POLYCAB HFFR-01Z-K/03XZ-K SC

Building wire, 1100 V AC

Application

POLYCAB 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

POLYCAB HFFR-01Z-K/03XZ-K SC

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Product Code	Nominal cross sectional area mm²	Class of conductor	insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.) Kg/km
LDIS09CLUALS001C0.5S	0.5	5	0.6	2.11	9
LDIS09CLUALS001C.75S	0.75	5	0.6	2.32	11
LDIS09CLUALS001C001S	1	2	0.7	2.67	15
LDIS09CLUALS001C001S	1	5	0.6	2.49	14
LDIS09CLUALS001C1.5S	1.5	2	0.7	3	21
LDIS09CLUALS001C1.5S	1.5	5	0.6	2.76	19
LDIS09CLUALS001C2.5S	2.5	2	0.8	3.62	32
LDIS09CLUALS001C2.5S	2.5	5	0.7	3.42	31
LDIS09CLUALS001C04S	4	5	0.8	4.07	45
LDIS09CLUALS001C006S	6	5	0.8	4.62	64
LDIS09CLUALS001C010S	10	5	1	5.92	106
LDIS09CLUALS001C016S	16	5	1	6.97	162

Electrical characteristics

Current carrying capacity and maximum DC conductor resistance.

Nominal cross sectional area mm²	Class of conductor	Reference method B (enclosed in conduit on a wall or in trunking etc) Amp.	Reference method C (clipped direct) Amp.	Maximum DC conductor resistance at 20ºC Ω/km
0.5	5	4	4.6	39
0.75	5	7	8	26
1	2	12	13	18.1
1	5	11	13	19.5
1.5	2	15	17	12.1
1.5	5	14	17	13.3
2.5	2	21	23	7.41
2.5	5	20	22	7.98
4	5	26	31	4.95
6	5	34	39	3.3
10	5	47	54	1.91
16	5	63	72	1.21

The ambient temperature is 40ºC.

Conductor operating temperature 70ºC.

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

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

Note:

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