



High-temperature wires & cables

SRML / UL 3231 / UL 3070

Silicone Rubber Motor Lead Wire (SRML / UL 3231 & UL 3070)

600 V / 1,000 V 150–200 °C fiberglass-braided silicone motor & transformer lead wire



SRML · UL 3231 & 3070

600 V / 1,000 V · 200 °C

24 AWG to 4/0 AWG

Application

Heavy-duty flexible motor and transformer lead wire (SRML, UL AWM Style 3070 150 °C & Style 3231 200 °C) from 24 AWG to 4/0 AWG, pairing rope-lay tinned copper conductors with vulcanized silicone rubber and a varnish-bake-resistant fiberglass braid.

Typical uses: Class F, H & N electric motors & generators, Dry-type distribution & drive transformers, Traction, mill & crane motor rewinds, VFD line/load reactors & inductors, Industrial furnaces & heat-treating fans, High-current power electronics cabinets

Construction



Cross-section, not to scale

1	Flexible tinned copper conductor	ASTM B33 / UL 758
2	Heavy-wall vulcanized silicone rubber	UL 758 Styles 3070 & 3231
3	Varnish-compatible fiberglass braid	UL 758 Style 3231

Technical data

Typical values

Rated voltage	600 Vac standard (SRML / UL 3070 / UL 3231) and 1,000 Vac heavy-duty option	Dielectric & spark test	2.0 kV Vac dielectric withstand (3.0 kV on 1,000 V) + 6.0 kV Vac in-line spark test per UL 758
Conductor stranding & tinning	Flexible stranded tinned annealed copper per ASTM B33 / B174 (concentric or rope-lay from 24 AWG to 4/0 AWG / 500 kcmil)	Operating temperature & thermal class	–60 °C to +150 °C (SRML / UL 3070) or –60 °C to +200 °C (UL 3231) for NEMA Class F (155 °C), Class H (180 °C) & Class N (200 °C) windings
Stator bake & thermal shock	Withstands repeated 200 °C VPI varnish cure cycles without insulation cracking or stiffening	Silicone & braid wall schedule	0.76 mm (24–14 AWG), 1.14 mm (12–10 AWG), 1.52 mm (8–2 AWG), 2.03 mm (1–3/0 AWG), 2.41 mm (4/0 AWG) silicone wall + treated fiberglass braid
Minimum bending radius	6 × overall diameter (stator coil end-turns and motor terminal boxes)	Varnish, flame & corona resistance	UL VW-1 / Horizontal flame & CSA FT1; compatible with VPI polyester, epoxy and silicone insulating varnishes and 200 °C bake cycles
Ozone & inverter-duty resilience	High corona and ozone resistance for inverter-fed (VFD) motor stator end-turns	Standards	UL 758 AWM Styles 3070, 3231 & 3122; CSA C22.2 No. 210 (AWM I A/B) & No. 49 (SEW-2 / SEWF-2); ASTM B33

Sizes

12 standard constructions

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

Style · AWG size	Size AWG	CSA ≈ mm ²	Stranding (count/AWG)	Cond. Ø mm	SiR wall mm	Braid mm	Nominal OD mm	Mass ≈ kg/km	Max. DC res. (20 °C) Ω/km
☐ SRML / UL 3231 · 18 AWG	18 AWG	0.82	16/30	1.22	0.76	0.20	3.14	15.0	22.40
☐ SRML / UL 3231 · 16 AWG	16 AWG	1.31	26/30	1.50	0.76	0.20	3.42	20.0	14.00
☐ SRML / UL 3231 · 14 AWG	14 AWG	2.08	41/30	1.88	0.76	0.20	3.80	28.0	8.90
☐ SRML / UL 3231 · 12 AWG	12 AWG	3.31	65/30	2.36	1.14	0.25	5.14	48.0	5.60
☐ SRML / UL 3231 · 10 AWG	10 AWG	5.26	105/30	2.95	1.14	0.25	5.73	69.0	3.50
☐ SRML / UL 3231 · 8 AWG	8 AWG	8.37	133/29	3.73	1.52	0.30	7.37	115.0	2.20
☐ SRML / UL 3231 · 6 AWG	6 AWG	13.3	133/27	4.70	1.52	0.30	8.34	168.0	1.40
☐ SRML / UL 3231 · 4 AWG	4 AWG	21.2	259/28	5.90	1.52	0.35	9.64	252.0	0.89
☐ SRML / UL 3231 · 2 AWG	2 AWG	33.6	259/26	7.42	1.52	0.38	11.22	378.0	0.56
☐ SRML / UL 3231 · 1/0 AWG	1/0 AWG	53.5	259/24	9.35	2.03	0.45	14.31	595.0	0.35
☐ SRML / UL 3231 · 2/0 AWG	2/0 AWG	67.4	259/23	10.50	2.03	0.45	15.46	735.0	0.28
☐ SRML / UL 3231 · 4/0 AWG	4/0 AWG	107.2	427/23	13.25	2.41	0.50	19.07	1,140.0	0.18

– Smaller signal gauges (24–20 AWG) and larger power sizes (250 to 500 kcmil) are manufactured to order under UL 3231.

Standards and approvals

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/silicone-rubber-motor-lead-wire



Typical values for this cable type, based on UL 758 Styles 3070 & 3231 (SRML). Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.