

WILBAwind LV, CU, cl.5, 90°, Torsion**400_90°C**

Twistable, halogen-free, double-layer copper cable class 5 for wind turbines

Application

Optimized cable for installations inside of wind energy plants.

Materials and components

- Cu conductor bare class 5 (IEC 60228), finely stranded, torsion-resistant design
- Core insulation made of cross-linked EPR
- Core colour BK
- 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/mm² Cu cross-section
- Min. bending radius 4 x D static, 6 x D dynamic (D = cable Ø)

Torsion

- $\pm 144^\circ$ on 1m or $\pm 1080^\circ$ 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_0 / U 600 V / 1,000 V

Operating voltage

- Operating voltage max. [AC]: U_0 / U 0.72 / 1.2kV; [DC]: U_0 / U 0.9 / 1.8kV

Test voltage

- Test voltage: Spark tester during production

Temperature range

- $-40^\circ\text{C} \dots +90^\circ\text{C}$
- In event of short-circuit, $+250^\circ\text{C}$ 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
- IEC 60721-3-3 Humidity 3K6

CPR Guideline

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

Remarks

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

**Technical data**

Cross-section mm ²	Part no.	Conductor code	Ø D approx. mm	Copper index kg/km	Weight kg/km
10	525022	1L	8.8 ± 0.2	96	140
16	525023	1L	11.1 ± 0.3	154	240
25	525024	1L	11.9 ± 0.3	240	350
35	525025	1L	13.4 ± 0.3	336	460
50	525011	1L	15.9 ± 0.4	480	630
70	525026	1L	18.4 ± 0.4	672	815
95	525012	1L	20.4 ± 0.4	912	1060
120	525027	1L	23.1 ± 0.4	1152	1420
150	525028	1L	25.4 ± 0.4	1440	1600
185	252029	1L	27.4 ± 0.4	1776	1910
240	525014	1L	29.6 ± 0.5	2304	2470
300	525030	1L	33.5 ± 0.5	2880	3060
400	525031	1L	37.8 ± 0.5	3840	3981

