Double-level terminal block - STTB 2,5-PV BU

3035108

https://www.phoenixcontact.com/de/produkte/3035108

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Double-level terminal block, with equipotential bonder, nom. voltage: 500 V, nominal current: 22 A, connection method: Spring-cage connection, 1st and 2nd level, Rated cross section: 2.5 mm^2, cross section: 0.08 mm^2 - 4 mm^2, mounting type: NS 35/7,5, NS 35/15, color: blue

Your advantages

- Compact design for maximum space savings
- Connect the levels using FBS ...-PV bridges

Commercial Data

Item number	3035108
Packing unit	50 pc
Minimum order quantity	50 pc
Sales Key	A1 - Reihenklemmen
Product Key	BE2114
Catalog Page	Page 212 (C-1-2019)
GTIN	4017918975258
Weight per Piece (including packing)	10,84 g
Weight per Piece (excluding packing)	10,3 g
Customs tariff number	85369010
Country of origin	DE

Technical Data

Product properties

Product type	Multi-level terminal block
Number of connections	4
Number of rows	2
Potentials	1

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 mm²

1st and 2nd level

Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section solid	0.08 mm² ... 4 mm²
Cross section AWG	28 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.08 mm² ... 2.5 mm²
Conductor cross section, flexible [AWG]	28 ... 14 (converted acc. to IEC)
Flexible conductor cross section flexible (ferrule, w/o plastic sleeve)	0.14 mm² ... 2.5 mm²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm² ... 2.5 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm²
Nominal current	22 A (with 4 mm² conductor cross section)
Maximum load current	26 A (in case of a 4 mm² conductor cross section, the maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	500 V
Nominal cross section	2.5 mm²

Ex data

Rated data (ATEX/IECEx)

Identification	☐ II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 110 °C
	3030459 D-STTB 2,5

Ex-certified accessories	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 mm²
Ex temperature increase	40 K (21.9 A / 2.5 mm²)
Rated voltage	440 V
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 current	19.5 A
Maximum load current	23.5 A

Ex connection data General

Nominal cross section	2.5 mm²
Rated cross section AWG	14
Connection capacity rigid	0.08 mm² ... 4 mm²
Connection capacity AWG	28 ... 12
Connection capacity flexible	0.08 mm² ... 2.5 mm²
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
output	(Permanent)

Ex level PV connection

Contact resistance	1.04 mΩ

Dimensions

Width	5.2 mm
End cover width	2.2 mm
Height NS 35/15	55 mm
Height NS 35/7,5	47.5 mm
Height	1.87 "
Length	67.5 mm

Material specifications

Color	blue
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))	125 °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)	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	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 mm²	0.3 kA
Short-time withstand current 4 mm²	0.48 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

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 mm² / 0.1 kg
	2.5 mm² / 0.7 kg
	4 mm² / 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/s²)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 ... 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

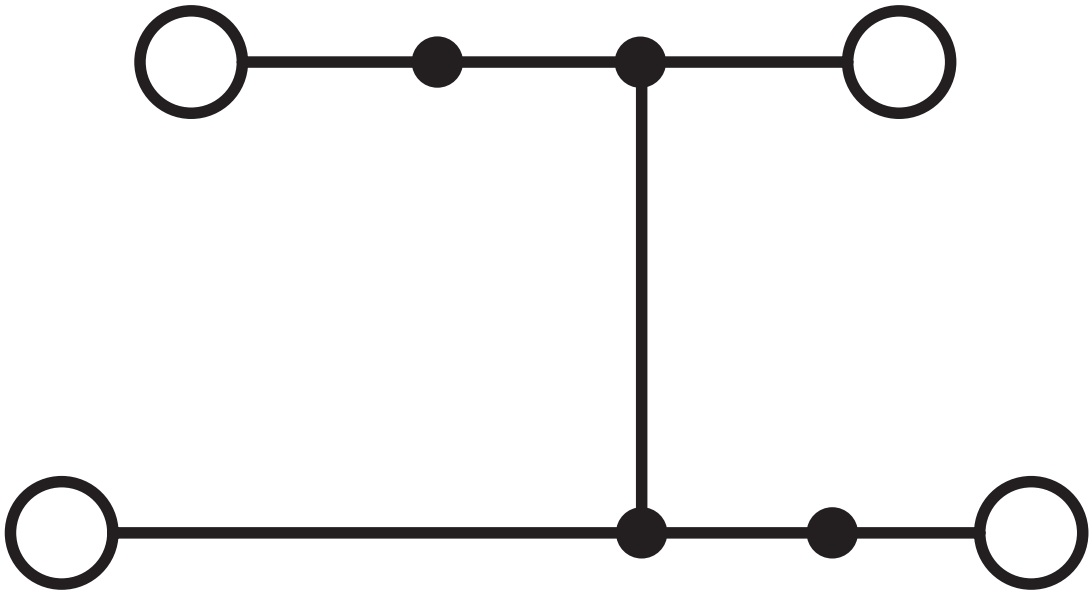
Connection in acc. with standard	IEC 60947-7-1

Mounting

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

Drawings

Circuit diagram



Approvals

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

LR
Approval ID: LR2014888TA

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
			-	-

RS
Approval ID: 22.44.01.00083.250

BV
Approval ID: 13403/D0 BV

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
			-	-

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

DNV
Approval ID: TAE00001CS

	Nominal Voltage U_N	Nominal Current I_N	Cross Section AWG	Cross Section mm^2
			-	-

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

EAC Ex
Approval ID: RU C-DE.HA91.B.00066

IECEx
Approval ID: IECEx KEM 06.0051U

CCC
Approval ID: 2020322313000621

NEPSI
Approval ID: GYJ20.1193U

UKCA-EX
Approval ID: DEKRA 21UKEX0300U

Classifications

ECLASS

ECLASS-9.0	27141120
ECLASS-10.0.1	27141120
ECLASS-11.0	27141120

ETIM

ETIM 8.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

Environmental Product Compliance

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

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