PTRVB 4-FI /RD - Potential distributors

3270220

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Potential distributors, with option to supply up to 6 mm^2, nom. voltage: 250 V, nominal current: 17.5 A, connection method: Push-in connection, Rated cross section: 1.5 mm^2, cross section: 0.14 mm^2 - 2.5 mm^2, Feed-in stage, Rated cross section: 4 mm^2, cross section: 0.2 mm^2 - 6 mm^2, mounting: NS 35/7,5, NS 35/15, color: gray, color of connection elements: red

Your advantages

- High contact quality thanks to push-in technology as a replacement for Wire-Wrap®, TERMI-POINT®, etc.
- Tool-free wiring in a confined space thanks to compact size
- Bridgeable potential distributor with option to supply up to 6 mm²
- Distributor terminal block in red for 24 V DC power supplies

Commercial data

Item number	3270220
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE6211
Product key	BE6211
GTIN	4055626186368
Weight per piece (including packing)	20.62 g
Weight per piece (excluding packing)	20.62 g
Customs tariff number	85369010
Country of origin	PL

Technical data

Product properties

Product type	Potential distributor
Number of positions	2
Number of connections	13
Number of rows	4
Potentials	1

Insulation characteristics

Overvoltage category	III

Electrical properties

Rated surge voltage	4 kV
Maximum power dissipation for nominal condition	0.56 W

Connection data

Service Entrance	yes
Number of connections per level	4
Nominal cross section	1.5 mm²

Level 1+2+3 above 1

Connection method	Push-in connection
Stripping length	8 mm ... 10 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.14 mm² ... 2.5 mm²
Cross section AWG	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible	0.14 mm² ... 1.5 mm²
Conductor cross-section, flexible [AWG]	26 ... 16 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm² ... 1.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.14 mm² ... 1.5 mm²
Nominal cross section	1.5 mm²
Nominal current	17.5 A (with 1.5 mm² conductor cross-section)
Maximum load current	24 A (per chamber with 2.5 mm² conductor cross-section)
Maximum total current	37 A (per potential distributor)
Nominal voltage	250 V

Feed-in stage

Note	Only the “CRIMPFOX 6” crimping pliers may be used for crimping with 6 mm² stranded and ferrule.
Stripping length	10 mm ... 12 mm
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.2 mm² ... 6 mm²
Cross section AWG	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible	0.2 mm² ... 6 mm²

Conductor cross-section, flexible [AWG]	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.2 mm² ... 6 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.2 mm² ... 6 mm²
Nominal cross section	4 mm²
Nominal current	32 A (Supply, for 4 mm² conductor cross-section)
Maximum load current	37 A (Service Entrance)
Nominal voltage	250 V

Level 1+2+3 above 1 Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm² ... 2.5 mm²
Conductor cross-section, rigid [AWG]	20 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 1.5 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm² ... 1.5 mm²

Feed-in stage Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm² ... 6 mm²
Conductor cross-section, rigid [AWG]	24 ... 10 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.34 mm² ... 6 mm²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm² ... 6 mm²

Dimensions

Width	8.3 mm
Height	64 mm
Depth on NS 35/7,5	55.5 mm
Depth on NS 35/15	63 mm

Material specifications

Color	gray (RAL 7042)
Color of connection elements	red
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	4.8 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 1.5 mm²	0.18 kA
Short-time withstand current 2.5 mm²	0.3 kA
Short-time withstand current 4 mm²	0.48 kA
Short-time withstand current 6 mm²	0.72 kA
Result	Test passed

Power-frequency withstand voltage

Test voltage setpoint	1.5 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	0.14 mm² / 0.2 kg
	1.5 mm² / 0.4 kg
	2.5 mm² / 0.7 kg
Result	Test passed

Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	0.2 mm² / 0.2 kg
	4 mm² / 0.9 kg

	6 mm² / 1.4 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 ... 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
	IEC 60947-7-1

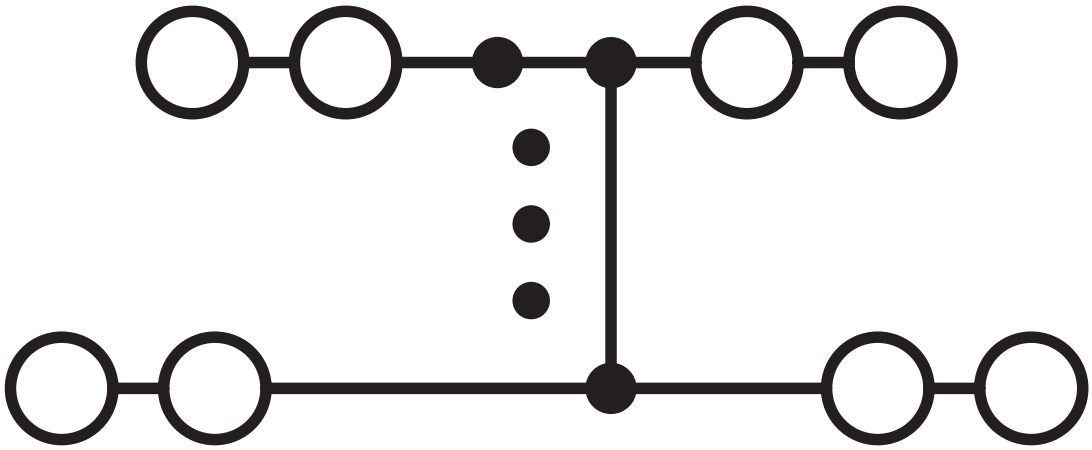
Mounting

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/gb/products/3270220

CSA
Approval ID: 158887

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
D				
	300 V	10 A	26 - 14	-

IECEE CB Scheme
Approval ID: NL-58817

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	250 V	17.5 A	-	-

EAC
Approval ID: RU C-DE.BL08.B.00682

cULus Recognized
Approval ID: E60425

KEMA-KEUR
Approval ID: 71-102890

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
Only flexible conductors	250 V	17.5 A	-	0.14 - 1.5
Only rigid conductors	250 V	17.5 A	-	0.14 - 2.5

DNV
Approval ID: TAE000016Y

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%

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PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk