60,000 daN aramid-braided 3 kV subsea trencher umbilical

REF 37640

3 kV / 1 kV (60,000 daN Aramid) Subsea Trencher Umbilical

Subsea Trencher 3 kV · 1.8/3 kV · 60,000 dan aramid-braided 3 kv subsea trencher umbilical



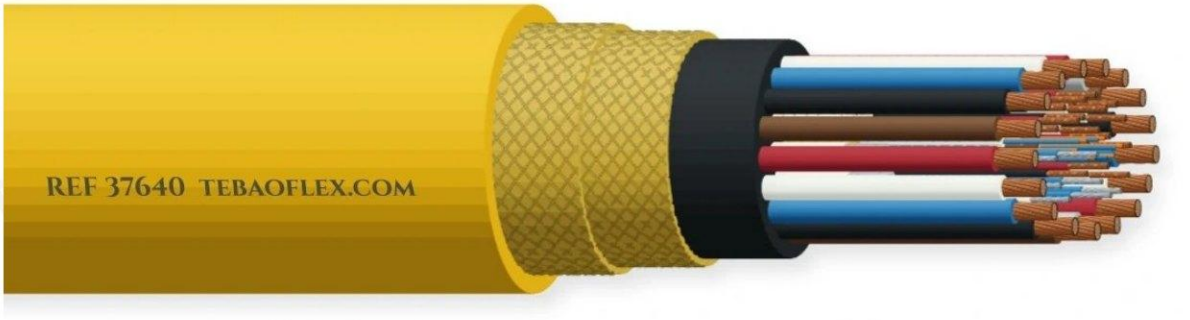
3,000 V / 1,000 V / 250 V | 60,000 daN Aramid Braid | 12×62.5/125 MMF Optical

Application

REF 37640 3 kV / 1 kV / 250 V Power, Signal, Control & 12-MMF Loose-Tube Double Contra-Helical Aramid-Braided (60,000 daN) PUR Subsea Trenching Machine Umbilical (Subsea Trencher 3 kV, 1.8/3 kV, -25 to +70 °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. Optical Sub-Cable (12×62.5/125 MMF)
2. Shielded Signal Pairs (4×2×0.22 mm²)
3. Control Triplets (6×3×1.0 mm², 1 kV)
4. 3 kV Power Conductors (17×25 mm²)
5. PUR Inner Sheath & 60,000 daN Aramid Braid

Technical data

Typical values

Rated voltage / transmission duty	1.8/3 kV (ISO 13628-5 / 60,000 daN Aramid Subsea Trencher Standard)	**Core / conductor construction**	Optical Sub-Cable (12×62.5/125 MMF) — 6 loose tubes (12 multimode fibres) stranded under a central PUR sub-sheath
Primary dielectric / buffering	Shielded Signal Pairs (4×2×0.22 mm²) — Flexible tinned Cu + XLPE + Al/PET foil & drain + individual XLPE sheath (250 V)	**Continuous operating temperature**	−25…+70 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per ISO 13628-5 / 60,000 daN Aramid Subsea Trencher Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	PUR Inner Sheath & 60,000 daN Aramid Braid — Watertight core + PUR inner sheath + double contra-helical aramid braid + PUR jacket	**Minimum bending radius**	12 × OD
Hydrostatic, tensile & crush duty	3 kV Power Conductors (17×25 mm²) — 17 flexible plain copper conductors with 3,000 V XLPE insulation (≤0.819 Ω/km)	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per ISO 13628-5 / 60,000 daN Aramid Subsea Trencher Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per ISO 13628-5 / 60,000 daN Aramid Subsea Trencher Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ISO 13628-5 / 60,000 daN Aramid Subsea Trencher 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
REF 37640 Construction Schedule (−25…+70 °C) 3 sizes						
☐ **REF 37640 Type A (Standard Lift)**	3 × 10 mm² HV + 6×2×1.0 + 12F FIMT	Class 5 tinned Cu + 316L FIMT	25.4	1,680	320.0	380
☐ **REF 37640 Type B (Heavy Work-Class)**	3 × 16 mm² HV + 8×2×1.0 + 12F FIMT	Class 5 tinned Cu + 316L FIMT	32.2	2,650	480.0	485
☐ **REF 37640 Type C (Ultra-Deep Trencher)**	3 × 25 mm² HV + 12×2×1.0 + 24F FIMT	Class 5 tinned Cu + 316L FIMT	38.1	3,890	680.0	570

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per ISO 13628-5 / 60,000 daN Aramid Subsea Trencher Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
3 × 10 mm² HV + 6×2×1.0 + 12F FIMT	1.91	1.8/3 kV (≤0.35 dB/km SM)	−25…+70 °C
3 × 16 mm² HV + 8×2×1.0 + 12F FIMT	1.21	1.8/3 kV (≤0.35 dB/km SM)	−25…+70 °C
3 × 25 mm² HV + 12×2×1.0 + 24F FIMT	0.78	1.8/3 kV (≤0.35 dB/km SM)	−25…+70 °C

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

Standards and approvals

- Subsea Trencher 3 kV 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/ref-37640

Typical values for this cable type, based on ISO 13628-5 / 60,000 daN Aramid Subsea Trencher Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.