C.R.I. BUILDING WIRES

C.R.I.'s vast experience and successful track record pump industry spanning over 5 decades facilitate not only to enhance the range of pumps & motors, but also to produce and supply quality wire and cables in its state-of-the-art manufacturing facilities. The systems at the manufacturing facility are certified for ISO-9001 and the product manufactured to meet the relevant PVC cables standards IS 694.

Conductor

These wires are manufactured using Electrolytic Grade 99.97% purity copper with more than 100% conductivity. The conductors are drawn using state-of-the-art multiwire drawing machine as fine wires and bunched with concentricity according to IS 8130. High purity and conductivity of copper ensures greater saving of electrical energy.

Certifications:

- BIS - Bureau of Indian standards (ISI)
- TUV NORD-ISO 9001 : 2008 Certification for the quality management systems

FLAME RETARDANT (FR) PVC INSULATED BUILDING WIRES

Z FIRE FR

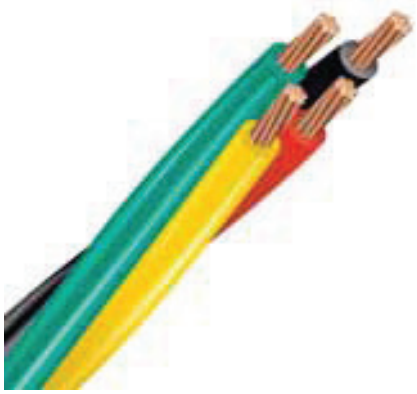
Voltage Rating	:	Upto 1100 volts - AC Supply
Temperature Range	:	-10° C to +70° C
Insulation Material	:	PVC with Fire - Retardant property
Conductor	:	High Conductivity Annealed and Bunched Copper
Available Size	:	0.5 mm² to 16.0 mm²

LEAD FREE FLAME RETARDANT LOW SMOKE HALOGEN (FR-LSH) PVC INSULATED BUILDING WIRES

Z FUME FR-LSH

Voltage Rating	:	Upto 1100 volts - AC Supply
Temperature Range	:	-10° C to +70° C
Insulation Material	:	PVCwith Fire - Retardant, Low smoke & Low Halogen property
Conductor	:	High Conductivity Annealed and Bunched Copper
Available Size	:	0.5 mm² to 16.0 mm²

PVC INSULATED UNSHEATHED CABLES WITH SOLID STRANDED COPPER WIRE



Voltage Rating	:	Upto 1100 volts - AC Supply
Temperature Range	:	-10° C to +70° C
Insulation Material	:	PVC with Fire - Retardant Material
Available Size	:	1/18 to 7/16 SWG or 1.5 Sq.mm to 16.0 Sq.mm
Conductor	:	Solid Annealed Copper

TECHNICAL & DIMENSIONAL DETAILS (SINGLE CORE, UNSHEATHED, FLEXIBLE) IS-694 ISI CM/L-3406447

Nominal Area of conductor mm^2	No. of conductors/ Nom. dia in mm	Thickness of insulation (Nom.) mm	Approx. overall Diameter mm	Current carrying capacity #2 Cables, single phase		Max.Resistance per km @ 20°C as per IS 8130 Ohms
				In conduit/ Trunking Amps.	Unenclosed-clipped directly to a surface or on cable tray Amps.	
0.5	16/0.20	0.60	2.20	3	4	39.00
0.75	24/0.20	0.60	2.40	6	7	26.00
1.0	14/0.30	0.70	2.70	11	12	18.10
1.5	22/0.30	0.70	3.00	13	16	12.10
2.5	36/0.30	0.80	3.60	18	22	7.41
4.0	56/0.30	0.80	4.00	24	29	4.95
6.0	84/0.30	0.80	4.60	31	37	3.30
10.0	140/0.30	1.00	6.20	42	51	1.91
16.0	225/0.30	1.00	7.30	57	68	1.21

Standard length : 90 Meter Coils in Protective Carton, Coils in Meter & Project Coils of 180/270 mtrs also available.
As er IS : 3961(Part V) : 1968. **Nominal Dia to meet the specified resistance.

TECHNICAL & DIMENSIONAL DETAILS (SINGLE/MULTICORE SHEATHED FLEXIBLE)

Cross sectional Area of conductor (nom.) mm^2	No. of conductors/ Nom. dia in mm	Thickness of Insulation (Nom.) mm	Thickness of Sheath (Nom.)				Overall Dimensions (Max.)				Max. Conductor Resistance @ 20°C ohms/km mm
			Single Core mm	Two Core mm	Three Core mm	Four Core mm	Single Core mm	Two Core mm	Three Core mm	Four Core mm	
0.5	16/0.2	0.6	0.9	0.9	0.9	0.9	4.3	6.9	7.3	8.0	39.0
0.75	24/0.2	0.6	0.9	0.9	0.9	0.9	4.5	7.3	7.7	8.4	26.0
1.0	32/0.2	0.6	0.9	0.9	0.9	0.9	4.7	7.6	8.1	8.8	19.5
1.5	48/0.2 or 30/0.25	0.6	0.9	0.9	0.9	0.9	5.4	8.9	9.4	10.4	13.3
2.5	80/0.2 or 50/0.25	0.7	1.0	1.0	1.0	1.0	6.2	10.3	10.9	12.0	7.98
4.0	56/0.3	0.8	1.0	1.0	1.0	1.0	6.8	11.6	12.4	13.6	4.95
6.0	84/0.3	0.8	1.1	1.1	1.1	1.1	7.5	13.0	13.8	15.47	3.30
10.0	140/0.3	1.0	1.3	1.3	1.3	1.3	9.4	16.5	17.69	19.5	1.91
16.0	226.0.3	1.0	1.4	1.4	1.4	1.4	10.9	19.4	20.6	23.0	1.21

Standard Colours: Red, Yellow, Blue, Black, Green, Grey & White. Other colours can also be supplied against requirement.

Standard Length: 90 Meter Coils in Protective Carton. Project Coils of 180 / 270 mtrs also available.
As per IS 3961(Part V) : 1968.
** Nominal Dia to meet the Specified resistance.

SINGLE CORE, UNSHEATHED CABLES

Size mm^2	No. of strands/ Dia of wire inch	No. of strands/ Dia of wire mm	Nominal Thickness of insulation	Overall Diameter (mm)	Tolerance	Max. Resistance per km @ 20OC as per IS 8130 ohms
1.5	3/0.032	3/0.82	0.7	3.8	+0.05	12.1
2.5	3/0.041	3/1.04	0.8	4.6	+0.05	7.41
4.0	7/0.034	7/0.86	0.8	4.7	+0.05	4.61
6.0	7/0.041	7/1.04	0.8	6.2	+0.05	3.08
10.0	7/0.053	7/1.35	1.0	6.7	+0.10	1.83
16.0	7/0.067	7/1.70	1.0	7.8	+0.10	1.15

Test	Test Method	Values	FR (ZFIRE)	FR-LSH (ZFUME
Limited Oxigen Index	IS 10810 Part 58	>29%	✓	✓
Limited Temperature Index	IS 10810 Part 64	>250	✓	✓
Smoke Density (Light Absorption)	IS 13360 P-6/Sec-9	<60%	NA	✓
Acid Gas Generation	IS 10810 P-59	<20%	NA	✓

Note : The number of strands are approximate and strands diameter is nominal ;
In view of continuous developments, the information / descriptions / specifications / illustrations are subject to change without notice.