



HVWW 3.3–13.8 kV submersible motor magnet wire

HVWW

High-Voltage Wet-Winding Submersible Motor Magnet Wire

3.3 kV to 13.8 kV AC water/glycol-immersed submersible motor stator magnet wire (XLPE/PA)

3.3 kV – 13.8 kV AC

Water / Glycol Immersed

XLPE-PA / PP / PEEK



Application

High-voltage wet-winding submersible motor magnet wire (HVWW) rated 3.3 kV, 4.16 kV, 6.6 kV, 11 kV and 13.8 kV AC for water-glycol and dielectric-oil filled deep-well, mine-dewatering, offshore seawater-lift and subsea multiphase pump motors, engineered.

Typical uses: Deep-Mine Dewatering & Shaft-Sinking Submersible Pumps (3.3–11 kV), Offshore Platform Seawater-Lift & Firewater Caisson Pumps, Subsea Multiphase Boosting, Injection & Dredging Motors, Municipal Deep-Well Aquifer & Cavern Storage Pumps, High-Temperature Geothermal & ESP Downhole Motors (PEEK)

Construction



Cross-section, not to scale

- 1 Solid round or compacted Class 2 oxygen-free copper (Cu-ETP1 / Cu-OF)
- 2 Inner semiconductive stress-smoothing barrier (HVWW-SC ≥ 6.0 kV)
- 3 Tree-Retardant XLPE (TR-XLPE), Polypropylene (PP) or PEEK HV wall
- 4 Polyamide (PA) gliding skin or outer semiconductive slot screen

Technical data

Typical values

Rated motor stator voltage (U _N)	3.3 kV, 4.16 kV, 6.0 / 6.6 kV, 10 / 11 kV & 13.8 kV AC	Routine 24-hour water-tank AC hipot	3.3 kV: 10 kV AC · 6.6 kV: 18 kV AC · 11 kV: 28 kV AC · 13.8 kV: 35 kV AC
DC spark test (in-line)	25 kV to 50 kV DC 100 % dry spark test	Insulation resistance (in +20 °C water)	≥ 5,000 MΩ·km
Max continuous water/glycol temp	+75 °C (PE2-PA) · +90 °C (TR-XLPE / PP) · +180 °C (PEEK)	Low-temperature handling	Down to -30 °C
Solid copper diameters	Ø 1.80 mm to Ø 5.50 mm (DIN 46399 / IEC 60317)	Stranded copper cross-sections	6, 10, 16, 25, 35 & 50 mm ² compacted Class 2
Min. coil-forming bend radius	4 × OD (solid / PEEK) · 5 × OD (HV triple-extruded)	Coolant & fluid compatibility	De-ionized water + glycol, potable/mine water, synthetic ester & mineral oil
Hydrostatic pressure rating	Up to 100 bar (standard) · up to 400 bar (subsea / PEEK)	Standards	DIN 46399 · IEC 60034-18-42 · IEEE Std 1776 · NEMA MG 1

Sizes

12 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Conductor Ø / Area	Insulation System	Motor U _N kV AC	Total Wall mm	Nom. OD mm	Water Test kV AC	Weight kg/km
3.3 kV to 6.6 kV AC TR-XLPE / Polyamide (XLPE-PA) & +180 °C PEEK Wet-Winding Wires 6 sizes							
☐ HVWW-XLPA-2.50-3.3KV	Ø 2.50 mm Solid Cu (4.91 mm ²)	TR-XLPE + PA Skin (+90°C)	3.3	1.15	4.80	10	56
☐ HVWW-XLPA-3.15-3.3KV	Ø 3.15 mm Solid Cu (7.79 mm ²)	TR-XLPE + PA Skin (+90°C)	3.3	1.20	5.55	10	85
☐ HVWW-XLPA-3.55-6.6KV	Ø 3.55 mm Solid Cu (9.90 mm ²)	TR-XLPE + PA Skin (+90°C)	6.6	1.75	7.05	18	118
☐ HVWW-XLPA-10MM2-6.6KV	10 mm ² Class 2 Stranded (Ø 3.9)	TR-XLPE + PA Skin (+90°C)	6.6	1.85	7.60	18	126
☐ HVWW-PEEK-2.80-4.2KV	Ø 2.80 mm Solid Cu (6.16 mm ²)	Virgin PEEK (+180°C)	4.2	0.90	4.60	12	69
☐ HVWW-PEEK-3.55-6.6KV	Ø 3.55 mm Solid Cu (9.90 mm ²)	Virgin PEEK (+180°C)	6.6	1.25	6.05	18	112
6.6 kV to 13.8 kV AC Dual-Semicon Corona-Shielded (HVWW-SC) Wet-Winding Stator Cables 6 sizes							
☐ HVWW-SC-10MM2-6.6KV	10 mm ² Class 2 Stranded (Ø 3.9)	Semicon + TR-XLPE + Semicon	6.6	2.30	8.50	18	145
☐ HVWW-SC-16MM2-6.6KV	16 mm ² Class 2 Stranded (Ø 4.9)	Semicon + TR-XLPE + Semicon	6.6	2.30	9.50	18	205
☐ HVWW-SC-16MM2-11KV	16 mm ² Class 2 Stranded (Ø 4.9)	Semicon + TR-XLPE + Semicon	11.0	3.40	11.70	28	252
☐ HVWW-SC-25MM2-11KV	25 mm ² Class 2 Stranded (Ø 6.1)	Semicon + TR-XLPE + Semicon	11.0	3.40	12.90	28	355
☐ HVWW-SC-25MM2-13.8KV	25 mm ² Class 2 Stranded (Ø 6.1)	Semicon + TR-XLPE + Semicon	13.8	4.10	14.30	35	398
☐ HVWW-SC-35MM2-13.8KV	35 mm ² Class 2 Stranded (Ø 7.2)	Semicon + TR-XLPE + Semicon	13.8	4.10	15.40	35	510

– Supplied in continuous single-coil or full-phase lengths with zero factory splices to guarantee hermetic stator slot reliability.

Standards and approvals

- ✓ DIN 46399 & IEEE Std 1776 Submersible Wet-Winding Compliant
- ✓ IEC 60034-18-42 Inverter-Duty HV Stator Insulation

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/hvwww-high-voltage-wet-winding-submersible-motor-magnet-wire



Typical values for this cable type, based on IEC 60034-18-42 / NEMA MG 1 / DIN 46399 / API RP 11S4. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.