

## Distribution block - PTFIX 6/6X2,5-NS35A BK - 3273212

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Distribution block, Block with horizontal alignment and integrated supply, nom. voltage: 500 V, nominal current: 24 A, connection method: Push-in connection, Push-in connection, number of connections: 7, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 26 - 12, width: 25.2 mm, height: 28.7 mm, color: black, mounting type: NS 35/7,5, NS 35/15

### Why buy this product

- ✓ 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

### Key Commercial Data

|                        |   |
|------------------------|---|
| Packing unit           | 10 STK  |
| Minimum order quantity | 10 STK  |
| GTIN                   | <br>4 055626 391687 |
| GTIN                   | 4055626391687   |

### Technical data

#### General

|  |   |
|--|---|
| Note                                   | Notes on operation The blocks can be bridged with one another via the conductor shaft. For corresponding plug-in bridges, see accessories |
| Number of levels                       | 1   |
| Number of connections                  | 7   |
| Potentials                             | 1   |
| Nominal cross section                  | 2.5 mm <sup>2</sup>   |
| Nominal cross section feed-in          | 6 mm <sup>2</sup>   |
| Color                                  | black   |
| Insulating material                    | PA  |
| Flammability rating according to UL 94 | V0  |
| Rated surge voltage                    | 6 kV  |

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## Technical data

### General

|   |   |
|---|---|
| Degree of pollution   | 3   |
| Overvoltage category  | III   |
| Insulating material group   | I   |
| Maximum power dissipation for nominal condition   | 1.31 W (the value is based on one connection block and is multiplied according to the pin assignment) |
| Maximum load current  | 24 A  |
| Nominal current $I_N$   | 24 A  |
| Nominal voltage $U_N$   | 500 V   |
| Maximum load current  | 57 A (with 10 mm <sup>2</sup> conductor cross section)  |
| Nominal current $I_N$   | 41 A (with 6 mm <sup>2</sup> conductor cross section)   |
| Nominal voltage $U_N$   | 500 V   |
| Open side panel   | No  |
| Shock protection test specification   | DIN EN 50274 (VDE 0660-514):2002-11   |
| Back of the hand protection   | guaranteed  |
| Finger protection   | guaranteed  |
| Result of surge voltage test  | Test passed   |
| Surge voltage test setpoint   | 9.8 kV  |
| Result of power-frequency withstand voltage test  | Test passed   |
| Power frequency withstand voltage setpoint  | 1.89 kV   |
| Result of the test for mechanical stability of terminal points (5 x conductor connection) | Test passed   |
| Result of bending test  | Test passed   |
| Bending test rotation speed   | 10 rpm  |
| Bending test turns  | 135   |
| Bending test conductor cross section/weight   | 0.5 mm <sup>2</sup> / 0.3 kg  |
|   | 6 mm <sup>2</sup> / 1.4 kg  |
|   | 10 mm <sup>2</sup> / 2 kg   |
|   | 0.14 mm <sup>2</sup> / 0.2 kg   |
|   | 2.5 mm <sup>2</sup> / 0.7 kg  |
|   | 4 mm <sup>2</sup> / 0.9 kg  |
| Tensile test result   | Test passed   |
| Conductor cross section tensile test  | 0.5 mm <sup>2</sup>   |
| Tractive force setpoint   | 20 N  |
| Conductor cross section tensile test  | 6 mm <sup>2</sup>   |
| Tractive force setpoint   | 80 N  |
| Conductor cross section tensile test  | 10 mm <sup>2</sup>  |
| Tractive force setpoint   | 90 N  |
| Result of tight fit on support  | Test passed   |
| Tight fit on carrier  | NS 35   |
| Setpoint  | 5 N   |
| Result of voltage-drop test   | Test passed   |

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### General

|   |  |
|---|--|
| Requirements, voltage drop  | ≤ 1.6 mV   |
| Result of temperature-rise test   | Test passed                                      |
| Short circuit stability result  | Test passed                                      |
| Conductor cross section short circuit testing                           | 6 mm <sup>2</sup>                                |
| Short-time current  | 0.72 kA  |
| Conductor cross section short circuit testing                           | 10 mm <sup>2</sup>                               |
| Short-time current  | 1.2 kA   |
| Result of thermal test  | Test passed                                      |
| Ageing test for screwless modular terminal block temperature cycles     | 192  |
| Proof of thermal characteristics (needle flame) effective duration      | 30 s   |
| Result of aging test  | Test passed                                      |
| Oscillation, broadband noise test result                                | Test passed                                      |
| Test specification, oscillation, broadband noise                        | DIN EN 50155 (VDE 0115-200):2008-03              |
| Test spectrum   | Service life test category 2, bogie-mounted      |
| Test frequency  | f <sub>1</sub> = 5 Hz to f <sub>2</sub> = 250 Hz |
| ASD level   | 6.12 (m/s <sup>2</sup> ) <sup>2</sup> /Hz        |
| Acceleration  | 3.12 g   |
| Test duration per axis  | 5 h  |
| Test directions   | X-, Y- and Z-axis                                |
| Shock test result   | Test passed                                      |
| Test specification, shock test  | DIN EN 50155 (VDE 0115-200):2008-03              |
| Shock form  | Half-sine  |
| Acceleration  | 30g  |
| Shock duration  | 18 ms  |
| Number of shocks per direction  | 3  |
| Test directions   | X-, Y- and Z-axis (pos. and neg.)                |
| Relative insulation material temperature index (Elec., UL 746 B)        | 130 °C   |
| Temperature index of insulation material (DIN EN 60216-1 (VDE 0304-21)) | 130 °C   |
| Static insulating material application in cold                          | -60 °C   |
| Behavior in fire for rail vehicles (DIN 5510-2)                         | Test passed                                      |
| Flame test method (DIN EN 60695-11-10)                                  | V0   |
| Oxygen index (DIN EN ISO 4589-2)  | >32 %  |
| NF F16-101, NF F10-102 Class I  | 2  |
| NF F16-101, NF F10-102 Class F  | 2  |
| 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   |
| Calorimetric heat release NFPA 130 (ASTM E 1354)                        | 28 MJ/kg   |
| 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                                      |

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## Technical data

### General

|  |             |
|--|-------------|
| 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 |

### Dimensions

|                  |         |
|------------------|---------|
| Width            | 25.2 mm |
| Length           | 45.7 mm |
| Height           | 28.7 mm |
| Height NS 35/7,5 | 30.8 mm |
| Height NS 35/15  | 38.3 mm |

### Connection data

|  |                      |
|--|----------------------|
| Feed-in connection   | Feed-in stage        |
| Connection method  | Push-in connection   |
| Connection in acc. with standard   | IEC 60947-7-1        |
| Conductor cross section solid min.   | 0.14 mm <sup>2</sup> |
| Conductor cross section solid max.   | 4 mm <sup>2</sup>    |
| Conductor cross section AWG min.   | 26                   |
| Conductor cross section AWG max.   | 12                   |
| Conductor cross section flexible min.                                      | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible max.                                      | 2.5 mm <sup>2</sup>  |
| Min. AWG conductor cross section, flexible                                 | 26                   |
| Max. AWG conductor cross section, flexible                                 | 14                   |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 2.5 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule with plastic sleeve min.    | 0.14 mm <sup>2</sup> |
| Conductor cross section flexible, with ferrule with plastic sleeve max.    | 2.5 mm <sup>2</sup>  |
| Stripping length   | 8 mm ... 10 mm       |
| Internal cylindrical gage  | A3                   |
| Connection method  | Push-in connection   |
| Connection in acc. with standard   | IEC 60947-7-1        |
| Conductor cross section solid min.   | 0.5 mm <sup>2</sup>  |
| Conductor cross section solid max.   | 10 mm <sup>2</sup>   |
| Conductor cross section AWG min.   | 20                   |
| Conductor cross section AWG max.   | 8                    |
| Conductor cross section flexible min.                                      | 0.5 mm <sup>2</sup>  |
| Conductor cross section flexible max.                                      | 6 mm <sup>2</sup>    |
| Min. AWG conductor cross section, flexible                                 | 20                   |
| Max. AWG conductor cross section, flexible                                 | 10                   |
| Conductor cross section flexible, with ferrule without plastic sleeve min. | 0.5 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule without plastic sleeve max. | 6 mm <sup>2</sup>    |
| Conductor cross section flexible, with ferrule with plastic sleeve min.    | 0.5 mm <sup>2</sup>  |
| Conductor cross section flexible, with ferrule with plastic sleeve max.    | 6 mm <sup>2</sup>    |

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## Technical data

### Connection data

|   |                     |
|---|---------------------|
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, min. | 0.5 mm <sup>2</sup> |
| 2 conductors with same cross section, stranded, TWIN ferrules with plastic sleeve, max. | 1.5 mm <sup>2</sup> |
| Stripping length  | 10 mm ... 12 mm     |

### Standards and Regulations

|  |   |
|--|---|
| Connection in acc. with standard                       | IEC 60947-7-1                                   |
|  | IEC 60947-7-1                                   |
| Flammability rating according to UL 94                 | V0  |
| Fire protection for rail vehicles (DIN EN 45545-2) R22 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26 | HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 HL 1 - HL 3 |

### Environmental Product Compliance

|            |   |
|------------|---|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

## Drawings

### Circuit diagram



## Approvals

### Approvals

#### Approvals

UL Recognized / cUL Recognized / CSA / VDE approval of drawings / IECCE CB Scheme / DNV GL / cULus Recognized

#### Ex Approvals

### Approval details

|                    |       |   |              |
|--------------------|-------|---|--------------|
| UL Recognized      |       | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 60425 |
|                    | D     | B   | C            |
| Nominal voltage UN | 600 V | 300 V   | 300 V        |
| Nominal current IN | 5 A   | 50 A  | 50 A         |

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### Approvals

|                            | D    | B    | C    |
|----------------------------|------|------|------|
| mm <sup>2</sup> /AWG/kcmil | 20-8 | 20-8 | 20-8 |

| cUL Recognized             |       | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 60425 |
|----------------------------|-------|---|--------------|
|                            | D     | B   | C            |
| Nominal voltage UN         | 600 V | 300 V   | 300 V        |
| Nominal current IN         | 5 A   | 50 A  | 50 A         |
| mm <sup>2</sup> /AWG/kcmil | 20-8  | 20-8  | 20-8         |

| CSA                        |       | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|----------------------------|-------|---|-------|
|                            | D     | B   | C     |
| Nominal voltage UN         | 600 V | 300 V   | 300 V |
| Nominal current IN         | 5 A   | 50 A  | 50 A  |
| mm <sup>2</sup> /AWG/kcmil | 20-8  | 20-8  | 20-8  |

| VDE approval of drawings |       | <a href="http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx">http://www2.vde.com/de/Institut/Online-Service/VDE-gepruefteProdukte/Seiten/Online-Suche.aspx</a> | 40047797 |
|--------------------------|-------|---|----------|
|                          | D     | B   | C        |
| Nominal voltage UN       | 630 V |   |          |
| Nominal current IN       | 41 A  |   |          |

| IECEE CB Scheme    |       | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-60113 |
|--------------------|-------|---|-----------|
|                    | D     | B   | C         |
| Nominal voltage UN | 630 V |   |           |
| Nominal current IN | 41 A  |   |           |

| DNV GL             |       | <a href="http://exchange.dnv.com/tari/">http://exchange.dnv.com/tari/</a> | TAE00002TT |
|--------------------|-------|---|------------|
|                    | D     | B   | C          |
| Nominal voltage UN | 500 V |   |            |
| Nominal current IN | 24 A  |   |            |

|                  |  |   |  |
|------------------|--|---|--|
| cULus Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> |  |
|------------------|--|---|--|

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