

ZPV 1,5/2,5 (8/1) - Potential distributors



3031047

<https://www.phoenixcontact.com/sg/products/3031047>

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Potential distributors, nom. voltage: 500 V, nominal current: 24 A, connection method: Spring-cage connection, 1st level connection left, Rated cross section: 2.5 mm², cross section: 0.14 mm² - 4 mm², connection method: Spring-cage connection, 1st level connection right, Rated cross section: 1.5 mm², cross section: 0.14 mm² - 2.5 mm², mounting: NS 35/7,5, NS 35/15, color: gray

Your advantages

- The operating voltage is supplied via a 2.5 mm² spring-cage connection and distributed using eight 1.5 mm² connections
- Actuators and active initiators are simply and clearly supplied with operating voltage
- They are mainly used in small control cabinets with high-performance controllers

Commercial data

Item number	3031047
Packing unit	50 pc
Minimum order quantity	1 pc
Sales key	0166*
Product key	BE6211
Catalog page	Page 240 (C-3-2013)
GTIN	4017918169572
Weight per piece (including packing)	23 g
Weight per piece (excluding packing)	21.663 g
Customs tariff number	85369010
Country of origin	TR

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Technical data

Product properties

Product type	Potential distributor
Number of connections	2
Number of rows	2
Potentials	8

Data management status

Article revision	08
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Insulation characteristics

Overvoltage category	III
Degree of pollution	3

Electrical properties

Rated surge voltage	6 kV
Maximum power dissipation for nominal condition	0.56 W

Connection data

Number of connections per level	2
Nominal cross section	1.5 mm ²

1st level connection left

Stripping length	10 mm
Internal cylindrical gage	A3
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm ² ... 4 mm ²
Cross section AWG	26 ... 12 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross section, flexible [AWG]	26 ... 14 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 2.5 mm ²
Conductor cross-section flexible (2 conductors with the same cross-section, with TWIN ferrule and plastic sleeve)	0.5 mm ²
Nominal current	24 A
Maximum load current	24 A (with 4 mm ² conductor cross section)
Nominal voltage	500 V
Nominal cross section	2.5 mm ²

1st level connection right

Stripping length	10 mm
Internal cylindrical gage	A1
Connection in acc. with standard	IEC 60947-7-1
Conductor cross section rigid	0.14 mm ² ... 2.5 mm ²

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Cross section AWG	26 ... 16 (converted acc. to IEC)
Conductor cross section flexible	0.14 mm ² ... 1.5 mm ²
Conductor cross-section flexible (ferrule without plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Flexible conductor cross section (ferrule with plastic sleeve)	0.14 mm ² ... 1.5 mm ²
Nominal current	17.5 A
Maximum load current	17.5 A
Nominal voltage	500 V
Nominal cross section	1.5 mm ²

Dimensions

Width	5.2 mm
End cover width	2 mm
Height	141 mm
Depth on NS 35/7,5	51 mm
Depth on NS 35/15	58.5 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))	130 °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)	28 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	7.3 kV
Result	Test passed

Temperature-rise test

Requirement temperature-rise test	Increase in temperature ≤ 45 K
Result	Test passed
Short-time withstand current 2.5 mm ²	0.3 kA
Short-time withstand current 1.5 mm ²	0.18 kA

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Result	Test passed
Power-frequency withstand voltage	
Test voltage setpoint	1.89 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 mm ² / 0.2 kg
	2.5 mm ² / 0.7 kg
	4 mm ² / 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	DIN EN 50155 (VDE 0115-200):2008-03
Spectrum	Service life test category 2, bogie-mounted
Frequency	$f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$
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

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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

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Drawings

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/sg/products/3031047>

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

cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
Use group B				
	300 V	15 A	24 - 10	-
Use group C				
	150 V	15 A	24 - 10	-
Use group D				
	300 V	10 A	24 - 10	-

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Classifications

ECLASS

ECLASS-11.0	27141120
ECLASS-13.0	27250105

ETIM

ETIM 9.0	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
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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