

PTFIX 6/6X2,5-NS15A BK - Distribution block



3274180

<https://www.phoenixcontact.com/us/products/3274180>

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Distribution block, Block with horizontal alignment and integrated supply, nom. voltage: 690 V, nominal current: 24 A, number of connections: 7, connection method: Push-in connection, Rated cross section: 2.5 mm², Load contact, cross section: 0.14 mm² - 4 mm², Push-in connection, Line contact, Rated cross section: 6 mm², cross section: 0.5 mm² - 10 mm², mounting type: NS 15, color: black

Your advantages

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

Commercial data

Item number	3274180
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	BE09
Product key	BEA122
GTIN	4055626393841
Weight per piece (including packing)	22.18 g
Weight per piece (excluding packing)	22.18 g
Customs tariff number	85369010
Country of origin	PL

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Technical data

Notes

Notes on operation	the blocks can be bridged with one another via the conductor shaft, for corresponding plug-in bridges, see accessories
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General

Note	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!
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Product properties

Product type	Distributor terminal block
Number of connections	7
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	7
Nominal cross section	2.5 mm ²
Rated cross section AWG	14

Load contact

Connection method	Push-in connection
Stripping length	8 mm ... 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 ... 4 mm ²
Conductor cross-section, flexible [AWG]	26 ... 12 (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
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ²
Nominal cross section	2.5 mm ²
Nominal current	24 A

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Maximum load current	32 A (with 4 mm ² conductor cross-section)
Maximum total current	57 A (The maximum load current of the individual terminal point must not be exceeded.)
Nominal voltage	690 V

Line contact

Connection method	Push-in connection
Stripping length	10 mm ... 12 mm
Internal cylindrical gage	A5
Connection in acc. with standard	IEC 60947-7-1
Conductor cross-section rigid	0.5 mm ² ... 10 mm ²
Cross section AWG	20 ... 8 (converted acc. to IEC)
Conductor cross-section flexible	0.5 mm ² ... 10 mm ²
Conductor cross-section, flexible [AWG]	20 ... 8 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm ² ... 6 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.5 mm ² ... 6 mm ²
2 conductors with the same cross section, flexible, with TWIN ferrule with plastic sleeve	0.5 mm ² ... 1.5 mm ²
Nominal cross section	6 mm ²
Nominal current	41 A
Maximum load current	57 A (with 10 mm ² conductor cross-section)
Maximum total current	57 A (The maximum load current of the individual terminal point must not be exceeded.)
Nominal voltage	690 V

Load contact Connection cross sections directly pluggable

Conductor cross-section rigid	0.34 mm ² ... 4 mm ²
Conductor cross-section, rigid [AWG]	24 ... 12 (converted acc. to IEC)
Conductor cross-section flexible (ferrule without plastic sleeve)	0.5 mm ² ... 2.5 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	0.34 mm ² ... 2.5 mm ²

Line contact Connection cross sections directly pluggable

Conductor cross-section rigid	1 mm ² ... 10 mm ²
Conductor cross-section flexible (ferrule without plastic sleeve)	1 mm ² ... 6 mm ²
Flexible conductor cross-section (ferrule with plastic sleeve)	1 mm ² ... 6 mm ²

Dimensions

Width	25.6 mm
Height	28.6 mm
Depth on NS 15	31.4 mm

Material specifications

Color	black (RAL 9005)
Flammability rating according to UL 94	V0
Insulating material group	I
Insulating material	PA

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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
Short-time withstand current 6 mm ²	0.72 kA
Short-time withstand current 10 mm ²	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
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Mechanical tests

Mechanical strength

Result	Test passed
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Attachment on the carrier

DIN rail/fixing support	NS 35
Test force setpoint	5 N
Result	Test passed
Note	<p>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.</p> <p>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.</p> <p>When using the DIN rail adapter PTFIX-NS35, an aligned block must not protrude by more than a half.</p>

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Test for conductor damage and slackening

Rotation speed	10 rpm
Revolutions	135
Conductor cross-section/weight	0.5 mm ² / 0.3 kg
	6 mm ² / 1.4 kg
	10 mm ² / 2 kg
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	Long 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

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

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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

Mounting

Mounting type	NS 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/us/products/3274180>

DNV Approval ID: TAE00002TT-05				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	500 V	24 A	-	-

CSA Approval ID: 13631				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
Output	300 V	20 A	26 - 12	-
Input	300 V	50 A	20 - 8	-
C				
Output	300 V	20 A	26 - 12	-
Input	300 V	50 A	20 - 8	-
D				
Input	600 V	5 A	20 - 8	-

EAC Approval ID: RU C-DE.BL08.B.00644				
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cULus Recognized Approval ID: E60425				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
B				
Output	300 V	20 A	26 - 12	-
Input	300 V	50 A	20 - 8	-
C				
Output	300 V	20 A	26 - 12	-
Input	300 V	50 A	20 - 8	-
D				
Output	600 V	5 A	26 - 12	-
Input	600 V	5 A	20 - 8	-

VDE Zeichengenehmigung Approval ID: 40047797				
	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				

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	690 V	41 A	-	-
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EAC

Approval ID: KZ7500651131219505

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Classifications

ECLASS

ECLASS-13.0	27250118
ECLASS-15.0	27250118

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
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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 USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com