power connection cable series

600 V Class M Welding Cable

600 V Heavy-Duty Flexible Class M Welding Cable

UL 600 V Class M (34 AWG) rope-lay tinned copper TSE power & welding cable



UL 600 V Welding & Power | **Class M (34 AWG) Tinned Cu** | **-50 °C to +105 °C TSE Jacket**

Application

Super-Trex 600 V Heavy-Duty Flexible Welding & Power Cable (6 AWG to 500 MCM) engineered per UL 600 V Welding / Power Lead standards, CSA and NEC Article 630—combining ultra-fine Class M (34 AWG / 0.16 mm) rope-lay tinned copper.

Typical uses: Steel Mills, Foundries & Blast-Furnace Maintenance, Shipbuilding, Drydocks & Offshore Rig Fabrication, Surface & Underground Mining Shovel / Dragline Shops, Generator Rental Load-Banks & 600 V Temporary Bus, Robotic Welding Booms & Overhead Busway Drops

Construction





Cross-section, not to scale

1. Class M (34 AWG / 0.16 mm) rope-lay tinned copper conductor
2. Low-friction polyester separator tape
3. 600 V Heavy-Duty Thermoset Elastomer (TSE) jacket

Technical data

Typical values

Rated voltage	600 V AC / DC (UL Listed Welding & Power Lead)	**Factory dielectric test**	3,000 V AC rms & 10 kV spark test on 100 % of reel length
Max. DC resistance @ 20 °C	0.528 Ω/km (2 AWG) · 0.210 Ω/km (2/0 AWG) · 0.132 Ω/km (4/0 AWG)	**600 V NEC ampacity (air)**	190 A (2 AWG) · 300 A (2/0 AWG) · 405 A (4/0 AWG) · 515 A (350 MCM)
Continuous conductor temp.	+105 °C Dry / +90 °C Wet or Oil	**Cold-bend flexibility**	-50 °C cold bend without cracking
Short-circuit / slag contact	+250 °C short-circuit · Chars without melting under hot weld slag	**Individual strand gauge**	34 AWG (0.160 mm / 0.0063 in) per ASTM B172 Class M
600 V TSE wall thickness	2.03 mm (6–1 AWG) · 2.41 mm (1/0–4/0 AWG) · 2.79 mm (250–500 MCM)	**Min. bend radius**	4 × OD (static) · 5 × OD (dynamic flexing)
Oil, coolant & acid	Passes UL Oil Res I & II (+60/+75 °C oil immersion) & cutting fluid tests	**Flame retardancy**	UL VW-1 · CSA FT1 · MSHA flame-resistant print available
UV, ozone & water	Sunlight resistant (720 h UV) and ozone chamber qualified	**Standards**	UL 600 V Welding Cable · CSA C22.2 No. 96 · NEC Article 630

Sizes

7 standard constructions

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

Order size	34 AWG Tinned Cu strands	Nominal Ø mm	Weight ≈ kg/km	600V Cont. A	Weld 60% A
AWG Sizes (6 AWG to 4/0 AWG) 5 sizes					
☐ 600V Class M 2 AWG	1,666 × 34 AWG (33.6 mm²)	12.7	430	190	300
☐ 600V Class M 1 AWG	2,107 × 34 AWG (42.4 mm²)	14.5	550	220	350
☐ 600V Class M 1/0 AWG	2,646 × 34 AWG (53.5 mm²)	16.0	685	260	420
☐ 600V Class M 2/0 AWG	3,325 × 34 AWG (67.4 mm²)	17.5	845	300	500
☐ 600V Class M 4/0 AWG	5,320 × 34 AWG (107 mm²)	21.1	1,310	405	650
kcmil / MCM Sizes (250 to 500 MCM) 2 sizes					
☐ 600V Class M 350 MCM	8,806 × 34 AWG (177 mm²)	26.7	2,140	515	850
☐ 600V Class M 500 MCM	12,540 × 34 AWG (253 mm²)	30.7	2,990	620	1,050

– 6 AWG (665×34 AWG, 9.7 mm OD) and 4 AWG (1,064×34 AWG, 11.2 mm OD) are also stocked for lighter TIG/MIG torches and ground straps.

Standards and approvals

- UL Listed 600 V Welding & Power
- CSA C22.2 No. 96 FT1
- NEC Article 630 & ASTM B172

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/600-v-heavy-duty-flexible-welding-cable

Typical values for this cable type, based on UL Listed 600 V Welding / CSA C22.2 No. 96 / NEC Art. 630. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.