Triplex copper HEPR screened MV power cable

RG7H1RX

12/20 kV Triplex Copper HEPR MV Power Cable

CEI UNEL 35756 / IEC 60502-2 · 12/20 (24) kV · −25…+90 °C triplex copper MV cable



12/20 (24) kV | Triplex 3×(1×Cu) | CEI UNEL 35756

Application

RG7H1RX 12/20 (24) kV medium-voltage triplex power cable comprising three helically cabled single-core phases with Class 2 copper conductors, triple-extruded G7 HEPR insulation, H1 copper wire/tape metallic screens and individual red Rz PVC phase jackets.

Typical uses: Utility & Industrial 12/20 kV Primary Distribution, Solar PV & Wind Farm MV Collector Substations, Heavy Industrial Switchgear & Transformer Risers, Infrastructure Ducts, Culverts & Pipe Jacking

Construction





Cross-section, not to scale

1	Phase Conductors (3x1x50 mm²)	CEI UNEL 35756 / IEC 60502-2
2	Conductor Screen	CEI UNEL 35756 / IEC 60502-2
3	MV Primary Insulation (G7)	CEI UNEL 35756 / IEC 60502-2
4	Insulation Screen	CEI UNEL 35756 / IEC 60502-2
5	Metallic Phase Screen (H1)	CEI UNEL 35756 / IEC 60502-2
6	Triplex Phase Jackets (RX)	CEI UNEL 35756 / IEC 60502-2

Technical data

Typical values

Rated voltage / transmission duty	12/20 (24) kV (CEI UNEL 35756 / IEC 60502-2)	**Core / conductor construction**	Phase Conductors (3x1x50 mm²) — Class 2 compact circular stranded plain annealed copper conductors (Code R) in a visible three-phase triplex assembly
Primary dielectric / insulation	Conductor Screen — Extruded thermosetting semiconductive elastomer conductor screen ensuring void-free interface with the primary dielectric	**Continuous operating temperature**	−25…+90 °C (rated operating envelope)
Storage & transport temperature	−40…+80 °C on export drum or reel	**Outer protection / sheath**	Triplex Phase Jackets (RX) — Three individual flame-retardant red Rz PVC outer sheaths helically cabled into a self-supporting triplex bundle (RX)
Minimum bending radius	15 × OD	**Structural layer count**	6 concentric functional layers
Environmental & chemical resistance	Industrial moisture, oils and mechanical wear per CEI UNEL 35756 / IEC 60502-2	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	CEI UNEL 35756 / IEC 60502-2		

Sizes

5 standard constructions

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

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Weight ≈ kg/km	Tensile load kN ≈	Min. bend R mm
RG7H1RX Construction Schedule (−25…+90 °C) 5 sizes						
☐ RG7H1RX 3×(1×35/16) mm² 12/20 kV	3 × (1 × 35/16 mm² Cu)	Class 2 Cu + H1 wire/tape screen	53.0	2,490	18.0	795
☐ RG7H1RX 3×(1×50/16) mm² 12/20 kV	3 × (1 × 50/16 mm² Cu)	Class 2 Cu + H1 wire/tape screen	56.0	2,980	25.5	840
☐ RG7H1RX 3×(1×70/16) mm² 12/20 kV	3 × (1 × 70/16 mm² Cu)	Class 2 Cu + H1 wire/tape screen	60.0	3,740	35.5	900
☐ RG7H1RX 3×(1×95/16) mm² 12/20 kV	3 × (1 × 95/16 mm² Cu)	Class 2 Cu + H1 wire/tape screen	64.0	4,680	48.0	960
☐ RG7H1RX 3×(1×120/16) mm² 12/20 kV	3 × (1 × 120/16 mm² Cu)	Class 2 Cu + H1 wire/tape screen	68.0	5,620	60.5	1,020

– Custom core counts, cross-sections, sheath colours and factory-tested cut lengths available per CEI UNEL 35756 / IEC 60502-2.

Electrical, optical & thermal parameters

5 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Capacity	Operating temp.
3 × (1 × 35/16 mm² Cu)	0.52	12/20 kV / 178 A	−25…+90 °C
3 × (1 × 50/16 mm² Cu)	0.39	12/20 kV / 212 A	−25…+90 °C
3 × (1 × 70/16 mm² Cu)	0.27	12/20 kV / 262 A	−25…+90 °C
3 × (1 × 95/16 mm² Cu)	0.19	12/20 kV / 316 A	−25…+90 °C
3 × (1 × 120/16 mm² Cu)	0.15	12/20 kV / 362 A	−25…+90 °C

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric and dimensional verification.

Standards and approvals

- CEI UNEL 35756 Compliant
- EN 10204 3.1 Factory Test Certificate
- 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/rg7h1rx-12-20kv-triplex-copper-hepr-screened-mv-power-cable

Typical values for this cable type, based on CEI UNEL 35756 / IEC 60502-2. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.