



Images not to scale. Follow table for dimensions

## APPLICATION

POLY CAB HFFR-01Z-R/03XZ-R SC, insulated with halogen free flame retardant thermoplastic compound or cross-linked halogen free flame retardant 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.

## CHARACTERISTICS

### Voltage Rating

1100 V

### Operation Temperature

Fixed: -15°C to + 70° C

## CONSTRUCTION

- Annealed stranded bare or tinned copper conductor as per IS 8130, class 2
- 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.

### Bending Radius

Fixed installation – 6 x Overall Dia.

### Test Voltage

3000V AC at room temperature

## OUTSTANDING FEATURES

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

## STANDARD FOLLOWS

IS 8130

IS 17048

IEC 60332-1-2

## 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 - As per EN 60332

## OUR ACCREDITATIONS



## APPROVAL



## NOTES

Cable with HFI XL-70 insulation available on demand

**POLY CAB HFFR-01Z -R/03XZ-R SC  
Industrial cable, 1100 V AC**

**POLY CAB**  
IDEAS. CONNECTED.

**Weight & Dimension Data**

Product Code	Nominal cross-sectional area mm <sup>2</sup>	Insulation thickness mm	Overall Diameter (Approx.) mm	Weight (Approx.)
LDIS09CLUALS001C001S	1	0.7	2.67	15
LDIS09CLUALS001C1.5S	1.5	0.7	3.00	21
LDIS09CLUALS001C2.5S	2.5	0.8	3.62	32
LDIS09CLUALS001C004S	4	0.8	4.19	49
LDIS09CLUALS001C006S	6	0.8	4.74	68
LDIS09CLUALS001C010S	10	1.0	6.07	113
LDIS09CLUALS001C016S	16	1.0	7.13	171
LDIS09CLUALS001C025S	25	1.2	8.85	269
LDIS09CLUALS001C035S	35	1.2	10.00	364
LDIS09CLUALS001C050S	50	1.4	11.25	452
LDIS09CLUALS001C070S	70	1.4	13.53	707
LDIS09CLUALS001C095S	95	1.6	15.72	960
LDIS09CLUALS001C120S	120	1.6	17.28	1198
LDIS09CLUALS001C150S	150	1.8	19.34	1498
LDIS09CLUALS001C185S	185	2.0	21.47	1847
LDIS09CLUALS001C240S	240	2.2	24.30	2387
LDIS09CLUALS001C300S	300	2.4	27.06	2979
LDIS09CLUALS001C400S	400	2.6	30.84	3930
LDIS09CLUALS001C500S	500	2.8	34.36	4926
LDIS09CLUALS001C630S	630	2.8	37.90	6154

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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 F ( in free air or on a perforated cable tray horizontal or vertical)				Maximum DC conductor resistance at 20°C	
			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	Horizontal	Vertical	Horizontal	Vertical		
mm <sup>2</sup>	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Amp.	Ω/km	
1	12	10	13	12	-	-	-	-	-	-	-	-	18.1	
1.5	15	13	17	16	-	-	-	-	-	-	-	-	12.1	
2.5	21	18	23	22	-	-	-	-	-	-	-	-	7.41	
4	28	24	32	29	-	-	-	-	-	-	-	-	4.61	
6	36	31	41	37	-	-	-	-	-	-	-	-	3.08	
10	50	44	57	51	-	-	-	-	-	-	-	-	1.83	
16	66	59	76	69	-	-	-	-	-	-	-	-	1.15	
25	88	77	99	90	114	99	96	127	113	113	0.727	0.727		
35	109	96	123	112	141	124	119	157	141	141	0.524	0.524		
50	131	117	158	145	171	151	145	191	171	171	0.387	0.387		
70	167	149	204	186	218	196	188	244	221	221	0.268	0.268		
95	202	180	247	227	264	239	230	297	271	271	0.193	0.193		
120	234	208	287	264	306	279	268	345	315	315	0.153	0.153		
150	261	228	331	304	353	324	310	397	365	365	0.124	0.124		
185	297	258	379	348	403	371	356	453	418	418	0.0991	0.0991		
240	348	301	448	411	475	441	422	535	495	495	0.0754	0.0754		
300	398	343	517	474	547	511	488	617	573	573	0.0601	0.0601		
400	475	406	604	552	656	599	571	741	692	692	0.047	0.047		
500	545	464	689	629	755	686	652	854	800	800	0.0366	0.0366		
630	626	532	786	719	874	787	744	990	931	931	0.0283	0.0283		

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Ambient temperature: 40°C

Conductor operating temperature: 70°C

**De-Rating Factor**

De-rating factor for various ambient temperature other than 40°C.

Ambient Temperature	45°C	50°C	55°C	60°C	65°C
De-Rating Factor	0.91	0.82	0.71	0.58	0.41