



Locomotive & traction cables

DLO 2 kV

Diesel Locomotive & Traction Power Cable

Extra-flexible tinned copper, EPR/XL-CPE single-core power cable



AAR RP-585 / UL 44

2 kV RHH/RHW-2

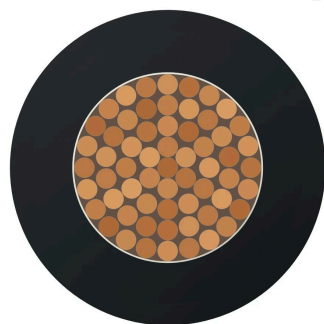
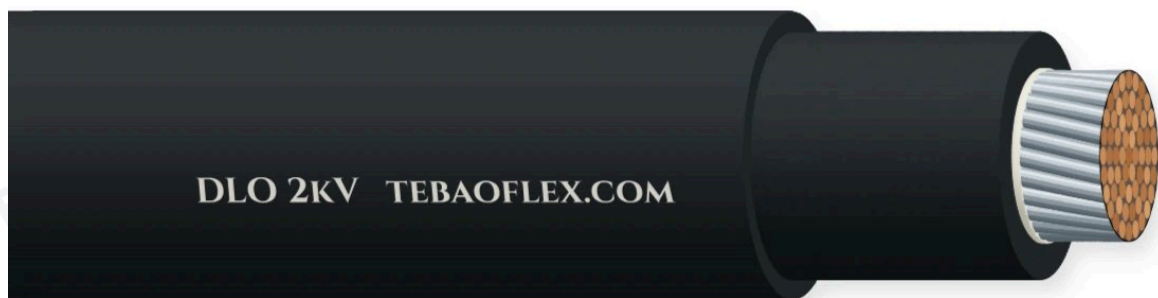
14 AWG-1111 kcmil

Application

Extra-flexible 2,000 V single-conductor power lead with rope-lay tinned copper stranding, thermoset EPR insulation and a heavy-duty XL-CPE sheath for diesel-electric locomotives, mining haul trucks, drilling rigs and traction drives.

Typical uses: Diesel-electric locomotives, Mining haul trucks, Oil & gas drilling rigs, Battery energy storage, Shipyard & marine power, Traction & VFD switchgear

Construction



Cross-section, not to scale

1	Extra-flexible tinned copper conductor	ASTM B33 / ASTM B172
2	Conductor separator tape	ICEA S-95-658
3	Thermoset EPR insulation	UL 44 / CSA C22.2 No. 38
4	Heavy-duty XL-CPE outer jacket	ICEA S-95-658 / NEMA WC70

Technical data

Typical values

Rated voltage	2,000 V (UL RHH/RHW-2 600 V / 2 kV)
AC test voltage (5 min)	6.0–13.5 kV AC by conductor size
Continuous conductor temp.	+90 °C wet or dry
Short-circuit temperature	+250 °C (5 s maximum)
Conductor stranding	24 AWG (0.51 mm) tinned copper, Class I/K
Min. bend radius (flexing)	8 × cable overall diameter
Mine flame acceptance	MSHA 30 CFR Part 7 flame resistance
Sunlight & weather	UL 44 720-hour carbon-arc / xenon-arc UV
Standard packing	1,000 ft (305 m) or 2,500 ft (762 m) non-returnable wooden reels

CSA voltage rating	1,000 V (CSA C22.2 No. 38 Type RW90)
Spark test voltage	7.5–15.0 kV AC RMS in-line
Emergency overload temp.	+130 °C
Cold bend temperature	–40 °C (UL 44 cold bend & impact)
Min. bend radius (fixed)	6 × cable overall diameter
Flame retardance	UL 1581 VW-1; IEEE 1202 / FT4 (≥ 1/0 AWG)
Oil & fluid resistance	UL 44 Oil Resistant I & II (60 °C / 75 °C)
Standards	AAR RP-585 / S-501; ICEA S-95-658 (NEMA WC70)

Sizes

21 standard constructions

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

Designation	AWG / kcmil	Cross-section mm ²	Stranding No./AWG	Conductor OD mm	EPR wall mm	XL-CPE wall mm	Nominal OD in	Nominal OD mm	Copper mass kg/km	Total mass lb/kft	Total mass kg/km
☐ DLO 1×14 AWG (2.1 mm ²)	14 AWG	2.1	19/27	1.8	1.14	0.76	0.20	5.1	20	32	48
☐ DLO 1×12 AWG (3.3 mm ²)	12 AWG	3.3	19/25	2.3	1.14	0.76	0.22	5.6	32	39	58
☐ DLO 1×10 AWG (5.3 mm ²)	10 AWG	5.3	27/24	3.0	1.14	0.76	0.25	6.4	50	53	79
☐ DLO 1×8 AWG (8.4 mm ²)	8 AWG	8.4	37/24	3.7	1.52	0.76	0.31	7.9	80	78	116
☐ DLO 1×6 AWG (13.3 mm ²)	6 AWG	13.3	61/24	4.8	1.52	1.14	0.39	9.9	127	135	201
☐ DLO 1×4 AWG (21.2 mm ²)	4 AWG	21.1	105/24	6.4	1.52	1.14	0.45	11.4	202	195	290
☐ DLO 1×2 AWG (33.6 mm ²)	2 AWG	33.6	154/24	7.9	1.52	1.14	0.51	13.0	321	275	409
☐ DLO 1×1 AWG (42.4 mm ²)	1 AWG	42.4	224/24	9.5	2.03	1.14	0.62	15.7	405	390	580
☐ DLO 1×1/0 AWG (53.5 mm ²)	1/0 AWG	53.5	275/24	10.6	2.03	1.14	0.66	16.8	511	465	692
☐ DLO 1×2/0 AWG (67.4 mm ²)	2/0 AWG	67.4	325/24	11.6	2.03	1.14	0.70	17.8	644	540	804
☐ DLO 1×3/0 AWG (85.0 mm ²)	3/0 AWG	85.0	450/24	13.5	2.03	1.14	0.78	19.8	812	715	1,064
☐ DLO 1×4/0 AWG (107.2 mm ²)	4/0 AWG	107.2	550/24	15.0	2.03	1.14	0.84	21.3	1,024	860	1,280
☐ DLO 1×262.6 kcmil (133 mm ²)	262.6 kcmil	133.1	650/24	16.5	2.41	1.65	0.97	24.6	1,271	1,090	1,622
☐ DLO 1×313.1 kcmil (159 mm ²)	313.1 kcmil	158.6	775/24	18.0	2.41	1.65	1.03	26.2	1,515	1,285	1,912
☐ DLO 1×373.7 kcmil (189 mm ²)	373.7 kcmil	189.4	925/24	19.6	2.41	1.65	1.09	27.7	1,809	1,505	2,240
☐ DLO 1×444.4 kcmil (225 mm ²)	444.4 kcmil	225.2	1100/24	21.4	2.41	1.65	1.16	29.5	2,151	1,770	2,634
☐ DLO 1×535.3 kcmil (271 mm ²)	535.3 kcmil	271.2	1325/24	23.6	2.79	1.65	1.28	32.5	2,590	2,120	3,155
☐ DLO 1×646.4 kcmil (328 mm ²)	646.4 kcmil	327.5	1600/24	26.0	2.79	1.65	1.37	34.8	3,128	2,545	3,787
☐ DLO 1×777.7 kcmil (394 mm ²)	777.7 kcmil	394.1	1925/24	28.4	2.79	2.03	1.50	38.1	3,764	3,070	4,569
☐ DLO 1×929.9 kcmil (471 mm ²)	929.9 kcmil	471.2	2300/24	31.2	2.79	2.03	1.61	40.9	4,500	3,620	5,387
☐ DLO 1×1111.1 kcmil (563 mm ²)	1111.1 kcmil	563.0	2750/24	34.2	2.79	2.03	1.73	43.9	5,377	4,320	6,429

- Dimensions and masses are nominal production values per TEBAOFLEX datasheet TBF-DS-DLO-2KV-01 Rev 1.0 and ICEA S-95-658.
- Sizes 1/0 AWG and larger are rated and marked 'For CT Use' (Cable Tray) and pass IEEE 1202 / FT4 (70,000 BTU/hr) vertical tray flame testing.

Ampacity & test voltage

21 sizes

Designation	AWG / kcmil	Cross-section mm ²	75 °C raceway A	90 °C raceway A	90 °C free air A	5-min AC test kV
DLO 1×14 AWG (2.1 mm ²)	14 AWG	2.1	20	25	35	6.0
DLO 1×12 AWG (3.3 mm ²)	12 AWG	3.3	25	30	40	6.0
DLO 1×10 AWG (5.3 mm ²)	10 AWG	5.3	35	40	55	6.0
DLO 1×8 AWG (8.4 mm ²)	8 AWG	8.4	50	55	80	7.5
DLO 1×6 AWG (13.3 mm ²)	6 AWG	13.3	65	75	105	7.5
DLO 1×4 AWG (21.2 mm ²)	4 AWG	21.1	85	95	140	7.5
DLO 1×2 AWG (33.6 mm ²)	2 AWG	33.6	115	130	190	7.5
DLO 1×1 AWG (42.4 mm ²)	1 AWG	42.4	130	145	220	9.0
DLO 1×1/0 AWG (53.5 mm ²)	1/0 AWG	53.5	150	170	260	9.0
DLO 1×2/0 AWG (67.4 mm ²)	2/0 AWG	67.4	175	195	300	9.0
DLO 1×3/0 AWG (85.0 mm ²)	3/0 AWG	85.0	200	225	350	9.0
DLO 1×4/0 AWG (107.2 mm ²)	4/0 AWG	107.2	230	260	405	9.0
DLO 1×262.6 kcmil (133 mm ²)	262.6 kcmil	133.1	275	310	485	11.0
DLO 1×313.1 kcmil (159 mm ²)	313.1 kcmil	158.6	305	345	540	11.0
DLO 1×373.7 kcmil (189 mm ²)	373.7 kcmil	189.4	340	385	600	11.0
DLO 1×444.4 kcmil (225 mm ²)	444.4 kcmil	225.2	375	425	670	11.0
DLO 1×535.3 kcmil (271 mm ²)	535.3 kcmil	271.2	420	475	760	11.0
DLO 1×646.4 kcmil (328 mm ²)	646.4 kcmil	327.5	465	525	850	13.5
DLO 1×777.7 kcmil (394 mm ²)	777.7 kcmil	394.1	510	575	960	13.5
DLO 1×929.9 kcmil (471 mm ²)	929.9 kcmil	471.2	545	615	1,045	13.5
DLO 1×1111.1 kcmil (563 mm ²)	1111.1 kcmil	563.0	570	648	1,119	13.5

- Raceway ampacities are based on NEC (NFPA 70) Table 310.16 for not more than three current-carrying conductors in raceway, cable or earth at 30 °C ambient.
- Free-air ampacities are based on single-conductor installation in free air at 30 °C ambient and 90 °C conductor temperature per NEC Table 310.17 / ICEA P-54-440.

Standards and approvals

- ✓ UL 44 Listed Type RHH / RHW-2 (600 V / 2,000 V, 90 °C wet/dry)
- ✓ CSA C22.2 No. 38 Certified Type RW90 (1,000 V, -40 °C, FT4)
- ✓ AAR RP-585 / S-501 & ICEA S-95-658 / NEMA WC70
- ✓ MSHA 30 CFR Part 7 Flame-Resistant Acceptance

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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Typical values for this cable type, based on AAR RP-585 / ICEA S-95-658 / UL 44 Type RHH/RHW-2. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.