MV lead-sheathed submarine collector power cable

(F)2X(F)K2Y2YRAA / TKRA

33 kV Lead-Sheathed Submarine Cable

IEC 60502-2 · 19/33 kV · Mv lead-sheathed submarine collector power cable

IEC 60502-2 / CIGRE 171 | 19/33 (36) kV XLPE | F3 Lead + 48/96F FIMT



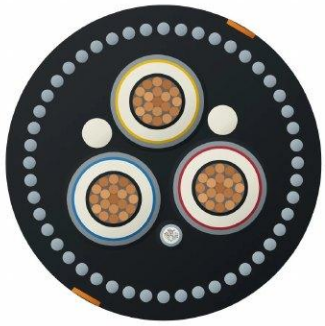
Application

(F)2X(F)K2Y2YRAA / TKRA 19/33 (36) kV & 20/34 (36) kV Three-Core XLPE F3 Lead-Alloy Sheathed Dry-Design Steel Wire Armoured Submarine Collector & Platform Connection Composite Power Cable (IEC 60502-2, 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. Compacted Water-Blocked Conductors (300/630 mm²)
2. 36 kV XLPE & Phase ID Swelling Tapes
3. Extruded F3 Lead-Alloy Sheath (K, 1.9–2.0 mm)
4. AISI 316L Optical Unit (48 / 96 SM Fibres)
5. Galvanized Steel Armour (R) & PP Serving (AA)

Technical data

Typical values

Rated voltage / transmission duty	19/33 kV (IEC 60502-2 / CIGRE Electra 171 & 189)	**Core / conductor construction**	Compacted Water-Blocked Conductors (300/630 mm²) — IEC 60228 Class 2 compacted copper filled with semiconductive water-blocking compound
Primary dielectric / buffering	36 kV XLPE & Phase ID Swelling Tapes — 8.0 mm triple-extruded XLPE + Red/Blue/Yellow phase tapes + semicon swelling tape	**Continuous operating temperature**	−20…+90 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per IEC 60502-2 / CIGRE Electra 171 & 189	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Galvanized Steel Armour (R) & PP Serving (AA) — 83–98 × Ø4.2 mm galvanized steel wires + bitumen-impregnated PP yarn outer serving	**Minimum bending radius**	15 × OD
Hydrostatic, tensile & crush duty	AISI 316L Optical Unit (48 / 96 SM Fibres) — Laser-welded stainless-steel tube (Ø 3.7 mm) with semiconducting PE oversheath	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per IEC 60502-2 / CIGRE Electra 171 & 189
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per IEC 60502-2 / CIGRE Electra 171 & 189	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60502-2 / CIGRE Electra 171 & 189		

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
(F)2X(F)K2Y2YRAA / TKRA Construction Schedule (−20…+90 °C) 3 sizes						
☐ (F)2X(F)K2Y2YRAA / 3×240 mm² + FO	3 × 240 mm² + 48F FIMT	IEC 60228 Class 2 water-blocked Cu	118.0	26,400	320.0	1,770
☐ (F)2X(F)K2Y2YRAA / 3×400 mm² + FO	3 × 400 mm² + 48F FIMT	IEC 60228 Class 2 water-blocked Cu	134.0	34,800	420.0	2,010
☐ (F)2X(F)K2Y2YRAA / 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 IEC 60502-2 / CIGRE Electra 171 & 189.

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

- IEC 60502-2 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/f-2x-f-k2y2yraa-tkra

Typical values for this cable type, based on IEC 60502-2 / CIGRE Electra 171 & 189. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.