Underwater & nuclear spent-fuel pool lighting power cable

52A SERIES

52A Series 600 V Heavy-Duty Underwater & Nuclear Lighting Cable

NAVSEA S9320 · 600 V · Underwater & nuclear spent-fuel pool lighting power cable



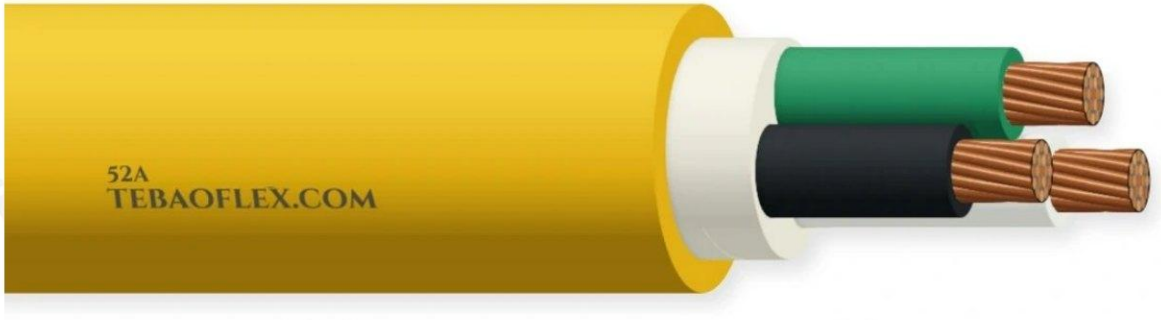
NAVSEA S9320 / 10^6 Gy | **600 V (15–30 A)** | **Nuclear CSPE / PCP**

Application

52A Series Heavy-Duty (STR/Polychloroprene) & Nuclear-Grade (EPDM/CSPE) 600 V Heavy-Duty Underwater & Nuclear Lighting Power Cable (NAVSEA S9320, 600 V, -40 to +90 °C, min. bend radius 6 × OD).

Typical uses: Naval Shipboard & Submarine Outboard, Offshore Cathodic Protection (ICCP), Underwater Welding & Nuclear Pools, Deep-Well & Seabed Pump Feeders

Construction





Cross-section, not to scale

1. Extra-Flexible Bare Copper (3×16/14/12 AWG)
2. 90 °C EPDM / Styrene Rubber Insulation
3. Round Mold-Ready Core Lay-Up
4. Nuclear-Grade CSPE / Heavy-Duty PCP Jacket

Technical data

Typical values

Rated voltage / transmission duty	600 V (NAVSEA S9320-AM-PRO-020 / CERN 10^6 Gy Nuclear Standard)	**Core / conductor construction**	Extra-Flexible Bare Copper (3×16/14/12 AWG) — Soft-drawn annealed bare copper rope/bunch stranding (41×#30 or 65×#34/30)
Primary dielectric / buffering	90 °C EPDM / Styrene Rubber Insulation — 600 V high-dielectric radiation-tolerant rubber insulation (Black, White & Green)	**Continuous operating temperature**	−40…+90 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per NAVSEA S9320-AM-PRO-020 / CERN 10^6 Gy Nuclear Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Nuclear-Grade CSPE / Heavy-Duty PCP Jacket — Yellow CSPE nuclear-grade jacket (52A-013/033/023) or Black Polychloroprene (52A-006/009/012)	**Minimum bending radius**	6 × OD
Hydrostatic, tensile & crush duty	Round Mold-Ready Core Lay-Up — Three cores cabled round for NAVSEA S9320-AM-PRO-020 watertight overmolding	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per NAVSEA S9320-AM-PRO-020 / CERN 10^6 Gy Nuclear Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per NAVSEA S9320-AM-PRO-020 / CERN 10^6 Gy Nuclear Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	NAVSEA S9320-AM-PRO-020 / CERN 10^6 Gy Nuclear Standard		

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
52A SERIES Construction Schedule (−40…+90 °C) 3 sizes						
☐ **52A SERIES Config A (Compact)**	4×2×24 AWG + 2×18 AWG (or 4C)	Stranded tinned Cu (IEC 60228 / ASTM)	10.4	155	4.5	85
☐ **52A SERIES Config B (Standard)**	4×2×20 AWG + 4×16 AWG (or 8C)	Stranded tinned Cu (IEC 60228 / ASTM)	13.3	265	9.6	110
☐ **52A SERIES Config C (Heavy Hybrid)**	8×2×20 AWG + 4×12 AWG (or 12C)	Stranded tinned Cu (IEC 60228 / ASTM)	16.6	420	18.5	140

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per NAVSEA S9320-AM-PRO-020 / CERN 10^6 Gy Nuclear Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24 AWG + 2×18 AWG (or 4C)	28.40	600 V (45–100 Ω data)	−40…+90 °C
4×2×20 AWG + 4×16 AWG (or 8C)	10.70	600 V (45–100 Ω data)	−40…+90 °C
8×2×20 AWG + 4×12 AWG (or 12C)	5.40	600 V (High-Power Hybrid)	−40…+90 °C

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

Standards and approvals

- NAVSEA S9320 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/52a-series

Typical values for this cable type, based on NAVSEA S9320-AM-PRO-020 / CERN 10^6 Gy Nuclear Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.