



Hook-up & equipment wires

UL AWM 3173 / SIS

Switchboard Wire

Dual-rated UL 44 Type SIS (90 °C) & UL AWM 3173 / CL1251 (125 °C) 600 V switchboard wire



UL 44 Type SIS · UL 3173

600 V · 90 °C SIS / 125 °C AWM

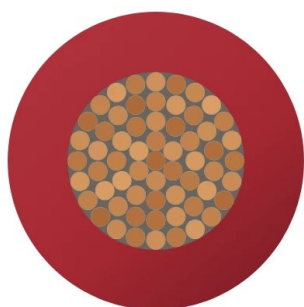
Substation & Switchgear

Application

Utility substation, MV/LV switchgear and Class F motor lead wire dual-certified to UL 44 Type SIS Switchboard Wire (90 °C, 600 V) and UL AWM Style 3173 / CSA CL1251 (125 °C, 600 V), featuring tinned copper conductors (22–4/0 AWG) and thermoset XLPE insulation.

Typical uses: ANSI/IEEE C37 MV & LV metal-clad switchgear, Utility substation protection & relay panels, Current & potential transformer (CT/PT) circuits, Class B / Class F motor & generator leads, Switchboard busbar & breaker control harnesses

Construction



Cross-section, not to scale

1	Tinned or bare annealed copper	ASTM B33 / B8 · UL 44 · UL 758
2	0.76 mm (30 mil) flame-retardant XLPE	UL 44 Type SIS · UL 758 Style 3173
3	Low-friction VW-1 switchboard finish	UL 44 · CSA C22.2 No. 38 / No. 210

Technical data

Typical values

Rated voltage	600 V RMS	Dielectric withstand voltage	2000 V AC for 1 min · 6000 V AC spark test
Max. DC conductor resistance (20 °C)	18 AWG: ≤ 21.0 Ω/km · 16 AWG: ≤ 13.2 Ω/km · 14 AWG: ≤ 8.28 Ω/km · 12 AWG: ≤ 5.21 Ω/km · 10 AWG: ≤ 3.28 Ω/km	Continuous temperature rating	+90 °C dry (UL 44 Type SIS NEC rating) · +125 °C continuous (UL AWM Style 3173 & CSA CL1251)
Overload & short-circuit rating	+130 °C emergency overload · +250 °C short-circuit rating	Nominal insulation wall	22–10 AWG: 0.76 mm (30 mil) · 8 AWG: 1.14 mm (45 mil) · 6–2 AWG: 1.52 mm (60 mil)
Min. bending radius	4 × overall diameter (fixed switchboard routing)	Flame retardance	UL 44 Horizontal / Vertical flame test, UL 1581 VW-1 & CSA FT1 / FT2 (IEEE 383 / VW-1 utility grade)
Crush, oil & varnish resistance	Thermoset XLPE resists terminal screw creep, oil mist, ozone and Class F varnish baking	Standards	UL 44 Type SIS (Switchboard Wire, 600 V, 90 °C) & NEC Article 310 / ANSI C37.20
Standard packing	Heat-treated ISPM-15 timber drums or spools with sealed ends		

Sizes

10 standard constructions

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

Order designation	Cores × mm ² / AWG	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
600 V Switchboard & Relay Panel Wire (UL 44 SIS / AWM 3173, 20–10 AWG) 6 sizes							
☐ UL 3173 20 AWG (10/30)	20 AWG (0.52 mm ²)	20	2.3	2.5	5	10	10
☐ UL 3173 / SIS 18 AWG	18 AWG (0.82 mm ²)	18	2.6	2.8	7	13	11
☐ UL 3173 / SIS 16 AWG	16 AWG (1.31 mm ²)	16	2.9	3.1	12	19	12
☐ UL 3173 / SIS 14 AWG	14 AWG (2.08 mm ²)	14	3.2	3.5	20	27	14
☐ UL 3173 / SIS 12 AWG	12 AWG (3.31 mm ²)	12	3.7	4.0	31	40	16
☐ UL 3173 / SIS 10 AWG	10 AWG (5.26 mm ²)	10	4.3	4.7	50	61	19
600 V Heavy Switchgear & CT/Motor Leads (UL 44 SIS / AWM 3173, 8–2 AWG) 4 sizes							
☐ UL 3173 / SIS 8 AWG	8 AWG (8.37 mm ²)	8	5.9	6.4	80	104	26
☐ UL 3173 / SIS 6 AWG	6 AWG (13.3 mm ²)	6	7.5	8.1	127	165	32
☐ UL 3173 / SIS 4 AWG	4 AWG (21.2 mm ²)	4	8.7	9.5	203	252	38
☐ UL 3173 / SIS 2 AWG	2 AWG (33.6 mm ²)	2	10.2	11.1	322	385	44

– Dimensions and weights are typical values per UL 44 Type SIS · UL 758 Style 3173 · CSA CL1251. Minimum fixed bending radius shown is 4 × OD.

Electrical & current ratings

10 sizes

Cross-section mm ²	AWG ≈	Max. DC resistance 20 °C, Ω/km	Single wire in air 30 °C, A	Multi-core bundle 30 °C, A
0.52	20	34.6	10	7
0.82	18	24	14	11
1.31	16	15.1	20	15
2.08	14	9.8	27	21
3.31	12	6.2	36	27
5.26	10	3.88	50	36
8.37	8	2.42	68	48
13.3	6	1.48	92	65
21.2	4	0.92	125	88
33.6	2	0.58	165	115

– Current ratings at 30 °C ambient in free air. Apply temperature and bundle grouping factors per applicable equipment standard.

Standards and approvals

✓ UL 44 Type SIS · UL 758 Style 3173 · CSA CL1251

✓ 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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/ul-awm-3173-sis-switchboard-wire



Typical values for this cable type, based on UL 44 Type SIS · UL 758 Style 3173 · CSA CL1251. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.