

# WILBAwind LV MC, CU, cl.5, 90°C, Torsion

405\_90°C

Torsionable, halogen-free, heat-resistant, flexible copper cable class 5 for wind turbines

### Application

Optimized cable for use in wind energy plants

### Materials and components

- Cu conductor bare class 5 (IEC 60228), finely stranded, torsion-resistant design
- Core insulation made of cross-linked polyolefine (XLPO)
- Core colours per CENELEC HD 308 S2
- Cores stranded in optimal length of lay
- Outer sheath made of flame-resistant, cross-linked polyolefine (XLPO)

### Jacket colour

- Black similar to RAL 9005

### Functions

- Flexible
- Good oil and petrol resistance
- Halogen-free
- High abrasion resistance
- High mechanical strength

### Environmental conditions

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

### Performance

Mechanical properties

- Max. tensile load 20N/mm<sup>2</sup> Cu cross-section
- Min. bending radius 6 x D (D = cable Ø)

Torsion

- ± 144° on 1m or ± 1080° on 8m
- The type of torsion cable class 5 was specially designed particularly for use in wind-power plants between the nacelle and tower.

Nominal voltage

- Nominal voltage [AC]: U<sub>o</sub> / U 600 V / 1,000 V

Operating voltage

- Operating voltage max. [AC]: U<sub>o</sub> / U 0.72 / 1.2kV; [DC]: U<sub>o</sub> / U 0.9 / 1.8kV

Test voltage

- Test voltage [AC] ≤ 1 mm<sup>2</sup>: 2,000 V / 50 Hz, ≥ 1.5 mm<sup>2</sup>: 3,500 V / 50 Hz

Temperature range

- -40°C ... +90°C
- In event of short-circuit, +250°C for 5 sec.

### Standards

- Based on IEC 60502-1, IEC 60245, EN 50264
- EN 50396 Ozone resistance
- 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
- ISO 4982-2 UV resistance

CPR Guideline

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

### Remarks

- D= total Ø
- CE = The product conforms to the EC LVD 2006/95/EC



### Technical data

Cross-section mm <sup>2</sup>	Part no.	Conductor code	Ø D mm	Copper index kg/km	Weight ca. kg/km
12X1	525032	12Lnum	13.4 ± 0.4	115.2	267
5G1.5	525034	3LNPE	12.1 ± 0.3	72.0	150
3G2.5	525035	2LnumPE	10.0 ± 0.3	72.0	175
5G2.5	525036	4LnumPE	12.0 ± 0.3	120.0	240
19G2.5	525037	18LnumPE	24.7 ± 0.4	456.0	857
3G4	525038	2LnumPE	11.3 ± 0.3	115.2	225
5G4	525039	4LnumPE	13.6 ± 0.4	192.0	225
5G6	525040	3LNPE	15.7 ± 0.4	288.0	515
5G10	525041	3LNPE	20.9 ± 0.4	480.0	795
4G16	525042	3LnumPE	22.4 ± 0.4	614.4	850
3X25	525044	3L	23.5 ± 0.4	720.0	1000
5G25	525033	3LNPE	29.5 ± 0.5	1200.0	1675
3X50		3L	30.4 ± 0.5	1440.0	1900

