

## Distribution block - PTFIX 12X4-NS35A BK - 3273694

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Distribution block, Block with horizontal alignment, The blocks can be bridged with one another via the conductor shaft. For corresponding plug-in bridges, see accessories, nom. voltage: 800 V, nominal current: 32 A, connection method: Push-in connection, number of connections: 12, cross section: 0.2 mm<sup>2</sup> - 6 mm<sup>2</sup>, AWG: 24 - 10, width: 36.9 mm, color: black, mounting type: NS 35/7,5, NS 35/15

### Your advantages

- ✓ Space savings of up to 50% on the DIN rail, thanks to transverse mounting
- ✓ Flexible use, thanks to DIN rail mounting, direct mounting or adhesive mounting
- ✓ Clear wiring, thanks to eleven different color variants
- ✓ 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



### Key Commercial Data

|                        |   |
|------------------------|---|
| Packing unit           | 8 pc  |
| Minimum order quantity | 8 pc  |
| GTIN                   | <br>4 055626 646640 |
| GTIN                   | 4055626646640   |

### 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                  | 12  |
| Potentials                             | 1   |
| Nominal cross section                  | 4 mm <sup>2</sup>   |
| Color                                  | black   |
| Insulating material                    | PA  |
| Flammability rating according to UL 94 | V0  |
| Rated surge voltage                    | 6 kV  |
| Degree of pollution                    | 3   |

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## Technical data

### General

|   |   |
|---|---|
| Overvoltage category  | III   |
| Insulating material group   | I   |
| Maximum power dissipation for nominal condition   | 1.02 W (the value is based on one connection block and is multiplied according to the pin assignment) |
| Maximum load current  | 41 A  |
| Maximum total current   | 63 A  |
| Nominal current $I_N$   | 32 A  |
| Nominal voltage $U_N$   | 800 V   |
| Open side panel   | No  |
| Ambient temperature (operation)   | -60 °C ... 85 °C  |
| Ambient temperature (storage/transport)   | -25 °C ... 55 °C (For a short time, not exceeding 24 h, -60 to +70 °C)                                |
| Permissible humidity (storage/transport)  | 30 % ... 70 %   |
| Ambient temperature (assembly)  | -5 °C ... 70 °C   |
| Ambient temperature (actuation)   | -5 °C ... 70 °C   |
| 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  | 2 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   | 0.2 mm <sup>2</sup> / 0.2 kg  |
|   | 4 mm <sup>2</sup> / 0.9 kg  |
|   | 6 mm <sup>2</sup> / 1.4 kg  |
| Tensile test result   | Test passed   |
| Conductor cross section tensile test  | 0.2 mm <sup>2</sup>   |
| Tractive force setpoint   | 10 N  |
| Conductor cross section tensile test  | 4 mm <sup>2</sup>   |
| Tractive force setpoint   | 60 N  |
| Conductor cross section tensile test  | 6 mm <sup>2</sup>   |
| Tractive force setpoint   | 80 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   |
| Requirements, voltage drop  | ≤ 3.2 mV  |

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### Technical data

#### General

|   |  |
|---|--|
| Result of temperature-rise test   | Test passed                                      |
| Short circuit stability result  | Test passed                                      |
| Conductor cross section short circuit testing                           | 4 mm <sup>2</sup>                                |
| Short-time current  | 0.48 kA  |
| Conductor cross section short circuit testing                           | 6 mm <sup>2</sup>                                |
| Short-time current  | 0.72 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   |
| 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                                      |
| 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  | 36.9 mm |
| Length | 45.7 mm |

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## Technical data

### Dimensions

|                  |         |
|------------------|---------|
| Height NS 35/7,5 | 30.9 mm |
|------------------|---------|

### Connection data

|  |   |
|--|---|
| 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.   | 0.2 mm <sup>2</sup>                         |
| Conductor cross section solid max.   | 6 mm <sup>2</sup>                           |
| Conductor cross section AWG min.   | 24  |
| Conductor cross section AWG max.   | 10  |
| Conductor cross section flexible min.  | 0.2 mm <sup>2</sup>                         |
| Conductor cross section flexible max.  | 4 mm <sup>2</sup>                           |
| Min. AWG conductor cross section, flexible   | 24  |
| Max. AWG conductor cross section, flexible   | 12  |
| Conductor cross section flexible, with ferrule without plastic sleeve min.                             | 0.2 mm <sup>2</sup>                         |
| Conductor cross section flexible, with ferrule without plastic sleeve max.                             | 4 mm <sup>2</sup>                           |
| Conductor cross section flexible, with ferrule with plastic sleeve min.                                | 0.2 mm <sup>2</sup>                         |
| Conductor cross section flexible, with ferrule with plastic sleeve max.                                | 4 mm <sup>2</sup>                           |
| Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, minimum | 0.5 mm <sup>2</sup>                         |
| Two conductors with the same cross section, flexible, with TWIN ferrules, with plastic sleeve, maximum | 1 mm <sup>2</sup>                           |
| Connection cross sections directly pluggable   | 0.5 mm <sup>2</sup> 6 mm <sup>2</sup> 20 10 |
| Conductor cross section solid min.   | 0.5 mm <sup>2</sup>                         |
| Conductor cross section solid max.   | 6 mm <sup>2</sup>                           |
| Conductor cross section flexible, with ferrule without plastic sleeve min.                             | 0.75 mm <sup>2</sup>                        |
| Conductor cross section flexible, with ferrule without plastic sleeve max.                             | 4 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.                                | 4 mm <sup>2</sup>                           |
| Internal cylindrical gage  | A4  |

### Standards and Regulations

|  |               |
|--|---------------|
| Connection in acc. with standard       | IEC 60947-7-1 |
| Flammability rating according to UL 94 | V0            |

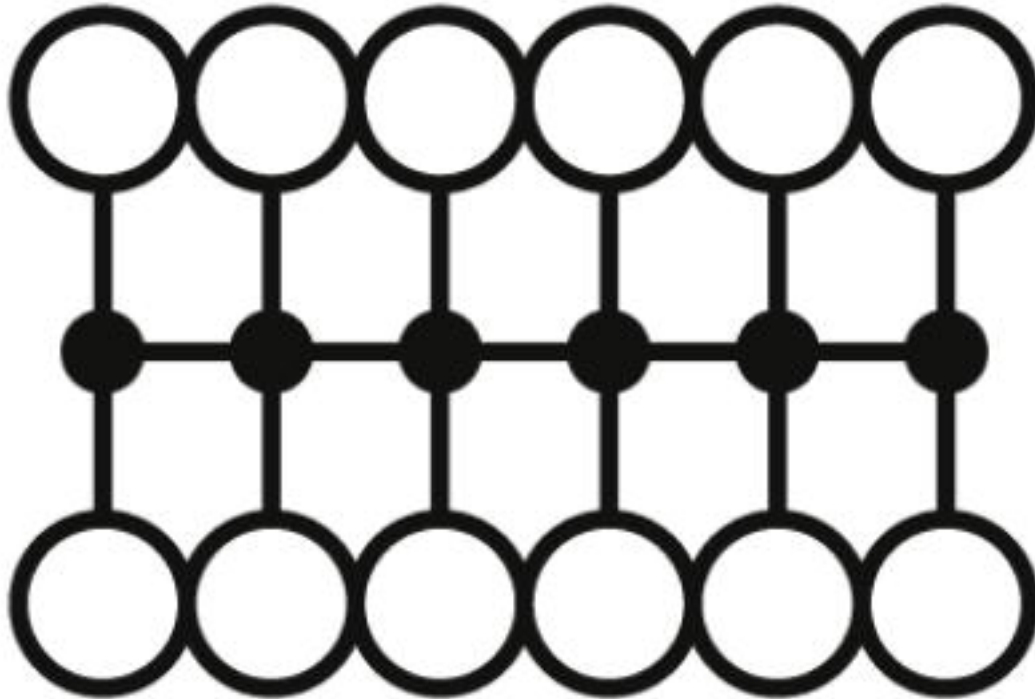
### Environmental Product Compliance

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

## Drawings

# Distribution block - PTFIX 12X4-NS35A BK - 3273694

Circuit diagram



## Classifications

### eCl@ss

|               |          |
|---------------|----------|
| eCl@ss 10.0.1 | 27141120 |
| eCl@ss 4.0    | 27141120 |
| eCl@ss 4.1    | 27141120 |
| eCl@ss 5.0    | 27141120 |
| eCl@ss 5.1    | 27141120 |
| eCl@ss 6.0    | 27141100 |
| eCl@ss 7.0    | 27141120 |
| eCl@ss 8.0    | 27141120 |
| eCl@ss 9.0    | 27141120 |

### ETIM

|          |          |
|----------|----------|
| ETIM 2.0 | EC000897 |
| ETIM 3.0 | EC000897 |
| ETIM 4.0 | EC000897 |
| ETIM 5.0 | EC000897 |
| ETIM 6.0 | EC000897 |
| ETIM 7.0 | EC000897 |

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## Classifications

### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211811 |
| UNSPSC 7.0901 | 39121410 |
| UNSPSC 11     | 39121410 |
| UNSPSC 12.01  | 39121410 |
| UNSPSC 13.2   | 39121410 |
| UNSPSC 18.0   | 39121410 |
| UNSPSC 19.0   | 39121410 |
| UNSPSC 20.0   | 39121410 |
| UNSPSC 21.0   | 39121410 |

## Approvals


### Approvals


#### Approvals

CSA / UL Recognized / cUL Recognized / EAC / IECB Scheme / VDE Zeichengenehmigung / DNV GL / EAC / LR / cULus Recognized

#### Ex Approvals

### Approval details

|                            |   |   |       |
|----------------------------|---|---|-------|
| CSA                        |  | <a href="http://www.csagroup.org/services-industries/product-listing/">http://www.csagroup.org/services-industries/product-listing/</a> | 13631 |
|                            | B   | C   |       |
| Nominal voltage UN         | 600 V   | 600 V   |       |
| Nominal current IN         | 32 A  | 32 A  |       |
| mm <sup>2</sup> /AWG/kcmil | 24-10   | 24-10   |       |

|                            |   |   |              |
|----------------------------|---|---|--------------|
| 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   |              |
| Nominal voltage UN         | 600 V   | 600 V   |              |
| Nominal current IN         | 32 A  | 32 A  |              |
| mm <sup>2</sup> /AWG/kcmil | 24-10   | 24-10   |              |

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## Approvals

|                            |       |   |              |
|----------------------------|-------|---|--------------|
| 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   |              |
| Nominal voltage UN         | 600 V | 600 V   |              |
| Nominal current IN         | 32 A  | 32 A  |              |
| mm <sup>2</sup> /AWG/kcmil | 24-10 | 24-10   |              |

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

|                            |       |   |           |
|----------------------------|-------|---|-----------|
| IECEE CB Scheme            |       | <a href="http://www.iecee.org/">http://www.iecee.org/</a> | DE1-62701 |
| Nominal voltage UN         | 800 V |   |           |
| Nominal current IN         | 32 A  |   |           |
| mm <sup>2</sup> /AWG/kcmil | 4     |   |           |

|                            |       |   |          |
|----------------------------|-------|---|----------|
| VDE Zeichengenehmigung     |       | <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 |
| Nominal voltage UN         | 800 V |   |          |
| Nominal current IN         | 32 A  |   |          |
| mm <sup>2</sup> /AWG/kcmil | 0.2-4 |   |          |

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

|     |  |                          |
|-----|--|--------------------------|
| EAC |  | RU C-<br>DE.BL08.B.00644 |
|-----|--|--------------------------|

## Distribution block - PTFIX 12X4-NS35A BK - 3273694

### Approvals

|    |  |   |           |
|----|--|---|-----------|
| LR |  | <a href="http://www.lr.org/en">http://www.lr.org/en</a> | 2002627TA |
|----|--|---|-----------|

|                  |  |
|------------------|--|
| cULus Recognized |  |
|------------------|--|

### Accessories

#### Accessories

#### Jumper

Plug-in bridge - FBS 2-6 - 3030336



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: red

Plug-in bridge - FBS 2-6 GY - 3032237



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: gray

Plug-in bridge - FBS 2-6 BU - 3036932



Plug-in bridge, pitch: 6.2 mm, width: 10.7 mm, number of positions: 2, color: blue

#### Labeled terminal marker

Marker card - SK 6,2/3,8:FORTL.ZAHLEN - 0804374



Marker card, Card, white, labeled, Horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... (99)100, mounting type: adhesive, for terminal block width: 6.2 mm, lettering field size: 6.2 x 3.8 mm



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### Accessories

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Marker for terminal blocks - SK 6,2/3,8:FORTL.ZAHLEN 1-10 - 0804374:0001



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 1 ... 10, 10-section marker strips with 12 identical decades, white

---

Marker for terminal blocks - SK 6,2/3,8:FORTL.ZAHLEN 11-20 - 0804374:0011



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 11 ... 20, 10-section marker strips with 12 identical decades, white

---

Marker for terminal blocks - SK 6,2/3,8:FORTL.ZAHLEN 21-30 - 0804374:0021



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 21 ... 30, 10-section marker strips with 12 identical decades, white

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Marker for terminal blocks - SK 6,2/3,8:FORTL.ZAHLEN 31-40 - 0804374:0031



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 31 ... 40, 10-section marker strips with 12 identical decades, white

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Marker for terminal blocks - SK 6,2/3,8:FORTL.ZAHLEN 41-50 - 0804374:0041



Marker card, self-adhesive, horizontally labeled with the consecutive numbers: 41 ... 50, 10-section marker strips with 12 identical decades, white

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### Terminal marking

## Distribution block - PTFIX 12X4-NS35A BK - 3273694

### Accessories

#### Marker for terminal blocks - US-TML (104X3,8) - 0830768



Marker for terminal blocks, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 104 x 3.8 mm, Number of individual labels: 22

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#### Marker for terminal blocks - US-TML (104X2,8) - 0830767



Marker for terminal blocks, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 104 x 2.8 mm, Number of individual labels: 26

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#### Marker card - SK U/3,8 WH:UNBEDRUCKT - 0803906



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 3.8 mm, Number of individual labels: 1440

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#### Marker card - SK U/2,8 WH:UNBEDRUCKT - 0803883



Marker card, Sheet, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, Office printing systems, mounting type: adhesive, for terminal block width: 210 mm, lettering field size: 186 x 2.8 mm, Number of individual labels: 3600

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#### Marking foil for zack marker strip - TML (EX3,8)R - 0801837



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: 30000 x 3.8 mm, Number of individual labels: 1

## Distribution block - PTFIX 12X4-NS35A BK - 3273694

### Accessories

Marking foil for zack marker strip - TML (104X3,8)R - 0801833



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 104 mm, lettering field size: 104 x 3.8 mm, Number of individual labels: 2500

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Marking foil for zack marker strip - TML (104X2,8)R - 0801832



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 104 mm, lettering field size: 104 x 2.8 mm, Number of individual labels: 2500

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Marking foil for zack marker strip - TML (EX2,8)R - 0801836



Marking foil for zack marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, for terminal block width: 30000 mm, lettering field size: 30000 x 2.8 mm, Number of individual labels: 1

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