EMC-shielded submersible pump & washdown VFD cable

# Washdown ECOLAB VFD Cable

## Washdown ECOLAB Seafood Washdown VFD Cable

UL 1277 / ECOLAB / NSF · 600/1,000 V · Emc-shielded submersible pump & washdown vfd cable




UL 1277 / ECOLAB / NSF | 600/1,000 V (-40 to +90 °C) | Subsea / Marine Outer Protective She

## Application

Washdown ECOLAB Seafood Washdown VFD Cable featuring flexible stranded copper conductors (4 cores) and subsea / marine outer protective sheath (UL 1277 / ECOLAB / NSF, 600/1,000 V, -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. Cross-Linked Elastomeric / Polymer Core
3. Water-Blocking Tape & Inner Bedding
4. Subsea / Marine Outer Protective Sheath

## Technical data

Typical values

| | | | |
|---|---|---|---|
| **Rated voltage / operating system** | 600/1,000 V (UL 1277 & ECOLAB Certified Seafood Processing Washdown VFD Specification) | **Core / conductor construction** | Flexible Stranded Copper Conductors (4 Cores) — Class 5/ class 6 copper conductors |
| **Primary dielectric / optical buffer** | Cross-Linked Elastomeric / Polymer Core Insulation — Cross-linked polyethylene (xlpe) insulation | **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 UL 1277 & ECOLAB Certified Seafood Processing Washdown VFD Specification | **Storage & transport temperature** | −40…+80 °C on export wooden/steel cable drum |
| **Outer jacket / sheath protection** | Subsea / Marine Outer Protective Sheath — Black chemical- & bio-oil-resistant thermoplastic elastomer (TPE) outer sheath | **Minimum bending radius** | 6 × OD |
| **Reinforcement / screen / bedding layer** | Water-Blocking Tape & Inner Bedding — Hydrostatic water-blocking filler and low-friction separator wrap | **Seawater, hydrolysis & oil resistance** | Resistant to permanent seawater immersion, hydrolysis, hydraulic oil and bio-fouling per UL 1277 & ECOLAB Certified Seafood Processing Washdown VFD Specification |
| **Hydrostatic pressure & water blocking** | Radial and longitudinal water-blocking integrity verified per UL 1277 & ECOLAB Certified Seafood Processing Washdown VFD Specification | **RoHS & REACH compliance** | RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant |
| **Standards** | UL 1277 & ECOLAB Certified Seafood Processing Washdown VFD Specification | | |

## 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 |
|---|---|---|---|---|---|---|
| **Washdown ECOLAB VFD Cable Construction Schedule (−40…+90 °C)** 3 sizes | | | | | | |
| ☐ **Washdown ECOLAB VFD Cable 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** |
| ☐ **Washdown ECOLAB VFD Cable 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** |
| ☐ **Washdown ECOLAB VFD Cable 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 UL 1277 & ECOLAB Certified Seafood Processing Washdown VFD Specification.

## 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** | **600/1,000 V (34 A Subsea VFD)** | **−40…+90 °C** |
| **4G16 mm² (or 3×16+3G2.5 + 2×1.5)** | **1.21** | **600/1,000 V (98 A Subsea VFD)** | **−40…+90 °C** |
| **4G50 mm² (or 3×50+3G10 mm² VFD)** | **0.39** | **600/1,000 V (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

- UL 1277 / ECOLAB / NSF 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/washdown-ecolab-seafood-washdown-vfd-cable**

Typical values for this cable type, based on UL 1277 & ECOLAB Certified Seafood Processing Washdown VFD Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.