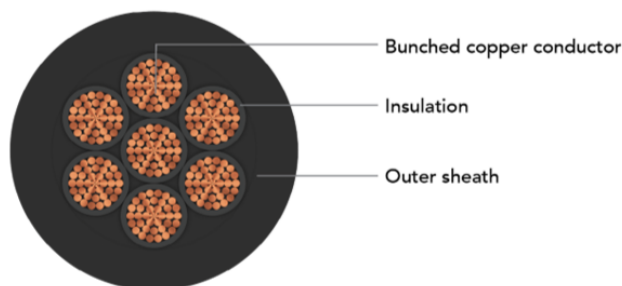


POLYCAB HFFR-01ZZ-K/03XZZ-K MC

Industrial Cable, 1100 V AC



Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB HFFR-01ZZ-K/03XZZ-K MC, insulated and sheathed with halogen free flame-retardant thermoplastic or cross linked halogen free flame retardant thermosetting compound confirming to IS 17048 is suitable to use in electric power and lighting for indoor use in AC single phase or three phase (earthed or unearthed) systems with rated voltage up to and including 1100 V. This cable is also suitable for DC systems with rated voltage up to and including 1500 V to earth.

CHARACTERISTICS

Voltage Rating

1100 V

Operation Temperature

Fixed: -15°C to 70°C

CONSTRUCTION

- Bare or tinned bunched copper conductor as per IS 8130, class 5
- Insulated with halogen free flame-retardant compound type HFI TP 70 or cross linked halogen free flame retardant compound type HFI-XL 70 (HFFR) to IS 17048
- Sheathed with halogen free flame-retardant compound type HFS TP 70 or cross linked halogen free flame retardant compound type HFS-XL 70 (HFFR) to IS 17048

Core Identification

Black with white numbering

Bending Radius

Fixed installation 6 x Overall diameter

Occasional 8 x Overall diameter

OUTSTANDING FEATURES

- Low Smoke
- Halogen Free
- Flame Retardant
- Highly Flexible

STANDARD FOLLOWS

IS 8130:2013

IS 5831:1984

IEC 60332-1-2

COMPLIANCE

Conductor resistance - IS 8130

Insulation resistance - IS 17048:2018

Oxygen Index > 31% As per ASTM D2863

Smoke emission test < 6% As Per ASTM D2843

Acid gas Generation - <0.0 As per IEC 60754-1

Under fire condition - Resist as per EN 60332-1-2

OUR ACCREDITATIONS



APPROVAL



Weight & Dimension Data

Product Code	Conductor size	Nominal insulation thickness	Overall diameter (Approx.)	Weight (Approx.)
	n x mm ²	mm	mm	kg/km
LDIS09CLUALS006C0.5S	6 x 0.5	0.6	8.1	86
LDIS09CLUALS006C.75S	6 x 0.75	0.6	9	111
LDIS09CLUALS006C001S	6 x 1	0.6	9.5	130
LDIS09CLUALS006C1.5S	6 x 1.5	0.6	10.3	164
LDIS09CLUALS006C2.5S	6 x 2.5	0.7	12.4	251
LDIS09CLUALS006C004S	6 x 4	0.8	14.9	375
LDIS09CLUALS007C0.5S	7 x 0.5	0.6	8.1	95
LDIS09CLUALS007C.75S	7 x 0.75	0.6	9	123
LDIS09CLUALS007C001S	7 x 1	0.6	9.5	145
LDIS09CLUALS007C1.5S	7 x 1.5	0.6	10.3	184
LDIS09CLUALS007C2.5S	7 x 2.5	0.7	12.4	282
LDIS09CLUALS007C004S	7 x 4	0.8	14.9	423
LDIS09CLUALS008C0.5S	8 x 0.5	0.6	9.3	113
LDIS09CLUALS008C.75S	8 x 0.75	0.6	10	140
LDIS09CLUALS008C001S	8 x 1	0.6	10.6	165
LDIS09CLUALS008C1.5S	8 x 1.5	0.6	11.7	216
LDIS09CLUALS008C2.5S	8 x 2.5	0.7	14.2	329
LDIS09CLUALS008C004S	8 x 4	0.8	16.9	492
LDIS09CLUALS009C0.5S	9 x 0.5	0.6	10	126
LDIS09CLUALS009C.75S	9 x 0.75	0.6	11	161
LDIS09CLUALS009C001S	9 x 1	0.6	11.7	190
LDIS09CLUALS009C1.5S	9 x 1.5	0.6	12.7	240
LDIS09CLUALS009C2.5S	9 x 2.5	0.7	15.6	376
LDIS09CLUALS009C004S	9 x 4	0.8	18.6	560
LDIS09CLUALS010C0.5S	10 x 0.5	0.6	10.4	137
LDIS09CLUALS010C.75S	10 x 0.75	0.6	11.5	175
LDIS09CLUALS010C001S	10 x 1	0.6	12.2	207
LDIS09CLUALS010C1.5S	10 x 1.5	0.6	13.2	263

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Product Code	Conductor size	Nominal insulation thickness	Overall diameter (Approx.)	Weight (Approx.)
	n x mm ²	mm	mm	kg/km
LDIS09CLUALS010C2.5S	10 x 2.5	0.7	16.3	411
LDIS09CLUALS010C004S	10 x 4	0.8	19.4	614
LDIS09CLUALS011C0.5S	11 x 0.5	0.6	10.4	145
LDIS09CLUALS011C.75S	11 x 0.75	0.6	11.5	187
LDIS09CLUALS011C001S	11 x 1	0.6	12.2	221
LDIS09CLUALS011C1.5S	11 x 1.5	0.6	13.2	282
LDIS09CLUALS011C2.5S	11 x 2.5	0.7	16.3	442
LDIS09CLUALS011C004S	11 x 4	0.8	19.4	662
LDIS09CLUALS012C0.5S	12 x 0.5	0.6	10.8	156
LDIS09CLUALS012C.75S	12 x 0.75	0.6	11.8	200
LDIS09CLUALS012C001S	12 x 1	0.6	12.6	237
LDIS09CLUALS012C1.5S	12 x 1.5	0.6	13.7	304
LDIS09CLUALS012C2.5S	12 x 2.5	0.7	16.8	477
LDIS09CLUALS012C004S	12 x 4	0.8	20.1	715
LDIS09CLUALS013C0.5S	13 x 0.5	0.6	11.3	167
LDIS09CLUALS013C.75S	13 x 0.75	0.6	12.4	215
LDIS09CLUALS013C001S	13 x 1	0.6	13.2	255
LDIS09CLUALS013C1.5S	13 x 1.5	0.6	14.6	335
LDIS09CLUALS013C2.5S	13 x 2.5	0.7	17.7	513
LDIS09CLUALS013C004S	13 x 4	0.8	21.1	770
LDIS09CLUALS014C0.5S	14 x 0.5	0.6	11.5	182
LDIS09CLUALS014C.75S	14 x 0.75	0.6	12.4	227
LDIS09CLUALS014C001S	14 x 1	0.6	13.2	269
LDIS09CLUALS014C1.5S	14 x 1.5	0.6	14.6	354
LDIS09CLUALS014C2.5S	14 x 2.5	0.7	17.7	544
LDIS09CLUALS014C004S	14 x 4	0.8	21.1	818
LDIS09CLUALS015C0.5S	15 x 0.5	0.6	12.1	194
LDIS09CLUALS015C.75S	15 x 0.75	0.6	13.3	249

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Product Code	Conductor size	Nominal insulation thickness	Overall diameter (Approx.)	Weight (Approx.)
	n x mm ²	mm	mm	kg/km
LDIS09CLUALS015C001S	15 x 1	0.6	14.1	295
LDIS09CLUALS015C1.5S	15 x 1.5	0.6	15.4	378
LDIS09CLUALS015C2.5S	15 x 2.5	0.7	18.9	592
LDIS09CLUALS015C004S	15 x 4	0.8	22.5	887
LDIS09CLUALS016C0.5S	16 x 0.5	0.6	12.1	203
LDIS09CLUALS016C.75S	16 x 0.75	0.6	13.3	261
LDIS09CLUALS016C001S	16 x 1	0.6	14.1	310
LDIS09CLUALS016C1.5S	16 x 1.5	0.6	15.4	397
LDIS09CLUALS016C2.5S	16 x 2.5	0.7	18.9	622
LDIS09CLUALS016C004S	16 x 4	0.8	22.5	935
LDIS09CLUALS017C0.5S	17 x 0.5	0.6	12.8	215
LDIS09CLUALS017C.75S	17 x 0.75	0.6	14	276
LDIS09CLUALS017C001S	17 x 1	0.6	14.8	329
LDIS09CLUALS017C1.5S	17 x 1.5	0.6	16.4	430
LDIS09CLUALS017C2.5S	17 x 2.5	0.7	19.9	661
LDIS09CLUALS017C004S	17 x 4	0.8	23.8	993
LDIS09CLUALS018C0.5S	18 x 0.5	0.6	12.8	223
LDIS09CLUALS018C.75S	18 x 0.75	0.6	14	288
LDIS09CLUALS018C001S	18 x 1	0.6	15	351
LDIS09CLUALS018C1.5S	18 x 1.5	0.6	16.4	449
LDIS09CLUALS018C2.5S	18 x 2.5	0.7	19.9	692
LDIS09CLUALS018C004S	18 x 4	0.8	23.8	1041
LDIS09CLUALS019C0.5S	19 x 0.5	0.6	12.8	232
LDIS09CLUALS019C.75S	19 x 0.75	0.6	14	299
LDIS09CLUALS019C001S	19 x 1	0.6	15	365
LDIS09CLUALS019C1.5S	19 x 1.5	0.6	16.4	469
LDIS09CLUALS019C2.5S	19 x 2.5	0.7	19.9	722
LDIS09CLUALS019C004S	19 x 4	0.8	23.8	1089

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Industrial Cable, 1100 V AC

Product Code	Conductor size	Nominal insulation thickness	Overall diameter (Approx.)	Weight (Approx.)
	n x mm ²	mm	mm	kg/km
LDIS09CLUALS020C0.5S	20 x 0.5	0.6	13.7	252
LDIS09CLUALS020C.75S	20 x 0.75	0.6	14.9	324
LDIS09CLUALS020C001S	20 x 1	0.6	16.1	393
LDIS09CLUALS020C1.5S	20 x 1.5	0.6	17.5	503
LDIS09CLUALS020C2.5S	20 x 2.5	0.7	21.2	773
LDIS09CLUALS020C004S	20 x 4	0.8	25.4	1161
LDIS09CLUALS021C0.5S	21 x 0.5	0.6	13.7	261
LDIS09CLUALS021C.75S	21 x 0.75	0.6	14.9	335
LDIS09CLUALS021C001S	21 x 1	0.6	16.1	407
LDIS09CLUALS021C1.5S	21 x 1.5	0.6	17.5	523
LDIS09CLUALS021C2.5S	21 x 2.5	0.7	21.2	803
LDIS09CLUALS021C004S	21 x 4	0.8	25.4	1209
LDIS09CLUALS022C0.5S	22 x 0.5	0.6	14.4	274
LDIS09CLUALS022C.75S	22 x 0.75	0.6	15.7	352
LDIS09CLUALS022C001S	22 x 1	0.6	16.9	428
LDIS09CLUALS022C1.5S	22 x 1.5	0.6	18.5	549
LDIS09CLUALS022C2.5S	22 x 2.5	0.7	22.4	843
LDIS09CLUALS022C004S	22 x 4	0.8	26.8	1269
LDIS09CLUALS023C0.5S	23 x 0.5	0.6	14.4	282
LDIS09CLUALS023C.75S	23 x 0.75	0.6	15.7	363
LDIS09CLUALS023C001S	23 x 1	0.6	16.9	442
LDIS09CLUALS023C1.5S	23 x 1.5	0.6	18.5	568
LDIS09CLUALS023C2.5S	23 x 2.5	0.7	22.4	874
LDIS09CLUALS023C004S	23 x 4	0.8	26.8	1317
LDIS09CLUALS024C0.5S	24 x 0.5	0.6	15.1	296
LDIS09CLUALS024C.75S	24 x 0.75	0.6	16.5	380
LDIS09CLUALS024C001S	24 x 1	0.6	17.7	462
LDIS09CLUALS024C1.5S	24 x 1.5	0.6	19.4	594

Product Code	Conductor size	Nominal insulation thickness	Overall diameter (Approx.)	Weight (Approx.)
	n x mm ²	mm	mm	kg/km
LDIS09CLUALS024C2.5S	24 x 2.5	0.7	23.5	914
LDIS09CLUALS024C004S	24 x 4	0.8	28.2	1376
LDIS09CLUALS025C0.5S	25 x 0.5	0.6	15.1	304
LDIS09CLUALS025C.75S	25 x 0.75	0.6	16.5	391
LDIS09CLUALS025C001S	25 x 1	0.6	17.7	477
LDIS09CLUALS025C1.5S	25 x 1.5	0.6	19.4	613
LDIS09CLUALS025C2.5S	25 x 2.5	0.7	23.5	945
LDIS09CLUALS025C004S	25 x 4	0.8	28.2	1424
LDIS09CLUALS030C0.5S	30 x 0.5	0.6	16.1	361
LDIS09CLUALS030C.75S	30 x 0.75	0.6	17.5	455
LDIS09CLUALS030C001S	30 x 1	0.6	18.8	555
LDIS09CLUALS030C1.5S	30 x 1.5	0.6	20.5	717
LDIS09CLUALS030C2.5S	30 x 2.5	0.7	24.9	1110
LDIS09CLUALS030C004S	30 x 4	0.8	29.9	1678

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Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

Nominal cross sectional area	Reference method B (enclosed in conduit on a wall or in trunking etc)		Reference method C (clipped direct)		Reference method E (in free air or on a perforated cable tray horizontal or vertical)		Maximum DC conductor resistance 20°C
	1 two core cable single phase ac or dc	1 three core cable or 1 four core cable three phase ac	1 two core cable single phase ac or dc	1 three core cable or 1 four core cable three phase ac	1 two core cable single phase ac or dc	1 three core cable or 1 four core cable three phase ac	
mm ²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Ω/km
0.5	4	3.6	4	3.6	-	-	39
0.75	7	6	7	6	-	-	26
1	11	10	12	11	14	12	19.5
1.5	14	12	16	14	18	15	13.3
2.5	19	17	22	20	25	21	7.98
4	25	22	30	26	33	28	4.95

Ambient temperature: 40°C, Conductor operating temperature: 70°C, the above table is in accordance with BS 7671(4D2A)

De-Rating Factor

De-rating factor for various ambient temperature

Ambient Temperature	35°C	40°C	45°C	50°C	55°C	60°C	65°C
De-Rating Factor	1.08	1	0.91	0.82	0.7	0.57	0.4