PTVFIX 6/12X2,5-NS35A BK - Distribution block

1019554

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Distribution block, nom. voltage: 690 V, nominal current: 24 A, number of connections: 13, number of positions: 1, connection method: Push-in connection, Rated cross section: 2.5 mm^2, Load contact, cross section: 0.14 mm^2 - 4 mm^2, Line contact, Rated cross section: 6 mm^2, cross section: 0.5 mm^2 - 10 mm^2, mounting type: NS 35/7,5, NS 35/15, color: black

Your advantages

- Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- Clear wiring, thanks to eleven different color variants
- Time-saving conductor connection, thanks to tool-free Push-in direct connection technology
- Time savings of up to 80 %, thanks to ready-to-mount blocks without manual bridging
- Space savings of up to 50 % on the DIN rail, thanks to transverse mounting

Commercial data

Item number	1019554
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE09
Product key	BEA223
GTIN	4055626506074
Weight per piece (including packing)	32.13 g
Weight per piece (excluding packing)	32.13 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Notes

General

Note	The maximum load current of a single clamping unit must not be exceeded.
	For power distribution applications, IEC 60364-4-43.2008; modified + corrigendum Okt. 2008 (DIN VDE 0100-430:2010-10) section 433.2 ff must be observed!

Product properties

Product type	Distributor terminal block
Number of positions	1
Number of connections	13
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	0.77 W

Connection data

Service Entrance	yes
Number of connections per level	13
Nominal cross section	2.5 mm²

Load contact

Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Internal cylindrical gage	A3
	B3
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 ... 4 mm²
Conductor cross-section, flexible [AWG]	26 ... 12 (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
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm²
Nominal current	24 A

Maximum load current	32 A (with 4 mm² conductor cross-section)
Maximum total current	57 A (with 10 mm² conductor cross-section)
Nominal voltage	690 V
Note	The IEC 60947-7-1 standard applies for the use of mounting accessories.
Nominal cross section	2.5 mm²

Line contact

Stripping length	10 mm ... 12 mm
Internal cylindrical gage	A5
	B4
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 ... 10 mm²
Conductor cross-section, flexible [AWG]	20 ... 8 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm² ... 6 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.5 mm² ... 6 mm²
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm² ... 1.5 mm²
Nominal current	41 A (with 6 mm² conductor cross-section)
Maximum load current	57 A (with 10 mm² conductor cross-section)
Maximum total current	The maximum load current of the individual terminal point must not be exceeded.
Nominal cross section	6 mm²
Connection in acc. with standard	IEC 60998-2-2
Nominal voltage	450 V (in accordance with IEC 60998-2-2)

Load contact Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm² ... 4 mm²
Conductor cross-section, rigid [AWG]	22 ... 18 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm² ... 2.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm² ... 2.5 mm²

Line contact 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

Dimensions

Width	41.5 mm
Height	45.7 mm
Depth	29.2 mm
Depth on NS 35/7,5	30.9 mm

Material specifications

Color	black (RAL 9005)
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

Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 6 mm²	0.72 kA
Short-time withstand current 10 mm²	1.2 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.89 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
Note	When aligning several blocks, it is recommended to either place a DIN rail adapter underneath the connection point or a flange element between the blocks.
	For versions with 6 or 7 connections, it is enough to place one DIN rail adapter centrally per block and place flange elements

	after every other block.
	Depending on the application case and mechanical load, other arrangements of the mounting accessory can also be chosen.
	When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.

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

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 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):2018-05
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

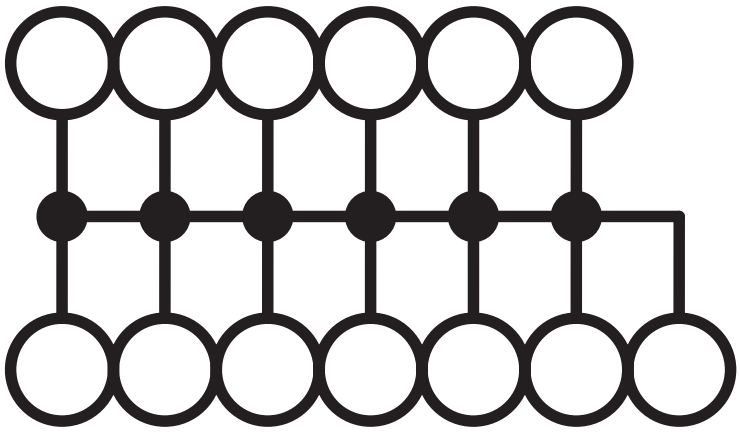
Connection in acc. with standard	IEC 60947-7-1
	IEC 60998-2-2

Mounting

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

Drawings

Circuit diagram



Approvals

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cULus Recognized
Approval ID: E60425

CSA
Approval ID: 13631

DNV
Approval ID: TAE00004R4

EAC
Approval ID: KZ7500651131219505

Classifications

ECLASS

ECLASS-13.0	27250118
ECLASS-15.0	27250118

ETIM

ETIM 9.0	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%

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