

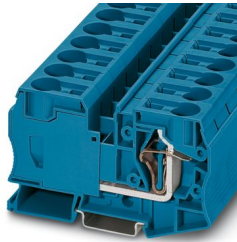
ST 35 BU - High-current terminal block



3036181

<https://www.phoenixcontact.com/us/products/3036181>

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High-current terminal block, nom. voltage: 1000 V, nominal current: 125 A, number of connections: 2, connection method: Spring-cage connection, Rated cross section: 35 mm², 1 level, cross section: 2.5 mm² - 35 mm², mounting type: NS 35/7,5, NS 35/15, color: blue

Your advantages

- Simple wiring of very small, flexible conductors
- Enables one-handed wiring
- No restriction on cross-sections when using conductors with ferrules
- Reliable vibration resistance thanks to spring-loaded contact elements
- Vibration-resistant and maintenance-free conductor connection
- Full flexibility thanks to the standardized CLIPLINE complete bridging, marking, and testing accessories

Commercial data

Item number	3036181
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	BE02
Product key	BE2111
GTIN	4017918821050
Weight per piece (including packing)	84.76 g
Weight per piece (excluding packing)	84.76 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Product properties

Product type	High current terminal block
Product family	ST
Number of connections	2
Number of rows	1
Potentials	1

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	2
Nominal cross section	35 mm ²

1 level

Connection method	Spring-cage connection
Stripping length	25 mm
Internal cylindrical gage	A8
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	2.5 mm ² ... 35 mm ²
Cross section AWG	12 ... 2 (converted acc. to IEC)
Conductor cross-section flexible	2.5 mm ² ... 35 mm ²
Conductor cross-section, flexible [AWG]	12 ... 2 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	2.5 mm ² ... 35 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	2.5 mm ² ... 35 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	2.5 mm ² ... 10 mm ²
Nominal cross section	35 mm ²
Nominal current	125 A
Maximum load current	125 A (with 35 mm ² conductor cross-section)
Nominal voltage	1000 V
Note	The supply from the ST 35 terminal block to the ST 16 TWIN terminal block with the RB-ST 35 reducing bridge is single-sided only. In the case of a central supply, the D-ST 16-TWIN cover cannot be bridged via the reducing bridge.

Ex data

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Rated data (ATEX/IECEX)

Identification	⊕ II 2 GD Ex eb IIC Gb
Operating temperature range	-60 °C ... 85 °C
Ex-certified accessories	1206612 SZF 3-1,0X5,5
	3022276 CLIPFIX 35-5
	3022218 CLIPFIX 35
List of bridges	Plug-in bridge / FBS 2-16 / 3005963
Bridge data	85.5 A (35 mm ²)
Ex temperature increase	40 K (118.6 A / 35 mm ²)
for bridging with bridge	690 V
Rated insulation voltage	630 V
output	(Permanent)

Ex level General

Rated voltage	690 V
Rated current	107.5 A
Maximum load current	107.5 A
Contact resistance	0.21 mΩ

Ex connection data General

Nominal cross section	35 mm ²
Rated cross section AWG	2
Connection capacity rigid	2.5 mm ² ... 35 mm ²
Connection capacity AWG	14 ... 2
Connection capacity flexible	2.5 mm ² ... 35 mm ²
Connection capacity AWG	14 ... 2

Dimensions

Width	16 mm
Height	100 mm
Depth on NS 35/7,5	59 mm
Depth on NS 35/15	66.5 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))	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

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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 ≤ 45 K
Result	Test passed
Short-time withstand current 35 mm ²	4.2 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	2.2 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
Test force setpoint	10 N
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	2.5 mm ² / 0.7 kg
	35 mm ² / 6.8 kg
Result	Test passed

Environmental and real-life conditions

Aging

Temperature cycles	192
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Result	Test passed
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Needle-flame test

Time of exposure	30 s
Result	Test passed

Oscillation/broadband noise

Specification	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Long life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
ASD level	$6.12 \text{ (m/s}^2\text{)}^2\text{/Hz}$
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
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
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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/3036181>


 CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	115 A	14 - 2	-
C	600 V	115 A	14 - 2	-


 IECEE CB Scheme Approval ID: DE1-62909				
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 KR Approval ID: HMB17372-EL002				
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 NK Approval ID: 09 ME 140				
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 cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B	600 V	115 A	14 - 2	-
C	600 V	115 A	14 - 2	-

 ATEX Approval ID: KEMA01ATEX2260U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Type examination certificate	690 V	107.5 A	-	2.5 - 35

 IECEx Approval ID: IECEx KEM 06.0033U				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	690 V	107.5 A	-	2.5 - 35

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CCC

Approval ID: 2020322313000621



UKCA-EX

Approval ID: DEKRA 21UKEX0303U



EAC Ex

Approval ID: KZ 7500525010101950

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Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

ETIM

ETIM 10.0	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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EF3.1 Climate Change

CO2e kg	0.307 kg CO2e
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