



Hook-up & equipment wires

RSE STD 024 Part 6

RSE/STD/024 Rolling Stock Cable Family

London Underground RSE/STD/024 Part 6 ultra-low-smoke deep-tube rolling stock cable



LUL RSE/STD/024 Part 6

BS 6853 Cat. 1a · S1085

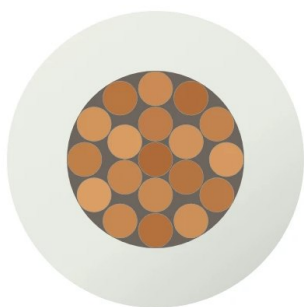
300/500 V & 0.6/1 kV

Application

Sub-surface and deep-tube railway rolling-stock wire and multicore cable family built to London Underground Limited 'RSE/STD/024 Part 6' ('LUL S1085' / BS 6853 Category 1a / EN 45545-2 HL3) with Class 5 tinned copper conductors and cross-linked LSZH elastomer.

Typical uses: London Underground deep-tube & sub-surface fleets, UK rolling-stock refurbishment & life-extension, Underground metro & tunnel maintenance vehicles, Onboard signalling, CBTC & driver cab retrofits, Traction auxiliary & battery distribution cubicles

Construction



Cross-section, not to scale

1	Class 5 tinned copper conductor	BS EN 60228 · RSE/STD/024 Pt 6
2	Cross-linked LSZH core insulation	RSE/STD/024 Pt 6 · BS 6853 Cat. 1a
3	Halogen-free tape (multicore types)	RSE/STD/024 Pt 6
4	Optional tinned-copper braid screen	RSE/STD/024 Pt 6 · EN 50121-3-2
5	LUL S1085 cross-linked LSZH sheath	LUL S1085 · BS 6853 Cat. 1a · HL3

Technical data

Typical values

Rated voltage U0/U	300/300 V (thin-wall signal), 300/500 V (control) & 0.6/1 kV (auxiliary power)	AC test voltage (50 Hz)	1.5 kV AC (300 V) · 2.0 kV AC (300/500 V) · 3.5 kV AC (0.6/1 kV)
Conductor resistance	To BS EN 60228 Class 5 tinned copper	Operating temperature range	–40 °C to +90 °C (+105 °C on e-beam thin-wall types)
Short-circuit temperature	+200 °C max. (5 s)	Min. bending radius, fixed	4 × OD (single-core & unscreened multicore) · 6 × OD (screened multicore)
Abrasion & notch resistance	Cross-linked sheath passes dynamic cut-through, scrape abrasion and fluid immersion tests	London Underground fire safety	Complies with LUL RSE/STD/024 Part 6, LUL S1085 (Fire Safety Performance of Materials) & BS 6853 Category 1a
European fire harmonisation	Also meets EN 45545-2 Hazard Level HL3 (R15 & R16)	Smoke & toxic fume index	BS EN 61034-2 3m cube smoke test · BS 6853 Annex B toxicity index R < 1.0 · BS EN 60754-1/2 zero halogen
Standards	London Underground Railway Safety & Engineering Standard RSE/STD/024 Part 6	Standard packing	Heat-treated ISPM-15 timber drums or spools with sealed ends

Sizes

20 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
Single-Core Rolling Stock Wires (RSE/STD/024 Part 6, 0.75–70 mm ²) 7 sizes							
☐ RSE/STD/024 1×0.75 (Single Core)	1×0.75	18	2.1	2.3	7	12	9
☐ RSE/STD/024 1×1.5 (Single Core)	1×1.5	16	2.6	2.8	14	20	11
☐ RSE/STD/024 1×2.5 (Single Core)	1×2.5	14	3.0	3.3	24	31	13
☐ RSE/STD/024 1×6 (Single Core)	1×6	10	4.2	4.6	57	68	18
☐ RSE/STD/024 1×16 (Single Core)	1×16	6	6.4	7.0	153	174	28
☐ RSE/STD/024 1×35 (Single Core)	1×35	2	9.3	10.1	336	368	40
☐ RSE/STD/024 1×70 (Single Core)	1×70	2/0	12.7	13.8	672	718	55
Unscreened Multicore Control & Power (RSE/STD/024 Part 6) 7 sizes							
☐ RSE/STD/024 2×1.0 Multicore	2×1.0	18	5.7	6.2	19	55	25
☐ RSE/STD/024 4×1.0 Multicore	4×1.0	18	6.5	7.1	38	82	28
☐ RSE/STD/024 7×1.0 Multicore	7×1.0	18	7.7	8.4	67	128	34
☐ RSE/STD/024 12×1.0 Multicore	12×1.0	18	10.2	11.1	115	218	44
☐ RSE/STD/024 4×1.5 Multicore	4×1.5	16	7.2	7.8	57	106	31
☐ RSE/STD/024 7×1.5 Multicore	7×1.5	16	8.6	9.3	100	168	37
☐ RSE/STD/024 4×2.5 Multicore	4×2.5	14	9.3	10.1	96	175	40
Tinned-Cu Braid Screened Multicore & Pairs (RSE/STD/024 Part 6) 6 sizes							
☐ RSE/STD/024 2×0.75 Screened	2×0.75	18	5.9	6.4	30	62	26
☐ RSE/STD/024 4×1.0 Screened	4×1.0	18	7.3	7.9	58	112	32
☐ RSE/STD/024 7×1.0 Screened	7×1.0	18	8.6	9.3	95	168	37
☐ RSE/STD/024 4×1.5 Screened	4×1.5	16	7.9	8.6	82	142	34
☐ RSE/STD/024 7×1.5 Screened	7×1.5	16	9.4	10.2	134	215	41
☐ RSE/STD/024 12×1.5 Screened	12×1.5	16	12.3	13.4	224	355	54

– Dimensions and weights are typical values per LUL RSE/STD/024 Part 6 · BS 6853 Cat. 1a / EN 45545-2 HL3. Minimum fixed bending radius shown is 4 × OD.

Electrical & current ratings

8 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
0.75	18	26.7	13	10
1	18	20	16	12
1.5	16	13.7	21	16
2.5	14	8.21	30	22
6	10	3.39	53	38
16	6	1.24	100	71
35	2	0.565	169	117
70	2/0	0.277	270	185

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

Standards and approvals

- ✓ LUL RSE/STD/024 Part 6 · BS 6853 Cat. 1a / EN 45545-2 HL3
- ✓ 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/rse-std-024-rolling-stock-cable-family



Typical values for this cable type, based on LUL RSE/STD/024 Part 6 · BS 6853 Cat. 1a / EN 45545-2 HL3. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.