

## Distribution block - PTFIX 6/18X2,5-NS15A VT - 3274226

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Distribution block, Block with horizontal alignment and integrated supply, The blocks can be bridged with one another via the conductor shaft. For corresponding plug-in bridges, see accessories, nom. voltage: 690 V, nominal current: 24 A, connection method: Push-in connection, Push-in connection, number of connections: 19, cross section: 0.14 mm<sup>2</sup> - 4 mm<sup>2</sup>, AWG: 26 - 12, width: 56.5 mm, color: violet, mounting type: NS 15

### 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



### Key Commercial Data

|                        |                                                                                      |
|------------------------|--------------------------------------------------------------------------------------|
| Packing unit           | 8 pc                                                                                 |
| Minimum order quantity | 8 pc                                                                                 |
| GTIN                   |  |
| GTIN                   | 4055626394091                                                                        |

### 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                  | 19                                                                                                                                        |
| Potentials                             | 1                                                                                                                                         |
| Nominal cross section                  | 2.5 mm <sup>2</sup>                                                                                                                       |
| Nominal cross section feed-in          | 6 mm <sup>2</sup>                                                                                                                         |
| Color                                  | violet                                                                                                                                    |
| Insulating material                    | PA                                                                                                                                        |
| Flammability rating according to UL 94 | V0                                                                                                                                        |
| Rated surge voltage                    | 8 kV                                                                                                                                      |

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### 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) |
| Designation                                                                               | Level 1                                                                                               |
| Maximum load current                                                                      | 32 A (with 4 mm <sup>2</sup> conductor cross section)                                                 |
| Maximum total current                                                                     | 57 A (with 10 mm <sup>2</sup> conductor cross section)                                                |
| Nominal current I <sub>N</sub>                                                            | 24 A                                                                                                  |
| Nominal voltage U <sub>N</sub>                                                            | 690 V                                                                                                 |
| Designation                                                                               | Level 1 ext. 1                                                                                        |
| Maximum load current                                                                      | 57 A (with 10 mm <sup>2</sup> conductor cross section)                                                |
| Nominal current I <sub>N</sub>                                                            | 41 A (with 6 mm <sup>2</sup> conductor cross section)                                                 |
| 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                                                                                                 |

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|                                                                         |                                                |
|-------------------------------------------------------------------------|------------------------------------------------|
| Setpoint                                                                | 5 N                                            |
| Result of voltage-drop test                                             | Test passed                                    |
| Requirements, voltage drop                                              | $\leq 1.6 \text{ mV}$                          |
| 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                                                          | $f_1 = 5 \text{ Hz}$ to $f_2 = 250 \text{ Hz}$ |
| 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                                       |

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## Technical data

### General

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

### Dimensions

|              |         |
|--------------|---------|
| Width        | 56.5 mm |
| Length       | 28.6 mm |
| Height NS 15 | 31.4 mm |

### Connection data

|                                                                            |                      |
|----------------------------------------------------------------------------|----------------------|
| Connection method                                                          | Push-in connection   |
| Stripping length                                                           | 8 mm ... 10 mm       |
| 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>  |
| Internal cylindrical gage                                                  | A3                   |
| Connection                                                                 | Feed-in stage        |
| Connection method                                                          | Push-in connection   |
| Stripping length                                                           | 10 mm ... 12 mm      |
| 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.                                      | 10 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>  |

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#### Connection data

|                                                                                         |                     |
|-----------------------------------------------------------------------------------------|---------------------|
| Conductor cross section flexible, with ferrule with plastic sleeve max.                 | 6 mm <sup>2</sup>   |
| 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> |

#### Standards and Regulations

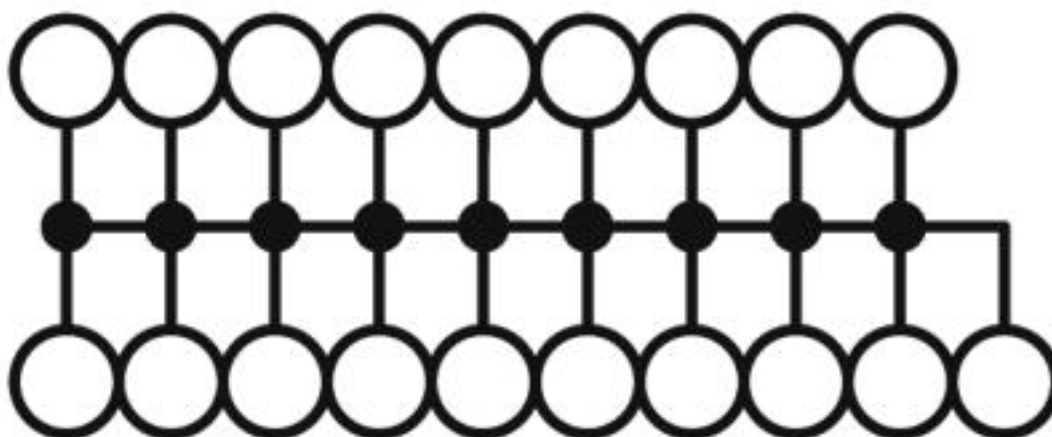
|                                                        |               |
|--------------------------------------------------------|---------------|
| Connection in acc. with standard                       | IEC 60947-7-1 |
|                                                        | IEC 60947-7-1 |
|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

#### Environmental Product Compliance

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

### Drawings

Circuit diagram



### Approvals

#### Approvals

#### Approvals

DNV GL / CSA / EAC / UL Recognized / cUL Recognized / cULus Recognized

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### Approvals

Ex Approvals

#### Approval details

|                    |                                                                                   |                                                                                   |            |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------|
| DNV GL             |  | <a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a> | TAE00002TT |
| Nominal voltage UN | 500 V                                                                             |                                                                                   |            |
| Nominal current IN | 24 A                                                                              |                                                                                   |            |

|                    |                                                                                   |                                                                                                                                         |       |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------|
| CSA                |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|                    | B                                                                                 | C                                                                                                                                       | D     |
| Nominal voltage UN | 300 V                                                                             | 300 V                                                                                                                                   | 600 V |
| Nominal current IN | 50 A                                                                              | 50 A                                                                                                                                    | 5 A   |
| mm²/AWG/kcmil      | 20-8                                                                              | 20-8                                                                                                                                    | 20-8  |

|     |                                                                                     |                          |
|-----|-------------------------------------------------------------------------------------|--------------------------|
| EAC |  | RU C-<br>DE.AI30.B.01102 |
|-----|-------------------------------------------------------------------------------------|--------------------------|

|                    |                                                                                     |                                                                                                                                                       |              |
|--------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 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 |
|                    | B                                                                                   | C                                                                                                                                                     | D            |
| Nominal voltage UN | 300 V                                                                               | 300 V                                                                                                                                                 | 600 V        |
| Nominal current IN | 50 A                                                                                | 50 A                                                                                                                                                  | 5 A          |
| mm²/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 |
|                    | B                                                                                   | C                                                                                                                                                     | D            |
| Nominal voltage UN | 300 V                                                                               | 300 V                                                                                                                                                 | 600 V        |
| Nominal current IN | 50 A                                                                                | 50 A                                                                                                                                                  | 5 A          |
| mm²/AWG/kcmil      | 20-8                                                                                | 20-8                                                                                                                                                  | 20-8         |

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### Approvals

cULus Recognized



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