



EV Charging Station & Hybrid Feeder Cables

FG16(O)R16

EV Charging-Station DC Connection Cable

CEI UNEL 35318 / CEI 20-13 0.6/1 kV AC (1.5 kV DC) Class 5 HEPR G16 + screened pilot



CEI UNEL 35318 / CEI 20-13

0.6/1 kV AC · 1.5 kV DC

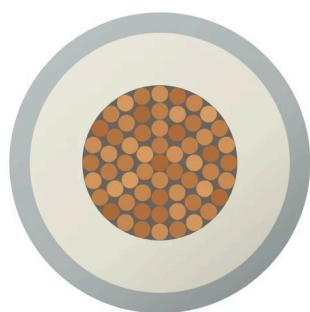
90°C HEPR G16 + Screened Pilot (O)

Application

FG16(O)R16 EV Charging-Station DC Connection Cable is an Italian CEI UNEL 35318 and CEI 20-13 compliant flexible hybrid power-and-control feeder rated at 0.6/1 kV AC and up to 1.5 kV DC, combining Class 5 flexible plain copper main power conductors

Typical uses: DC Fast & Ultra-Fast EV Chargers (HPC), Power cabinet to satellite dispenser links, Battery Energy Storage Systems (BESS), Service-station & highway charging plazas

Construction



Cross-section, not to scale

1	Class 5 flexible copper power & pilot	CEI EN 60228
2	G16 HEPR rubber insulation (90 °C)	CEI 20-13 / UNEL 35318
3	Individual copper screen '(O)' on	CEI UNEL 35318 (O)
4	Inner filler / bedding	CEI 20-13
5	R16 outer sheath (CPR Cca)	CEI 20-11 / EN 50575 Cca

Technical data

Typical values

Rated voltage U0/U (AC / DC)	0.6/1 kV AC · up to 1.5 kV DC (1,800 V DC)
AC dielectric test voltage	4,000 V AC for 5 minutes
Current rating advantage	+15 % higher ampacity than 70 °C PVC cables
Minimum installation temp.	-15 °C
Impact & water immersion	AG2 medium impact · AD8 permanent water
Low smoke & oil resistance	EN 61034-2 · CEI 20-34 hydrocarbon &

Pilot unit rated voltage	0.6/1 kV (co-rated for safe co-existence)
Max. conductor operating temp.	+90 °C continuous · +250 °C short-circuit
Operating ambient temperature	-30 °C to +80 °C (max. conductor +90 °C)
Min. bending radius	4 × D (D ≤ 25 mm) · 5 × D (D > 25 mm) fixed
CPR fire reaction class	EN 50575 Class Cca-s3,d1,a3 (EN 50399 / EN
Standards	CEI UNEL 35318 · CEI 20-13 · EN 50575

Sizes

6 standard constructions

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

Order designation	Cores × Size	Main cross-section	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard FG16(O)R16 configurations 6 sizes						
☐ FG16(O)R16 5G10 + 1×(2×1.5) mm ²	5G10 + (2×1.5)	10.0 mm ²	21.4	525	760	107
☐ FG16(O)R16 5G16 + 1×(2×1.5) mm ²	5G16 + (2×1.5)	16.0 mm ²	24.2	815	1,090	121
☐ FG16(O)R16 3G35 + 1×(2×1.5) mm ² DC Link	3G35 + (2×1.5)	35.0 mm ²	27.5	1,060	1,410	138
☐ FG16(O)R16 3G50 + 1×(2×1.5) mm ² DC Link	3G50 + (2×1.5)	50.0 mm ²	31.2	1,510	1,950	156
☐ FG16(O)R16 3G70 + 1×(2×1.5) mm ² DC Link	3G70 + (2×1.5)	70.0 mm ²	35.6	2,090	2,640	178
☐ FG16(O)R16 2×95 + 1G50 + 1×(2×1.5) mm ² HPC DC	2×95 + 1G50 + (2×1.5)	95.0 mm ²	37.8	2,360	2,980	189

– Outer diameters and weights are nominal factory values subject to ±5 % manufacturing tolerance per CEI UNEL 35318 / CEI 20-13 / EN 50575 (FG16(O)R16 0.6/1 kV AC · 1.5 kV DC).

Electrical & ampacity

6 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Iz free air A	Iz tray / duct A	Isc (1 s) kA	Voltage drop mV/A/m	Dielectric test V
5G10 + (2×1.5)	1.91	75	68	1.43	3.90	4,000
5G16 + (2×1.5)	1.21	100	90	2.29	2.50	4,000
3G35 + (2×1.5)	0.55	172	155	5.01	1.15	4,000
3G50 + (2×1.5)	0.39	210	189	7.15	0.80	4,000
3G70 + (2×1.5)	0.27	268	241	10.01	0.56	4,000
2×95 + 1G50 + (2×1.5)	0.21	328	295	13.59	0.42	4,000

– Conductor DC resistance at +20 °C per IEC 60228 and reference current ratings at 30 °C ambient per CEI UNEL 35318 / CEI 20-13 / EN 50575 (FG16(O)R16 0.6/1 kV AC · 1.5 kV DC).

Standards and approvals

- ✓ CEI UNEL 35318 / CEI 20-13
- ✓ EN 50575 CPR Cca-s3,d1,a3
- ✓ AD8 Submersion Rated

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/fg16-o-r16-ev-charging-station-dc-connection-cable



Typical values for this cable type, based on CEI UNEL 35318 / CEI 20-13 / EN 50575 (FG16(O)R16 0.6/1 kV AC · 1.5 kV DC). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.