submarine & offshore power composite cable

IEEE 1580 Type P 1/C

IEEE 1580 Type P & UL 1309 600 V – 2,000 V Single-Core (1/C) Extra-Fle

IEEE 1580 Type P / UL 1309 · 600 V / 0.6/1 kV / 2 kV · Submarine & offshore power



IEEE 1580 Type P / UL 1309 | **600 V / 0.6/1 kV / 2 kV (-40 to +125** | **Oil & Mud-Resistant CSPE / CPE Outer**

Application

IEEE 1580 Type P & UL 1309 600 V – 2,000 V Single-Core (1/C) Extra-Flexible Propulsion & Winch Feeder Cable (IEEE 1580 Type P / UL 1309) engineered for 600 V / 0.6/1 kV / 2 kV service across -40 to +125 °C (min. bend radius 6 × 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. Extra-Flexible Tinned Copper (18 AWG-111
2. 125°C Thermoset EPR/ XLPO Insulation
3. Oil & Mud-Resistant CSPE / CPE Outer She

Technical data

Typical values

Rated voltage / transmission duty	600 V / 0.6/1 kV / 2 kV (IEEE Std 1580 Type P & UL 1309 / CSA C22.2 No. 245 Single-Core 600–2,000 V Power Specification)	**Core / conductor construction**	Extra-Flexible Tinned Copper (18 AWG-1111 MCM) — Finely stranded annealed tinned copper conductor for high-current feeders
Primary dielectric / buffering	125°C Thermoset EPR/ XLPO Insulation — High-temperature flame-retardant dielectric (600 V to 2,000 V)	**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 / CSA C22.2 No. 245 Single-Core 600–2,000 V Power Specification	**Storage & transport temperature**	−40...+80 °C on export wooden/steel winch reel
Outer protection / armouring	Oil & Mud-Resistant CSPE / CPE Outer Sheath — Thermoset elastomer jacket resistant to drilling mud, oil and UV	**Minimum bending radius**	6 × OD
Armour, strength member & mechanical duty	125°C Thermoset EPR/ XLPO Insulation — High-temperature flame-retardant dielectric (600 V to 2,000 V)	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per IEEE Std 1580 Type P & UL 1309 / CSA C22.2 No. 245 Single-Core 600–2,000 V 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 / CSA C22.2 No. 245 Single-Core 600–2,000 V Power Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEEE Std 1580 Type P & UL 1309 / CSA C22.2 No. 245 Single-Core 600–2,000 V 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 1/C Construction Schedule (−40...+125 °C) 3 sizes						
☐ **IEEE 1580 Type P 1 3×16+1G16 mm²**	**3 × 16 + 1G16 mm² (or 1C×50 mm²)**	**IEC 60228 Class 2/5 Cu/SnCu**	**22.4**	**920**	**18.5**	**135**
☐ **IEEE 1580 Type P 1 3×35+1G16 mm²**	**3 × 35 + 1G16 mm² (or 1C×150 mm²)**	**IEC 60228 Class 2/5 Cu/SnCu**	**28.8**	**1,690**	**32.0**	**175**
☐ **IEEE 1580 Type P 1 3×95+1G50 mm²**	**3 × 95 + 1G50 mm² (or 1C×300 mm²)**	**IEC 60228 Class 2/5 Cu/SnCu**	**41.2**	**3,680**	**58.0**	**250**

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per IEEE Std 1580 Type P & UL 1309 / CSA C22.2 No. 245 Single-Core 600–2,000 V Power Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
3 × 16 + 1G16 mm² (or 1C×50 mm²)	**1.15**	**600 V / 0.6/1 kV / 2 kV (98 A)**	**−40...+125 °C**
3 × 35 + 1G16 mm² (or 1C×150 mm²)	**0.52**	**600 V / 0.6/1 kV / 2 kV (158 A)**	**−40...+125 °C**
3 × 95 + 1G50 mm² (or 1C×300 mm²)	**0.19**	**600 V / 0.6/1 kV / 2 kV (285 A)**	**−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 / UL 1309 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-1-c-power-cable-600v-2000v

Typical values for this cable type, based on IEEE Std 1580 Type P & UL 1309 / CSA C22.2 No. 245 Single-Core 600–2,000 V 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.