shipboard & offshore power cable

TPDL-SB & TPNBS / FPNBS

600 V – 2,000 V IEEE 1580 Type P Mud-Resistant

IEEE 1580 Type P / NEK 606 · 600 V – 2,000 V · Shipboard & offshore power cable



IEEE 1580 Type P / NEK 606 | **600 V – 2,000 V (-40 to +125 °C)**

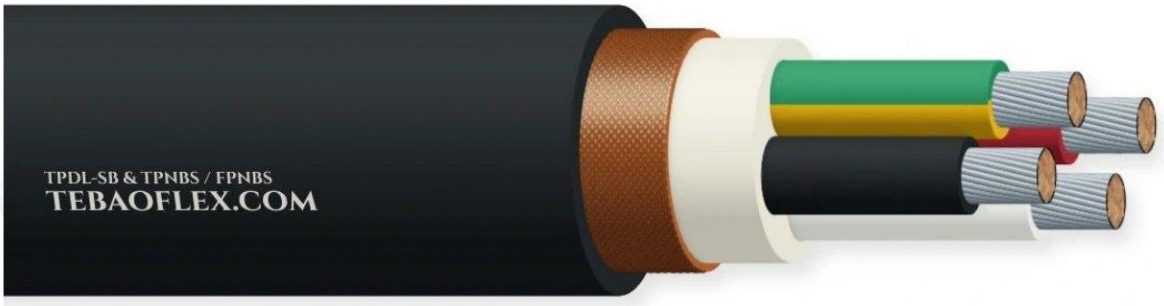
NEK 606 Mud-Resistant Type P-MR Shea

Application

TPDL-SB & TPNBS / FPNBS 600 V – 2,000 V IEEE 1580 Type P Mud-Resistant Offshore Rig Power Cable (IEEE 1580 Type P / NEK 606) engineered for 600 V – 2,000 V service across -40 to +125 °C (min. bend radius 8 × OD).

Typical uses: Commercial Vessels & Cruise Ships, Offshore Oil & Gas Platforms (FPSO), Jack-Up & Semi-Submersible Drilling Rigs, Naval Surface Vessels & Submarines

Construction





Cross-section, not to scale

1. High-Flex Tinned Copper (4C × 4/0 AWG)
2. 125 °C Heavy-Wall XLPO Insulation
3. Thermoset Inner Bedding Jacket
4. Bronze / Copper Wire Braid (SB / -CW)
5. NEK 606 Mud-Resistant Type P-MR Sheath

Technical data

Typical values

Rated voltage / transmission duty	600 V – 2,000 V (IEEE 1580 Type P + NEK TS 606 Ester Mud Resistant / UL 1309)	**Core / conductor construction**	High-Flex Tinned Copper (4C × 4/0 AWG) — Extra-flexible stranded tinned copper conductors for rig mud pumps
Primary dielectric / buffering	125 °C Heavy-Wall XLPO Insulation — IEEE 1580 Type P cross-linked polyolefin (600 V / 2,000 V rated)	**Continuous operating temperature**	−40…+125 °C (shipboard & offshore duty)
Short-circuit / peak thermal rating	Verified thermal stability per IEEE 1580 Type P + NEK TS 606 Ester Mud Resistant / UL 1309	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	NEK 606 Mud-Resistant Type P-MR Sheath — Dual-certified IEEE 1580 + NEK 606 ester/oil mud-resistant jacket	**Minimum bending radius**	8 × OD
Armour, screen & mechanical duty	Bronze / Copper Wire Braid (SB / -CW) — High-tensile bronze or tinned copper wire braid armour	**Flame, fire & smoke performance**	Qualified for marine flame-retardance and low-smoke zero-halogen / fire safety per IEEE 1580 Type P + NEK TS 606 Ester Mud Resistant / UL 1309
Oil, drilling mud & seawater resistance	Resistant to marine fuel/lube oils, salt mist and offshore fluids per IEEE 1580 Type P + NEK TS 606 Ester Mud Resistant / UL 1309	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEEE 1580 Type P + NEK TS 606 Ester Mud Resistant / UL 1309		

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
TPDL-SB & TPNBS / FPNBS Construction Schedule (−40…+125 °C) 3 sizes						
☐ **TPDL-SB 3×16+1G16 mm²**	**3 × 16 + 1G16 mm² (4G16)**	**IEC 60228 Class 2/5 Cu/SnCu**	**22.4**	**920**	**3.8**	**135**
☐ **TPDL-SB 3×35+1G16 mm²**	**3 × 35 + 1G16 mm² (4G35)**	**IEC 60228 Class 2/5 Cu/SnCu**	**28.8**	**1,690**	**7.4**	**175**
☐ **TPDL-SB 3×70+1G35 mm²**	**3 × 70 + 1G35 mm² (4G70)**	**IEC 60228 Class 2/5 Cu/SnCu**	**38.2**	**3,260**	**14.8**	**230**

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per IEEE 1580 Type P + NEK TS 606 Ester Mud Resistant / UL 1309.

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 (4G16)	**1.15**	**600 V – 2,000 V (98 A)**	**−40…+125 °C**
3 × 35 + 1G16 mm² (4G35)	**0.52**	**600 V – 2,000 V (158 A)**	**−40…+125 °C**
3 × 70 + 1G35 mm² (4G70)	**0.27**	**600 V – 2,000 V (245 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 / NEK 606 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/tpdl-sb-tpnbs-fpnbs

Typical values for this cable type, based on IEEE 1580 Type P + NEK TS 606 Ester Mud Resistant / UL 1309. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.