

SIWO-KUL® B10 6.6/7.2 kV

SIWO-KUL® B10 6.6/7.2 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 6.6/7.2 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 conform 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-C-D-E-F; CSA C22.2 N° 210-05; DIN VDE 0472; NF F 16-101/BF1

| | | | | | | | |
|---|---|---|---|---|--|---|---|
|  |  |  |  |  |  |  |  |
| Operating temperature range -55 .. 180 °C | Chemical resistance Good | Oil resistance Yes | Flame retardant IEC 60332-1 | Fire retardant IEC 60332-3 | Fire resistant IEC 60331 | Gases corrosivity IEC 60754-1, IEC 60754-2 | Smoke density IEC 61034 |

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Characteristics

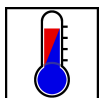
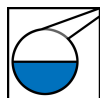
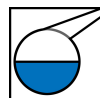
| Usage characteristics | |
|------------------------------|--------------------------|
| Operating temperature, range | -55 .. 180 °C |
| Chemical resistance | Good |
| Oil resistance | Yes |
| Flame retardant | IEC 60332-1 |
| Fire retardant | IEC 60332-3 |
| Fire resistant | IEC 60331 |
| Gases corrosivity | IEC 60754-1, IEC 60754-2 |
| Smoke density | IEC 61034 |

Product List

☎=Make to order, 🏠=In stock

| Nexans ref. | Name | Operating voltage (kV) | Conductor cross-section (mm ²) | Nominal outer diameter (mm) |
|-------------|------------------------------------|------------------------|--|-----------------------------|
| 🏠 10148777 | SIWO-KUL B10 1X4.0 6,6/7,2KV GY | 6.6 | 4 | 7.55 |
| 🏠 10148778 | SIWO-KUL B10 1X6.0 6,6/7,2KV GY | 6.6 | 6 | 8.0 |
| 🏠 10148779 | SIWO-KUL B10 1X10 6,6/7,2KV GY | 6.6 | 10 | 8.95 |
| 🏠 10148769 | SIWO-KUL B10 1X16 6,6/7,2KV GY | 6.6 | 16 | 11.25 |
| 🏠 10148770 | SIWO-KUL B10 1X25 6,6/7,2KV GY | 6.6 | 25 | 12.9 |
| 🏠 10148771 | SIWO-KUL B10 1X35 6,6/7,2KV GY | 6.6 | 35 | 14.1 |
| 🏠 10148772 | SIWO-KUL B10 1X50 6,6/7,2KV GY | 6.6 | 50 | 16.3 |
| 🏠 10148773 | SIWO-KUL B10 1X70 6,6/7,2KV GY | 6.6 | 70 | 18.15 |
| 🏠 10148780 | SIWO-KUL B10 1X95 6,6/7,2KV GY | 6.6 | 95 | 19.9 |
| 🏠 10148781 | SIWO-KUL B10 1X120 6,6/7,2KV GY | 6.6 | 120 | 21.75 |
| 🏠 10148886 | SIWO-KUL B10 1X150 6,6/7,2KV GY | 6.6 | 150 | 24.1 |
| 🏠 10148885 | SIWO-KUL B10 1X185 6,6/7,2KV GY | 6.6 | 185 | 26.1 |
| ☎ 10148947 | SIWO-KUL B10 1240X 6,6/7,2KV GY | 6.6 | 240 | 28.3 |

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 Operating temperature, range
-55 .. 180 °C

 Chemical resistance
Good

 Oil resistance
Yes

 Flame retardant
IEC 60332-1

 Fire retardant
IEC 60332-3

 Fire resistant
IEC 60331

 Gases corrosivity
IEC 60754-1, IEC 60754-2

 Smoke density
IEC 61034

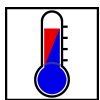
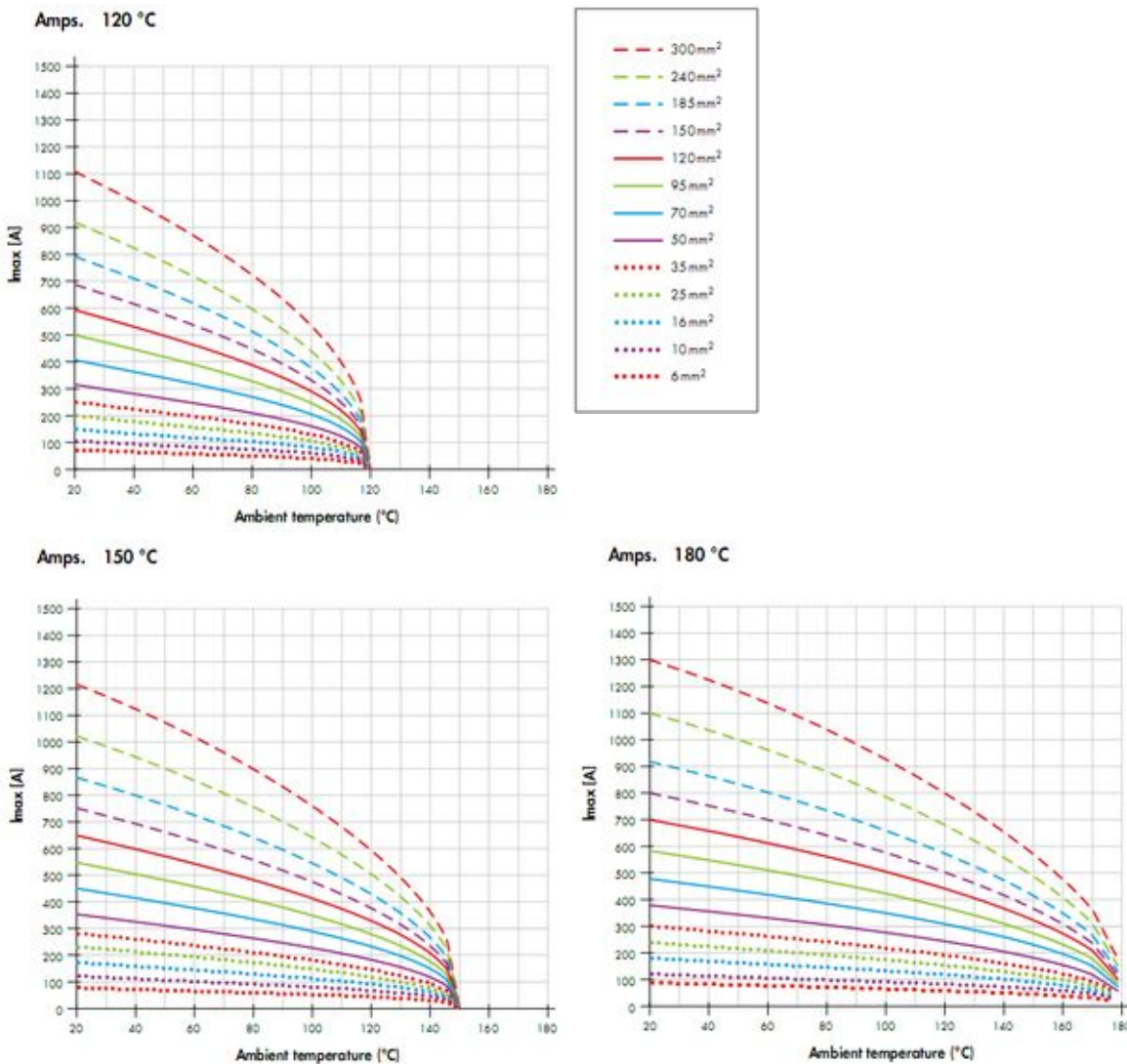
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Permissible continuous current carrying capacity 6kV

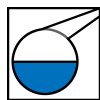
Cables separated: 1D

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

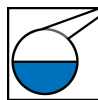
- a) Cables separated.
 - Space between adjacent cables $\geq 1 \times d$.
 - b) Conductor temperature = See tables below
 - c) Without additional cooling.
- Sufficient natural air flow ensured.



Operating temperature range
-55 .. 180 °C



Chemical resistance
Good



Oil resistance
Yes



Flame retardant
IEC 60332-1



Fire retardant
IEC 60332-3



Fire resistant
IEC 60331



Gases corrosivity
IEC 60754-1, IEC 60754-2



Smoke density
IEC 61034









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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

| | | | | | | | |
|---|---|---|---|---|--|---|---|
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| Operating temperature, range -55 .. 180 °C | Chemical resistance Good | Oil resistance Yes | Flame retardant IEC 60332-1 | Fire retardant IEC 60332-3 | Fire resistant IEC 60331 | Gases corrosivity IEC 60754-1, IEC 60754-2 | Smoke density IEC 61034 |