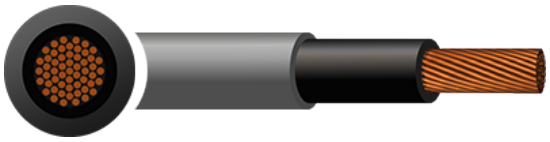
FG16(O)R16 Single Core Electric Vehicle DC Cable 4mm² to 400mm²



Description

This is a flexible single core PVC Cable which is manufactured to FG16(O)R16. Its enhanced DC Power rating makes it ideal for high-powered charging stations. For use internally and externally. Suitable to be used in free air, pipes and ducts in conduit, on masonry and inside metal structures.

Key Features

Voltage Rating

600/1000V AC
Maximum 1800V DC

Minimum Bending Radius
6 x overall diameter

Flame Retardancy
BS EN/IEC 60332-1-2

Temperature Limits
Temperature Range: -15°C to +90°C
Maximum Short Circuit Temperature: Up to 240 mm²: +250°C
Maximum Short Circuit Temperature Above 240 mm²: +220°C

Standards

- BS EN/IEC 60502-1
- CEI 20-13
- BS EN 50575

Construction

- **Conductor**: Class 5 flexible stranded copper conductor
- **Insulation**: G16 Hard Grade Ethylene Propylene Rubber (HEPR)
- **Outer Sheath**: R16 Poly Vinyl Chloride (PVC)
- **Sheath Colour**: Grey

Training & Testing Lab

AN ISO/IEC 17025 ACCREDITED FACILITY

Cleveland Cable Test & Training Lab
Our state-of-the-art cable testing facility ensures that every cable meets the highest standards of quality and compliance through continuous, rigorous testing.

ISO/IEC 17025 Accredited Testing Laboratory

CPR
Cleveland Cable Company is committed to compliance with the Construction Products Regulation (CPR). Where applicable, all cables manufactured after 1st July 2017 have been assessed in accordance with CPR requirements, with full supporting documentation available.

Our Sustainability Commitment

We are committed to the journey to Net Zero as a business partner, an employer and a community member.

By thinking and acting sustainably, we deliver excellent customer service while reducing carbon emissions in collaboration with our customers and suppliers.

ecovadis
Cleveland Cable Company has been independently assessed by EcoVadis, a globally recognised provider of business sustainability ratings. Our score places us among the top 35% of companies evaluated worldwide, reflecting our strong commitment to environmental, social, and ethical performance

FG16(O)R16 Single Core Electric Vehicle DC Cable 4mm² to 400mm² - Dimensions

Reference	Conductor Size (mm2)	No Of Cores	Stranding(mm)	Nominal Diameter	Max Overall Dia	Weight(Kg/Km)
CONNECTEVDC1X4	4	1	50/0.25	2.6	9.3	82
CONNECTEVDC1X6	6	1	84/0.30	3.4	10	101
CONNECTEVDC1X10	10	1	80/0.40	4.4	11	152
CONNECTEVDC1X16	16	1	126/0.40	5.7	11.8	211
CONNECTEVDC1X25	25	1	196/0.40	6.9	13.5	301
CONNECTEVDC1X35	35	1	276/0.40	8.1	14.8	396
CONNECTEVDC1X50	50	1	396/0.40	9.8	16.6	556
CONNECTEVDC1X70	70	1	360/0.50	11.5	17.6	761
CONNECTEVDC1X95	95	1	475/0.50	13.3	20.5	991
CONNECTEVDC1X120	120	1	608/0.50	15.1	22.6	1219
CONNECTEVDC1X150	150	1	756/0.50	16.8	25	1517
CONNECTEVDC1X185	185	1	925/0.50	18.5	27.5	1821
CONNECTEVDC1X240	240	1	1221/0.50	21.4	30.5	2366
CONNECTEVDC1X300	300	1	1525/0.50	24	33.5	2947
CONNECTEVDC1X400	400	1	2013/0.50	27.5	38	3870

FG16R16 / FG16OR16 Electrical Characteristics

Number of Cores	Conductor Size	Electric resistance at 20°C	Current carrying capacities	
			In pipe 30°	In ground 20°C
	mm2	Ω/km	AMPS	AMPS
2	1.5	13.3	22	23
3	1.5	13.3	19.5	19
4	1.5	13.3	19.5	19
5	1.5	13.3	14	19
7	1.5	13.3	11.5	16
10	1.5	13.3	11.5	16
12	1.5	13.3	9.5	12.5
16	1.5	13.3	9.5	19
19	1.5	13.3	8	19
24	1.5	13.3	8	19
2	2.5	7.98	30	30
3	2.5	7.98	26	25
4	2.5	7.98	26	25
5	2.5	7.98	26	21
7	2.5	7.98	15.5	21
10	2.5	7.98	11.5	16
12	2.5	7.98	12	25
16	2.5	7.98	12	25
19	2.5	7.98	8	19
24	2.5	7.98	10.5	25
1	4	4.95	37	35
2	4	4.95	40	39
3	4	4.95	35	32
4	4	4.95	35	32
5	4	4.95	35	32
1	6	3.3	48	44
2	6	3.3	51	49
3	6	3.3	44	41
4	6	3.3	44	41
5	6	3.3	44	41
1	10	1.91	66	59
2	10	1.91	66	69
3	10	1.91	60	55
4	10	1.91	60	55
5	10	1.91	60	55
1	16	1.21	88	77
2	16	1.21	91	86
3	16	1.21	80	72
4	16	1.21	80	72
5	16	1.21	80	82
1	25	0.78	117	100
2	25	0.78	119	111
3	25	0.78	105	93
4	25	0.78	105	93
5	25	0.78	105	93

Number of Cores	Conductor Size	Electric resistance at 20°C	Current carrying capacities	
			In pipe 30°	In ground 20°C
	mm2	Ω/km	AMPS	AMPS
1	35	0.554	144	121
2	35	0.554	146	136
3	35	0.554	128	114
4	*35	0.554	130	114
5	35	0.554	130	114
1	50	0.386	175	150
2	50	0.386	175	168
3	50	0.386	154	141
4	*50	0.386	155	141
5	50	0.386	155	141
1	70	0.272	222	184
2	70	0.272	221	207
3	70	0.272	194	174
4	*70	0.272	194	174
5	*70	0.272	194	174
1	95	0.206	269	217
2	95	0.206	265	245
3	95	0.206	233	206
4	*95	0.206	235	206
5	*95	0.206	235	206
1	120	0.161	312	259
2	120	0.161	305	284
3	120	0.161	268	238
4	*120	0.161	267	238
5	*120	0.161	267	238
1	150	0.129	355	287
2	150	0.129	-	324
3	150	0.129	300	272
4	*150	0.129	-	272
1	185	0.106	417	323
2	*185	0.106	-	-
3	185	0.106	340	306
4	*185	0.106	-	306
1	240	0.0801	490	379
2	*240	0.0801	-	-
3	240	0.0801	398	360
4	*240	0.0801	-	360
1	300	0.0641	-	379
3	300	0.0641	-	429
1	400	0.0486	-	541
1	*500	0.0384	-	599
1	*630	0.0287		683
4	3x35+1 x25	0.554	130	114
4	3x50+1 x25	0.386	155	141
4	3x70+1 x35	0.272	194	174
4	3x95+1 x50	0.206	235	206
4	3x120+1 x70	0.161	267	238
4	3x150+1 x95	0.129	-	272
4	3x185+1 x95	0.106	-	306
4	3x240+1 x150	0.0801	-	360
4	3x300+1 x150	0.0641	-	429

The figures above are from manufacturer testing. Outside of the UK DC EV Charging network, this cable is used as a durable lv multicore

For UK installation calculations please also refer to

- BS 7671 Table 4E1A – Single Core
- BS 7671 Table 4E2A – Multi cores
- IEC 60364-5-52 2011 – Table B.52.5

Three, four, five and multicores cables can be produced also with Y/G core.

Current carrying capacities for single core cables are calculated on 3 close cables, for two core cables with two charged conductors and for three core cables with three charged conductors.

- ground temp=20°C
- depth=0.8m
- ground resistivity=1.5 k m/W

Current Carrying capacities at 20°C acording to UNEL 35026 with underground laying standard CEI 64-8-61

The sections marked with (*) appear in the UNEL tables, not subject to the IMQ EFP mark, but comply with EU Regulation 305/11 (CPR)

THE INFORMATION CONTAINED WITHIN THIS DATASHEET IS FOR GUIDANCE ONLY AND IS SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY. WE BELIEVE THE INFORMATION IS CORRECT AT THE TIME OF PUBLICATION. PLEASE NOTE WHEN SELECTING CABLE ACCESSORIES THAT ACTUAL CABLE DIMENSIONS MAY VARY DUE TO MANUFACTURING TOLERANCES.