submarine & offshore power composite cable

IEEE 1580 Type P 600V–15kV

IEEE 1580 Type P & UL 1309 600 V – 15 kV Class I/K Extra-Flexible Bron

IEEE 1580 Type P (600 V – 15 kV) · 600 V – 15 kV · Submarine & offshore power



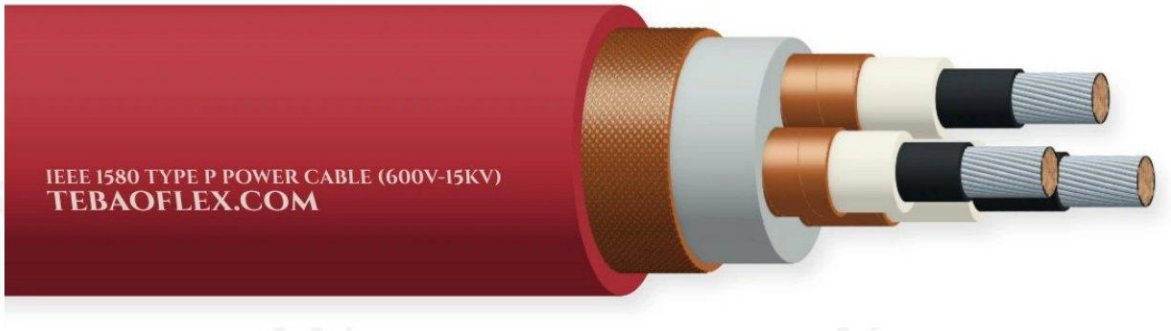
IEEE 1580 Type P (600 V – 15 kV) | **600 V – 15 kV (-40 to +125 °C)** | **EBMR / CPE / LSZH Offshore Outer Jac**

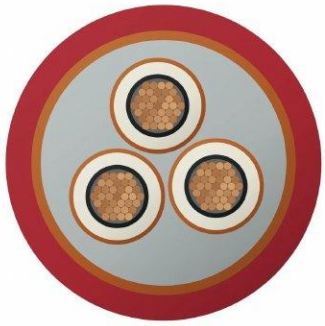
Application

IEEE 1580 Type P & UL 1309 600 V – 15 kV Class I/K Extra-Flexible Bronze-Armoured Offshore Power Cable (IEEE 1580 Type P (600 V – 15 kV)) engineered for 600 V – 15 kV service across -40 to +125 °C (min. bend radius 8 × OD).

Typical uses: Offshore Wind Inter-Array & Export Submarine Links, Subsea Island & Platform HV/MV Power Interconnects, Offshore Oil & Gas Drilling Rigs & FPSOs, Commercial Vessels, Polar Ships & Marine Propulsion

Construction





Cross-section, not to scale

1. Class I/K Extra-Flexible Tinned Copper
2. 110°C XLPO Dielectric & Phase Screens
3. Bronze / Steel Wire Braid Armour
4. EBMR / CPE / LSZH Offshore Outer Jacket

Technical data

Typical values

Rated voltage / transmission duty	600 V – 15 kV (IEEE Std 1580 Type P & UL 1309 Class I/K Extra-Flexible 600 V to 15 kV Offshore Power Specification)	**Core / conductor construction**	Class I/K Extra-Flexible Tinned Copper — Ultra-flexible stranded tinned copper conductors (600 V to 15 kV)
Primary dielectric / buffering	110°C XLPO Dielectric & Phase Screens — Cross-linked polyolefin insulation with semi-con & copper tape screens on MV	**Continuous operating temperature**	−40…+125 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per IEEE Std 1580 Type P & UL 1309 Class I/K Extra-Flexible 600 V to 15 kV Offshore Power Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	EBMR / CPE / LSZH Offshore Outer Jacket — Oil-based mud-resistant or halogen-free flame-retardant outer sheath	**Minimum bending radius**	8 × OD
Armour, strength member & mechanical duty	Bronze / Steel Wire Braid Armour — High-coverage bronze or galvanized steel wire braid over inner jacket	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per IEEE Std 1580 Type P & UL 1309 Class I/K Extra-Flexible 600 V to 15 kV Offshore Power Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per IEEE Std 1580 Type P & UL 1309 Class I/K Extra-Flexible 600 V to 15 kV Offshore Power Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEEE Std 1580 Type P & UL 1309 Class I/K Extra-Flexible 600 V to 15 kV Offshore Power Specification		

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	Breaking / tensile kN ≈	Min. bend R mm
IEEE 1580 Type P 600V–15kV Construction Schedule (−40…+125 °C) 3 sizes						
☐ **IEEE 1580 Type P 600V–15kV Config A**	**3×25–50 mm² (or 3P+FO Composite)**	**Compacted / Class 5 Cu/SnCu + FO**	**32.0**	**1,850**	**85.0**	**380**
☐ **IEEE 1580 Type P 600V–15kV Config B**	**3×95–150 mm² (or Heavy EOM)**	**Compacted / Class 5 Cu/SnCu + FO**	**48.5**	**4,280**	**130.0**	**580**
☐ **IEEE 1580 Type P 600V–15kV Config C**	**3×240–400 mm² (or Trunk HV/MV)**	**Compacted Cu + Lead/Armour + FO**	**78.0**	**9,650**	**210.0**	**950**

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per IEEE Std 1580 Type P & UL 1309 Class I/K Extra-Flexible 600 V to 15 kV Offshore Power Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
3×25–50 mm² (or 3P+FO Composite)	**0.49**	**600 V – 15 kV (Subsea/MV)**	**−40…+125 °C**
3×95–150 mm² (or Heavy EOM)	**0.19**	**600 V – 15 kV (Subsea/MV)**	**−40…+125 °C**
3×240–400 mm² (or Trunk HV/MV)	**0.07**	**600 V – 15 kV (Trunk/HV)**	**−40…+125 °C**

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

Standards and approvals

- IEEE 1580 Type P (600 V – 15 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/ieee-1580-type-p-power-cable-600v-15kv

Typical values for this cable type, based on IEEE Std 1580 Type P & UL 1309 Class I/K Extra-Flexible 600 V to 15 kV Offshore Power Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.