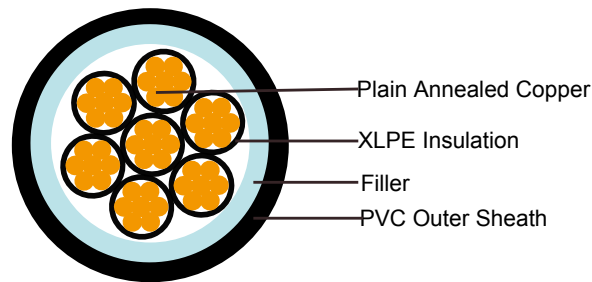
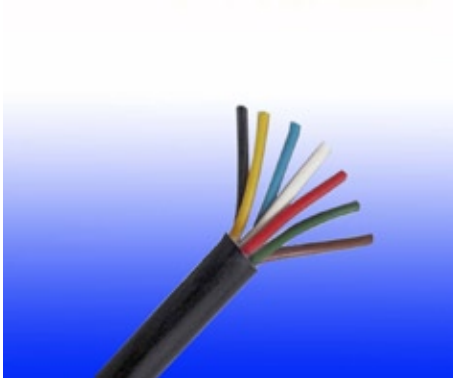


## 450/750V XLPE Insulated, PVC Sheathed Power Cables (Multicore)

FGD200 07RV-R (CU/XLPE/PVC 450/750V Class 2)



### APPLICATION

The cables are mainly used in power stations, mass transit underground passenger systems, airports, petrochemical plants, hotels, hospitals, and high-rise buildings.

### STANDARDS

Basic design adapted to IEC 60502-1

### FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)**	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1 ; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
Reduced Fire Propagation (Vertically-mounted bundled wires & cable test)**	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4

Note: Asterisk \*\* denotes that the standard compliance is optional, depending on the oxygen index of the PVC compound and the cable design.

### VOLTAGE RATING

450/750V

### CABLE CONSTRUCTION

**Conductor:** Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2.

**Insulation:** Extruded cross-linked XLPE compound.

**Filler, binder (if any):** PP, PET

**Outer Sheath:** Thermoplastic PVC compound. UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option. Compliance to fire performance standard (IEC 60332-1, IEC 60332-3, UL 1581, UL 1666 etc) depends on the oxygen index of the



PVC compound and the overall cable design. LSPVC can also be provided upon request.

### COLOUR CODE

#### Insulation Colour as per BS7671

	With Earth Conductor	Without Earth Conductor
2Cores	-	Brown, Blue
3Cores	Yellow/Green, Brown, Blue	Brown, Gray, Black
4Cores	Yellow/Green, Brown, Gray, Black	Brown, Gray, Black, Blue
5Cores	Yellow/Green, Brown, Gray, Black, Blue	Brown, Gray, Black, Blue, Black
Above 5 Cores	Yellow/Green, Black Numbered	Black Numbered

**Sheath Colour:** Black (other colors upon request)

### PHYSICAL AND THERMAL PROPERTIES

**Temperature range during operation:** Max.90°C for XLPE  
250°C in short-circuit for 5secs max.

**Minimum bending radius:** 6 x Overall Diameter

### CONSTRUCTION PARAMETERS

Conductor			FGD200 07RV-R				
No. of Core X Cross Section	No./Nominal Diameter of Strands	Nominal Overall Diameter Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Nominal Overall Diameter	Max.DC resistance of conductor @20°C	Approx. Weight
Noxmm <sup>2</sup>	No./mm	mm	mm	mm	mm	Ω/km	kg/km
7x1.0	7/0.44	1.32	0.7	1.3	11.6	18.1	210
7x1.5	7/0.53	1.59	0.7	1.3	12.5	12.1	258
7x2.5	7/0.67	2.01	0.7	1.3	13.8	7.41	347
12x1.5	7/0.53	1.59	0.7	1.4	16.5	12.1	413
12x2.5	7/0.67	2.01	0.7	1.5	18.3	7.41	561
19x1.5	7/0.53	1.59	0.7	1.5	19.3	12.1	609
19x2.5	7/0.67	2.01	0.7	1.6	21.6	7.41	836

### ELECTRICAL PROPERTIES

**Conductor Operating Temperature :** 90°C

**Ambient Temperature :** 30°C

**Current-Carrying Capacities (Amp)**

Conductor cross-sectional area	Reference Method 4 (enclosed in conduit in thermally insulating wall etc)		Reference Method 3 (enclosed in conduit on a wall or in trunking etc)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray, horizontal or vertical)		Reference Method 12 (free air)		
	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c.	3 or 4 cables, 3-phase a.c.	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	2 cables, single-phase a.c. or d.c. flat and touching	3 or 4 cables, 3-phase a.c. flat and touching or trefoil	Horizontal flat spaced	Vertical flat spaced	Trefoil
1	2	3	4	5	6	7	8	9	10	11	12
mm <sup>2</sup>	A	A	A	A	A	A	A	A	A	A	A
1.0	13	-	-	-	15	-	-	-	-	-	-
1.5	18	17	22	19	25	23	-	-	-	-	-
2.5	24	23	30	26	34	31	-	-	-	-	-

### Voltage Drop (Per Amp Per Meter)

Nominal Cross Section Area	2 cables d.c.	2 cables, single-phase a.c.		3 or 4 cables, 3-phase a.c.		
		Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall)	Ref. Methods 1 and 11 (clipped direct or on trays touching)	Ref. Methods 3 and 4 (enclosed in conduit etc, in or on a wall)	Ref. Methods 1, 11 and 12 (in trefoil)	Ref. Methods 1 and 11 (Flat and touching)
1	2	3	4	5	6	7
mm <sup>2</sup>	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m	mV/A/m
1.0	46	46	-	-	-	-
1.5	31	31	27	27	27	27
2.5	19	19	16	16	16	16



Rated Voltage



Standard



Flame Retardancy\*\*  
NF C32-070-2.1(C2)  
IEC60332-1-2/EN50265-2-1



Reduced Fire Propagation\*\*  
NF C32-070-2.2(C1)  
IEC60332-3-24/EN50266-2-4