15 kV DC repeatered transoceanic submarine optical telecom cable

SL17 (SL17-LW / SL17-LWA / SL17-DA)

15 kV DC Undersea Telecom Cable



ITU-T G.978 / UJC SL17 · 12/20 kV · 15 kv dc repeatered transoceanic submarine optical

ITU-T G.978 / UJC SL17 | 15,000 V DC (1.00 Ω/km) | 24-Wire Pressure Vault

Application

SL17 (SL17-LW / SL17-LWA / SL17-DA) 15 kV DC Undersea Telecom Cable (ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17) engineered for 12/20 kV service across -10 to +60 °C (min. bend radius 20 × 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. Unit Fiber Structure (UFS)
2. 24-Wire Dual-Layer Steel Pressure Vault
3. Seam-Welded Copper Sheath (15 kV DC)
4. EAA Co-Extrusion & MDPE/HDPE Jacket
5. Galvanized Steel Armour & Tar Nylon Yarn

Technical data

Typical values

Rated voltage / transmission duty	12/20 kV (ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17)	**Core / conductor construction**	Unit Fiber Structure (UFS) — Extruded PBT loose tube filled with thixotropic gel housing 8–24 SM fiber pairs
Primary dielectric / buffering	24-Wire Dual-Layer Steel Pressure Vault — Inner 8×Ø1.59 mm + outer 16 alternating (Ø1.50/1.13 mm) wires + hydrophobic fill	**Continuous operating temperature**	−10…+60 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Galvanized Steel Armour & Tar Nylon Yarn — 18×Ø3.35 mm armour wires (SL17-LWA, +24 on DA) + 2 layers tar-impregnated nylon	**Minimum bending radius**	20 × OD
Hydrostatic, tensile & crush duty	EAA Co-Extrusion & MDPE/HDPE Jacket — Bonded high-voltage polyethylene insulation forming the Ø 17.0 mm SL17-LW core	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17		

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
SL17 (SL17-LW / SL17-LWA / SL17-DA) Construction Schedule (−10…+60 °C) 3 sizes						
☐ **SL17 4F Single-Mode OS2**	**4 × G.652.D / G.657.A2 SM (200 kpsi)**	**Hermetic / gel-filled optical core**	**3.5**	**18**	**3.4**	**35**
☐ **SL17 12F Single-Mode OS2**	**12 × G.652.D / G.657.A2 SM (200 kpsi)**	**Hermetic / gel-filled optical core**	**9.8**	**145**	**18.0**	**98**
☐ **SL17 24F Armoured Subsea**	**24 × G.652.D SM + Strength Armour**	**Subsea pressure-resistant optical unit**	**17.0**	**580**	**95.0**	**255**

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4 × G.652.D / G.657.A2 SM (200 kpsi)	**0.35**	**≤0.35 dB/km @ 1310 nm**	**−10…+60 °C**
12 × G.652.D / G.657.A2 SM (200 kpsi)	**0.22**	**≤0.22 dB/km @ 1550 nm**	**−10…+60 °C**
24 × G.652.D SM + Strength Armour	**0.20**	**≤0.20 dB/km @ 1550 nm**	**−10…+60 °C**

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

Standards and approvals

- ITU-T G.978 / UJC SL17 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/sl17-sl17-lw-sl17-lwa-sl17-da

Typical values for this cable type, based on ITU-T G.978 / UJC Qualified 15 kV DC Transoceanic SL17. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.