DBL distribution blocks
3x1 pole

- The usage of three poles distribution block is recommended for L1, L2, L3 applications
- Each pole can be separated from the assembly to align the poles with upstream equipment configuration
- Mount it on Din rail or plate and save up to 50% rail space compared to conventional copper bars
- Reduce the assembly time by 80% by avoiding to use fastening and isolating components
- Easy identification with the reversible cover and delivered pre-printed markers L1, L2, L3, N, PE, +, –.

3D CAD outline drawings available on “Control Product 3D” portal

Ordering details

<table>
<thead>
<tr>
<th>Color</th>
<th>Type</th>
<th>Order code</th>
<th>EAN code</th>
<th>Pkg qty</th>
<th>Weight (1 pce)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grey</td>
<td>DBL175-C-3</td>
<td>15NL31753180000</td>
<td>3472599029906</td>
<td>1</td>
<td>360</td>
</tr>
</tbody>
</table>

Declarations and certificates

- CE
- CB
- RoHS
- US
- CSA
- EAC

x3

50 mm²

1/0 AWG

84.6 mm 3.33 in spacing
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Declarations and certificates

<table>
<thead>
<tr>
<th>CE</th>
<th>UE</th>
<th>1SND225005U1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB</td>
<td>CB</td>
<td>1SND166005A0201</td>
</tr>
<tr>
<td>RoHS</td>
<td>RoHS</td>
<td>1SND230557F0201</td>
</tr>
<tr>
<td>USR</td>
<td>USR</td>
<td>1SND166006A0201</td>
</tr>
<tr>
<td>CSA</td>
<td>CSA</td>
<td>1SND166007A0201</td>
</tr>
<tr>
<td>EAC</td>
<td>EAC</td>
<td>1SND161011A1100</td>
</tr>
</tbody>
</table>

---

General information*

The following information must be strictly adhered to in order to guarantee the terminal block electrical, mechanical and environmental performance.

Protection: IEC 60947-1 IP10 NEMA 1

Rail: TH 35-7.5, TH 35-15

Mounting instructions

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating tool</td>
<td>Allen key</td>
</tr>
<tr>
<td>Torque</td>
<td>6... 10 Nm</td>
</tr>
<tr>
<td>Wire stripping length</td>
<td>18 mm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circuit 3</th>
<th>Circuit 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating tool</td>
<td>Posidriv - flat screwdriver</td>
</tr>
<tr>
<td>Torque</td>
<td>2 ... 3 Nm</td>
</tr>
<tr>
<td>Wire stripping length</td>
<td>11 mm</td>
</tr>
</tbody>
</table>

* Instructions given for 1 pole, to be repeated on each block module

Material specifications

| Insulating material | Polyamide |
| CTI | 600 V |
| Flammability | UL94 V0, EN 45545 HL3 R22 |
| Needle flame test | IEC 60695-11-5 |
| Connector Material | Brass with tin plating |

Connecting capacity per circuit

<table>
<thead>
<tr>
<th>Circuit 1</th>
<th>Circuit 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rigid - Solid / Stranded conductor</td>
<td>Norme IEC 60947-7-1 UL1059 IEC60947-7-1 UL1059</td>
</tr>
<tr>
<td>Value</td>
<td>16 ... 70 mm² 6 ... 2/0 AWG 6 ... 16 mm² 10 ... 6 AWG</td>
</tr>
<tr>
<td>1 Flexible conductor with ferrule</td>
<td>Norme IEC 60947-7-1 IEC60947-7-1</td>
</tr>
<tr>
<td>Value</td>
<td>16 ... 50 mm² 8 ... 1/0 AWG 2.5 ... 16 mm² 14 ... 6 AWG</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Circuit 3</th>
<th>Circuit 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rigid - Solid / Stranded conductor</td>
<td>Norme</td>
</tr>
<tr>
<td>Value</td>
<td>2.5 ... 16 mm²</td>
</tr>
<tr>
<td>1 Flexible conductor with ferrule</td>
<td>Norme</td>
</tr>
<tr>
<td>Value</td>
<td>2.5 ... 16 mm²</td>
</tr>
</tbody>
</table>

Ferrule maximum outer diameter or conductor insulation maximum outer diameter | Ø Max, |

The "Connecting capacity with ferrule" data is guaranteed with ABB crimping tool PS-3 (crimping capacity up to 10 mm²).

- Flexible without ferrule (IEC V-K, UL class G...K) Not allowed
- Flexible with ferrule (IEC V-K, UL class G...K) Allowed
- Solid (IEC V-U class 1, UL solid) Allowed
- Rigid stranded (IEC V-R class 2, UL class B/C) Allowed

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Multi connecting capacity per clamp

<table>
<thead>
<tr>
<th>Conductors</th>
<th>Norme</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Rigid - Solid / Stranded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Flexible conductors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Flexible conductors with twin ferrule</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Don’t mix solid and flexible conductors in the same clamp.
Don’t mix solid or flexible conductors of different sizes in the same clamp.
The “Connecting capacity with ferrule” data is guaranteed with ABB crimping tool PS-3 (crimping capacity up to 10 mm²).

Cross section

<table>
<thead>
<tr>
<th>Rated cross section</th>
<th>IEC60947-7-1 50 mm²</th>
<th>UL1059 1/0 AWG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum cross section</td>
<td>Manufacturer data 70 mm²</td>
<td>Manufacturer data 2/0 AWG</td>
</tr>
</tbody>
</table>

Electrical characteristics

Current

<table>
<thead>
<tr>
<th>Rated current</th>
<th>IEC60947-7-1 175 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field and factory wiring Cat.2</td>
<td>UL 1059 175 A</td>
</tr>
<tr>
<td>Factory wiring Cat.1</td>
<td>UL 1059</td>
</tr>
</tbody>
</table>

Maximum Exe current

<table>
<thead>
<tr>
<th>Rated short-time withstand current 1 s (icw)</th>
<th>IEC60947-7-1 6000 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-time withstand current</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>0.5 s</td>
<td></td>
</tr>
<tr>
<td>5 s</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>10 s</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>30 s</td>
<td>Manufacturer data</td>
</tr>
<tr>
<td>1 mn</td>
<td>Manufacturer data</td>
</tr>
</tbody>
</table>

Rated short-circuit withstand current

<table>
<thead>
<tr>
<th>Max. current (45° temperature increase) / Max. cross section (mm²)</th>
<th>Manufacturer data 175 A 70 mm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum short circuit current (1s)</td>
<td>Manufacturer data 6000 A</td>
</tr>
</tbody>
</table>

Short Circuit Current Rating (SCCR) SA UL 1059 supplement

SCCR

<table>
<thead>
<tr>
<th>UL 1059</th>
</tr>
</thead>
</table>

With the following configurations:

Suitable conductor wire range

| 2 x (6 ... 2/0) AWG |

Maximum voltage

| 600 V |

Fuse class / Max. amp. Rating

| J |

<table>
<thead>
<tr>
<th>RK1</th>
<th>200 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>RK5</td>
<td>200 A</td>
</tr>
<tr>
<td>G</td>
<td>60 A</td>
</tr>
<tr>
<td>CC</td>
<td>30 A</td>
</tr>
</tbody>
</table>

Mounting instructions

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Voltage

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage IEC 60947-1</td>
<td>1500 V DC 1000 V AC</td>
</tr>
<tr>
<td>Rated voltage UL 1059</td>
<td>1000 V AC</td>
</tr>
<tr>
<td>Rated voltage CSA-C-22.2 n° 158</td>
<td>1000 V AC</td>
</tr>
<tr>
<td>Rated impulse withstand voltage IEC</td>
<td>8000 V</td>
</tr>
<tr>
<td>Rated impulse withstand voltage UL</td>
<td>8000 V</td>
</tr>
<tr>
<td>Rated test voltage IEC</td>
<td>2200 V</td>
</tr>
<tr>
<td>Rated test voltage UL</td>
<td>2200 V</td>
</tr>
<tr>
<td>Pollution degree IEC</td>
<td>3</td>
</tr>
<tr>
<td>Pollution degree UL</td>
<td>3</td>
</tr>
<tr>
<td>Overvoltage category IEC</td>
<td>III</td>
</tr>
<tr>
<td>Overvoltage category UL</td>
<td>III</td>
</tr>
</tbody>
</table>

Temperature range

<table>
<thead>
<tr>
<th>Condition</th>
<th>Min/max Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage</td>
<td>-55 ... +110 °C</td>
</tr>
<tr>
<td>Installing</td>
<td>-5 ... +40 °C</td>
</tr>
<tr>
<td>Service</td>
<td>-55 ... +110 °C</td>
</tr>
</tbody>
</table>

Current Derating curve for continuous service temperature

![Current Derating curve for continuous service temperature](image)

Dissipated power

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum dissipated power at rated current IEC 60947-7-1</td>
<td>16.8 W</td>
</tr>
<tr>
<td>Maximum dissipated power at maximum Exe current IEC 60079-7</td>
<td></td>
</tr>
</tbody>
</table>

DBL terminal block accessories compatibility

Some accessories may modify the terminal block’s rating. See complete information in the accessories “Technical Datasheet”.

Environmental characteristics

Additional climatic tests

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cyclic damp heat</td>
<td>IEC 60068-2-30 Compliant</td>
</tr>
<tr>
<td>Conditions</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>55 °C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>95 %</td>
</tr>
<tr>
<td>Number of cycles (1 cycle = 24h)</td>
<td>2</td>
</tr>
<tr>
<td>Damp heat steady state</td>
<td>IEC 60068-2-78 Compliant</td>
</tr>
<tr>
<td>Conditions</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>40 °C</td>
</tr>
<tr>
<td>Relative humidity</td>
<td>93 %</td>
</tr>
<tr>
<td>Duration of test</td>
<td>96 h</td>
</tr>
</tbody>
</table>

DBL terminal block accessories compatibility

<table>
<thead>
<tr>
<th>Description</th>
<th>Color</th>
<th>Type</th>
<th>Order code</th>
<th>Pkg qty</th>
<th>Weight (1 pce) g</th>
</tr>
</thead>
<tbody>
<tr>
<td>End stops</td>
<td>Dark</td>
<td>BAM4</td>
<td>1SNK9000001R0000</td>
<td>50</td>
<td>14.00</td>
</tr>
<tr>
<td>10 mm</td>
<td>grey</td>
<td>BAZ1</td>
<td>1SNK900002R0000</td>
<td>50</td>
<td>5.30</td>
</tr>
<tr>
<td>5.2 mm</td>
<td></td>
<td>BAZH1</td>
<td>1SNK900010R0000</td>
<td>20</td>
<td>24.00</td>
</tr>
<tr>
<td>10 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Terminal block markers</td>
<td>White</td>
<td>MG-CPM 13 41790</td>
<td>1SNB041790R0512</td>
<td>1960</td>
<td>0.236</td>
</tr>
<tr>
<td>Blank marker</td>
<td></td>
<td>MCS12PA</td>
<td>1SNK149999R0000</td>
<td>20</td>
<td>10.00</td>
</tr>
<tr>
<td>Blank card</td>
<td></td>
<td>MCS12PA-GN</td>
<td>1SNK149997R0000</td>
<td>20</td>
<td>10.00</td>
</tr>
<tr>
<td>Green</td>
<td></td>
<td>MCS12PA-BL</td>
<td>1SNK149998R0000</td>
<td>20</td>
<td>10.00</td>
</tr>
<tr>
<td>Blue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Flexible without ferrule (IEC V-K, UL class G...K)

Flexible with ferrule (IEC V-K, UL class G...K)

Solid (IEC V-U class 1, UL solid)

Rigid stranded (IEC V-R class 2, UL class B/C)
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<table>
<thead>
<tr>
<th>Flexible without ferrule</th>
<th>Flexible with ferrule</th>
<th>Solid</th>
<th>Rigid stranded</th>
</tr>
</thead>
<tbody>
<tr>
<td>(IEC V-K, UL class G...K)</td>
<td>(IEC V-K, UL class G...K)</td>
<td>(IEC V-U class 1, UL solid)</td>
<td>(IEC V-R class 2, UL class B/C)</td>
</tr>
<tr>
<td>Not allowed</td>
<td>Allowed</td>
<td>Allowed</td>
<td>Allowed</td>
</tr>
</tbody>
</table>