Dynamic & static subsea boosting and ESP power umbilical

SUBSEA BOOSTING & ESP UMBILICAL

Subsea Boosting & ESP 6/10–72.5 kV Electro-Hydraulic Power Umbilical

API Spec 17E / ISO 13628-5 · 19/33 kV · Dynamic & static subsea boosting and esp power



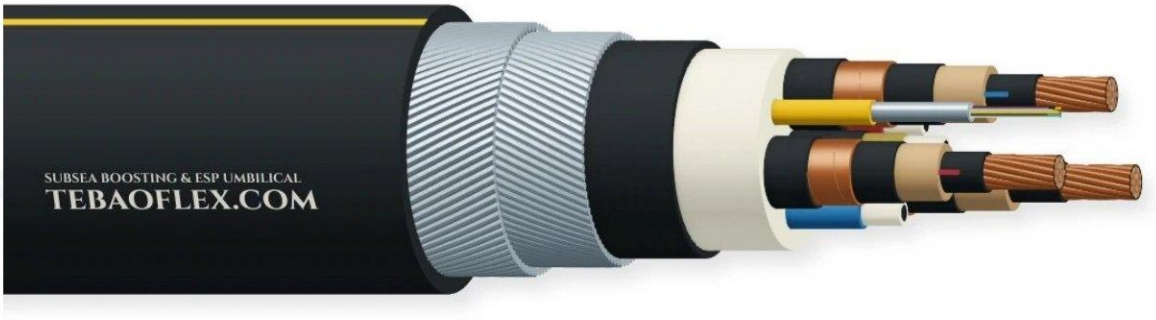
API Spec 17E / ISO 13628-5 | 6/10 kV – 36/66 (72.5) kV | Subsea Boosting & ESP

Application

Cable Systems 6/10 kV to 72.5 kV (and up to 132 kV Wet-Design) Dynamic & Static Subsea Boosting, Multiphase Pump (MPP) & ESP Power and Electro-Hydraulic Control Umbilical (API Spec 17E / ISO 13628-5, 19/33 kV, -20 to +90 °C).

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. MV/HV VFD Power Cores (6/10–72.5 kV)
2. 15,000–20,000 PSI Barrier Fluid Hoses
3. Armoured Fiber-Optic & Control Units
4. Profiled Fillers & Contra-Helical Armour
5. Custom-Stiffness Dynamic HDPE Jacket

Technical data

Typical values

Rated voltage / transmission duty	19/33 kV (API Spec 17E / ISO 13628-5 / IEC 60502-2 Subsea Boosting)	**Core / conductor construction**	MV/HV VFD Power Cores (6/10–72.5 kV) — Longitudinally water-blocked Cu/Al + triple-extruded EPR/XLPE + Cu screen + HDPE sheath
Primary dielectric / buffering	15,000–20,000 PSI Barrier Fluid Hoses — Aramid-reinforced HP/HT thermoplastic hoses / SDSS tubes for pump seal barrier fluid	**Continuous operating temperature**	−20…+90 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per API Spec 17E / ISO 13628-5 / IEC 60502-2 Subsea Boosting	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Custom-Stiffness Dynamic HDPE Jacket — Extruded abrasion-resistant HDPE / PUR outer sheath engineered for dynamic risers	**Minimum bending radius**	15 × OD
Hydrostatic, tensile & crush duty	Profiled Fillers & Contra-Helical Armour — High-modulus profiled polymeric fillers + double torque-balanced galvanized steel armour	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per API Spec 17E / ISO 13628-5 / IEC 60502-2 Subsea Boosting
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per API Spec 17E / ISO 13628-5 / IEC 60502-2 Subsea Boosting	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	API Spec 17E / ISO 13628-5 / IEC 60502-2 Subsea Boosting		

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
SUBSEA BOOSTING & ESP UMBILICAL Construction Schedule (−20…+90 °C) 3 sizes						
☐ **SUBSEA BOOSTING 3×240 mm² + FO**	**3 × 240 mm² + 48F FIMT**	**IEC 60228 Class 2 water-blocked Cu**	**118.0**	**26,400**	**320.0**	**1,770**
☐ **SUBSEA BOOSTING 3×400 mm² + FO**	**3 × 400 mm² + 48F FIMT**	**IEC 60228 Class 2 water-blocked Cu**	**134.0**	**34,800**	**420.0**	**2,010**
☐ **SUBSEA BOOSTING 3×630 mm² + FO**	**3 × 630 mm² + 96F FIMT**	**IEC 60228 Class 2 water-blocked Cu**	**152.0**	**46,200**	**560.0**	**2,280**

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per API Spec 17E / ISO 13628-5 / IEC 60502-2 Subsea Boosting.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
3 × 240 mm² + 48F FIMT	**0.08**	**19/33 kV (560 A)**	**−20…+90 °C**
3 × 400 mm² + 48F FIMT	**0.05**	**19/33 kV (710 A)**	**−20…+90 °C**
3 × 630 mm² + 96F FIMT	**0.03**	**19/33 kV (890 A)**	**−20…+90 °C**

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

Standards and approvals

- API Spec 17E / ISO 13628-5 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/subsea-boosting-esp-umbilical

Typical values for this cable type, based on API Spec 17E / ISO 13628-5 / IEC 60502-2 Subsea Boosting. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.