 \text{ (m/s}^2\text{)/Hz}$
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):2018-05
Pulse shape	Half-sine
Acceleration	5g
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 ... 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, no longer than 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/sg/products/3033210>

 <b>UL Recognized</b> Approval ID: E60425				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
<b>Use group B</b>				
Spring-cage connection	1000 V	50 A	24 - 8	-
Screw connection	1000 V	115 A	14 - 2	-
<b>Use group C</b>				
Spring-cage connection	1000 V	50 A	24 - 8	-
Screw connection	1000 V	115 A	14 - 2	-

 <b>EAC</b> Approval ID: RU C-DE.BL08.B.00644	
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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, No exemptions
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### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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