



power connection cable series

RG7H1R

Single-Core HEPR-Insulated MV Cable

CEI 20-13 +105 °C high-modulus G7 HEPR single-core screened MV power cable

CEI 20-13 RG7H1R

+105 °C G7 HEPR Insulation

8.7/15 kV · 12/20 kV · 18/30 kV

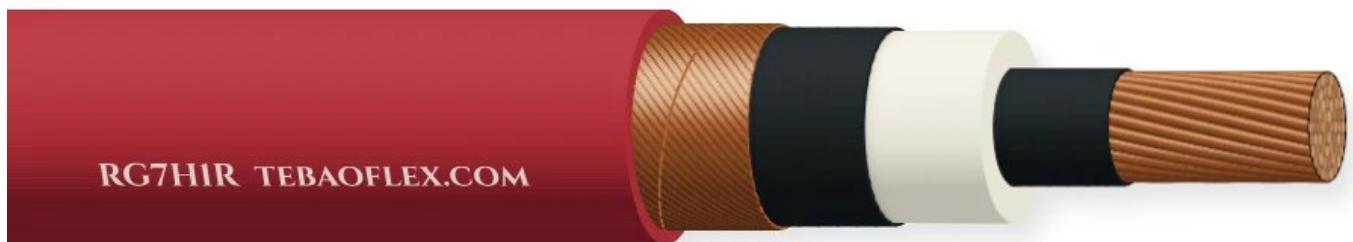


Application

RG7H1R Single-Core HEPR-Insulated Medium-Voltage Cable (6/10 kV, 8.7/15 kV, 12/20 kV & 18/30 kV; 25 mm² to 630 mm²) manufactured to Italian standard CEI 20-13, CEI UNEL 35375 and IEC 60502-2—combining Class 2 compacted circular red.

Typical uses: 15 kV / 20 kV / 30 kV Industrial Substation Feeders, Enel / Utility MV/LV Secondary Cabin Connections, Solar & Wind Farm Collector Substation MV Rings, Cement, Steel, Paper & Petrochemical Plants, Underground Duct & Direct-Buried MV Distribution

Construction



Cross-section, not to scale

- 1 Class 2 compacted circular red copper conductor ('R')
- 2 Triple-extruded inner & outer semiconducting stress screens
- 3 +105 °C G7 High-Modulus HEPR dielectric insulation
- 4 H1 Metallic copper earth screen ($\geq 16 \text{ mm}^2$)
- 5 Red flame-retardant PVC outer sheath ('R', Type Rz)

Technical data

Typical values

Rated voltage tiers (U _o /U)	6/10 kV · 8.7/15 kV · 12/20 kV · 18/30 kV (U _{max} 12 / 17.5 / 24 / 36 kV)
Partial discharge limit	≤ 5 pC at 1.73 × U _o ambient and after heating cycle
Continuous conductor temp.	+105 °C (G7 HEPR rating per CEI 20-13)
Short-circuit temperature	+250 °C (max. 5 s)
Min. bend radius	14 × OD (during pulling) · 12 × OD (final fixed position)
Bunched flame propagation	CEI 20-22 II & IEC 60332-3-22 Cat A vertical tray fire test
Moisture & direct burial	Suitable for indoor trays, outdoor racks, underground ducts & direct burial

Routine AC test voltage	21 kV (6/10) · 30.5 kV (8.7/15) · 42 kV (12/20) · 63 kV (18/30) (3.5 × U _o)
Max. DC resistance @ 20 °C	0.387 Ω/km (50) · 0.193 Ω/km (95) · 0.124 Ω/km (150) · 0.0754 Ω/km (240)
Emergency overload temp.	+140 °C
G7 HEPR wall thickness	3.6 mm (8.7/15 kV) · 4.5 mm (12/20 kV) · 6.5 mm (18/30 kV) reduced wall
Max. pulling tension	50 N / mm ² of copper conductor section with pulling stocking/eye
Hydrogen chloride emission	CEI 20-37 / EN 60754-1: ≤ 18 % HCl (reduced-halogen Rz PVC)
Standards	CEI 20-13 · CEI UNEL 35375 / 35376 · IEC 60502-2

Sizes

6 standard constructions

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

CEI designation	Conductor / screen	Outer Ø ≈ mm	Weight ≈ kg/km	Air 30°C A	Buried 20°C A
12/20 kV RG7H1R Single-Core (16 mm ² Cu Screen) 6 sizes					
☐ RG7H1R 1×35/16 12/20kV	35 mm ² Cl.2 Cu + 16 mm ² Cu screen	23.5	790	198	182
☐ RG7H1R 1×50/16 12/20kV	50 mm ² Cl.2 Cu + 16 mm ² Cu screen	24.8	935	238	215
☐ RG7H1R 1×95/16 12/20kV	95 mm ² Cl.2 Cu + 16 mm ² Cu screen	28.2	1,410	362	315
☐ RG7H1R 1×150/16 12/20kV	150 mm ² Cl.2 Cu + 16 mm ² Cu screen	31.2	1,960	472	398
☐ RG7H1R 1×240/16 12/20kV	240 mm ² Cl.2 Cu + 16 mm ² Cu screen	35.6	2,890	635	518
☐ RG7H1R 1×400/16 12/20kV	400 mm ² Cl.2 Cu + 16 mm ² Cu screen	41.2	4,380	845	660

– Ampacity in trefoil formation at +105 °C conductor temperature per CEI UNEL 35027. Also available in 8.7/15 kV and 18/30 kV.

Standards and approvals

- ✓ CEI 20-13 & CEI UNEL 35375
- ✓ IEC 60502-2 Compliant
- ✓ CEI 20-22 II Flame Cat A

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/rg7h1r-single-core-hepr-insulated-mv-cable



Typical values for this cable type, based on CEI 20-13 / IEC 60502-2 / CEI UNEL 35375. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.