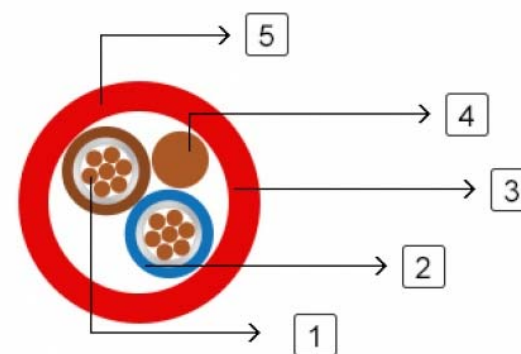


300/500V Mica+XLPE Insulated, LSZH
Sheathed Power Cables (2-4cores)



FR200P 05M2XH-R (CU/MGT+XLPE/LSZH 300/500V Class 2)

Application: The cables are designed for areas where the integrity of the electrical circuit is critical in maintaining power supply. Applications can be found in emergency lightings, control and power circuits, power stations, fire alarm systems, underground tunnels, lifts, escalators, and high-rise buildings.

STANDARDS: Basic design to IEC 60502-1

FIRE PERFORMANCE

Circuit Integrity	IEC 60331-21; BS 6387 CWZ; DIN VDE 0472-814(FE180); CEI 20-36/2-1; SS229-1; NBN C 30-004 (cat. F3); NF C32-070-2.3(CR1)
System circuit integrity	DIN 4102-12, E30 depending on lay system
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
Halogen Free	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
No Corrosive Gas Emission	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
Minimum Smoke Emission	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
No Toxic gases	NES 02-713; NF C 20-454

Note: Asterisk * denotes superseded standard.

VOLTAGE RATING

300/500 V

CABLE CONSTRUCTION

- Conductor: Plain annealed copper wire, stranded according to IEC(EN) 60228 class 2.
 - Insulation: Mica glass tape covered by extruded cross-linked XLPE compound
 - Earth Conductor(optional): Uninsulated solid or stranded tinned copper conductor.
- Cablings: The cores are cabled together in concentric layers with suitable non-hygroscopic fillers.
- Outer Sheath: Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered.)

COLOUR CODE

Insulation Colour

- 2 - Core: (Brown & Blue)
- 3 - Core: (Brown, Black & Grey)
- 4 - Core: (Brown, Black, Grey & Blue)

Sheath Colour

Orange (other colors upon request)

Physical AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +90°C
 Temperature range during installation (mobile state): -20°C – +50°C
 Minimum bending radius: 8 x Overall Diameter

Electrical PROPERTIES

Dielectric test:	2000 V r.m.s. x 5' (core/core)
Insulation resistance	1000 MΩ x km (at 20°C)
Short circuit temperature	250°C

CONSTRUCTION PARAMETERS

Conductor					FR200 05M2XH-R	
No. of Core X	No./	Nominal Diameter of	Nominal	Insulation	Nominal	
						Without Earth Conductor With Earth Conductor

Cross Section	Strands	Thickness	Sheath Thickness	Nominal Diameter	Overall	Approx. Weight	Nominal Overall Diameter	Approx. Weight
No*mm ²	No./mm	mm	mm	mm		kg/km	mm	kg/km
2 Core								
2x1.5	7/0.53	0.5	0.5	7.7		70	8.2	80
2x2.5	7/0.67	0.5	0.5	8.8		100	9.6	120
2x4	7/0.85	0.5	0.5	9.8		140	10.5	170
3 Core								
3x1.5	7/0.53	0.5	0.5	8.7		90	10.5	100
3x2.5	7/0.67	0.5	0.5	9.5		125	10.7	150
3x4	7/0.85	0.5	0.5	11.5		180	12.5	220
4 Core								
4x1.5	7/0.53	0.5	0.5	10.3		105	12.2	120
4x2.5	7/0.67	0.5	0.5	11		155	13	190
4x4	7/0.85	0.5	0.5	12.5		255	13.5	270

Electrical PROPERTIES

Conductor Operating Temperature : 90°C

Ambient Temperature : 30°C

Current-Carrying Capacities (Amp)

Conductor crosssection area	Reference Method 4 (enclosed in an conduit insulated wall etc)	Reference Method 3 (enclosed in conduit on a wall or ceiling, or in trunking)		Reference Method 1 (clipped direct)		Reference Method 11 (on a perforated cable tray), or Reference Method	
		one 2-core cable singlephase a.c. or d.c.	one 3-core cable or one 4-core cable 3-phase a.c.	one 2-core cable singlephase a.c. or d.c.	one 3-core cable or one 4-core cable 3-phase a.c.	one 2-core cable singlephase a.c. or d.c.	one 3-core cable or one 4-core cable 3-phase a.c.
1	2	3	4	5	6	7	8
mm ²	A	A	A	A	A	A	A
1.5	16.5	22	19.5	24	22	26	23
2.5	22	30	26	33	30	36	32
4	30	40	35	45	40	49	42

Voltage Drop (Per Amp Per Meter)

Nominal Cross Section Area	2-core cable d.c.	2-core cable single- phase a.c	3-core or 4-core cable 3-phase a.c.
1	2	3	4
mm ²	mV/A/m	mV/A/m	mV/A/m
1.5	31	31	27
2.5	19	19	16
4	12	12	10