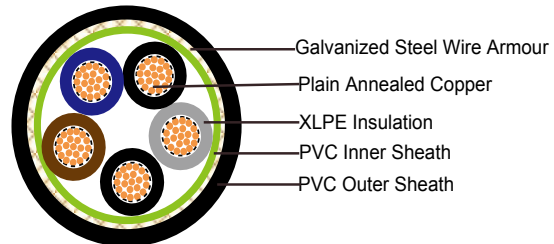
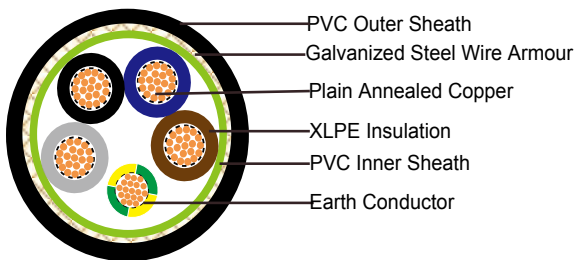
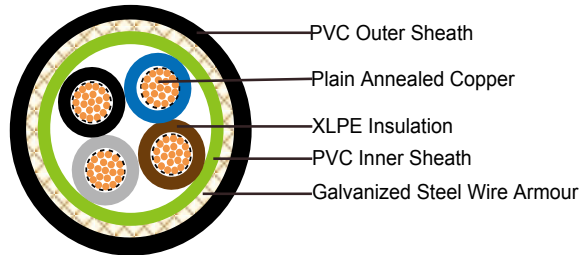
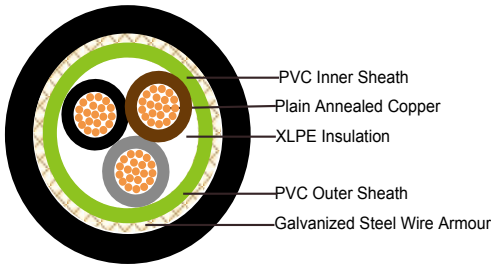




600/1000V XLPE Insulated, PVC Sheathed, Armoured Power Cables (Multicore)

FGD400 1RVMV-R (CU/XLPE/PVC/SWA/PVC CLASS 2)

Outdoor Cabling



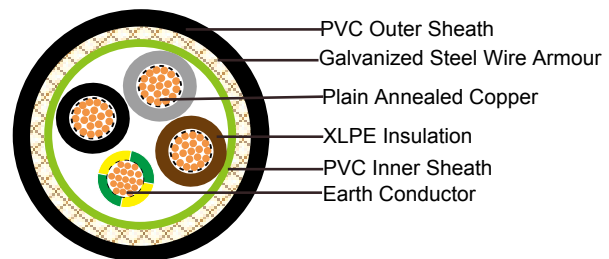
APPLICATION

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 to BS 5467

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

600/1000V

CABLE CONSTRUCTION

Conductor: Plain annealed copper wire, stranded according to IEC 60228 class 2.

Insulation: Extruded cross-linked XLPE compound.

Inner Sheath: PVC Compound

Armouring: Galvanized Steel Wire

Outer Sheath: PVC Compound.

COLOUR CODE

Insulation Colour as per BS7671

	With Earth Conductor	Without Earth Conductor
2 Cores	-	Brown, Blue
3 Cores	Yellow/Green, Brown, Blue	Brown, Gray, Black
4 Cores	Yellow/Green, Brown, Gray, Black	Brown, Gray, Black, Blue
5 Cores	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: -40°C ~ 70°C

Temperature Range during Installation : -5°C ~ 50°C

Minimum Bending Radius: 8 x OD

ELECTRICAL PROPERTIES

Dielectric Test:	3500 V r.m.s. x 5' (core / core)
Insulation Resistance	500 MΩ x km (at 20°C)
Short circuit Temperature	250°C (up to 5 secs)

CONSTRUCTION PARAMETERS

Cable Code	Conductor		Nominal Insulation Thickness	Diameter Under Armour	Armour Wire Diameter	Nominal Overall Diameter	Approx. Weight
	No. of Core X Cross Section/ CPC Cross Section	No./ Nominal Diameter of Strands					
	No. x mm ²	No./mm	mm	mm	mm	mm	kg/km
3 CORES							



FGD400 1RVMV-R 3G1.5	3x1.5	7/0.53	0.6	9.0	0.9	12.6	340
FGD400 1RVMV-R 3G2.5	3x2.5	7/0.67	0.7	9.9	0.9	14.1	408
FGD400 1RVMV-R 3G4	3x4	7/0.85	0.7	11.0	0.9	15.3	498
FGD400 1RVMV-R 3G6	3x6	7/1.04	0.7	11.6	1.25	16.6	600
FGD400 1RVMV-R 3G10	3x10	7/1.35	0.7	14.3	1.25	19.5	915
FGD400 1RVMV-R 3G16	3x16	7/1.70	0.7	16.5	1.25	21.6	1130
FGD400 1RVMV-R 3G25	3x25	7/2.14	0.9	20.2	1.6	26.7	1710
FGD400 1RVMV-R 3G35	3x35	7/2.52	0.9	22.4	1.6	29.4	2100
FGD400 1RVMV-R 3G50	3x50(S)	19/1.78	1.0	24.2	1.6	28.5	2450
FGD400 1RVMV-R 3G70	3x70(S)	19/2.14	1.1	28.2	2.0	32.2	3120
FGD400 1RVMV-R 3G95	3x95(S)	19/2.52	1.1	31.7	2.0	37.0	4310
FGD400 1RVMV-R 3G120	3x120(S)	37/2.03	1.2	36.0	2.0	40.4	5160
FGD400 1RVMV-R 3G150	3x150(S)	37/2.25	1.4	39.5	2.5	45.5	7160
FGD400 1RVMV-R 3G185	3x185(S)	37/2.52	1.6	43.3	2.5	49.8	8600
FGD400 1RVMV-R 3G240	3x240(S)	61/2.25	1.7	48.4	2.5	55.1	10750
FGD400 1RVMV-R 3G300	3x300(S)	61/2.52	1.8	54.4	2.5	60.2	13080
FGD400 1RVMV-R 3G400	3x400(S)	61/2.85	2.0	57.8	2.5	66.6	15810
3 CORES + 1 EARTH CONDUCTOR							
FGD400 1RVMV-R 3G16/6	3x16/6	7/1.70	0.7	17.6	1.25	22.6	1342
FGD400 1RVMV-R 3G16/10	3x16/10	7/1.70	0.7	20.6	1.25	23.0	1567
FGD400 1RVMV-R 3G25/6	3x25/6	7/2.14	0.9	26.3	1.25	27.1	1876
FGD400 1RVMV-R 3G25/10	3x25/10	7/2.14	0.9	26.3	1.25	27.6	2091
FGD400 1RVMV-R 3G25/16	3x25/16	7/2.14	0.9	26.6	1.25	28.3	2150
FGD400 1RVMV-R 3G35/10	3x35/10	7/2.52	0.9	26.8	1.6	28.9	2210
FGD400 1RVMV-R 3G35/16	3x35/16	7/2.52	0.9	26.8	1.6	29.5	2390
FGD400 1RVMV-R 3G35/25	3x35/25	7/2.52	0.9	27.2	1.6	30.0	2505
FGD400 1RVMV-R 3G50/16	3x50/16	19/1.78	0.9	28.5	1.6	29.0	2916
FGD400 1RVMV-R 3G50/25	3x50/25	19/1.78	1.0	29.2	1.6	30.0	3107
FGD400 1RVMV-R 3G50/35	3x50/35	19/1.78	1.0	30.0	1.6	31.0	3175
FGD400 1RVMV-R 3G70/25	3x70/25	19/2.14	1.1	34.0	2.0	32.9	3203
FGD400 1RVMV-R 3G70/35	3x70/35	19/2.14	1.1	34.5	2.0	34.5	4067
FGD400 1RVMV-R 3G70/50	3x70/50	19/2.14	1.1	35	2.0	36.3	4310
FGD400 1RVMV-R 3G95/25	3x95/25	19/2.52	1.1	36.7	2.0	38.0	5047

FGD400 1RVMV-R 3G95/35	3x95/35	19/2.52	1.1	37.2	2.0	38.6	5115
FGD400 1RVMV-R 3G95/50	3x95/50	19/2.52	1.1	37.6	2.0	39.2	5289
FGD400 1RVMV-R 3G95/70	3x95/70	19/2.52	1.1	37.6	2.0	40.0	5360
FGD400 1RVMV-R 3G120/35	3x120/35	37/2.03	1.2	39.4	2.5	41.2	6160
FGD400 1RVMV-R 3G120/50	3x120/50	37/2.03	1.2	39.9	2.5	42.3	6473
FGD400 1RVMV-R 3G120/70	3x120/70	37/2.03	1.2	40.3	2.5	44.6	6793
FGD400 1RVMV-R 3G120/95	3x120/95	37/2.03	1.2	41.2	2.5	46.2	7120
FGD400 1RVMV-R 3G150/50	3x150/50	37/2.25	1.4	45.2	2.5	57.0	7431
FGD400 1RVMV-R 3G150/70	3x150/70	37/2.25	1.4	45.2	2.5	58.1	7565
FGD400 1RVMV-R 3G150/95	3x150/95	37/2.25	1.4	45.5	2.5	59.4	8196
FGD400 1RVMV-R 3G150/120	3x150/120	37/2.25	1.4	46.0	2.5	50.6	8590
FGD400 1RVMV-R 3G185/70	3x185/70	37/2.52	1.6	50.4	2.5	51.6	8950
FGD400 1RVMV-R 3G185/95	3x185/95	37/2.52	1.6	50.6	2.5	53.2	9573
FGD400 1RVMV-R 3G185/120	3x185/120	37/2.52	1.6	51.0	2.5	54.3	9968
FGD400 1RVMV-R 3G185/150	3x185/150	37/2.52	1.6	51.6	2.5	55.3	1023
FGD400 1RVMV-R 3G240/95	3x240/95	61/2.25	1.7	58.0	2.5	56.7	11620
FGD400 1RVMV-R 3G240/120	3x240/120	61/2.25	1.7	59.0	2.5	58.3	12015
FGD400 1RVMV-R 3G240/150	3x240/150	61/2.25	1.7	60.0	2.5	60.4	12373
FGD400 1RVMV-R 3G240/185	3x240/185	61/2.25	1.7	60.0	2.5	62.1	1350
FGD400 1RVMV-R 3G300/120	3x300/120	61/2.52	1.8	64.2	2.5	63.5	14197
FGD400 1RVMV-R 3G300/150	3x300/150	61/2.52	1.8	65.7	2.5	64.9	14556
FGD400 1RVMV-R 3G300/185	3x300/185	61/2.52	1.8	67	2.5	66.2	15015
FGD400 1RVMV-R 3G300/240	3x300/240	61/2.52	1.8	67	2.5	67.4	15697
4 CORES							
FGD400 1RVMV-R 4G1.5	4x1.5	7/0.53	0.7	10.0	0.9	13.3	390
FGD400 1RVMV-R 4G2.5	4x2.5	7/0.67	0.7	10.8	0.9	15.0	470
FGD400 1RVMV-R 4G4	4x4	7/0.85	0.7	12.1	0.9	16.4	580
FGD400 1RVMV-R 4G6	4x6	7/1.04	0.7	13.5	1.25	18.7	705
FGD400 1RVMV-R 4G10	4x10	7/1.35	0.7	15.7	1.25	21.1	1090
FGD400 1RVMV-R 4G16	4x16	7/1.70	0.7	18.2	1.6	23.4	1320
FGD400 1RVMV-R 4G25	4x25	7/2.14	0.9	22.4	1.6	28.9	1840
FGD400 1RVMV-R 4G35	4x35(S)	7/2.52	0.9	24.4	1.6	31.9	2310
FGD400 1RVMV-R 4G50	4x50(S)	19/1.78	1.0	28.0	1.6	32	2970
FGD400 1RVMV-R 4G70	4x70(S)	19/2.14	1.1	32.2	2.0	37.7	4240



FGD400 1RVMV-R 4G95	4x95(S)	19/2.52	1.1	36.0	2.0	41.7	5400
FGD400 1RVMV-R 4G120	4x120(S)	37/2.03	1.2	38.0	2.5	47.1	7000
FGD400 1RVMV-R 4G150	4x150(S)	37/2.25	1.4	42.8	2.5	51.4	8350
FGD400 1RVMV-R 4G185	4x185(S)	37/2.52	1.6	48.4	2.5	56.6	10130
FGD400 1RVMV-R 4G240	4x240(S)	61/2.25	1.7	55.0	2.5	63.0	12840
FGD400 1RVMV-R 4G300	4x300(S)	61/2.52	1.8	59.6	2.5	68.8	15530
FGD400 1RVMV-R 4G400	4x400(S)	61/2.85	2.0	66.1	3.15	78.1	19950
4 CORES + 1 EARTH CONDUCTOR							
FGD400 1RVMV-R 4G16/6	4x16/6	7/1.35	0.7	17.9	1.25	25.1	1356
FGD400 1RVMV-R 4G16/10	4x16/10	7/1.70	0.7	20.6	1.25	26.0	1390
FGD400 1RVMV-R 4G25/6	4x25/6	7/2.14	0.7	24.1	1.25	29.0	1900
FGD400 1RVMV-R 4G25/10	4x25/10	7/2.14	0.9	24.9	1.25	29.4	1956
FGD400 1RVMV-R 4G25/16	4x25/16	7/2.14	0.9	25.3	1.25	30.0	2012
FGD400 1RVMV-R 4G35/10	4x35/10	7/2.52	0.9	25.4	1.25	32.1	2710
FGD400 1RVMV-R 4G35/16	4x35/16	7/2.52	0.9	25.6	1.6	33.4	2940
FGD400 1RVMV-R 4G35/25	4x35/25	7/2.52	0.9	26.2	1.6	34.0	3050
FGD400 1RVMV-R 4G50/16	4x50/16	19/1.78	1.0	28.5	1.6	33	3560
FGD400 1RVMV-R 4G50/25	4x50/25	19/1.78	1.0	29.2	1.6	35.6	3670
FGD400 1RVMV-R 4G50/35	4x50/35	19/1.78	1.0	30.0	1.6	38.2	3759
FGD400 1RVMV-R 4G70/25	4x70/25	19/2.14	1.1	34	2.0	38.6	4980
FGD400 1RVMV-R 4G70/35	4x70/35	19/2.14	1.1	34.5	2.0	40.6	5036
FGD400 1RVMV-R 4G70/50	4x70/50	19/2.14	1.1	35	2.0	42.9	5468
FGD400 1RVMV-R 4G95/25	4x95/25	19/2.52	1.1	36.7	2.0	43.2	6215
FGD400 1RVMV-R 4G95/35	4x95/35	19/2.52	1.1	37.2	2.0	46.3	6325
FGD400 1RVMV-R 4G95/50	4x95/50	19/2.52	1.1	37.6	2.0	48.5	6455
FGD400 1RVMV-R 4G95/70	4x95/50	19/2.52	1.1	38.0	2.0	50.7	6954
FGD400 1RVMV-R 3G120/35	3x120/35	37/2.03	1.2	39.4	2.5	54.2	7968
FGD400 1RVMV-R 4G120/50	4x120/50	37/2.03	1.2	39.9	2.5	55.3	8280
FGD400 1RVMV-R 4G120/70	4x120/70	37/2.03	1.2	40.3	2.5	55.9	8511
FGD400 1RVMV-R 4G120/95	4x120/95	37/2.03	1.2	41.2	2.5	56.4	8790
FGD400 1RVMV-R 4G150/50	4x150/50	37/2.25	1.4	44.9	2.5	55.3	8723
FGD400 1RVMV-R 4G150/70	4x150/70	37/2.25	1.4	45.2	2.5	56.48	8879
FGD400 1RVMV-R 4G150/95	4x150/95	37/2.25	1.4	45.5	2.5	57.59	10179

FGD400 1RVMV-R 4G150/120	4x150/120	37/2.25	1.4	46.0	2.5	58.65	10739
FGD400 1RVMV-R 4G185/70	4x185/70	37/2.52	1.6	50.4	2.5	62.03	11200
FGD400 1RVMV-R 4G185/95	4x185/95	37/2.52	1.6	50.6	2.5	63.19	1263
FGD400 1RVMV-R 4G185/120	4x185/120	37/2.52	1.6	51.0	2.5	64.23	13050
FGD400 1RVMV-R 4G185/150	4x185/150	37/2.52	1.6	51.6	2.5	65.38	13680
FGD400 1RVMV-R 4G240/95	4x240/95	61/2.25	1.7	58.0	2.5	71.53	14420
FGD400 1RVMV-R 4G240/120	4x240/120	61/2.25	1.7	59.0	2.5	72.76	14763
FGD400 1RVMV-R 4G240/150	4x240/150	61/2.25	1.7	60.0	2.5	73.10	15241
FGD400 1RVMV-R 4G240/185	4x240/185	61/2.25	1.7	61.5	2.5	74.0	1682
FGD400 1RVMV-R 4G300/120	4x300/150	61/2.52	1.8	64.2	2.5	75.08	18050
FGD400 1RVMV-R 4G300/150	4x300/150	61/2.52	1.8	65.7	2.5	76.44	18662
FGD400 1RVMV-R 4G300/185	4x300/185	61/2.52	1.8	67	2.5	77.30	19031
FGD400 1RVMV-R 4G300/240	4x300/240	61/2.52	1.8	67	2.5	78.55	19878
5 CORES							
FGD400 1RVMV-R 5G1.5	5x1.5	7/0.53	0.6	9.9	0.9	14.3	430
FGD400 1RVMV-R 5G2.5	5x2.5	7/0.67	0.7	10.8	0.9	16.1	545
FGD400 1RVMV-R 5G4	5x4	7/0.85	0.7	12.1	0.9	17.8	680
FGD400 1RVMV-R 5G6	5x6	7/1.04	0.7	15.8	1.5	20	840
FGD400 1RVMV-R 5G10	5x10	7/1.35	0.7	24	2.8	22.9	1105
FGD400 1RVMV-R 5G16	5x16	7/1.70	0.7	27	2.8	26.6	1450
FGD400 1RVMV-R 5G25	5x25	7/2.14	0.9	34	2.8	31.5	2245
FGD400 1RVMV-R 5G35	5x35(S)	7/2.52	0.9	24.4	1.6	34.8	2840
FGD400 1RVMV-R 5G50	5x50(S)	19/1.78	1.0	28.0	1.6	40.4	3895
FGD400 1RVMV-R 5G70	5x70(S)	19/2.14	1.1	32.2	2.0	46.3	5145
FGD400 1RVMV-R 5G95	5x95(S)	19/2.52	1.1	36.0	2.0	53.2	6941
FGD400 1RVMV-R 5G120	5x120(S)	37/2.03	1.2	38.0	2.5	58.3	9154
FGD400 1RVMV-R 5G150	5x150(S)	37/2.25	1.4	42.8	2.5	64.3	10372
FGD400 1RVMV-R 5G185	5x185(S)	37/2.52	1.6	48.4	2.5	71.5	12828
FGD400 1RVMV-R 5G240	5x240(S)	61/2.25	1.7	55.0	2.5	80	15980
FGD400 1RVMV-R 5G300	5x300(S)	61/2.52	1.8	59.6	2.5	86.1	19521
FGD400 1RVMV-R 5G400	5x400(S)	61/2.85	2.0	66.1	3.15	96.3	25116

(S) - Sectoral Stranded Conductors



ELECTRICAL PROPERTIES

Conductor Operating Temperature : 90°C

Ambient Temperature : 30°C

Current-Carrying Capacities (Amp)

Conductor cross-sectional area	Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated horizontal cable tray or Reference Method 13 [free air])		In single-way ducts		Laid direct in ground	
	one 2-core cable single phase a.c. or d.c.	one 3-core or 4-core cable 3-phase a.c.	one 2-core cable single phase a.c. or d.c.	one 3-core or 4-core cable 3-phase a.c.	one 2-core cable single phase a.c. or d.c.	one 3-core or 4-core cable 3-phase a.c.	one 2-core cable single phase a.c. or d.c.	one 3-core or 4-core cable 3-phase a.c.
1	2	3	4	5	6	7	8	9
mm ²	A	A	A	A	A	A	A	A
1.5	27	23	29	25	-	23	-	28
2.5	36	31	39	33	-	30	-	36
4	49	42	52	44	-	40	-	48
6	62	53	66	56	-	50	-	60
10	85	73	90	78	-	65	-	80
16	110	94	115	99	115	94	140	115
25	146	124	152	131	145	125	180	150
35	180	154	188	162	175	150	215	180
50	219	187	228	197	210	175	255	215
70	279	238	291	251	260	215	315	265
95	338	289	354	304	310	260	380	315
120	392	335	410	353	355	300	430	360
150	451	386	472	406	400	335	480	405
185	515	441	539	463	455	380	540	460
240	607	520	636	546	520	440	630	530
300	698	599	732	628	590	495	700	590
400	787	673	847	728	660	560	790	670

Voltage Drop (Per Amp Per Meter)

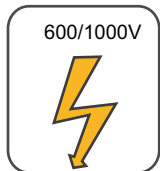
Conductor cross-sectional area	2-core cable d.c.	2 cables, single-phase a.c.			3 or 4 cables, 3-phase a.c.			2 cables, single-phase a.c.	3 or 4 cables, 3-phase a.c.
		In ducts or in ground			In ducts or in ground			In ducts or in ground	In ducts or in ground
1	2	3			4			5	6
mm ²	mV/A/m	mV/A/m			mV/A/m			mV/A/m	mV/A/m
1.5	31.0	31.0			27.0			31.0	25.0
2.5	19.0	19.0			16.0			19.0	15.0
4	12.0	12.0			10.0			12.0	9.7
6	7.9	7.9			6.8			7.9	6.5
10	4.7	4.7			4.0			4.7	3.9
16	2.9	2.9			2.5			2.9	2.6
		r	x	z	r	x	z		
25	1.850	1.350	0.160	1.900	1.600	0.140	1.650	1.900	1.600
35	1.350	1.350	0.155	1.350	1.150	0.135	1.150	1.350	1.200
50	0.980	0.990	0.155	1.000	0.860	0.135	0.870	1.000	0.870
70	0.670	0.670	0.150	0.690	0.590	0.130	0.600	0.690	0.610
95	0.490	0.500	0.150	0.520	0.430	0.130	0.450	0.520	0.450
120	0.390	0.400	0.145	0.420	0.340	0.130	0.370	0.420	0.360
150	0.310	0.320	0.145	0.350	0.280	0.125	0.300	0.350	0.300
185	0.250	0.260	0.145	0.290	0.220	0.125	0.260	0.290	0.250
240	0.195	0.200	0.140	0.240	0.175	0.125	0.210	0.240	0.210
300	0.155	0.160	0.140	0.210	0.140	0.120	0.185	0.210	0.190
400	0.120	0.130	0.140	0.190	0.115	0.120	0.165	0.190	0.180

Note :

r = conductor resistance at operating temperature

x = reactance

z = impedance



Rated Voltage



Standard



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



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