Contact
Building & Industry Cables
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generalmarket.ch@nexans.com

SIWO-KUL® B10 3.3/4.2 kV

SIWO-KUL B10 1x120 3,3/4,2kV RD

Nexans ref.: 10148753
EAN 13: 7611755007348

SIWO-KUL® B10 3.3/4.2 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 13.3/4.2 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…).

Construction

- Copper conductor tinned, flexible IEC 60228, class 5
- 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.

RoHS
REACh

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;IEEE 383;LLOYDS Reg. 91/00126 (E1);UIC 895;VERITAS N°09555/A0 BV ACE1/723 PC 2502H

National BSS 6195-T5-C-D-E-F;DIN VDE 0472;NF F 16-101/BF1

Conductor flexibility	Halogen free	Ope. volt.	Cable flexibility	static bending rad.	Operating temp. range	Chemical resistance	Maximum operating temperature
Flexible class 5	Yes	3.3 kV	Flexible	109 mm	-55 .. 180 °C	Good	180 °C

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Characteristics

Construction characteristics	
Conductor material	Tinned copper
Conductor flexibility	Flexible class 5
Insulation	Special Silicone
Halogen free	Yes
Outer sheath	Synthetic yarn braiding
Construction type	558 x 0.5
Dimensional characteristics	
Conductor cross-section	120 mm²
Nominal outer diameter	21.15 mm
Approximate weight	1215 kg/km
Conductor diameter	15.45 mm
Precision of diameter	+/- 0.3 mm
Electrical characteristics	
Operating voltage	3.3 kV
Maximum peak voltage	0. .. 10. kV
Test voltage	10 kV
Max. DC resistance of the conductor at 20°C	0.16 Ohm/km
Breakdown voltage	20 kV
Breakdown field strength (kV/mm)	> 20
Dielectric constant relative value (indicative)	3.50
Loss factor tan d	< 10-2
Mechanical characteristics	
Minimum Tensile Strength	8.0 MPa
Cable flexibility	Flexible
Elongation at break of insulation (%)	> 250
Usage characteristics	
Minimum static operating bending radius	109 mm
Operating temperature, range	-55 .. 180 °C
Chemical resistance	Good
Maximum operating temperature	180 °C
Minimum operating temperature	-55 °C
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
Packaging	Cut to length
Ozone resistance	Yes
U.V resistance	Yes

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Permissible continuous current carrying capacity 3kV

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.
Suffcient natural air fow ensured.

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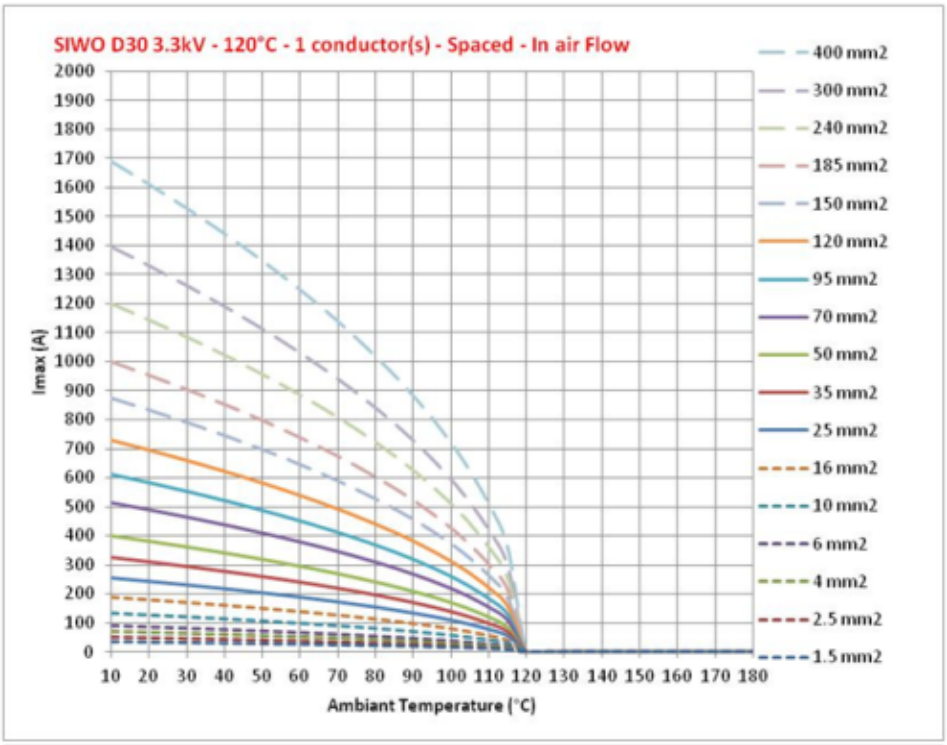

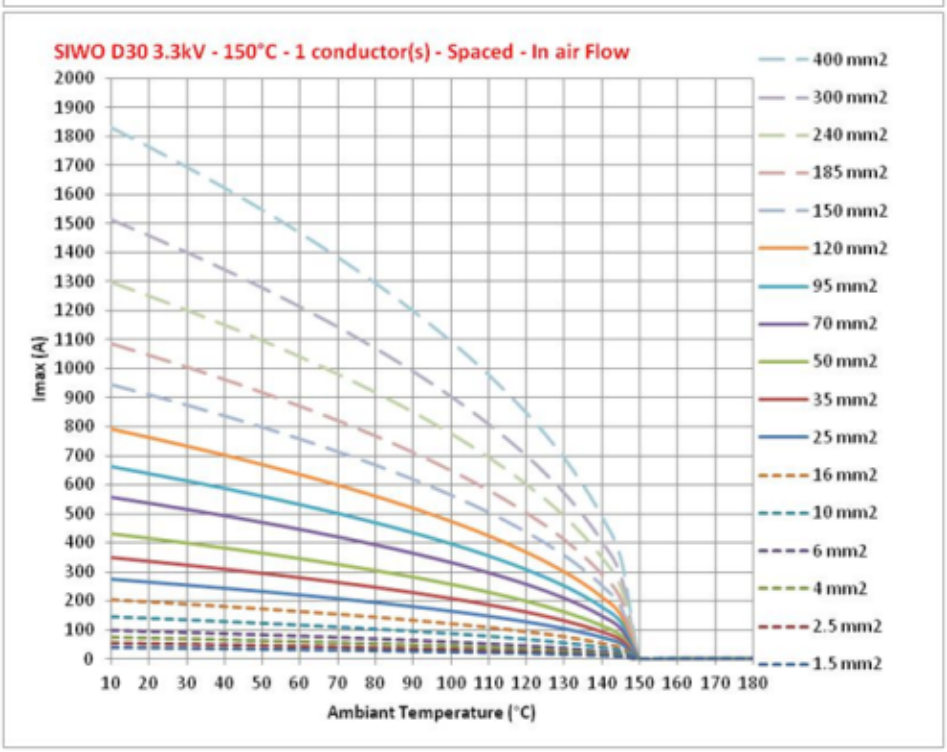

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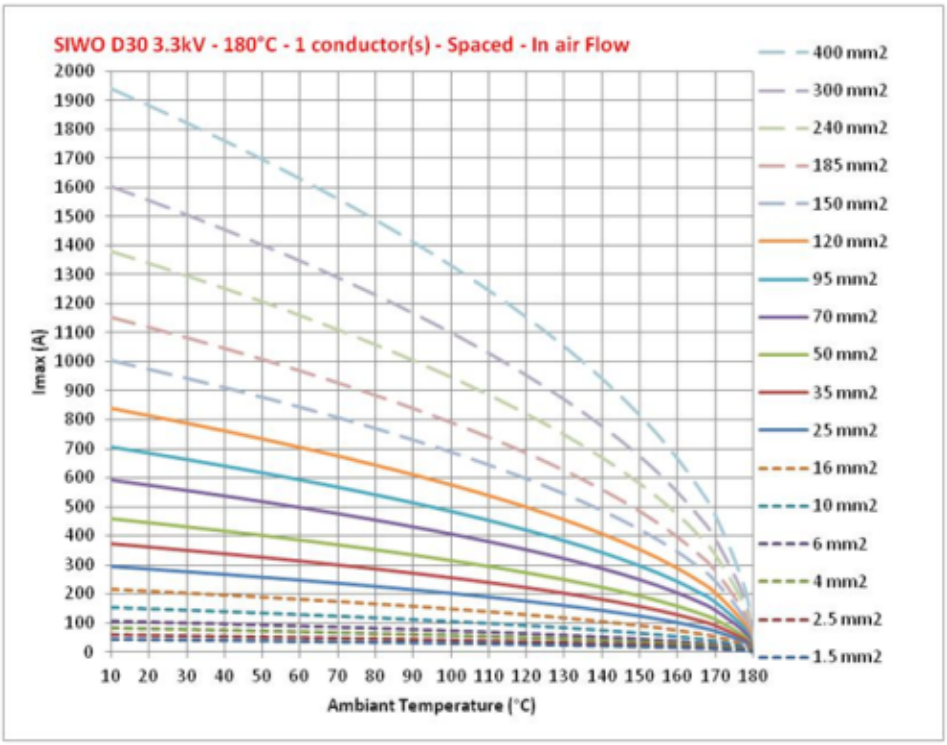

Selling information

Marking

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