



TECWIND(H)
(N)TSCGEHXOEU



Technical Data

	Type	TECWIND (H)
	Type designation	(N)TSCGEHXOEU
	Approvals	Based on DIN VDE 0250, Part 813
	Application	The cables are intended for use in wind turbines with high mechanical effort in a temperature range from -40°C to +90°C. The cables can be installed free moveable, free hanging or fixed. For free hanging operation the cables are twistable. The cables are used for economical transmission of large energy rates with medium voltage. In other respects DIN VDE 0250 applies.
Electrical parameters	Rated voltage	U ₀ /U = 3.6/6.0 kV to 20/35 kV
	Maximum permissible operating voltage in AC systems	U ₀ /U = 4.2/7.2 kV to 24.3/42 kV
	Maximum permissible operating voltage in DC systems	U ₀ /U = 5.4/10.8 kV to 31.5/63 kV
	AC test voltage	17 kV to 50 kV over 5 min., according to DIN VDE 0250, Part 813
	Current-carrying capacity	The values are valid for permanent operation with DC or AC with 50 up to 60 Hz at 30°C ambient temperature. (In other respects DIN VDE 0295, Part 4 applies)
Thermal parameters	Maximum permissible operating temperature of the conductor	permanent 90°C
	Ambient temperature	
	- when in motion:	- 40°C
	- when stationary:	- 40°C
	Short-circuit temperature of the conductor	200°C
Mechanical parameters	Tensile load	Up to 20 N/mm ² copper cross-section
	Torsional stresses	+/- 100°/m
	Minimum bending radius	See \"Selection data\"
Chemical parameters	Resistance to mineral oil	acc. to DIN EN 60811-2-1 (VDE 0473, Part 811-2-1)
	Resistance to Ozone	acc. to DIN VDE 0282 Part 2, HD 22.2 Test type B
	UV-resistance	acc. to ISO 4982-2 Method A
	Behaviour in case of fire	
	- Flame propagation, single cable	acc. to DIN EN 60332-2-1
	- Smoke emission, light transmittance	acc. to DIN EN 50268-2
- Test for corrosive and acid gas emission	acc. to DIN EN 50267-2-3	



Design features

Type	TECWIND (H)
Conductor	Electrolytic copper, tinned, finely stranded, Class 5 according to DIN VDE 0295 / IEC 60228
Insulation	Halogenfree, heat resistant insulation based on EPR
Electrical field control	Inner and outer layer of semiconductive, halogenfree rubber
Core identification	Natural colouring with black semiconductive rubber
Sheath	Halogenfree, special rubber compound. Resistant against heat, cold, UV, Ozone and mineral oil. Colour black
Marking	PRYSMIAN TECWIND (H) (N)TSCGEHXOEU (number of cores) x (cross-section) (voltage) + VDE

Selection and ordering data

Number of cores and nominal cross-section	Order No.	Conductor diameter (guidance value)	Overall diameter of cable (Min. value)	Overall diameter of cable (Max. value)	Bending radius (fixed installation)	Bending radius (free moving)	Net weight	Permissible tensile force	Max. suspension length (safety factor 1)	Current-carrying capacity at 30°C, for 1 cable	Maximum permissible short-circuit current (1s)
[mm ²]		[mm]	[mm]	[mm]	[mm]	[mm]	[kg/km]	[N]	[m]	[A]	[kA]
12/20 kV TECWIND(H) (N)TSCGEHXOEU											
3x25/25	5DK9 501	6,4	59,2	63,2	379	632	5210	2.000	38	146	3,58
3x35/35	5DK9 502	7,6	63,9	67,9	407	679	6200	2.800	45	181	5,01
3x50/50	5DK9 503	9,1	67,5	71,5	429	715	7190	4.000	56	227	7,15
3x70/70	5DK9 504	10,8	71,5	75,5	453	755	8460	5.600	66	279	10,01
18/30 kV TECWIND(H) (N)TSCGEHXOEU											
3x25/25	5DK9 601	6,4	77,1	81,1	487	811	8250	2.000	24	146	3,58
3x35/35	5DK9 602	7,6	78,5	82,5	495	825	8800	2.800	32	181	5,01
3x50/50	5DK9 603	9,1	81,1	85,1	511	851	9720	4.000	41	227	7,15
3x70/70	5DK9 604	10,8	86,5	91,5	549	915	11530	5.600	49	279	10,01
20/35 kV TECWIND(H) (N)TSCGEHXOEU											
3x25/25	5DK9 701	6,4	83,7	88,7	532	887	9670	2.000	21	146	3,58
3x35/35	5DK9 702	7,6	88,3	93,3	560	933	10950	2.800	26	181	5,01
3x50/50	5DK9 703	9,1	90,5	95,5	573	955	11830	4.000	34	227	7,15
3x70/70	5DK9 704	10,8	93,6	98,6	592	986	13120	5.600	43	279	10,01