

POLY CAB HFFR-01Z-K/03XZ-K SC

Industrial cable, 1100 V AC



Application

POLY CAB HFFR-01Z-K/03XZ-K SC, insulated with cross linked halogen free flame retardant compound thermoplastic or cross linked thermoset compound having low smoke emission and corrosive gases when exposed to fire condition. This cable is designed to use in conduit and for fixed protected installation. This is also suitable to use high-rise buildings, hospitals, and offices where Smoke emission and toxic fume create a potential risk to life as well as the lifesaving equipment.

Voltage Rating

1100 V

Operation Temperature

Fixed: -15°C to + 70° C

Construction

- Annealed 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 as per IS 17048

Core Identification

Red/Black/Blue/Yellow/White/Grey/Green-Yellow

Bending Radius

Fixed	4 x Overall Diameter
Occasional	6 x Overall Diameter

Standard and References

IS 8130
IS 17048
IEC 60332-1-2

Test Voltage

3000V AC at room temperature

Compliance

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

Approval



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Product Code	Nominal cross sectional area mm ²	insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) Kg/km
LDIS09CLUALS001C0.5S	0.5	0.6	2.11	9
LDIS09CLUALS001C.75S	0.75	0.6	2.32	11
LDIS09CLUALS001C001S	1	0.6	2.49	14
LDIS09CLUALS001C1.5S	1.5	0.6	2.76	19
LDIS09CLUALS001C2.5S	2.5	0.7	3.42	31
LDIS09CLUALS001C04S	4	0.8	4.07	45
LDIS09CLUALS001C006S	6	0.8	4.62	64
LDIS09CLUALS001C010S	10	1	5.92	106
LDIS09CLUALS001C016S	16	1	6.97	162
LDIS09CLUALS001C025S	25	1.2	8.53	245
LDIS09CLUALS001C035S	35	1.2	9.71	338
LDIS09CLUALS001C050S	50	1.4	11.58	486
LDIS09CLUALS001C070S	70	1.4	13.25	672
LDIS09CLUALS001C095S	95	1.6	15.21	888
LDIS09CLUALS001C120S	120	1.6	16.81	1123
LDIS09CLUALS001C150S	150	1.8	18.77	1397
LDIS09CLUALS001C185S	185	2	20.75	1705
LDIS09CLUALS001C240S	240	2.2	23.70	2253
LDIS09CLUALS001C300S	300	2.4	27.07	2982

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Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

Nominal cross sectional area mm ²	Reference method B (enclosed in conduit on a wall or in trunking etc)		Reference method C (clipped direct)		Reference method F (in free air or on a perforated cable tray horizontal or vertical)				Maximum DC conductor resistance at 20°C Ω/km	
					Touching		Spaced by one meter			
	2 cables single phase AC or DC	3 or 4 cables three phase AC	2 cables single phase AC or DC flat and touching	3 or 4 cables three phase AC flat and touching or trefoil	2 cables single phase AC or DC flat	3 cables three phase AC flat	3 cables three phase AC trefoil	2 cables ,single-phase AC or DC or 3 cables three phase AC flat		
mm ²	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Ω/km
0.5	4	3.6	4.6	4	-	-	-	-	-	39
0.75	7	6	8	7	-	-	-	-	-	26
1	11	10	13	12	-	-	-	-	-	19.5
1.5	14	13	17	15	-	-	-	-	-	13.3
2.5	20	17	22	21	-	-	-	-	-	7.98
4	26	23	31	27	-	-	-	-	-	4.95
6	34	30	39	36	-	-	-	-	-	3.3
10	47	41	54	49	-	-	-	-	-	1.91
16	63	56	72	65	-	-	-	-	-	1.21
25	85	75	96	88	111	96	93	123	110	0.78
35	105	93	119	109	137	121	116	153	137	0.554
50	127	113	154	141	165	147	141	185	166	0.386
70	162	144	197	181	212	190	182	237	214	0.272
95	196	175	240	220	257	232	223	288	262	0.206
120	227	202	278	256	297	271	260	334	305	0.161
150	253	221	322	295	343	314	300	385	354	0.129
185	288	250	368	338	391	360	345	440	405	0.106
240	338	292	435	398	461	428	409	519	480	0.0801
300	387	332	501	460	531	495	473	598	556	0.0641

The ambient temperature is 40°C.

Conductor operating temperature 70°C.

The above table is in accordance with the BS 7671(Table 4D1A)

De-Rating Factor

De-rating factor for 70°C thermoplastic or thermosetting insulated cable

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

Note:

Cable with HFI XL-70 insulation is available on demand.