

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

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.



Double-level spring-cage terminal block, nom. voltage: 500 V, nominal current: 22 A, connection method: Spring-cage connection, Rated cross section: 2.5 mm², cross section: 0.08 mm² - 4 mm², mounting type: NS 35/7,5, NS 35/15, color: gray

Your advantages

- Compact design for maximum space savings
- Tested for railway applications

Commercial data

Item number	3031270
Packing unit	50 pc
Minimum order quantity	50 pc
Sales key	BE2114
Product key	BE2114
Catalog page	Page 212 (C-1-2019)
GTIN	4017918186814
Weight per piece (including packing)	10.495 g
Weight per piece (excluding packing)	9.839 g
Customs tariff number	85369010
Country of origin	CN

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

Technical data

Product properties

Product type	Multi-level terminal block
Product family	ST
Area of application	Railway industry
	Machine building
	Plant engineering
	Process industry
Number of connections	4
Number of rows	2
Potentials	2

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	2
Nominal cross section	2.5 mm ²
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
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
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ²
Nominal current	22 A
Maximum load current	26 A (with 4 mm ² conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

Ex data

Rated data (ATEX/IECEx)

Identification	Ex II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 85 °C

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

Ex-certified accessories	3030459 D-STTB 2,5
	3030747 ATP-STTB 4
	1204517 SZF 1-0,6X3,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-5 / 3030161
	Plug-in bridge / FBS 3-5 / 3030174
	Plug-in bridge / FBS 4-5 / 3030187
	Plug-in bridge / FBS 5-5 / 3030190
	Plug-in bridge / FBS 10-5 / 3030213
	Plug-in bridge / FBS 20-5 / 3030226
Bridge data	17 A / 2.5 mm ²
Ex temperature increase	40 K (21.9 A / 2.5 mm ²)
for bridging with bridge	440 V
- At bridging between non-adjacent terminal blocks	352 V
- At bridging between non-adjacent terminal blocks via PE terminal block	352 V
- At cut-to-length bridging with cover	220 V
- At cut-to-length bridging with partition plate	220 V
Rated insulation voltage	400 V
output	(Permanent)

Ex level General

Rated voltage	440 V
Rated current	19.5 A
Maximum load current	23.5 A

Ex connection data General

Nominal cross section	2.5 mm ²
Rated cross section AWG	14
Connection capacity rigid	0.08 mm ² ... 4 mm ²
Connection capacity AWG	28 ... 12
Connection capacity flexible	0.08 mm ² ... 2.5 mm ²
Connection capacity AWG	28 ... 14
output	(Permanent)

Ex level Level 1

Contact resistance	1.04 mΩ
output	(Permanent)

Ex level Level 2

Contact resistance	0.83 mΩ
--------------------	---------

Dimensions

Width	5.2 mm
End cover width	2.2 mm

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

Height	67.5 mm
Depth on NS 35/7,5	47.5 mm
Depth on NS 35/15	55 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	7.3 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
	0.3 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 kV
Result	Test passed

Mechanical properties

Mechanical data

Open side panel	Yes
-----------------	-----

Mechanical tests

Mechanical strength

Result	Test passed
--------	-------------

Attachment on the carrier

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

DIN rail/fixing support	NS 32/NS 35
Test force setpoint	1 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 (+/- 2) 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):2018-05
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	6.12 (m/s ²) ² /Hz
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

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

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
----------------------------------	---------------

Mounting

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

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

Drawings

Circuit diagram



STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/au/products/3031270>

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

 IECEE CB Scheme Approval ID: DE1-66179				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	500 V	22 A	-	0.2 - 2.5

 KR Approval ID: HMB17372-EL002				
--	--	--	--	--

 NK Approval ID: 09 ME 140				
---	--	--	--	--

 VDE Zeichengenehmigung Approval ID: 40009033				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
	500 V	22 A	-	0.2 - 2.5

 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	20 A	28 - 12	-
Use group C				
	300 V	20 A	28 - 12	-
Use group D				
	600 V	5 A	28 - 12	-

 ATEX Approval ID: KEMA00ATEX2052U				
---	--	--	--	--

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	440 V	19.5 A	-	0.08 - 2.5
Only rigid conductors	440 V	23.5 A	-	0.08 - 4



IECEx

Approval ID: IECEx KEM 06.0051U

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Only flexible conductors	440 V	19.5 A	-	0.08 - 2.5
Only rigid conductors	440 V	23.5 A	-	0.08 - 4



CCC

Approval ID: 2020322313000621



UKCA-EX

Approval ID: DEKRA 21UKEX0300U



EAC Ex

Approval ID: KZ 7500525010101950

STTB 2,5 - Double-level spring-cage terminal block



3031270

<https://www.phoenixcontact.com/au/products/3031270>

Classifications

ECLASS

ECLASS-13.0	27250102
-------------	----------

ETIM

ETIM 9.0	EC000897
----------	----------

UNSPSC

UNSPSC 21.0	39121400
-------------	----------

STTB 2,5 - Double-level spring-cage terminal block



3031270
<https://www.phoenixcontact.com/au/products/3031270>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
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%
EF3.0 Climate Change	
CO2e kg	0.072 kg CO2e

Phoenix Contact 2025 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT PTY Ltd
Unit 7, 2-8 South Street
Rydalmere NSW 2116
1300 786 411
customerservice@phoenixcontact.com.au