ST 35 - High-current terminal block

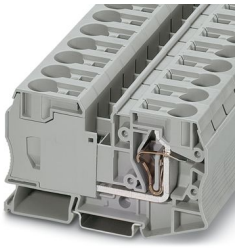
3036178

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125 A IEC

1000 V IEC



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 mm^2, 1 level, cross section: 2.5 mm^2 - 35 mm^2, mounting type: NS 35/7,5, NS 35/15, color: gray

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	3036178
Packing unit	10 pc
Minimum order quantity	1 pc
Sales key	BE02
Product key	BE2111
GTIN	4017918821043
Weight per piece (including packing)	85 g
Weight per piece (excluding packing)	84.15 g
Customs tariff number	85369010
Country of origin	PL

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 mm²

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 mm² ... 35 mm²
Cross section AWG	12 ... 2 (converted acc. to IEC)
Conductor cross-section flexible	2.5 mm² ... 35 mm²
Conductor cross-section, flexible [AWG]	12 ... 2 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	2.5 mm² ... 35 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	2.5 mm² ... 35 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	2.5 mm² ... 10 mm²
Nominal cross section	35 mm²
Nominal current	125 A
Maximum load current	125 A (with 35 mm² 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

Rated data (ATEX/IECEx)

Identification	Ⓔx 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 mm²)
Ex temperature increase	40 K (118.6 A / 35 mm²)
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 mm²
Rated cross section AWG	2
Connection capacity rigid	2.5 mm² ... 35 mm²
Connection capacity AWG	14 ... 2
Connection capacity flexible	2.5 mm² ... 35 mm²
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	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
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	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 mm²	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

Mechanical tests

Mechanical strength

Result	Test passed

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 mm² / 0.7 kg
	35 mm² / 6.8 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	Long 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 ... 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

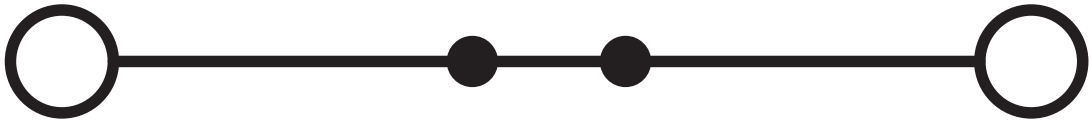
Connection in acc. with standard	IEC 60947-7-1

Mounting

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

Drawings

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/3036178

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

KR
Approval ID: HMB17372-EL002

NK
Approval ID: 09 ME 140

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

CCC
Approval ID: 2020322313000621

UKCA-EX
Approval ID: DEKRA 21UKEX0303U

EAC Ex
Approval ID: KZ 7500525010101950

Classifications

ECLASS

ECLASS-13.0	27250101
ECLASS-15.0	27250101

ETIM

ETIM 10.0	EC000897

UNSPSC

UNSPSC 21.0	39121400

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%

EF3.1 Climate Change

CO2e kg	0.33 kg CO2e

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