



**ESC** CABLES

- House Wires (FR) • FR-LSH • Single Core Flexible Cables • Submersible Cables • Speaker Cables
- Multicore Flexible Cables • Co-axial Cables • Communication Cables • CCTV Cables • Screened Cables

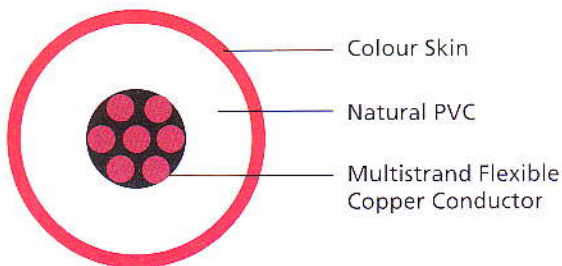


# ESC Cables

## About Us

Electrical Systems & Controls P. Ltd. (**ESC**) an ISO 9001:2008 Company is fast growing company manufactures a wide range of wires and cables for diverse applications at their state-of-the-art manufacturing unit at Okhla New Delhi. The plant has its own well equipped test laboratory with all testing facilities for continuous quality control.

The name "**ESC**" has become well known to leading Consultants, Contractors, Builders, Industries and gained their confidence. **ESC** has associated with renowned manufactures of machines and raw material in India to ensure product quality as per standards.



## Design & Quality

Design of a cable is highly complex owing to the two components, the current carrying copper conductor and insulation to isolate the conductor from each other and as well as surroundings. These two form the core of the cable. The copper and the PVC of **ESC** cables meet high quality standards. **ESC** cables are ISI and CE marked and conform to IS 694:2010 standard.

## Salient Features

- Electrolytic Grade copper having 99.96% purity & maximum conductivity to ensure minimum power losses & maximum safety.
- Uniformly bunched copper wires of uniform diameter that makes stripping & crimping of wires easier & minimizes losses.
- Indigenously developed PVC compound formulated from finest ingredients is produced in-house. High thermal stability & insulation resistance makes it suitable for use in Indian environment.
- Double insulation, with primary insulation from virgin PVC, coated with ultra thin colour layer. This feature enhances safety & ensures proper colour identification.

# List of Products

**ESC** Single Core FR



**ESC** Single Core FRLSH



**ESC** Multi Core Cables



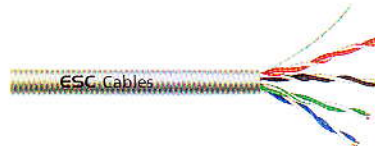
**ESC** Submersible Cables



**ESC** Co Axial Cables



**ESC** Telephone Cables



**ESC** CCTV Cables



**ESC** Speaker Cables



**ESC** ATC Screened and  
Shielded Cables



## Your Premises and Personal Safety Measures

Personal Safety & Safety of your premises is of utmost importance. All possible precautions & care are to be taken in electrical wiring to ensure maximum safety and for that one has to keep in mind the following:-

1. Before doing any electrical work, make sure the power is off at the breaker.
2. One should have appropriate qualification, training and familiarity with safe work practices for working on electrical circuit.
3. One should always wear rubber-sole shoes while performing work on electrical circuit.
4. Proper installation using **good quality electrical wires**, switches/sockets, MCB/RCCB should be ensured.
5. **Quality of conductor** should be good such as pure copper wires that ensures the optimum current carrying capacity.
6. **Quality of insulation** that withstands heat generated in the conductor at the time of passing of current to avoid melting and fusing of insulation. In case of short-circuit or fire, good insulation will make a difference. Good quality insulation protects the wires, spread of fire and smoke.
7. **Resistance of wires** should be so as to carry the electric current safely and is best ensured when the wires are **ISI** and **CE marked**.

### DATA FOR DOMESTIC LOADS

Sr. No.	Items	Load / Wattage	Wire Size Sq. mm
1	Fan	60 W	1
2	Lamp, Tubelight	40 W	1
3	Room Heater	200 W	1.5
4	Water Heater		
	8 Ltrs	1200 - 2000 W	2.5
	15 Ltrs - 35 Ltrs	2000 - 3000 W	4
	60 Ltrs	3000 - 4000 W	6
5	Immersion Heater	1000 W	1.5
6	Hot Plate - Single	1000 W	1.5
7	Iron - Non automatic / automatic	500 W / 1000 W	1.5
8	Mixer / Juicer	300 W	1.5
9	TV / VCR	200 W	1.5
10	Music System	200 W	1.5
11	Refrigerator 165 Ltrs / 285 Ltrs	400 W / 600 W	1.5
	350 Ltrs	750 W	1.5
12	Toaster	500 W	1.5
13	Vacuum Cleaner	400 W	1.5
14	Washing Machine without Heater	300 - 1300 W	2.5
	with Heater	5000 - 6300 W	10
15	Water Cooler	700 W	1.5
16	Desert Cooler	300 W	1.5
17	Oven	750 W	1.5
18	Electric Kettle	1500 W	2.5
19	Air Conditioner	1 ton / 1.5 ton / 2 ton	2.5 / 4 / 4
20	Hair Dryer	1000 W	1.5
21	Microwave	800 W	1.5

#### Formula for Calculations :

Incomer Rating in A :

$$\text{Single Phase} = \frac{\text{Total Load in Watts}}{240 \text{ volts } \cos \phi}$$

$$\text{Three Phase} = \frac{\text{Total Load in Watts}}{\sqrt{3} \times 415 \text{ volts } \cos \phi}$$

$$\sqrt{3} = 1.732$$

$$\cos \phi = 0.8$$

## ESC Flame Retardant House Wires (FR)



ESC Standard wires are FR. Wires are insulated with special grade FR PVC compound which has high oxygen and temperature index. These properties restrict spreading of fire in a very high temperature. It also provides high insulation resistance and dielectric strength. These cables are suitable for conduit and concealed wiring in residential complex, office complex, hospitality industries etc.

These cables are ISI and CE marked and conform to IS 694:2010 and also ensure extra protection against electric shock, short circuit and fire.

### Single Core FLAME RETARDANT (FR) PVC Insulated Unsheathed Flexible Cables Voltage Grade 1100 V, Conforming to IS 694:2010

Nominal Cross Sectional Area of the Conductor	Nos. / Nominal Dia. of Strand	Nominal Thickness of Insulation	Overall Dia Max.	Max. Resistance at 20° C Max.	Current Rating Capacity
Sq. mm	No./(mm)	(mm)	(mm)	Ohm/km	(Amps.)
0.75	24/0.20	0.6	2.80	26.00	7
1.0	32/0.20	0.6	3.00	19.50	12
1.5	30/0.25	0.7	3.40	13.30	16
2.5	50/0.25	0.8	4.10	7.98	22
4.0	56/0.30	0.8	4.80	4.95	29

Color - Red , Yellow , Blue , Black , Green , Gray /on request, other colors can also be provided.

Cable will be supplied in 90m/180m coils.

\*Sequential meter marking on all Coils

### Single Core FLAME RETARDANT (FR) PVC Insulated (Unsheathed) Multi-strand Copper Conductor House Wiring Cable Conforming to IS: 694-2010

Nominal Cross Sectional Area of the Conductor	Nos. / Nominal Dia. of Strand	Nominal Thickness of Insulation	Overall Dia Max.	Max. Resistance at 20° C Max.	Current Rating Capacity of two cables Single phase (Amps.)	
					In Conduit / Trunking	Directly to Surface or on cable tray
Sq. mm	No./(mm)	(mm)	(mm)	Ohm/km		
1.0	14/0.3	0.7	3.20	18.10	11	12
1.5	22/0.3	0.7	3.30	12.10	14	16
2.5	36/0.3	0.8	4.00	7.41	19	22
*4.0	56/0.3	0.8	4.60	4.95	26	29
*6.0	84/0.3	0.8	5.20	3.30	31	37

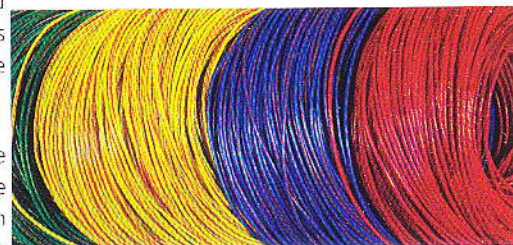
Color - Red , Yellow , Blue , Black , Green , Gray /on request, other colors can also be provided.

\*Falls under conductor class -5 (Flexible) Cable will be supplied 90m/180m coils

\*Sequential meter marking on all Coils

## ESC Flame Retardant Low Smoke and Low Halogen Cables (FR-LSH)

ESC FLAME RETARDANT LOW SMOKE AND LOW HALOGEN (FR-LSH) WIRES are insulated with special type Polymeric Compound having high oxygen and temperature index. This insulation has low smoke emitting and toxic fumes suppressing properties. These cables are ISI & CE marked and conform to IS 694:2010



In case of fire, the ordinary PVC insulation generates dense black smoke which reduces the visibility and the toxic fumes of hydrochloride acid gas, which causes casualties due to the suffocation and inhaling toxic fumes. The properties of low smoke and acid gas generation maintain the visibility and accelerate the evacuation and rescue operation. The cable is suitable for use in high rise buildings, hospital, theaters, schools, and colleges etc. where the density of the people is high.

Characteristics	Functions	Spec.	Typical Value	
			FR-LSH	Non-FR-LSH
Critical Oxygen Index	To determine the % of oxygen required for supporting combustion of insulating material at room temperature	ASTM D-2863	More than 29%	23%
Temperature Index	To determine at what temperature normal oxygen contents of 21% in air will support combustion of insulating material	ASTM D-2863	More than 250°C	150°C
Acid gas generation	What amount of hydrochloric acid gas is evolved from PVC insulation under fire condition	IEC 754-1	More than 20%	45-50%

Nominal Cross Sectional Area of the Conductor Sq. mm	Nos. / Nominal Dia. of Strand No./(mm)	Nominal Thickness of Insulation (mm)	Overall Dia Max. (mm)	Current Rating Capacity (Amps.)	Max. Resistance at 20° C Max. Ohm/km
1.0	14/0.3	0.7	3.20	12	18.10
1.5	22/0.3	0.7	3.30	16	12.10
2.5	36/0.3	0.8	4.00	22	7.41
4.0	56/0.3	0.8	4.60	29	4.95
6.0	84/0.3	0.8	5.20	37	3.30

Color - Red , Yellow , Blue , Black , Green , Gray /on request other colors also can be provided. Cable will be supplied in 90m/180m coils.

## ESC Heat Resistance Flame Retardant (HRFR) Unsheathed Single Core Cable

The insulation of these cables is made from a special grade PVC compound with High oxygen and temperature index. It has got the capacity to withstand high conductor temperature of 85°C to 105°C. Where as normal PVC compound can withstand up to 70°C .

Cables are used in Hotels, High rise buildings, Institutions, multiplex etc and it conforms IS 694:2010.

## ESC Single Core Unsheathed Flexible Cables

Conductors are drawn from 99.96% pure electrolytic grade copper with 100% conductivity, annealed and bunched together. The conductors are insulated with super quality PVC compound with high insulation resistance and electric strength. These cables are ISI and CE marked and conform to IS 694:2010 Cables are suitable for use in industrial wiring, control panels, machineries etc.

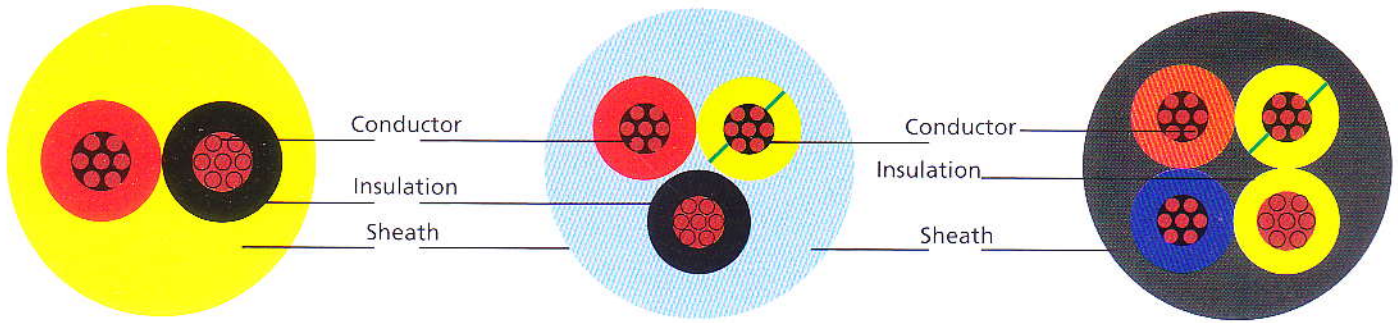
Single Core FLAME RETARDANT (FR) PVC Insulated Unsheathed Cables in Voltage Grade 1100 V, Conforming to IS 694:2010

Nominal Area of Conductor Sq. mm	Number/ Nom Dia. of Wire (mm)	Insulation Thickness Nominal (mm)	Max. Overall Dia. (mm)	Current Carrying as per IS : 3961 (Amps.)	Max. Resistance at 20° C Ohm/Km
10.0	80/4	1.0	7.00	51	1.91
16.0	126/4	1.0	8.10	68	1.21
25.0	196/4	1.2	10.20	86	0.780
35.0	276/4	1.2	11.70	110	0.554
50.0	396/4	1.4	13.90	145	0.386
70.0	560/5	1.4	16.00	215	0.272
95.0	840/5	1.6	18.20	260	0.205
120.0	1120/5	1.6	20.20	305	0.161

\*From 150 sq.mm to 630 sq.mm sizes are available on request.

Color - Red , Yellow , Blue , Black , Green , Gray /on request other colors also can be provided. Cable will be supplied in 100m coils

# ESC Multi-core Sheathed Flexible Cables



Cores of the multi core sheathed cables are made of conductor drawn with electrolytic grade annealed bare, bunched high conductivity copper and insulated with special grade PVC compound of high insulation resistance and dielectric strength. Cores are assembled with outer sheath with specially formulated PVC compound to withstand mechanical abrasion while in use. PVC compound used for insulation and sheathing have got high oxygen and temperature index to prevent fire.

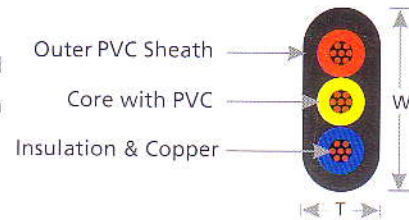
Cables are used in machine tools, appliances, control panels and machineries. Cables are ISI and CE marked and conform to IS 694:2010.

Purpose of Wiring		Flexible		Flexible			Flexible
No. of Cores	Properties	0.5	0.75	1	1.5	2.5	4
Circularly Laid Up Cores	Conductor	16/0.2	24/0.2	32/2	30/2.5	50/2.5	56/0.3
	Ins. Thickness, (nom),mm	0.6	0.6	0.6	0.6	0.70	0.8
	Single core OD (max.),mm	2.6	2.80	3.0	3.4	4.10	4.8
	Cond. Resist, (max.), ohm/km	39.0	26.0	19.50	13.3	7.98	4.95
2 Cores Red, Black	Sheath Thickness, (nom), mm	0.9	0.9	0.9	0.9	1.0	1.0
	Overall dia, (Max), mm	6.9	7.3	7.6	8.9	10.3	11.6
	Current rating DC or single phase AC, amp.	6	9	14	18	24	32
	Voltage drop DC or single phase AC, mV/A/m	93	62	46	32	19	12
3 Cores Red, Black & Yellow Gray	Sheath Thickness, (nom), mm	0.9	0.9	0.9	0.9	1.0	1.0
	Overall dia, (Max), mm	7.3	7.7	8.1	9.4	10.9	12.4
	Current rating DC or single phase AC, amp.	4	7	12	16	22	29
	Voltage drop DC or single phase AC, mV/A/m	102	62	46	32	19	12
4 Cores Red, Yellow Blue & Yellow Green	Sheath Thickness, (nom), mm	0.9	0.9	0.9	1.0	1.0	1.0
	Overall dia, (Max), mm	8.0	8.4	8.8	10.4	12.0	13.6
	Current rating DC or single phase AC, amp.	6	9	14	18	24	32
	Current rating three phase AC	6	9	14	18	20	25
	Voltage drop DC or single phase AC, mV/A/m	102	62	46	32	19	12
	Voltage drop three phase AC	88	54	40	27	16	10

Core Colour - 2 Cores - Red, Black; 3 Cores - Red, Yellow-Green, Black; 4 Cores - Red, Yellow, Blue, Yellow-Green  
 Sheath Colour - Black. Any other colour can be made, as per customer's request. Cable will be supplied in 100m/500m coil/Drums.  
 \*Sequential meter marking on all Coils

## ESC Submersible Cables

ESC 3core flat submersible cables are made with conductor drawn with electrolytic grade annealed bare bunched copper with high conductivity. Conductors are insulated with PVC compound with high insulation resistance and dielectric strength. 3 cores are uniformly laid-up with PVC outer sheath.



Cables are used for submersible pump. These cables are ISI and CE marked and conform to IS 694:2010.

Submersible Flat Cable (Three Core) Voltage Grade 1100 V, Conforming to IS 694:2010

Nominal Area of Conductor	Number / Nom Dia. of Wire	Thickness of PVC Insulation (Nom)	PVC Outer Sheath (Nom)	Max. Resistance Per Km. at 20° C	Max. Overall Dimension (W x T)	Current carrying capacity at 40° C
Sq. mm	mm	mm	mm	Ohms	mm	Amps.
1.5	30/25	0.6	0.90	13.30	10.7 x 5.3	16
2.5	50/25	0.7	1.0	7.98	13.0 x 6.2	22
4.0	56/3	0.8	1.0	4.95	15.3 x 7.1	29
6.0	84/3	0.8	1.10	3.30	19.2 x 8.4	37
10.0	80/4	1.0	1.4	1.91	24.2 x 10.4	51
16.0	126/4	1.0	1.4	1.21	29.0 x 12.4	68
25.0	196/4	1.2	2.0	0.780	36.5 x 15.7	86
35.0	276/4	1.2	2.0	0.554	40.5 x 17.2	110
50.0	396/4	1.4	2.2	0.386	46.5 x 19.3	145

Core Color - Red , Yellow , Blue, Sheath Colour - Black  
Cable will be supplied in 100m coil/500m Drum.

## ESC Co-axial Cables

ESC CO-AXIAL CABLES are widely used today for hi-tech multi-channel cable TV network in high rise buildings, offices, hotels, hospitals, residential complexes etc., & have gained confidence among viewers by delivering quality transmission of pictures and sound.

These cables are made of high conductivity electrolytic grade annealed bare solid copper conductor with special grade polyethylene/gas injected physical foam PE dielectric. Bonded aluminium foil screening in combination with Al. Alloy braiding ensures low loss in signal quality and clear pictures. This makes it ideal for use in tropical conditions.

### Salient Features

- Low attenuation values
- High band width
- Minimum structural return loss
- Moisture proof
- Low loss in signal quality
- Excellent adhesion

Construction Parameters	Unit	RG 59 F	RG 6 F	RG 11 F
Inner Conductor Nom. Dia.	mm	Solid Bare Copper 0.8	Solid Bare Copper 1.02	Solid Bare Copper 1.63
Dielectric Nom. Dia.	mm	Foam PE 3.55	Foam PE 4.57	Foam PE 7.11
Outer Conductor 1st Shield / 2nd Shield / Min. Coverage	%	Bonded Al Tape Al. Alloy Braid 60	Bonded Al Tape Al. Alloy Braid 60	Bonded Al Tape Al. Alloy Braid 60
Jacket Nom. Dia.	mm	PVC (Black) 6.2	PVC (Black) 7.2	PVC (Black) 10.5
Bending radius (Min.)	mm	65	65	75
Electrical Parameters	Unit	RG 59 F	RG 6 F	RG 11 F
Inner Conductor Max. Resi. at 200C	Ohm/100 mtrs.	3.55	2.13	0.84
Nominal Capacitance	pf/mtr.	53	53	53
Characteristics Impedance	Ohm	75	75	75
Nominal Velocity Ratio	%	85	85	85
Attenuation dB/100 Mtrs. (20°C)	Frequency	RG 59 F	RG 6 F	RG 11 F
211	MHz	12.47	9.50	6.23
250	MHz	13.45	10.50	6.72
300	MHz	14.60	11.50	7.38
350	MHz	15.75	12.45	7.94
400	MHz	16.73	13.30	8.53
450	MHz	17.72	14.35	9.02
500	MHz	18.70	14.95	9.51
550	MHz	19.52	15.70	9.97
600	MHz	20.34	16.45	10.43
750	MHz	22.87	18.35	11.97
865	MHz	24.67	19.95	13.05
1000	MHz	26.64	21.45	14.27

Color - Black

Cable will be supplied in 100m coil/300m Drum.



## ESC Telephone Cables

ESC TELEPHONE & SWITCH BOARD CABLES are widely used today for communication in high rise buildings, offices, factories, hotels, hospitals, residential complexes etc. & have gained confidence, support and vast goodwill among users.

Only high conductivity electrolytic grade annealed tinned solid copper conductor with nominal dia. of 0.5, 0.6 & 0.7mm is used for best performance. Suitable for indoor telephone wiring, switch boards and intercoms, these wires are tested at 2000 volts.



### Salient Features

- Low cross-talk
- Low attenuation
- Flame Retardant
- High speed transmission

		Conductor dia : 0.5 mm (nom.) Conductor resistance : 92.20Ω/km (max.) Insulation thickness : 0.2 mm (nom.)		0.6 mm (nom.) 64Ω/km (max.) 0.2 mm (nom.)		0.7 mm (nom.) 45.7Ω/km (max.) 0.28 mm (nom.)					
		S/W S - 113 B		S/W S - 113 C		S/W S - 113 B		S/W S - 113 C		S/W S - 114 B	
Pair	Sheath thickness (min.)	O.D. (max.)	Sheath thickness (min.)	O.D. (max.)	Sheath thickness (min.)	O.D. (max.)	Sheath thickness (min.)	O.D. (max.)	Sheath thickness (min.)	O.D. (max.)	
1	0.6	3.5	0.50	3.5	0.6	3.7	0.50	3.5	0.65	4.3	
2	0.6	5.3	0.65	5.3	0.6	5.6	0.65	5.7	0.65	5.2	
3	0.6	5.6	0.65	5.6	0.6	6.6	0.65	6.2	0.65	6.9	
4	0.6	6.1	0.65	6.1	0.6	7.0	0.65	7.2	0.65	7.9	
5	0.6	6.6	0.65	6.7	0.6	7.6	0.65	7.8	0.65	8.7	
6	0.6	6.8	0.65	6.8	0.6	7.8	0.65	7.8	0.65	9.2	
10	0.6	8.6	0.75	9.0	0.6	9.1	0.75	10.0	0.75	10.4	
15	0.75	10.1	0.75	10.4	0.75	10.7	0.75	10.8	0.75	12.3	
20	0.75	11.2	0.75	11.5	0.75	11.7	0.75	11.8	0.90	14.0	
25	0.75	11.4	0.75	11.5	0.75	12.7	0.75	12.0	0.90	15.4	
30	0.75	12.6	0.75	12.7	0.85	13.2	0.90	13.5	1.0	16.9	
40	0.90	15.0	0.90	16.0	1.1	16.2	1.1	16.2	1.1	17.1	
50	1.1	16.2	1.1	16.2	1.1	18.3	1.1	18.5	1.1	21.2	
75	1.1	18.3	1.1	19.6	1.3	21.1	1.3	21.1	1.4	26.1	
100	1.4	22.8	1.4	23.0	1.4	24.6	1.4	24.6	1.8	28.6	
200	1.8	32.4	1.8	33.0	1.8	35.6	1.8	35.6	-	-	

Color - Gray

Normal delivery length : 100 mtrs upto 20 pair.

## ESC CCTV Cables

ESC CCTV Cable are generally offered in 3+1 and 4+1 variants but as per the requirement can be supplied in variants up to 8+1.

These cables are designed to transmit the complete video frequency range with minimum distortion or attenuation for security and surveillance.

These cables consist of a set of 3 or 4 power cores and a screened core for video signaling and overall covered with a polyester tape and sheathed with PVC.



### Power Core:-

**Conductor:-** The central conductor is made of fine Annealed Bare Copper wires that offers better flexibility and reduced bending radius.

**Insulation:-** Insulation provided over the conductor is of PVC with high dielectric strength

### Screened Core For Video Signal:-

**Conductor:-** Conductor is of a solid Annealed Bare Copper wire

**Insulation:-** The insulation provided over the conductor is of HDPE with high dielectric strength and low capacitance.

**Screen:-** Screening is with aluminum alloy with 85% coverage.

**Sheath:-** Black covered PVC.

**Outer Sheath:-** Both the power core and screened core are covered with a polyester tape and then sheathed with PVC.

**Cable Color:-** White



## ESC Speaker Cables

ESC Speaker cables are used in connecting speaker and public address system for clean and distortion free voice with low db loss.

### Construction:-

The cables are manufactured with bright annealed flexible electrolytic grade copper conductor, bunched compactly and insulated with specially formulated PVC compound. Each core is designed for easy identification and in order to offer uniform capacitance throughout length. The distance between the conductors is maintained uniformly.

**Color:-** Transparent with orange tracer for polarity identification.

**Packing:-** Available in 90 meter coil length.

### Design Parameters:-

Conductor Construction Area (Sq. mm)	Nominal Cross Sectional Area (Sq. mm)	Max. DC Conductor Resistance at 20° C (o/km)	Maximum Overall Dimensions (W X H) (mm)
16/0.2	0.5	39.0	5.20 X 2.6
24/0.2	0.75	26.0	5.60 X 2.8
32/0.2	1	19.5	6.00 X 3.0
30/0.25	1.5	13.3	6.60 X 3.3
50/0.25	2.5	7.98	8.00 X 4.0
56/0.3	4	4.95	9.60 X 4.8

### Recommended Length

Cross Sectional Area (Sq. mm)	2Ω load	4Ω load	6Ω load	8Ω load
0.50	3ft (0.9m)	6ft (1.8m)	9ft (2.7m)	12ft (3.6m)
0.75	5ft (1.5m)	10ft (3m)	15ft (4.5m)	20ft (6m)
1	8ft (2.4m)	16ft (4.9m)	24ft (7.3m)	32ft (9.7m)
1.5	12ft (3.6m)	24ft (7.3m)	36ft (11m)	48ft (15m)
2.5	20ft (6.1m)	40ft (12m)	60ft (18m)	80ft (24m)
4	30ft (9.1m)	60ft (18m)	90ft (27m)	120ft (36m)

# ESC Multi core ATC Screened And Shielded Cables



ESC cables are manufactured by high speed machinery with latest technology, The Company manufactures shielded cables with annealed electrolytic tinned copper and insulate the cables with special grade PVC compound in different colours. The cores are twisted and carefully laid. The laid cores are also wrapped with high quality polyester and aluminum tape. The bunched core are then covered with the uniform shielding/braiding with the help of high speed computerised braiding machines. The shielding is done normally with the annealed electrolytic tinned copper. The shielded cable is then covered with high quality polyester tape. The screened cores are finally sheathed with the high quality PVC. PVC compound used for sheathing have got high oxygen and temperature index to prevent fire.

ESC shielded cables are specially recommended for digital scientific instruments, electronic equipment and automation products. These cables are used for transfer signal from control panels to the drive. These cables are also used for wiring in high density public places and fire prone area for critical installations.

Purpose of Wiring		Flexible		Flexible			Flexible
No. of Cores	Properties	0.5	0.75	1.0	1.5	2.50	4
Circularly Laid Up Cores	Conductor	16/0.2	24/0.2	32/0.2	30/.25	50/.25	56/0.3
	Ins. Thickness, (nom),mm	0.6	0.6	0.6	0.6	0.70	0.8
	Single core OD (max.),mm	2.6	2.8	3.0	3.4	4.10	4.8
	Cond. Resist, (max.), ohm/km	39.0	26.0	19.5	13.3	7.98	4.95
2 Cores Red, Black	Sheath Thickness, (nom), mm	0.9	0.9	0.9	0.9	1	1
	Overall dia, (Max.), mm	6.9	7.3	7.6	8.9	10.3	11.6
	Current rating DC or single phase AC, amp.	6	9	14	18	24	32
	Voltage drop DC or single phase AC, mV/A/m	93	62	46	32	19	12
3 Cores Red, Black & Yellow Gray	Sheath Thickness, (nom), mm	0.9	0.9	0.9	0.9	1	1
	Overall dia, (Max.), mm	7.3	7.7	8.1	9.4	10.9	12.4
	Current rating DC or single phase AC, amp.	4	7	12	16	22	29
	Voltage drop DC or single phase AC, mV/A/m	102	62	46	32	19	12
4 Cores Red, Yellow Blue & Yellow Green	Sheath Thickness, (nom), mm	0.9	0.9	0.9	1	1	1
	Overall dia, (Max.), mm	8.0	8.4	8.8	10.4	12.0	13.6
	Current rating DC or single phase AC, amp.	6	9	14	18	24	32
	Current rating three phase AC	6	9	14	18	20	25
	Voltage drop DC or single phase AC, mV/A/m	102	62	46	32	19	12
	Voltage drop three phase AC	88	54	40	27	16	10

Core Colour - 2 Cores - Red, Black; 3 Cores - Red, Yellow-Green, Black; 4 Cores - Red, Yellow, Blue, Yellow-Green  
 Sheath Colour - Black. Any other colour can be made, as per customer's request. Cable will be supplied in 100m/500m Coil/Drum.  
 \*Sequential meter marking on all Coils

## Application

- Used in the connections in control panels.
- For signal transfer from control panels to the drives.
- Wiring in high density critical installations in public places and fire prone area.
- For electric control circuits.

## Product Advantages

- Manufactured from bright annealed 99.96% pure copper.
- Screening is done up to 95% coverage as per customer requirement.
- Extremely robust and resistant to tensile stress due to the thick & soft PVC, TPR Jacket.
- Better mechanical strenght with flexibility due to proper annealed copper conductor used.
- Tinned coated shielding is also there for better soldering connections.

## List of some major clients



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**CABLES**