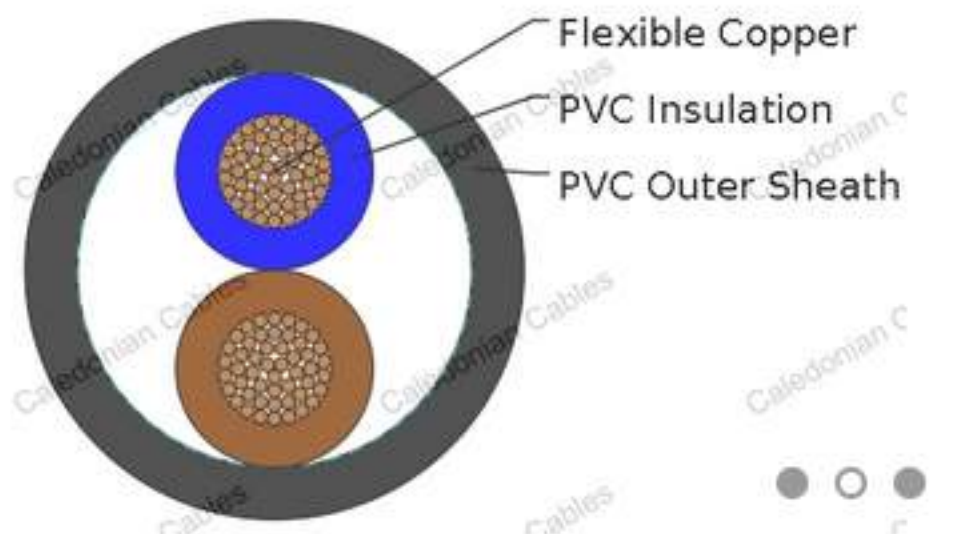


300/500V PVC Insulated, PVC Sheathed Power Cables to BS EN 50525 (2-5 Cores)

FGD200 05VV-F (CU/PVC/PVC 300/500V Class 5)

BS Code: 3182Y/3183Y/3184Y/3185Y

HAR Code: H05VV-F



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 EN 50525-2-11(formerly BS 6500)

FIRE PERFORMANCE

Flame Retardance (Single Vertical Wire Test)	EN 60332-1-2
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VOLTAGE RATING

300/500V

CABLE CONSTRUCTION

Conductor	Flexible copper wire according to EN 60228 class 5.
Insulation	PVC Type TI 2 according to EN 50363-3.
Filling	For circular cable having two cores, the space between the cores shall be filled either by separate fillers or by the sheath filling the interstices. For circular cables with three, four or five cores, a centre filler may be used.
Outer Sheath	PVC Type TM 2 according to EN 50363-4-1. A tape may be applied around the core assembly before application of the sheath.
Outer Sheath Option	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 :

Cables and cords with a green-and-yellow cores

No. of cores	Colour of cores ^b				
	Protective		Live		
3 Cores	Yellow/Green		Blue	Brown	
4 Cores	Yellow/Green		-	Brown	Black Grey
4 Cores ^a	Yellow/Green		Blue	Brown	Black
5 Cores	Yellow/Green		Blue	Brown	Black Grey

^a : For certain applications only.

^b : In this table an uninsulated concentric conductor, such as a metallic sheath, armour or screen wire, is not regarded as a core. A concentric conductor is identified by its position and, therefore, need not be identified by colour.

Cables and cords without a green-and-yellow cores

No. of cores	Colour of cores ^b				
2 Cores	Blue	Brown			
3 Cores	-	Brown	Black	Grey	
3 Cores ^a	Blue	Brown	Black		
4 Cores	Blue	Brown	Black	Grey	
5 Cores	Blue	Brown	Black	Grey	Black

^a : For certain applications only.

^b : In this table an uninsulated concentric conductor, such as a metallic sheath, armour or screen wire, is not regarded as a core. A concentric conductor is identified by its position and, therefore, need not be identified by colour.

Sheath Colour : Black, other colours can be offered upon request.

PHYSICAL AND THERMAL PROPERTIES

Maximum temperature range during operation (PVC)	70°C
Maximum short circuit temperature (5 Seconds)	160°C
Minimum bending radius	Up to 12mm² : 3 x overall diameter
	Above 12mm² : 4 x overall diameter

CONSTRUCTION PARAMETERS

Conductor		FGD200 05VV-F			
No. of Cores x Cross Section	Class of Conductor	Nominal Insulation Thickness	Nominal Sheath Thickness	Maximum Overall Diameter	Approx. Weight
No.xmm²		mm	mm	mm	kg/km
2x0.75	5	0.6	0.8	7.2	57
2x1.0	5	0.6	0.8	7.5	65
2x1.5	5	0.7	0.8	8.6	87
2x2.5	5	0.8	1.0	10.6	134
2x4.0	5	0.8	1.1	12.1	174
3x0.75	5	0.6	0.8	7.6	68
3x1.0	5	0.6	0.8	8.0	79
3x1.5	5	0.7	0.9	9.4	111
3x2.5	5	0.8	1.1	11.4	169
3x4.0	5	0.8	1.2	13.1	233
4x0.75	5	0.6	0.8	8.3	84
4x1.0	5	0.6	0.9	9.0	101
4x1.5	5	0.7	1.0	10.5	142
4x2.5	5	0.8	1.1	12.5	211
4x4.0	5	0.8	1.2	14.3	292
5x0.75	5	0.6	0.9	9.3	106
5x1.0	5	0.6	0.9	9.8	123
5x1.5	5	0.7	1.1	11.6	176
5x2.5	5	0.8	1.2	13.9	262
5x4.0	5	0.8	1.4	16.1	369

ELECTRICAL PROPERTIES

Current-Carrying Capacities (Amp) according to BS7671:2008 table 4F3A

Conductor cross-sectional area	Single-phase a.c.	Three-phase a.c.
mm²	A	A
0.75	6	6
1.0	10	10
1.5	16	16
2.5	25	20
4.0	32	25

Voltage Drop (Per Amp Per Meter) according to BS7671:2008 table 4F3B

Conductor cross-sectional area	d.c. or single-phase a.c.	Three-phase a.c.
mm²	mV/A/m	mV/A/m
0.75	62	54
1.0	46	40
1.5	32	27
2.5	19	16
4.0	12	10