



MIL-DTL-24643/15-/18 shipboard cable

LSDSGU / LSTSGU / LSFSGU / LS7SGU / LSMSCU / LSMSCS

MIL-DTL-24643

MIL-DTL-24643/15-/18 600/1000 V watertight low-smoke shipboard power & control cable



MIL-DTL-24643/15, /16, /17 & /18

LSDSGU / LSTSGU / LSMSCU / LSMSCS

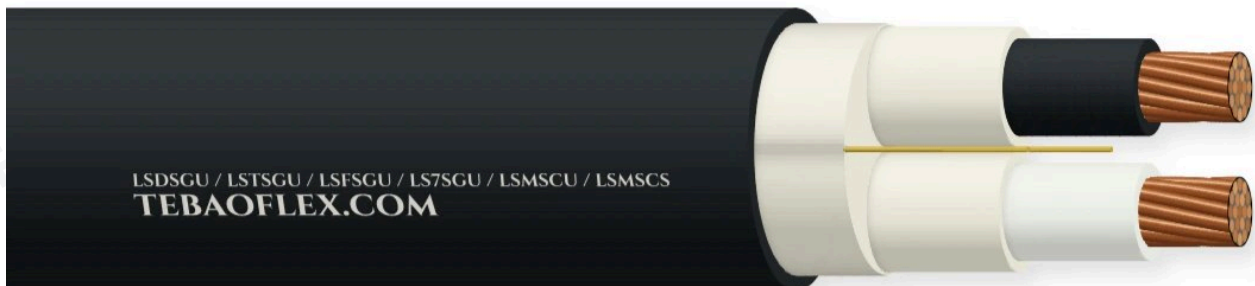
600/1000 V · Watertight · LSZH

Application

The core US Navy fixed shipboard power and control cable series built to MIL-DTL-24643/15 (LSDSGU 2C), /16 (LSTSGU 3C), /17 (LSFSGU 4C & LS7SGU 7C) and /18 (LSMSCU unshielded / LSMSCS shielded control) with water-blocked tinned copper, XLPO/silicone.

Typical uses: US Navy & Allied Surface Warship Power Distribution, 450 V AC 60 Hz & 400 Hz Shipboard Switchboard Feeders, Machinery Control, Damage Control & Valve Actuators, Coast Guard Cutters & Naval Auxiliary Vessels

Construction



Cross-section, not to scale

- 1 Water-blocked concentric stranded tinned copper
- 2 Cross-linked polyolefin (XLPO) primary dielectric
- 3 Watertight elastomeric fillers & binder tape
- 4 Optional overall tinned copper braid shield (LSMSCS)
- 5 Cross-linked LSZH polyolefin outer jacket

Technical data

Typical values

Rated operating voltage	600 V / 1,000 V (LSDSGU, LSTSGU, LSFSGU, LS7SGU) · 600 V (LSMSCU / LSMSCS)	Factory AC dielectric withstand test	2.5 to 3.5 kV AC rms for 5 minutes + IR ≥ 1,000 MΩ·1000 ft
Surface transfer impedance (LSMSCS)	Optimized tinned-copper braid shield for below-deck EMC compliance	Conductor temperature rating	−30 °C to +105 °C continuous · +250 °C short-circuit
Thermal cycling & overload stability	Verified thermal ageing and short-circuit withstand per standard	Longitudinal watertightness (WT)	Passes MIL-DTL-24643 open-end hydrostatic water-penetration test
Minimum bending radius	6 × OD (unarmoured UN) · 8 × OD (shielded LSMSCS / armoured AN)	Flame, smoke & toxicity	IEEE 1202 vertical flame pass · Halogen < 0.2 % · Acid gas < 5 mg/g
Environmental & chemical durability	Resistant to moisture, industrial fluids and service ageing	Standards	MIL-DTL-24643/15 (LSDSGU), /16 (LSTSGU), /17 (LSFSGU) & /18 (LSMSCU/LSMSCS)

Sizes

10 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Military PIN / Type	Configuration	Rating	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Ampacity A	Min. bend R mm
LSDSGU (/15), LSTSGU (/16) & LSFSGU (/17) Watertight Shipboard Power Feeders 7 sizes							
☐ M24643/15-03UN (LSDSGU-9)	2×10 AWG (5.26 mm ²)	600/1000 V	13.8	102	235	43	83
☐ M24643/15-08UN (LSDSGU-50)	2×3 AWG (26.7 mm ²)	600/1000 V	22.8	515	980	118	137
☐ M24643/16-03UN (LSTSGU-9)	3×10 AWG (5.26 mm ²)	600/1000 V	14.8	153	305	36	89
☐ M24643/16-05UN (LSTSGU-23)	3×6 AWG (13.3 mm ²)	600/1000 V	19.4	385	640	68	116
☐ M24643/16-09UN (LSTSGU-100)	3×1/0 AWG (53.5 mm ²)	600/1000 V	31.8	1,545	2,240	172	191
☐ M24643/16-12UN (LSTSGU-200)	3×4/0 AWG (107 mm ²)	600/1000 V	41.2	3,090	4,180	260	247
☐ M24643/17-05UN (LSFSGU-23)	4×6 AWG (13.3 mm ²)	600/1000 V	21.5	513	830	58	129
LSMSCU & LSMSCS (/18) Watertight Multi-Core Shipboard Control Cables 3 sizes							
☐ M24643/18-02UN (LSMSCU-7)	7×16 AWG (1.31 mm ²) Unshielded	600 V	12.6	88	215	12	76
☐ M24643/18-05UN (LSMSCU-19)	19×16 AWG (1.31 mm ²) Unshielded	600 V	18.5	239	490	9	111
☐ M24643/18-14UN (LSMSCS-12)	12×16 AWG (1.31 mm ²) Shielded	600 V	16.8	185	410	10	101

– Full QPL-equivalent dimensional range covers #14 AWG through 400 kcmil (power) and 2 through 44 conductors (control).

Standards and approvals

- ✓ MIL-DTL-24643/15, /16, /17 & /18 Compliant
- ✓ Watertight (WT) & Low-Smoke Zero-Halogen (LSZH)
- ✓ MIL-STD-2042 & IEEE 45 Marine Practice

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/mil-dtl-24643-lsdsgu-lstsgu-lsmcscu-low-smoke-shipboard-power-and-control-cable



Typical values for this cable type, based on MIL-DTL-24643/15, /16, /17 & /18 / IEEE 45 / MIL-STD-2042. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.