SIWO-KUL® B10 13.8/15 kV MV high temperature flexible cables designed with a PET braid, PUR varnished

Description

SIWO-KUL® B10 cables are required when high flexibility and high temperature conditions are present; they are mainly used in medium-voltage motors and generators for connecting stator coils to the terminal box. They are also vital elements for wind converters, transformers, solar power inverters and other MV/LV cabinets. In drives, silicone decreases copper cross-section and gives flexibility for compactness.

SIWO-KUL® B10 13.8/15 kV cables are class 5 single core cables. This product family is designed with a PET braid, PUR varnished providing our customers much flexibility according to their process (VPI…).

For voltage starting 6.6 kV & cross section above 16 mm², Nexans has developed a specific patented extruded semi conductive silicon layer enabling much lower partial discharge and increasing de facto the life time of our cables.

Construction

- Copper conductor tinned, flexible IEC 60228, class 5
- Tape (up 16 mm²)
- Semi-conductive layer (only for 6.6 and 13.8 kV)
- Silicone rubber insulation
- Separator tape
- Protective synthetic yarn braiding, PUR varnished

The use of silicone rubber, a high grade corona resistant insulation material, gives the cable excellent dielectric strength. The braided synthetic yarn covering, which is applied directly over the insulation, gives the cable, because of its short braiding pitch and high compactness, an excellent mechanical protection by maintaining good flexibility.

Operating temperature for continuous service extends from –55°C up to 180°C.

This product family is also part of our Windlink® offer for Wind turbines

Approvals

These cables are UL (Underwriters Laboratories inc.) approved for Appliance Wiring Material (AWM), following styles 3640, 3641, 3642 and 3643, CSA File No.: 036040-0-000

SIWO-KUL® B10 cables are in compliance with EU directives on the limits of certain metals and waste as defined on ROHS (Restriction of Hazardous Substances) and WEE (Waste from Electrical and Electronic Equipment). SIWO-KUL® B10 is REACH confirm substances benzene, C10-C13).

Standards

International IEC 60092; IEC 60331;
IEC 60332-1; IEC 60332-3 Cat.C;
IEC 60332-3-24; IEC 60754-1;
IEC 60754-2; IEC 61034; IEEE 383;
LLOYDS Reg. 91/00126(E1);
UIC 895

National BSS 6195-T5-D-E-F;
CSA C22.2 N° 210-05;
DIN VDE 0472; NF F 16-101/BF1

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All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.
### Characteristics

<table>
<thead>
<tr>
<th>Usage characteristics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature, range</td>
<td>-55 .. 180 °C</td>
</tr>
<tr>
<td>Chemical resistance</td>
<td>Good</td>
</tr>
<tr>
<td>Oil resistance</td>
<td>Yes</td>
</tr>
<tr>
<td>Flame retardant</td>
<td>IEC 60332-1</td>
</tr>
<tr>
<td>Fire retardant</td>
<td>IEC 60332-3</td>
</tr>
<tr>
<td>Fire resistant</td>
<td>IEC 60331</td>
</tr>
<tr>
<td>Gases corrosivity</td>
<td>IEC 60754-1, IEC 60754-2</td>
</tr>
<tr>
<td>Smoke density</td>
<td>IEC 61034</td>
</tr>
</tbody>
</table>

### Permissible continuous current carrying capacity 13.8kV

Cables separated: 1D

The values determined from the diagram are based on the following assumptions:

- a) Cables separated.
- Space between adjacent cables ≥ 1 x d.
- b) Conductor temperature = See tables below
- c) Without additional cooling.
- Sufficient natural air flow ensured.
Selling information

Marking

Our SIWO-KUL® B10 cables have been printed:
NEXANS SWITZERLAND SIWO-KUL® B10 + voltage in kV + section in mm² + Standards + Meter marks