4,000 m pressure-balanced oil-filled wet-mateable EFL assembly

TC6A PBOF EFL

TC6A 4,000m Pressure-Balanced Oil-Filled (PBOF) Subsea EFL Assembly

API Spec 17F / ISO 13628-6 · 1.8/3 kV · 4,000 m pressure-balanced oil-filled



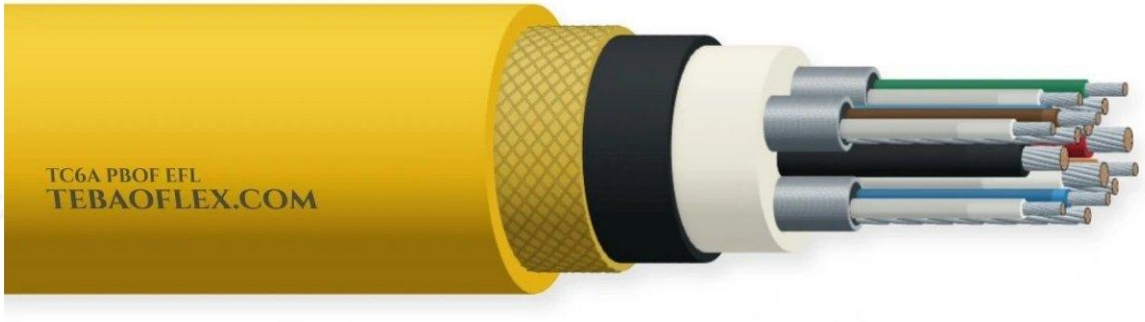
API Spec 17F / ISO 13628-6 | **1,000/2,000 V rms (40 A)** | **4,000 m PBOF Wet-Mate**

Application

TC6A 4,000m Pressure-Balanced Oil-Filled (PBOF) Subsea EFL Assembly (API Spec 17F / ISO 13628-6 4,000 m PBOF EFL Standard) engineered for 1.8/3 kV service across -20 to +70 °C (min. bend radius 10 × OD).

Typical uses: Work-Class & Observation ROV Systems, Offshore Wind & Subsea Power Grids, Oceanographic, Sonar & Seismic Survey, Commercial Diving & Subsea Intervention

Construction





Cross-section, not to scale

1. Power & TSP Comms Cores (4 / 7 / 12-Way)
2. Dielectric Oil Compensation Medium
3. TC6A-700 / TC6A-712 PBOF Hose Wall
4. TC6A Wet-Mateable Connector

Technical data

Typical values

Rated voltage / transmission duty	1.8/3 kV (API Spec 17F / ISO 13628-6 4,000 m PBOF EFL Standard)	**Core / conductor construction**	Power & TSP Comms Cores (4 / 7 / 12-Way) — 1,000/2,000 V rms power cores (20–40 A) + twisted screened pairs (RS-485/CAN)
Primary dielectric / buffering	Dielectric Oil Compensation Medium — 15 bar pre-filled dielectric fluid balancing hydrostatic pressure to 4,000 m (400 bar)	**Continuous operating temperature**	−20…+70 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per API Spec 17F / ISO 13628-6 4,000 m PBOF EFL Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	TC6A Wet-Mateable Connector — Super-Duplex UNS S32550 shell + Alloy 625 inlay + dual-diaphragm shuttle-pin insert	**Minimum bending radius**	10 × OD
Hydrostatic, tensile & crush duty	TC6A-700 / TC6A-712 PBOF Hose Wall — Elastomeric liner + synthetic braid (11 kN ultimate load, 90 bar burst) + yellow cover	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per API Spec 17F / ISO 13628-6 4,000 m PBOF EFL Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per API Spec 17F / ISO 13628-6 4,000 m PBOF EFL Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	API Spec 17F / ISO 13628-6 4,000 m PBOF EFL 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	Tensile rating kN ≈	Min. bend R mm
TC6A PBOF EFL Construction Schedule (−20…+70 °C) 3 sizes						
☐ **TC6A PBOF EFL Config A (Compact)**	4×2×24 AWG + 2×18 AWG (or 4C)	Stranded tinned Cu (IEC 60228 / ASTM)	10.4	155	4.5	85
☐ **TC6A PBOF EFL Config B (Standard)**	4×2×20 AWG + 4×16 AWG (or 8C)	Stranded tinned Cu (IEC 60228 / ASTM)	13.3	265	9.6	110
☐ **TC6A PBOF EFL Config C (Heavy Hybrid)**	8×2×20 AWG + 4×12 AWG (or 12C)	Stranded tinned Cu (IEC 60228 / ASTM)	16.6	420	18.5	140

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per API Spec 17F / ISO 13628-6 4,000 m PBOF EFL Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24 AWG + 2×18 AWG (or 4C)	28.40	1.8/3 kV (45–100 Ω data)	−20…+70 °C
4×2×20 AWG + 4×16 AWG (or 8C)	10.70	1.8/3 kV (45–100 Ω data)	−20…+70 °C
8×2×20 AWG + 4×12 AWG (or 12C)	5.40	1.8/3 kV (High-Power Hybrid)	−20…+70 °C

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- API Spec 17F / ISO 13628-6 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/tc6a-pbof-efl

Typical values for this cable type, based on API Spec 17F / ISO 13628-6 4,000 m PBOF EFL Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.