Construction and application

Highly flexible heat resistant cables with stabilized insulation thickness and a good UV and ozone stability. Excellently suitable for high current connections inside switchgears, switchboards or other electro technical installations.

Because the electro technical industry develops switchgears with great power but smaller and smaller dimensions, extremely flexible high current connectors are needed. Our silicone insulated copper cables offer an excellent possibility for high current connections inside multifarious applications.

The heat resistance combined with the great surface of the conductors caused by the small single wire-Ø of 0.07 or 0.10 mm enable a bigger current load compared with PVC or normal rubber insulated conductors. The stabilized insulation which is free of halogen, flame retardant and self-extinguishing offer also multifarious applications inside of the railway or military field. Additionally applications as earthing tapes, high current conducting wires or as flexible heat resistance cables for hand operated welding devices are imaginable too.

Technical data

Conductor
• round stranded copper cables made out of annealed CU-ETP1 wires acc. to DIN EN 13602
• surface uncoated
• wire-Ø 0,07 mm (4-16 mm²)
• wire-Ø 0,10 mm (25-300 mm²)

Insulation material
• silicone rubber circa 60 shore A
• free of halogen, chlorine content < 4 ppm acc. to VDE 0472 part 813 and 814 as well as IEC 754
• hardly inflammable
• self-extinguishing
• tensile strength before growing old 8,3 MPa
• breaking elasticity 300 %
• testing voltage 10 kV
• dielectric strength 20 kV/mm
• short circuit resistance SiR +350° C acc. to VDE 0298 part 3 and 4
• operating voltage 4-6 mm², U 0/U 1,5/1,5 kV acc. to VDE 0298 part 3 and 4
• operating temperature continuously -50° C up to +180° C shortly +250° C up to +300° C (by touching with a soldering-iron)

General attributes
• UL-listed
• excellent electric-arc and tracking resistance
• good UV and ozone stability

Delivery
• in rings, on spools or wooden drums

Part-No. | cross-section mm² | diameter and number of wires | outer-Ø, ca. | insulation thickness, ca. | current load in dependence of the conductor heat in ° Celsius
---|---|---|---|---|---
15014 | 4,0 | 1036 x 0,07 | 4,8 | 1,1 | 30 A 50 A 55 A 60 A 70 A
15016 | 6,0 | 1568 x 0,07 | 5,6 | 1,1 | 40 A 65 A 70 A 78 A 90 A
15020 | 10,0 | 2562 x 0,07 | 8,5 | 2,0 | 50 A 90 A 98 A 107 A 120 A
15022 | 16,0 | 4116 x 0,07 | 10,0 | 2,0 | 70 A 125 A 132 A 143 A 160 A
15024 | 25,0 | 3234 x 0,10 | 12,0 | 2,3 | 95 A 160 A 176 A 187 A 215 A
15026 | 35,0 | 4508 x 0,10 | 13,8 | 2,5 | 115 A 200 A 218 A 230 A 260 A
15028 | 50,0 | 8468 x 0,10 | 15,5 | 2,5 | 145 A 245 A 276 A 287 A 325 A
15030 | 70,0 | 8967 x 0,10 | 18,0 | 2,5 | 175 A 305 A 347 A 352 A 400 A
15032 | 95,0 | 12201 x 0,10 | 20,0 | 2,5 | 215 A 370 A 416 A 425 A 485 A
15034 | 120,0 | 15435 x 0,10 | 21,5 | 2,5 | 245 A 425 A 488 A 495 A 560 A
15036 | 150,0 | 19404 x 0,10 | 23,5 | 2,5 | 285 A 490 A 566 A 575 A 640 A
15038 | 185,0 | 23580 x 0,10 | 26,0 | 2,5 | 320 A 555 A 644 A 655 A 730 A
15040 | 240,0 | 30600 x 0,10 | 28,5 | 2,5 | 380 A 650 A 775 A 790 A 855 A
15042 | 300,0 | 38200 x 0,10 | 32,5 | 2,5 | 435 A 750 A 898 A 915 A 985 A

Remark:
All information about current load are approximate values in consideration of the cables heat for single laying of air cooled cables and ambient temperature +30° C. The values by a conductor heat of +90° C are in accordance with VDE 0298 part 4 table 15. By changing the ambient temperature or the kind of laying reducing factors are to be considered. Nature colour is standard but on request it is also possible to manufacture cables with colours like black, red, blue, yellow/green etc. or with reduced insulation thickness and other operating voltages. Minimum quantity on request. The outside diameter of our highly flexible copper conductors are manufactured in coordination with cable lugs acc. to DIN 46234/DIN 46341 and drusedit tubular cable lugs for fine stranded cables.
Double insulated copper cables
1,8/3 kV or 3,6/6 kV

highly flexible, free of halogen
and flame retardant

Construction and application

Double silicone insulated highly flexible cables for greater demands on mechanical
and electrical stress.
The silicone compound and the copper conductors are the same like our single insulated
cables. So we are able to offer also double insulated cables with excellent technical
characteristics in a extremely flexible design.
The outside diameter of the stripped cables
are manufactured in coordination with cable lugs acc. to DIN 46234/DIN 46431 and
druseidt cable lugs for fine stranded cables.
Nature colour is standard. Other colours and
minimum quantities are available on request.

Technical data

Conductor

• round stranded copper cables,
made out of annealed Cu-ETP1 wires
acc. to DIN 13602
• surface uncoated

Insulation material

• free of halogen, chlorine content
< 4 ppm acc. to VDE 0472 part 813
and 814 as well as IEC 754
• hardly inflammable
• self-extinguishing
• testing voltage 10 kV
• dielectric strength 20 kV/mm
• operating voltage
15170-15198 U0/U 1,8/3 kV
15138-15166 U0/U 3,6/6 kV
• short circuit resistance SiR + 350° C
acc. to VDE 0298 part 3 and 4
• operating temperature
continuously -50° C up to +180° C
shortly +250° C up to +300° C
(by touching with a soldering iron)

Part.-Nr. technical data

cross-section current load
current load

inner-Ø, ca.
diameter and
counter-Ø, ca.
cross-section
current load
current load

cross-section
current load
current load

cross-section
current load
current load

Remark:

All information about current-load are approximate values
acc. to VDE 0298 part 4 table 15 for single laying of
air cooled cables by an ambient temperature +30° C
and allowed conductor heat of +90° C.
By changing the ambient temperature or the kind of laying
reducing factors are to be considered.