

WILBAwind MV 6/10kV, Cu cl.5

431_90°C

Halogen-free, shielded copper single-conductor medium-voltage cable

Application

The WILBAwind medium-voltage cable for up to 10 kV nominal voltage is specially designed for wind turbines. The finely stranded aluminium conductor shielded with a copper braid and surrounded by two meshed semiconductor layers features very high tensile strength. Per IEC fire safety standards, its EPR core insulation and PUR outer sheath are flame-retardant, do not spread fires, do not form corrosive gases and form little smoke in the event of fire thanks to freedom from halogen. In addition, it is highly resistant to oil, ozone and UV radiation. In the event of short-circuits, the cable withstands temperatures of up to 250°C for five seconds.

Materials and components

- Cu conductor bare class 5 (IEC 60228), finely stranded
- Inner cross-linked semiconducting layer
- Core insulation made of cross-linked EPR
- Core colour natural
- Outer cross-linked semiconducting layer
- Shielding from Cu tinned
- Outer sheath made of flame-resistant, cross-linked polyolefine (XLPO)

Jacket colour

- Black similar to RAL 9005

Functions

- Flexible
- Halogen-free
- High mechanical strength
- Oil and petrol resistance

Environmental conditions

- Good resistance at high and low temperatures
- Ozone- and weather-resistant
- UV radiation-resistant
- Flame retardancy

Performance

Mechanical properties

- Max. tensile load 20N/mm² Cu cross-section
- Min. bending radius 8 x D (D = cable Ø)

Nominal voltage

- Nominal voltage [AC]: U_o / U 6 kV / 10 kV

Test voltage

- Test voltage [AC]: 17 kV

Current load

- Current carrying capacity acc. to IEC 60502-2, Table B4

Temperature range

- In event of short-circuit, +250°C for 5 sec.
- Conductor temperature max. +90°C
- Laying temperature: -5°C ... +70°C
- Operating temperature: -40°C ... +90°C

Standards

- Based on IEC 60502-1, IEC 60245, EN 50264
- IEC 60332-1-2 Flame retardancy
- IEC 60754-1 Halogen-free
- IEC 60754-2 Corrosivity of fumes
- IEC 60811-404 Resistance to oil
- IEC 61034-2 Low smoke development
- IEC 60721-3-3 Humidity 3K6
- IEC 60811-403 Resistance to ozone

CPR Guideline

- Fire reacton class acc. EN 13501-6: Eca

Remarks

- D= total Ø



Technical data

Cross-section mm ²	Part no.	Ø D mm	Copper index kg/km	Weight kg/km
1x240/16	525100M	36.2 -0.2/+1.8	2468	3150

Cross-section mm ²	AC resistance at 20 °C and 50 Hz Ω/km	Reactance at 50 Hz Ω/km	Impedance at, 90°C and 50 Hz Ω/km	Capacity at 50 Hz μF/km	Max. tensile strength kN
1x240/16	0.077				12.0

