



power connection cable series

(N)TMCWOEU 26-45 kV

26/45 kV Railway Pantograph Connection Cable

26/45 kV (Umax 52 kV) unscreened flexible 25 kV AC railway roof pantograph cable



26/45 kV (Umax 52 kV) Rail

(N)TMCWOEU Pantograph Lead

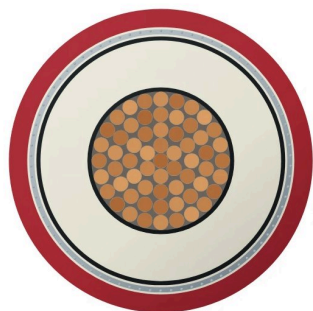
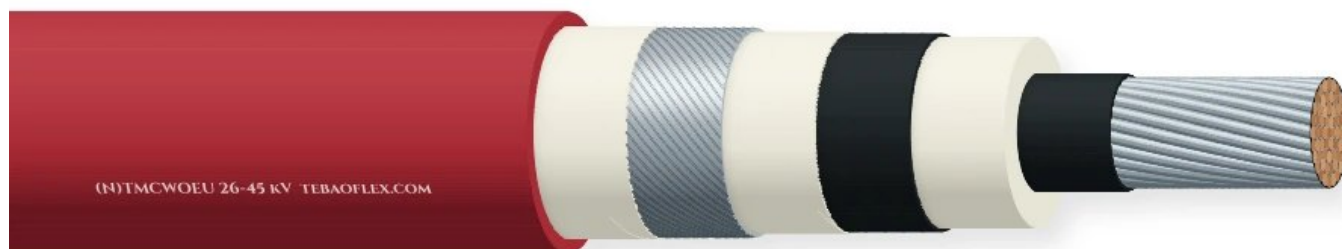
25 kV AC / 15 kV 16.7 Hz Roof

Application

(N)TMCWOEU 26-45 kV Railway Pantograph Connection Cable (26/45 kV, Umax 52 kV; 50 mm² to 185 mm²) engineered per DIN VDE 0250-813, EN 50264 and EN 45545-2 for 25 kV AC 50/60 Hz and 15 kV 16.7 Hz high-speed trains, electric locomotives.

Typical uses: 25 kV AC 50 Hz High-Speed Rail (TGV / ICE / CRH / Velaro), 15 kV 16.7 Hz & 25 kV Freight/Passenger Electric Locomotives, Suburban EMU & Regional Bi-Mode (BMU) Roof High-Voltage, Pantograph-to-VCB & Roof Surge Arrester Flexible Jumpers, Railway Traction Substation & Test-Track HV Leads

Construction



Cross-section, not to scale

- 1 Class 5 / Class 6 fine-stranded tinned copper conductor
- 2 Extruded inner semiconducting elastomer layer ('C')
- 3 11.5 mm 3GI3 High-Voltage EPR dielectric insulation
- 4 5GM3 ('WOEU') weather-, ozone- & oil-resistant outer sheath

Technical data

Typical values

Rated voltage (Uo/U / Umax)	26 / 45 kV AC (Umax = 52 kV AC) for 25 kV AC catenary systems	Routine AC test voltage	65 kV AC rms for 5 minutes (2.5 × Uo)
Max. DC resistance @ 20 °C	0.393 Ω/km (50) · 0.277 Ω/km (70) · 0.206 Ω/km (95) · 0.132 Ω/km (150)	Free-air ampacity (30 °C)	250 A (50) · 310 A (70) · 375 A (95) · 435 A (120) · 505 A (150)
Continuous conductor temp.	+90 °C continuous operation	Short-circuit temperature	+250 °C (up to 5 s)
Operating ambient range	-40 °C to +80 °C (down to -50 °C cold-resistant K option)	Nominal 3GI3 EPR wall	11.5 mm nominal HV dielectric wall + 3.0–3.5 mm outer sheath
Min. bend radius	5 × OD (fixed on roof insulators) · 10 × OD (dynamic pantograph flex)	Shock & vibration	Qualified for rolling-stock roof vibration per IEC 61373 Cat 1 Class B
Catenary arc ozone proof	Passes DIN VDE 0207-20 high-concentration ozone test without cracking	Oil, transformer fluid & UV	EN 60811-404 mineral/ester transformer oil & UV weather resistant
Railway fire safety	IEC 60332-1-2 & EN 45545-2 exterior roof compliance	Standards	DIN VDE 0250-813 · EN 50264 / EN 50382 principles

Sizes

6 standard constructions

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

VDE designation	Conductor & EPR wall	Outer Ø ≈ mm	Weight ≈ kg/km	Max. DC R Ω/km	Air 30°C A
26/45 kV (Umax 52 kV) Unscreened Railway Pantograph Cables 6 sizes					
☐ (N)TMCWOEU 1×50 26/45kV	50 mm² Cl.5 Tinned Cu · 11.5 mm EPR	40.5	1,780	0.3930	250
☐ (N)TMCWOEU 1×70 26/45kV	70 mm² Cl.5 Tinned Cu · 11.5 mm EPR	42.4	2,090	0.2770	310
☐ (N)TMCWOEU 1×95 26/45kV	95 mm² Cl.5 Tinned Cu · 11.5 mm EPR	44.6	2,480	0.2060	375
☐ (N)TMCWOEU 1×120 26/45kV	120 mm² Cl.5 Tinned Cu · 11.5 mm EPR	46.8	2,860	0.1640	435
☐ (N)TMCWOEU 1×150 26/45kV	150 mm² Cl.5 Tinned Cu · 11.5 mm EPR	48.8	3,290	0.1320	505
☐ (N)TMCWOEU 1×185 26/45kV	185 mm² Cl.5 Tinned Cu · 11.5 mm EPR	51.2	3,790	0.1080	580

- All sizes undergo a 100 % 65 kV AC 5-minute routine dielectric test prior to dispatch.

Standards and approvals

- ✓ DIN VDE 0250-813 (26/45 kV)
- ✓ EN 45545-2 Railway Fire
- ✓ EN 50163 / IEC 60850 25 kV AC

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/26-45-kv-railway-pantograph-connection-cable



Typical values for this cable type, based on DIN VDE 0250-813 / EN 50264 / EN 45545-2 / IEC 60077. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.