EMC-shielded submersible pump & washdown VFD cable

# EMC-VFD Clean-Water EPDM

## Screened EMC VFD Clean Water EPDM Submersible Cable

EN 50525-2-21 / IEC 60502-1 · 0.6/1 kV · Emc-shielded submersible pump & washdown vfd



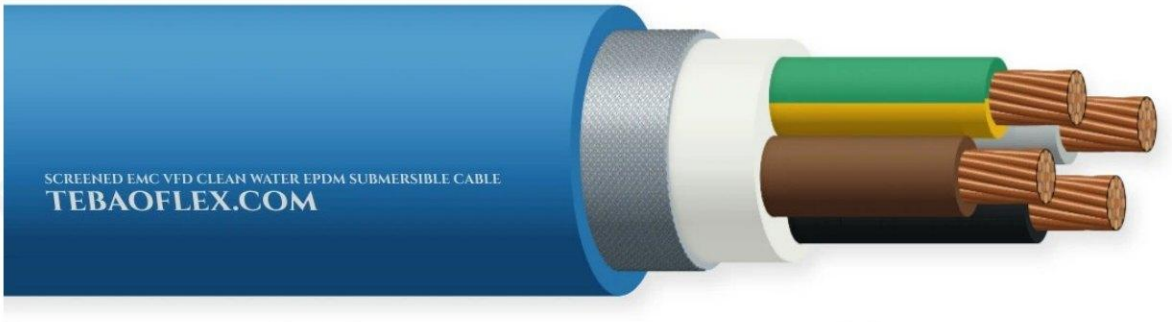

EN 50525-2-21 / IEC 60502-1 | 0.6/1 kV (-40 to +90 °C) | Subsea / Marine Outer Protective She

## Application

Screened EMC VFD Clean Water EPDM Submersible Cable featuring flexible stranded copper conductors (4 cores) and subsea / marine outer protective sheath (EN 50525-2-21 / IEC 60502-1, 0.6/1 kV, -40 to +90 °C, min. bend radius 6 × OD).

**Typical uses:** Variable-Speed Submersible Aquaculture & Well Pumps, Recirculating Aquaculture System (RAS) Circulation Drives, ECOLAB / IP69K Seafood Processing Conveyor & Mixer VFDs, Offshore Seawater Intake & Desalination Booster Pumps

## Construction






Cross-section, not to scale

1. Flexible Stranded Copper Conductors (4 C
2. Copper Wire Braid EMC Screen
3. Subsea / Marine Outer Protective Sheath

## Technical data

Typical values

| | | | |
|---|---|---|---|
| **Rated voltage / operating system** | 0.6/1 kV (EN 50525-2-21 & IEC 60502-1 Screened EMC VFD EPDM Submersible Cable Standard) | **Core / conductor construction** | Flexible Stranded Copper Conductors (4 Cores) — Class 5 / Class 6 copper conductors with Ethylene-propyiene rubber (EPR/EPDM) insulation |
| **Primary dielectric / optical buffer** | Copper Wire Braid EMC Screen — High-coverage braided copper shield for EMI/VFD protection | **Continuous operating temperature** | −40…+90 °C (submerged seawater & topside deck service) |
| **Hydrostatic & thermal cycling endurance** | Verified cold-bend and wet dielectric stability across −40…+90 °C per EN 50525-2-21 & IEC 60502-1 Screened EMC VFD EPDM Submersible Cable Standard | **Storage & transport temperature** | −40…+80 °C on export wooden/steel cable drum |
| **Outer jacket / sheath protection** | Subsea / Marine Outer Protective Sheath — Blue clean-water non-toxic EPDM rubber outer sheath (AD8) | **Minimum bending radius** | 6 × OD |
| **Reinforcement / screen / bedding layer** | Copper Wire Braid EMC Screen — High-coverage braided copper shield for EMI/VFD protection | **Seawater, hydrolysis & oil resistance** | Resistant to permanent seawater immersion, hydrolysis, hydraulic oil and bio-fouling per EN 50525-2-21 & IEC 60502-1 Screened EMC VFD EPDM Submersible Cable Standard |
| **Hydrostatic pressure & water blocking** | Radial and longitudinal water-blocking integrity verified per EN 50525-2-21 & IEC 60502-1 Screened EMC VFD EPDM Submersible Cable Standard | **RoHS & REACH compliance** | RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant |
| **Standards** | EN 50525-2-21 & IEC 60502-1 Screened EMC VFD EPDM Submersible Cable Standard | | |

## Sizes

3 standard constructions

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

| Order designation | Configuration | Core / stranding | Outer Ø ≈ mm | Net weight ≈ kg/km | Max. pulling kN ≈ | Min. bend R mm |
|---|---|---|---|---|---|---|
| **EMC-VFD Clean-Water EPDM Construction Schedule (−40…+90 °C)** 3 sizes | | | | | | |
| ☐ **EMC-VFD Clean-Water EPDM 4G4 / 3×4+3G0.75** | **4G4.0 mm² (or 3×4+3G0.75 + 2×1.0)** | **IEC 60228 Class 5 Cu + Foil/TCWB Shield** | **14.6** | **365** | **3.8** | **90** |
| ☐ **EMC-VFD Clean-Water EPDM 4G16 / 3×16+3G2.5** | **4G16 mm² (or 3×16+3G2.5 + 2×1.5)** | **IEC 60228 Class 5 Cu + Foil/TCWB Shield** | **21.8** | **860** | **9.6** | **135** |
| ☐ **EMC-VFD Clean-Water EPDM 4G50 / 3×50+3G10** | **4G50 mm² (or 3×50+3G10 mm² VFD)** | **IEC 60228 Class 5 Cu + Dual EMC Shield** | **31.6** | **2,190** | **24.0** | **190** |

– Custom core counts, optical fiber channels, wet-mate terminations and continuous winch lengths available per EN 50525-2-21 & IEC 60502-1 Screened EMC VFD EPDM Submersible Cable Standard.

## Electrical, optical & thermal parameters

3 sizes

| Configuration | Max. DC $R_{20}$ Ω/km | Rating / Impedance / Load | Operating temp. |
|---|---|---|---|
| **4G4.0 mm² (or 3×4+3G0.75 + 2×1.0)** | **4.95** | **0.6/1 kV (34 A Subsea VFD)** | **−40…+90 °C** |
| **4G16 mm² (or 3×16+3G2.5 + 2×1.5)** | **1.21** | **0.6/1 kV (98 A Subsea VFD)** | **−40…+90 °C** |
| **4G50 mm² (or 3×50+3G10 mm² VFD)** | **0.39** | **0.6/1 kV (195 A Subsea VFD)** | **−40…+90 °C** |

– Every production length undergoes routine conductor DC resistance / OTDR optical attenuation, AC dielectric and dimensional verification.

## Standards and approvals

- EN 50525-2-21 / IEC 60502-1 Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

## 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/screened-emc-vfd-clean-water-epdm-submersible-cable**

Typical values for this cable type, based on EN 50525-2-21 & IEC 60502-1 Screened EMC VFD EPDM Submersible Cable Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.