

IS : 694

JUPITERTM
SAFETY FOR A LIFETIME



Our Clients



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JUPITERTM
SAFETY FOR A LIFETIME

MANUFACTURERS OF ALL TYPES OF CABLES AND WIRES



Company Profile

JUPITER CABLE INDUSTRIES, headquarters & factory at Mazgaon, one of the seven islands of Great Mumbai, is a world leader in Cable manufacturing for over two decades. A company which has expanded its arms, accumulating technical know-how and with experienced staff who are highly geared towards stringent quality control and adventuresome research activities to grow the expanding market with multi range product not only to fulfill the requirements of customers but exceeding their expectation.

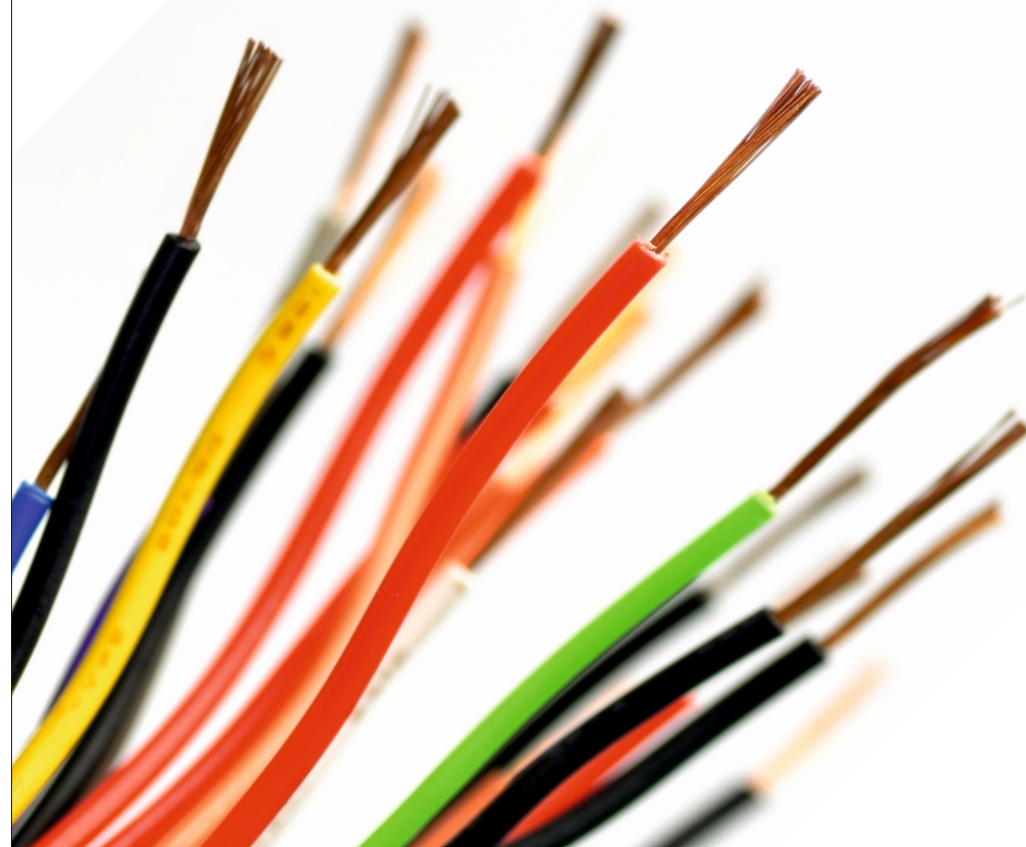
Over the years the company has expanded its technological base, bringing a wide range of products, which includes in-house designing, production, manufacturing, quality control, inspection, and after sales service.

We provide in-depth technical support before and after the sale. This support is critical because our products are designed with flexibility and dependability, for years of service in cutting edge and demanding applications.

For nearly two decades we are offering Quality & Cost - Effective Cables, necessary to meet the changing technology. Our commitment is to offer total quality in products and services, in which the foundation of our future business is based.

The Company is focusing on strategies like diversifying into promising new business, expanding operations and improving overall efficiency. The company is confident that these strategies will enable us to expand sales and give value for money to our customers in an increasing competitive market.

Our Mission is to safeguard the lives of people, environment and are committed to the highest level of customer satisfaction.

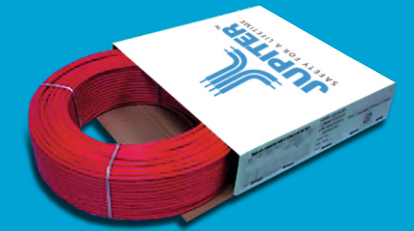


PRODUCT RANGE

House Wires

"JUPITER" Brand offers electrical wires using more than 99.97% pure electrolytic grade bright annealed bare copper with more than 100% conductivity and is PVC insulated with FR / FRLS / ZHFR. The conductors are made up of multiple strands of finely drawn copper wire which offers great flexibility, making it ideal for conduit wiring.

The standard range starts from 1.0 mm² to 6.0 mm²
These wires are manufactured as per IS 694: 1990 and are ISI Marked.



Flexible Single Core Cables

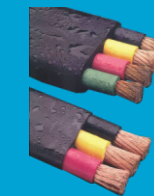
These cables are mostly used in Control Panels, Machine Tools, Appliances, Earthing and Machinery for Heavy Industries. Insulation process is carried out on most modern high speed twin extrusion lines, having in line installed spark testers and electronically controlled diameter/eccentricity indicators which ensure fail proof high voltage test and consistency throughout the length of the product.

The standard range starts from 0.50 mm² to 240 mm²
These wires are generally manufactured as per IS 694: 1990.

Flexible Multi Core Cables

Premium quality multi core flexible cables are designed with insulated cores which are laid up to form the assembly. Specially formulated Soft PVC Sheathing provides ease in stripping and withstands mechanical abrasion or wear & tear while in use which improves the life of the Cable. They are available in wide range of sizes, colours and number of cores.

These wires are generally manufactured as per IS 694: 1990.

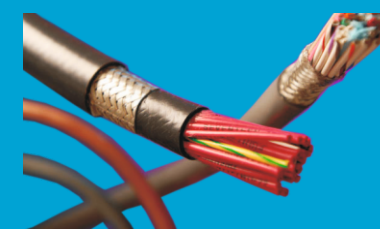
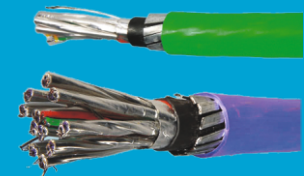


Flexible Submersible Cables

These Flat Cables are manufactured for critical space requirements, protection against indefinite immersion in water under specified conditions, protection against rain water and protection against ingress of small solid foreign bodies. It is processed on sophisticated twin extrusion line which meets and withstands the demanding needs of submersible pump motor power supply.

Instrumentation Cables

Instrumentation cable offers total interference free data transfer and is ideal for use as a signal and control cable in measuring, process-control and security systems. Instrumentation process in any industry is a very important factor for controlling various parameters during process. Microprocessor based control devices demand very low noise level and attenuation of signals in the cable. This calls for careful designing & manufacturing of cables with stringent quality control.



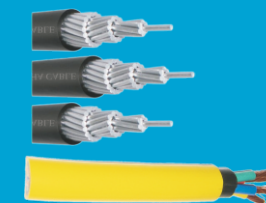
Braided / Shielded Multicore Cables

Multi-core Screened (Shielded / Braided) flexible cables are used for low noise signal cables and control purposes. These cables are manufactured with flexible copper conductors, PVC insulated, tinned copper Braided / Shielded with overall PVC sheath. The Specially Developed high grade PVC compound, used for insulation and sheathing is resistant to moisture, oils, alkaline, grease and Flames and has very high insulation resistance values.

These cables are especially developed for defense, Telecommunication and electronic applications. Very feeble signals can be transmitted with least interference.

Flat Cable for Elevators

Flat elevator cables are made using special PVC compound which is highly flexible and with bouncing effects. The said cable is the import substitute with high quality design. These Cables are also known as, Flat Cables, Elevator Cables, Flat Elevator Cables, Lift Cables, Flat Lift Cables, and Travelling Cables.



Custom Made Cables

Specially designed cables for varied applications such as

- Aluminium single core cables for earthing purpose.
- Twin flat Copper or Aluminium cables for temporary use purpose.
- Heavy Double sheathed Flexible Cable for Special Applications.
- Flexible multicore cable with any color outer sheath.

Table No. 1
Twin PVC Insulated, Single Core Flexible Cable
1100 Volts Multi strand Copper Conductor for House Wiring

Conductor Area in Sq. mm	Conductor Dia. in mm	Average thickness of Insu. in mm	Overall Dia. in mm	Maximum Resistant per Km at 20° C	Recommended current Rating in Amp
1.0	14/0.3	0.70	2.8	18.10	12
1.5	22/0.3	0.70	3.1	12.10	16
2.5	36/0.3	0.80	3.8	7.41	22
4.0	56/0.3	0.80	4.4	4.95	29
6.0	86/0.3	0.80	5.0	3.30	37

Table No. 2
Heavy PVC Insulated, Single Core Flexible Cable
1100 Volts, Multi strand Copper Conductor for Panel Boards As per IS 694 – 1990 with ISI mark up to 50 Sq. mm

Area in Sq. mm	Conductor Construction in General	Conductor Dia. mm	Max. DC resistance Ohm/Km at 20° C	Insulation thickness in mm Nominal	Cable Dia (Approx.) in mm	Current Rating Amp
0.50	16/0.20	0.94	39.00	0.60	2.20	4
0.75	24/0.20	1.20	26.00	0.60	2.50	7
1.00	32/0.20	1.34	19.50	0.60	2.60	11
1.50	*30/0.25	1.64	13.30	0.60	2.90	14
2.50	**50/0.25	2.08	7.98	0.70	3.50	19
4.00	56/0.30	2.61	4.95	0.80	4.30	26
6	84/0.30	3.50	3.300	0.80	5.30	37
10	140/0.30	4.60	1.910	1.00	6.70	51
16	126/0.40	6.00	1.210	1.00	8.20	68
25	196/0.40	7.60	0.780	1.20	10.00	86
35	276/0.40	8.70	0.554	1.20	11.3	110
50	396/0.40	10.60	0.386	1.40	13.5	145
70	360/0.50	12.30	0.272	1.60	15.5	215
95	485/0.50	14.70	0.206	1.80	18.5	260
120	608/0.50	16.70	0.161	2.00	20.9	305
150	750/0.50	18.30	0.129	2.00	22.5	355
185	925/0.50	20.00	0.106	2.2	24.6	415
240	1221/0.50	23.00	0.0801	2.2	27.6	500

NOTE : Cable above 50 Sq. mm are not covered by IS:694 But are as per IS:2465
* This size can be supplied in 48/0.2 construction.
** This size can be supplied in 80/0.2 construction

Cable Facts

- Specially two layer design, with inner layer made from neutral PVC under ultra thin colored layer for color identification increases resistivity and increases life of cable.
- Cable with lower resistance not only saves power but also decreases voltage drop and ensure safety of costly equipments and gadgets.



Cable Facts

- The temperature attained during short circuit depends upon the cable size, short circuit current and its duration, ambient temperature etc. The higher the size of the cable, the lower will be the temperature attained by the cable components.
- Cables with low smoke and fume characteristic were first developed in UK for the London Underground Railway system, where the avoidance of dense smoke and irritant gases in the event of fire was a very important consideration.



Table No. 3
Heavy PVC Insulated & Sheathed, Multicore (2, 3 & 4 Cores) Flexible Cable
1100 Volts, Multi strand Copper Conductor As per IS 694 – 1990 with ISI mark

Area in Sq. mm	Construction No./Dia.	Cond. Dia. in mm	Max. DC resistance Ohm/Km at 20° C	Insulation thickness nominal mm	Core Dia. mm	Sheath thickness in mm nominal			Overall Diameter in mm approx.			Current Rating Amp.
						2 Core	3 Core	4 Core	2 Core	3 Core	4 Core	
0.50	16/0.2	0.94	39.00	0.60	2.20	0.90	0.90	0.90	6.20	6.60	7.20	4
0.75	24/0.2	1.20	26.00	0.60	2.50	0.90	0.90	0.90	6.80	7.20	7.90	7
1.00	32/0.2	1.34	19.50	0.60	2.60	0.90	0.90	0.90	7.00	7.50	8.10	11
1.50	*30/0.25	1.64	13.30	0.60	2.90	0.90	0.90	1.00	7.60	8.10	9.00	14
2.50	**50/0.25	2.08	7.98	0.70	3.50	1.00	1.00	1.00	9.00	9.60	10.50	19
4.00	56/0.3	2.61	4.95	0.80	4.30	1.00	1.00	1.00	10.60	11.30	12.40	26

*This size can be supplied in 48/0.2 construction. **This size can be supplied in 80/0.2 construction.

Table No. 4
Heavy PVC Insulated & Sheathed, Multicore (2, 3 & 4 Cores) Flexible Cable 1100 Volts, Multi strand Copper Conductor

Area in Sq. mm	Construction No./Dia.	Cond. Dia. in mm	Max. DC resistance Ohm/Km at 20° C	Insulation thickness nominal mm	Core Dia. mm	Sheath thickness in mm nominal			Overall Diameter in mm approx.			Current Rating Amp.
						2 Core	3 Core	4 Core	2 Core	3 Core	4 Core	
6	84/0.3	3.50	3.30	0.80	5.10	1.15	1.15	1.40	12.60	13.40	15.20	37
10	140/0.3	4.60	1.91	1.00	6.60	1.40	1.40	1.40	16.00	17.00	18.80	51
16	126/0.4	6.00	1.21	1.00	8.00	1.40	1.40	1.40	18.80	20.10	22.20	68
25	196/0.4	7.60	0.780	1.20	10.00	2.00	2.00	2.00	24.00	25.60	28.20	86
35	276/0.4	8.70	0.554	1.20	11.10	2.00	2.00	2.00	26.30	28.00	31.00	110
50	396/0.4	10.60	0.386	1.40	13.40	2.00	2.00	2.00	30.90	33.00	36.50	145
70	360/0.5	12.30	0.272	1.40	15.10	2.00	2.20	2.40	34.20	37.00	41.00	215
95	485/0.5	14.70	0.206	1.60	17.90	2.20	2.40	2.40	40.20	43.50	47.80	260

Table No. 5
Heavy PVC Insulated & Sheathed, Multicore (6 to 30 Cores) Flexible Cable 1100 Volts, Multi strand Copper Conductor Generally conforming to IS 694 – 1990

Area Sq.mm	0.50	0.75	1.00	1.50	2.50	4.00
General Construction No./dia.	16/0.2	24/0.2	32/0.2	30/0.25*	30/0.25**	56/0.3
Conductor Dia. in MM	0.94	1.20	1.34	1.64	2.08	2.61
Avg. Insu. thickness in MM	0.60	0.60	0.60	0.60	0.70	0.80
Core Dia. in MM	2.20	2.50	2.60	2.90	3.50	4.30
No. of Cores						
6	Avg. Sheath thickness MM	0.90	1.00	1.00	1.10	1.20
	App. Overall Dia MM	8.50	9.50	9.80	10.70	12.70
7	Avg. Sheath thickness MM	0.90	1.00	1.00	1.10	1.20
	App. Overall Dia MM	8.50	9.50	9.80	10.70	12.70
8	Avg. Sheath thickness MM	1.00	1.00	1.00	1.10	1.20
	App. Overall Dia MM	9.30	10.40	10.70	11.90	14.10
10	Avg. Sheath thickness MM	1.00	1.10	1.10	1.30	1.40
	App. Overall Dia MM	10.80	12.20	12.60	13.80	16.60
12	Avg. Sheath thickness MM	1.00	1.10	1.10	1.30	1.40
	App. Overall Dia MM	11.20	12.60	13.00	14.30	17.20
14	Avg. Sheath thickness MM	1.10	1.10	1.10	1.20	1.30
	App. Overall Dia MM	12.00	13.30	13.70	15.20	18.10
16	Avg. Sheath thickness MM	1.10	1.20	1.20	1.40	1.50
	App. Overall Dia MM	12.60	14.20	14.60	16.00	19.30
19	Avg. Sheath thickness MM	1.10	1.20	1.30	1.30	1.40
	App. Overall Dia MM	13.20	14.90	15.60	17.10	20.30
24	Avg. Sheath thickness MM	1.20	1.30	1.30	1.40	1.50
	App. Overall Dia MM	15.60	17.60	18.20	20.20	23.80
30	Avg. Sheath thickness MM	1.30	1.30	1.30	1.40	1.50
	App. Overall Dia MM	16.80	18.70	19.30	21.50	25.70
	Max. Conductor Resistance in OHm/Km at 20°C.	39.00	26.00	19.50	13.30	7.98
	Recommended Current Rating in AMP	4	7	11	14	19

*This size can be supplied in 48/0.2 construction. **This size can be supplied in 80/0.2 construction.

Cable Facts

- Conductivity of copper is more and so the size of copper conductor is smaller than aluminium conductor for feeding the same current.
- The voltage drop depends upon the current passing through the cable and its resistance. Resistance is inversely proportional to the cross sectional area of the conductor.



Table No. 6
Heavy PVC Insulated & Sheathed, Multicore 2, 3 & 4 Cores) Screened / Braided Flexible Cable 1100 Volts, Multi strand Copper Conductor Generally conforming to IS 694 – 1990

Area in Sq. mm	Construction No./Dia.	Cond. Dia. in mm	Max. DC resistance Ohm/Km at 20° C	Insulation thickness nominal mm	Sheath thickness in mm nominal			Overall Diameter in mm approx.			Current Rating Amp.
					2 Core	3 Core	4 Core	2 Core	3 Core	4 Core	
0.50	16/0.2	0.94	39.00	0.60	0.90	0.90	0.90	8.30	8.50	9.20	04
0.75	24/0.2	1.20	26.00	0.60	0.90	0.90	0.90	8.70	9.00	9.60	07
1.00	32/0.2	1.34	19.50	0.60	0.90	0.90	0.90	9.00	9.30	10.00	11
1.50	*30/0.25	1.64	13.30	0.60	0.90	0.90	1.00	9.50	9.90	10.70	14
2.50	**50/0.25	2.08	7.98	0.70	1.00	1.00	1.00	11.00	11.50	12.50	19
4.00	56/0.3	2.61	4.95	0.80	1.00	1.00	1.00	12.30	13.00	14.30	26
6.00	84/0.3	3.50	3.30	0.80	1.10	1.10	1.20	13.60	14.30	16.00	37
10.00	140/0.3	4.60	1.91	1.00	1.20	1.20	1.30	16.60	17.30	19.30	51
16.00	126/0.4	6.00	1.21	1.00	1.30	1.30	1.40	19.30	20.20	22.50	68
25.00	196/0.4	7.60	0.780	1.20	1.40	1.50	1.60	24.40	25.80	28.80	86
35.00	276/0.4	8.70	0.554	1.20	1.50	1.60	1.70	27.10	28.60	32.00	110
50.00	396/0.4	10.60	0.386	1.40	1.60	1.70	1.80	31.70	33.70	37.60	145

Cable Facts

- Any voltage source radiates electric field and this field will induce E.M.F in the circuit which is capacitively coupled to the voltage source. The most effective way to protect the circuit is to place it inside a totally covered shield which is earthed.
- By default colour of flexible multicore cables outer sheath is black as it imparts weather proof properties. In case for cables used for intrinsically safe systems blue sheath is provided. Sometimes the clients specific different color sheath to differentiate cables from the other & normal power cables.



The above data is indicative and may be revised without prior information. Jupiter Cable Industries will not be liable for any damages arising out of incorrect use.