PTU 35/4X6/6X2,5 - Potential collective terminal

3214080

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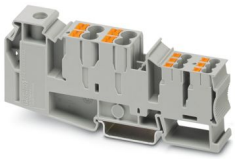


Potential collective terminal, nom. voltage: 1000 V, nominal current: 105 A, 1st level connection left, connection method: Screw connection, cross section: 1.5 mm^2 - 50 mm^2, First level connection, interior, connection method: Push-in connection, Rated cross section: 6 mm^2, cross section: 0.5 mm^2 - 10 mm^2, mounting: NS 35/7,5, NS 35/15, color: gray

Your advantages

- The terminal block base is ideal for use in building installation and machine building applications
- The compact design and front connection enable wiring in a confined space
- In addition to the testing option in the double function shaft, all terminal blocks provide an additional test pick-off
- The Push-in connection terminal blocks are characterized by the system features of the CLIPLINE complete system and by easy and tool-free wiring of conductors with ferrules or solid conductors

Commercial data

Item number	3214080
Packing unit	20 pc
Minimum order quantity	20 pc
Sales key	BE22
Product key	BE2219
GTIN	4055626167619
Weight per piece (including packing)	73.375 g
Weight per piece (excluding packing)	73.375 g
Customs tariff number	85369010
Country of origin	CN

Technical data

Notes

Notes on operation	In the end application, the applicable safety regulations for overload and short-circuit protection on the connected conductors must be considered.

General

Note	The max. load current must not be exceeded by the total current of all connected conductors.

Product properties

Product type	Potential distributor
Product family	PTU
Number of connections	11
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

Service Entrance	yes
Number of connections per level	11

1st level connection left

Connection method	Screw connection
Screw thread	M6
Number of connections	1
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 mm² ... 50 mm²
Cross section AWG	14 ... 2 (converted acc. to IEC)
Conductor cross-section flexible	1.5 mm² ... 50 mm²
Conductor cross-section, flexible [AWG]	14 ... 2 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	1.5 mm² ... 35 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	1.5 mm² ... 35 mm²
2 conductors with same cross section, rigid	1.5 mm² ... 16 mm²
2 conductors with the same cross-section AWG rigid	16 ... 6 (converted acc. to IEC)

2 conductors with same cross section, flexible	1.5 mm² ... 10 mm²
2 conductors with the same cross-section AWG flexible	16 ... 8 (converted acc. to IEC)
2 conductors with same cross section, flexible, with ferrule without plastic sleeve	1.5 mm² ... 10 mm²
Nominal current	105 A
Maximum load current	105 A (The maximum load current must not be exceeded by the total current of all connected conductors.)
Nominal voltage	1000 V

First level connection, interior

Connection method	Push-in connection
Number of connections	4
Stripping length	12 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.5 mm² ... 10 mm²
Cross section AWG	20 ... 8 (converted acc. to IEC)
Conductor cross-section flexible	0.5 mm² ... 6 mm²
Conductor cross-section, flexible [AWG]	20 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm² ... 10 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.5 mm² ... 10 mm²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm² ... 1.5 mm²
Nominal cross section	6 mm²
Nominal current	41 A
Maximum load current	41 A
Nominal voltage	1000 V

1st level connection right

Connection method	Push-in connection
Number of connections	6
Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.14 mm² ... 4 mm²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross-section flexible	0.14 mm² ... 2.5 mm²
Conductor cross-section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without 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 ... 1.5 mm²
Nominal cross section	2.5 mm²
Nominal current	24 A
Maximum load current	24 A
Nominal voltage	1000 V

First level connection, interior Connection cross sections directly pluggable

Conductor cross-section rigid	1 mm² ... 10 mm²
Conductor cross-section, rigid [AWG]	18 ... 8 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	1 mm² ... 6 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	1 mm² ... 6 mm²

1st level connection right Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm² ... 4 mm²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 2.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm² ... 2.5 mm²

Dimensions

Width	16.3 mm
Height	110.4 mm
Depth on NS 35/7,5	48.8 mm
Depth on NS 35/15	56.3 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	9.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
	Test passed
Short-time withstand current 35 mm²	3 kA
Short-time withstand current 50 mm²	4.8 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
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	1.5 mm² / 0.4 kg
	35 mm² / 6.8 kg
	50 mm² / 9.5 kg
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	0.5 mm² / 0.3 kg
	6 mm² / 1.4 kg
	10 mm² / 2 kg
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	0.14 mm² / 0.2 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	EN 50155:2021-07
Spectrum	Long life test category 2, bogie-mounted
Frequency	f_1 = 5 Hz to f_2 = 250 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
Ambient temperature (actuation)	-5 °C ... 70 °C
Permissible humidity (operation)	20 % ... 90 %
Permissible humidity (storage/transport)	30 % ... 70 %

Standards and regulations

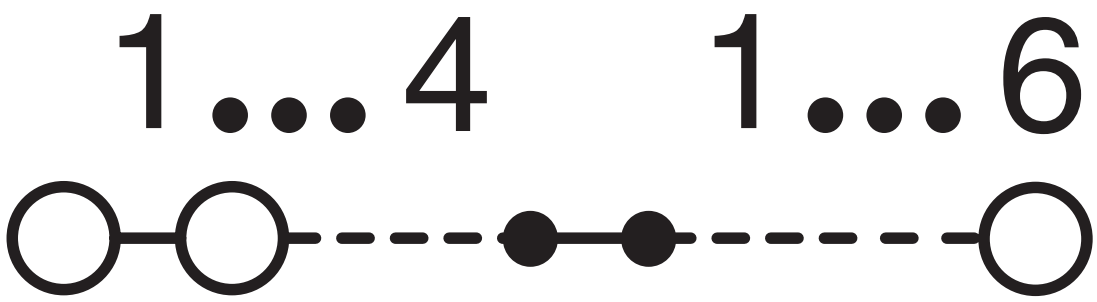
Connection in acc. with standard	IEC 60947-7-1
	IEC 60947-7-1
	IEC 60947-7-1

Mounting

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

Drawings

Circuit diagram



Approvals

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CSA
Approval ID: 158887

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
	600 V	25.5 A	20 - 10	-
Spring-cage connection	600 V	17 A	26 - 12	-
Screw connection	600 V	102 A	14 - 2	-
C				
	600 V	25.5 A	20 - 10	-
Spring-cage connection	600 V	17 A	26 - 12	-
Screw connection	600 V	102 A	14 - 2	-

EAC
Approval ID: RU C-DE.BL08.B.00644

cULus Recognized
Approval ID: E60425

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
Input	600 V	102 A	14 - 2	-
Output 1	600 V	25.5 A	20 - 10	-
Output 2	600 V	17 A	26 - 12	-
C				
Input	600 V	102 A	14 - 2	-
Output 1	600 V	25.5 A	20 - 10	-
Output 2	600 V	17 A	26 - 12	-

EAC
Approval ID: KZ7500651131219505

Classifications

ECLASS

ECLASS-13.0	27250119
ECLASS-15.0	27250119

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	0.39 kg CO2e

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