



khushiyon Ka  
*Connection*



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# Electrifying the future

An  
AXELON GROUP  
PRODUCT

MASTER CATALOGUE 2020

## This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

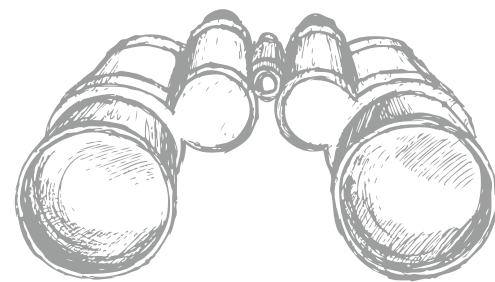


With a deep rooted dynamism and dedication toward achieving the goal. Axelon Group has a team of experienced, astute and technically expert directors who are holding the bastion of excellence with the ir shared focussed energy helping the group finding its firm presence in the industry. After pioneering the brass manufacturing industry, this value driven family owned organization with a team of professionally qualified techno crafts, with its state-of-the-art technology infrastructure and innovative approach is foraying in to electrical segment with vast range of products starting from House Wires, Single Core Flexibles, Multicore Flexibles, Submersible Cables, Auto Cables, Panel Wires and much more. The aim is to once again set the yard stick of quality, highest customer satisfaction and integrity through ingenious product solutions.



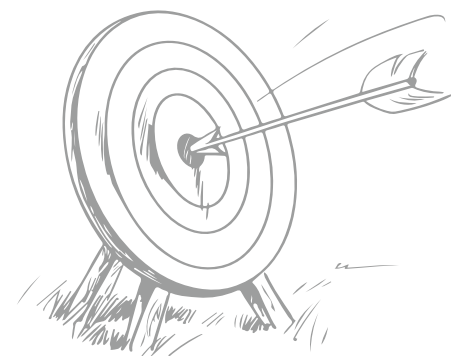
## VISION

Keeping the legacy of excellence in the hind sight, the group aims to explore uncharted territories with the courage to conquer them and wish to embark on a path of continuous evolution through innovation and up gradation in products, services and processes.



## MISSION

The strength of the group lies in the prudence and vision of its founders. Steered by their astute wisdom the group aims to build and identity of a company driven by technology and fortified by the values of reliability, quality, integrity and customer-satisfaction who is equally conscious and accountable towards physical and mental wellbeing of its people and stake holders. The group aims to foster a liberating work culture where sharing of knowledge and ideas lead to mutual growth.



## CORE VALUES

After spending three decades in the industry and earning respect, trust and loyalty from the esteemed customers, the group wishes to reinforce them in a bigger and better way by going extra mile in building strong and longstanding with both its people and clients.



## INFRASTRUCTURE

In a bid to establish Axelon as a product at par in the field of electric wires & cables, the group has not left any stone unturned in establishing an infrastructure par excellence. To ensure that products bearing the brand identity of Axelon should also bear the hallmark of superior quality and reliability, it has employed the best in class machineries and technology from GERMANY. As a emerging brand, ready to keep pace with changing technology and product specifications, the machinery and processes are designed and implemented in a way that they can be altered to adapt as per the new technology and customization requirements. With such a flexible infrastructure, Axelon does not have to suffer huge production expenses resulting in competitive and best in the industry rates of its products.

Covering and catering diverse set of industries like Telecom, Electrical, Automotive and Household Appliances, Axelon Wires & Cables offer multiple solutions encompassing gamut of applications.

**Production Facility Spread Over**

**2,00,000** sq. ft in Jamnagar, Gujarat



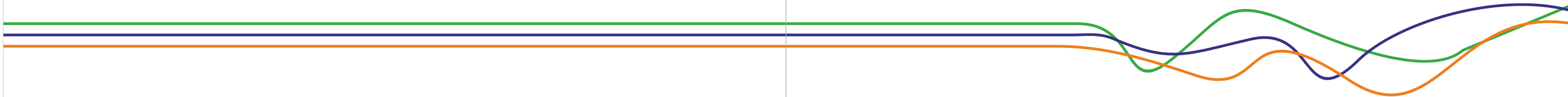




## QUALITY CONTROL LAB

To assure best quality products that not only meet but exceed customer expectations is Axelon's prime forte. At Axelon, we believe in focusing on consistent delivery of best results and to achieve this we ensure to have all necessary equipment in possession with our quality control laboratory. These equipment are of best international standard that caters to all quality requirements for electrical industry.

Tensile Tester | Limiting Oxygen Index | Halogen Acid | Smoke Density Kelvin Double Bridge  
Water Bath & Million Megohm Meter | Motorise Elongation Machine | Flammability Chamber  
Ageing Oven | Thermal Stability | Cooling Chamber | High Voltage  
Profile Projector | Dc High Voltage







## TRANSMITTING JOY THROUGH CUTTING EDGE TECHNOLOGY

From the first spark that amazed the mankind about the potential it held to the actual discovery of the electricity that changed the course of human evolution and civilization, electricity or power plays an irreplaceable role in our lives today. Imagine a life without a phone or a imagine workspaces without computers, inarguably we can say that today power empowers the progress of society and nation.

Almost invisible yet significant, we ought to thank the Wires or Cables who keep us connected with pace & happiness of life by transmitting the electricity in our homes, in our offices and almost everywhere we go. Connecting lanes, Cities, States & Nation and World, wire is like a lifeline for the existence of human race helping it perform wonders and switching on a whole new world of possibilities. And yet such a pivotal part of our life mostly goes unnoticed due to lack of understanding about its attributes. For an end user, it is just a wire not understanding 'Why this wire' or 'Why here'. These questions are unanswered as they are never asked jeopardizing the safety of our homes & important places. It is very important to choose a right wire as per its specification and according to its application that help a great deal in both saving and ensuring safety. Because it is not just a wire, it is a link to the prosperity, peace, and progress that surpasses beyond regional, national & global boundaries, connecting us all to ultimate HAPPINESS.

## GATEWAY TO SAFE AND HAPPY LIFE STYLE

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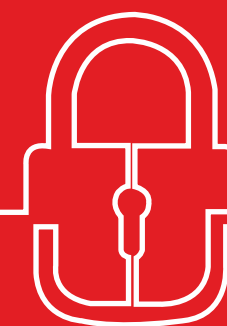
Connections are called the enabler of success and happiness. It is a core philosophy that we are striving to deliver through Axelon. We strive to deliver the best possible experience for each and every customer who has made Axelon – an integral part of his or her life. Knitting all ends together of various transactions in our lives is a reflection of happiness. Come, let's create boundary-less Happy Connections across the Globe.

## A SAFE CHOICE... THAT SMART INDIA MAKES!

And that's Axelon Wires & Cables. For us, wires & cables are not just a mean to provide you a supply of electricity, expediting your work or need. From the moment you switch on Lamp or a fan or AC or WI-FI, we connect you with your dream to move ahead.

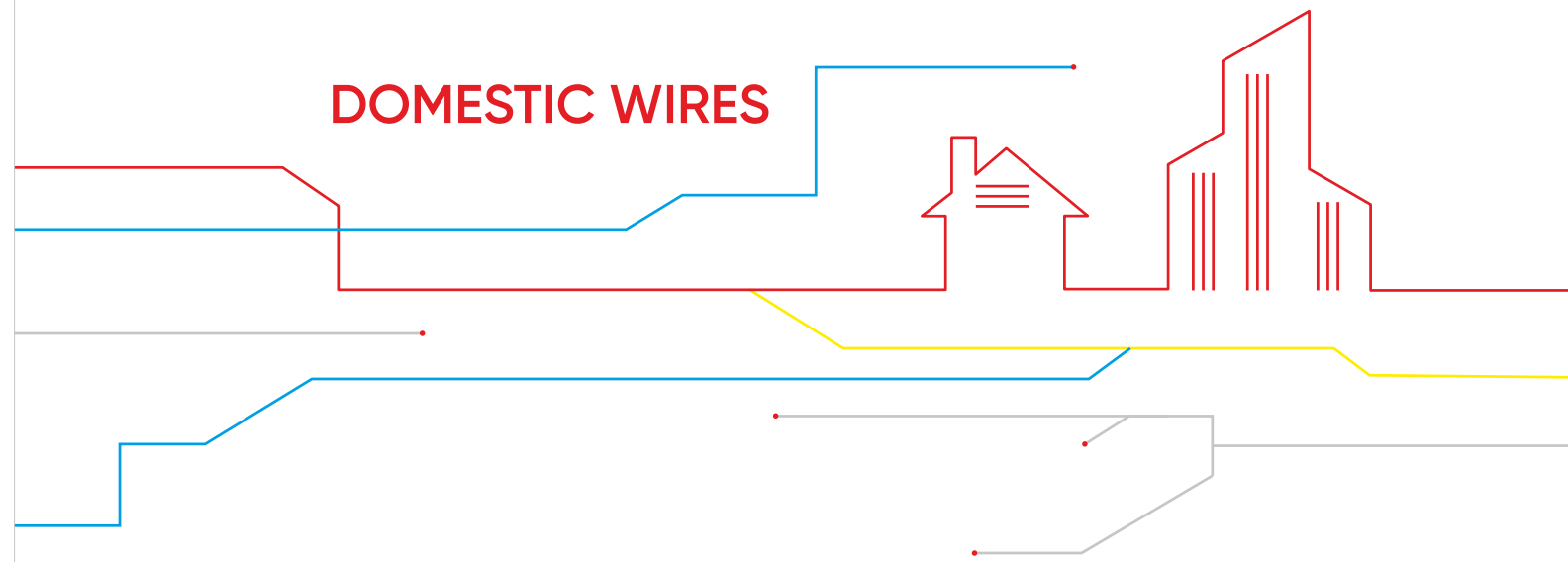
Imbibing the philosophy of moving ahead, Axelon Wires & Cable portrays very contemporary spirit both in its design and engineering. Confirming to its performance characteristics and defined criteria, Axelon Wires & Cables also score high in terms of its aesthetic elegance. To make sure that Axelon Wires & Cables are not mere mean to connect you with convenience of electricity, Axelon Wires & Cables brings with it a team of designers, engineers, fabricators and other skilled professionals who beautifully combines beauty with practicality that not just switch on the appliances but illuminates your homes or offices with elegance and promise of absolute safety.

Residences or recreational center, schools or shops the comprehensive range of Axelon Wires & Cables comes with the authentic and valid certifications ensuring flawless and faultless performance.





## DOMESTIC WIRES



## ELECTRIFYING THE FUTURE



**ACE**  
FLAME RETARDANT  
LEAD FREE  
(FR LF)

**BESTO**  
FLAME RETARDANT  
LOW SMOKE HALOGEN  
(FR-LSH)

**SUPRIMO**  
HALOGEN FREE  
FLAME RETARDANT  
(HFFR)

**MAGNUM**  
HEAT RESISTANCE (105°C)  
EQUILAY CONDUCTOR



FLAME RETARDANT LEAD FREE (FR LF)

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Conductor :** The conductors, drawn from bright 100% electrolytic grade copper are annealed and bunched together on latest GERMAN MACHINES


**Insulation :** The conductors are insulated with specially formulated FR pvc compound with a high insulation resistance value. The insulation process is carried out on modern high speed extrusion lines, which ensures high accuracy and consistency in performance. Flame retardant properties enable the cable to withstand overloads. The insulation is resistant to boiling water, steam and vapours. This prevents ageing and cracking in kitchens, bathrooms, damp walls and chemical industries.


**Marking :** The cables are printed with generic marking “AXELON ACE FR LF”


**Colours :** Red, Yellow, Blue, Green, Black, Yellow / Green, Grey, White. Other Colors Available On Request.


**Packing :** Packing 90 meters / 180 meters / 270 meters / 100 yards.


Unique Features :


- 

TEMP INDEX  
250°C at 21% O<sub>2</sub>
- 

101% Cu  
CONDUCTIVITY
- 

≥ 30%  
OXYGEN INDEX
- 

100%  
BUNCHED COPPER
- 

HIGH HEAT  
RESISTANCE
- 

100% ELECTROLYTIC  
COPPER



Size Dimensions and Ratings

SINGLE CORE UNSHEATHED CABLES IN VOLTAGE GRADE 1.1 KV AS PER IS : 694

Nominal Cross Sectional Area of Conductor	Number/Nom. Dia of Wires (Nom.)	Thickness of Insulation (Nom.)	Overall Diameter Max.	Current Capacity #2 Cables Single Phase Ac or Dc		D.C. Resistance (Max.) at 20°c
				In Conduit / Trunking	Unenclosed-clipped directly to surface or on cable tray	
Sq. mm	Number / mm	mm	mm	Amps	Amps	Ohm / km
0.75	24/0.20**	0.60	2.35	8.00	8.000	26.00
1.00	14/0.30*	0.70	2.75	11.00	12.00	18.10
1.50	22/0.30*	0.70	3.00	14.00	17.00	12.10
2.50	36/0.30*	0.80	3.70	19.00	22.00	7.41
4.00	56/0.30**	0.80	4.10	26.00	30.00	4.95
6.00	84/0.30**	0.80	4.60	32.00	37.00	3.30

# As per IS 3961 (PART V) - 1968. The Number & diameter of conductor strands are for reference only and governed by conductor resistance.  
The above data is indicative only and may be revised without prior information. Axelon will not be responsible for any damages arising out of incorrect application of its product.  
\* As per conductor class 2 of IS:8130/1984 | \*\* As per conductor class 5 of IS:8130/1984

FLAME RETARDANT LOW SMOKE HALOGEN (FR-LSH)

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Conductor :** The conductors, drawn from bright electrolytic grade copper are annealed and bunched together on latest GERMAN MACHINES


**Insulation :** The bunched conductors are insulated with specially formulated flame retardant low smoke compound. During a fire situation, the FR-LSH compound restricts the spread of flame. The smoke emission is also minimal.


**Marking :** The cables are printed with generic marking “AXELON BESTO FR-LSH”


**Colours :** Red, Yellow, Blue, Green, Black, Yellow / Green, Grey, White. Other Colors Available On Request.


**Packing :** Packing 90 meters / 180 meters / 270 meters / 100 yards.


Unique Features :


- 


HALOGEN  
ACID ≤15%
- 


TEMP INDEX  
250°C at 21% O<sub>2</sub>
- 

101% Cu  
CONDUCTIVITY
- 

≥ 30%  
OXYGEN INDEX
- 

100% BUNCHED  
COPPER
- 

SMOKE DENSITY  
RATING ≤40%
- 

HIGH HEAT  
RESISTANCE
- 

100% ELECTROLYTIC  
COPPER



Size Dimensions and Ratings

SINGLE CORE UNSHEATHED CABLES IN VOLTAGE GRADE 1.1 KV AS PER IS : 694

Nominal Cross Sectional Area of Conductor	Number/Nom. Dia of Wires (Nom.)	Thickness of Insulation (Nom.)	Overall Diameter Max.	Current Capacity #2 Cables Single Phase Ac or Dc		D.C. Resistance (Max.) at 20°c
				In Conduit / Trunking	Unenclosed-clipped directly to surface or on cable tray	
Sq. mm	Number / mm	mm	mm	Amps	Amps	Ohm / km
0.75	24/0.20**	0.60	2.35	8.00	8.00	26.00
1.00	14/0.30*	0.70	2.75	11.00	12.00	18.10
1.50	22/0.30*	0.70	3.00	14.00	17.00	12.10
2.50	36/0.30*	0.80	3.70	19.00	22.00	7.41
4.00	56/0.30**	0.80	4.10	26.00	30.00	4.95
6.00	84/0.30**	0.80	4.60	32.00	37.00	3.30

# As per IS 3961 (PART V) - 1968. The Number & diameter of conductor strands are for reference only and governed by conductor resistance.  
The above data is indicative only and may be revised without prior information. Axelon will not be responsible for any damages arising out of incorrect application of its product.  
\* As per conductor class 2 of IS:8130/1984 | \*\* As per conductor class 5 of IS:8130/1984



SUPRIMO



HALOGEN FREE FLAME RETARDANT (HFFR)

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Conductor :** The conductors, drawn from bright electrolytic grade copper are annealed and bunched together.

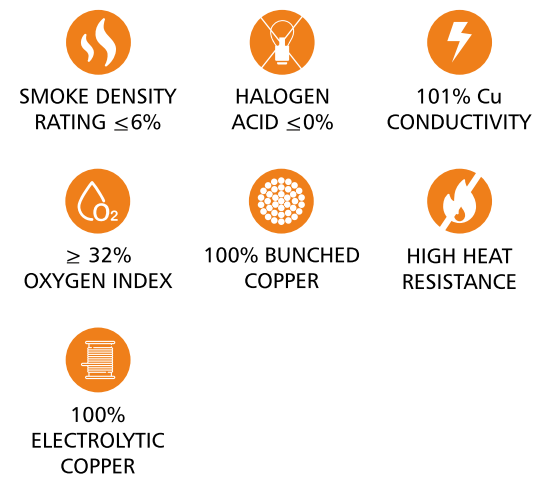
**Insulation :** The bunched conductors are insulated with specially formulated grade of Halogen Free Flame Retardant (HFFR) compound in used. The insulation does not melt in case of fire. The smoke emitted is transparent, non-toxic and minimal. The victims trapped in the fire do not suffocate and evacuation is convenient.

**Marking :** The cables are printed with generic marking “AXELON SUPRIMO HFFR”

**Colours :** Red, Yellow, Blue, Black, Green, Grey & White. Other Colors Available On Request.

**Packing :** Packing 90 meters / 180 meters / 270 meters / 100 yards.

Unique Features :



Size Dimensions and Ratings

SINGLE CORE UNSHEATHED CABLES IN VOLTAGE GRADE 1.1 KV AS PER IS : 694

Nominal Cross Sectional Area of Conductor	Number/Nom. Dia of Wires (Nom.)	Thickness of Insulation (Nom.)	Overall Diameter Max.	Current Capacity #2 Cables Single Phase Ac or Dc		D.C. Resistance (Max.) at 20°C
				In Conduit / Trunking	Unenclosed-clipped directly to surface or on cable tray	
Sq. mm	Number / mm	mm	mm	Amps	Amps	Ohm / km
0.75	24/0.20**	0.60	2.35	8.000	8.000	26.00
1.00	14/0.30*	0.70	2.75	11.00	12.00	18.10
1.50	22/0.30*	0.70	3.00	14.00	17.00	12.10
2.50	36/0.30*	0.80	3.70	19.00	22.00	7.41
4.00	56/0.30**	0.80	4.10	26.00	30.00	4.95
6.00	84/0.30**	0.80	4.60	32.00	37.00	3.30

# As per IS 3961 (PART V) - 1968. The Number & diameter of conductor strands are for reference only and governed by conductor resistance. The above data is indicative only and may be revised without prior information. Axelon will not be responsible for any damages arising out of incorrect application of its product.  
\* As per conductor class 2 of IS:8130/1984 | \*\* As per conductor class 5 of IS:8130/1984

An  
AXELON GROUP  
PRODUCT 14

MAGNUM



HEAT RESISTANCE (105°C) EQUILAY CONDUCTOR

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Conductor :** Thin strands of electrolytic copper are multi-drawn for uniformity of resistance, dimension and flexibility. The drawn strands are equilaid with high precision and compacted. Thus forming a perfectly circular conductor which enables reduction in overall diameter for space saving in high density wiring.

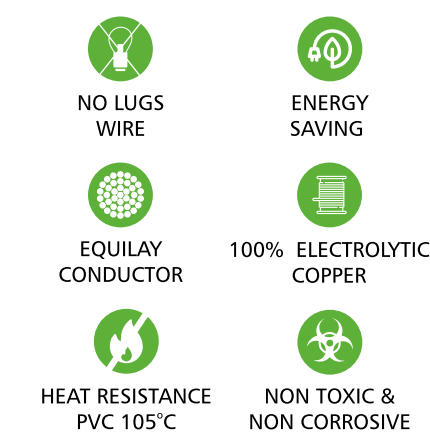
**Insulation :** Specially formulated 105 Degrees heat resistant & flame retardant PVC insulation is used. The HR FR property retards the propagation of flame without compromising safety

**Marking :** The cables are printed with generic marking “AXELON MAGNUM EQUILAY”

**Colours :** Red, Yellow, Blue, Green, Black, Yellow/green, Grey, White. Other Colors Available On Request.

**Packing :** Packing 90 meters / 180 meters / 270 meters / 100 yards.

Unique Features :



DIAMOND  
EDGE TECHNOLOGY



Size Dimensions and Ratings

SINGLE CORE UNSHEATHED CABLES IN VOLTAGE GRADE 1.1 KV AS PER IS : 694

Nominal Cross Sectional Area of Conductor	Number/Nom. Dia of Wires (Nom.)	Thickness of Insulation (Nom.)	Overall Diameter Max.	Current Capacity #2 Cables Single Phase Ac or Dc		D.C. Resistance (Max.) at 20°C
				In Conduit / Trunking	Unenclosed-clipped directly to surface or on cable tray	
Sq. mm	Number / mm	mm	mm	Amps	Amps	Ohm / km
1.00	19/0.30*	0.70	2.70	14.00	15.00	19.5
1.50	19/0.33*	0.80	3.10	17.00	19.00	13.3
2.50	37/0.30*	0.80	3.70	22.00	26.00	7.98
4.00	37/0.37*	0.90	4.30	30.00	34.00	4.95

# As per IS 3961 (PART V) - 1968. The Number & diameter of conductor strands are for reference only and governed by conductor resistance. The above data is indicative only and may be revised without prior information. Axelon will not be responsible for any damages arising out of incorrect application of its product.  
\* As per conductor class 2 of IS:8130/1984

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AXELON GROUP  
PRODUCT 15





## SINGLE CORE AND MULTICORE CABLES



### FLEXIBLES - SINGLECORE - PANEL WIRE



#### SINGLE CORE FLEXIBLE CABLES - PANEL WIRE

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Applications :** These wires/cables are used for wiring in control panels, machines and various electrical installations in dry and damp interiors especially under typical industrial environmental conditions.

**Insulation :** The conductors are insulated with specially formulated FR pvc compound with a high insulation resistance value. The insulation process is carried out on modern high speed extrusion lines, which ensures high accuracy and consistency in performance. Flame Retardant properties enable the cable to withstand overloads. The insulation is resistant to boiling water, steam and vapours. This prevents ageing and cracking in kitchens, bathrooms, damp walls and chemical industries.

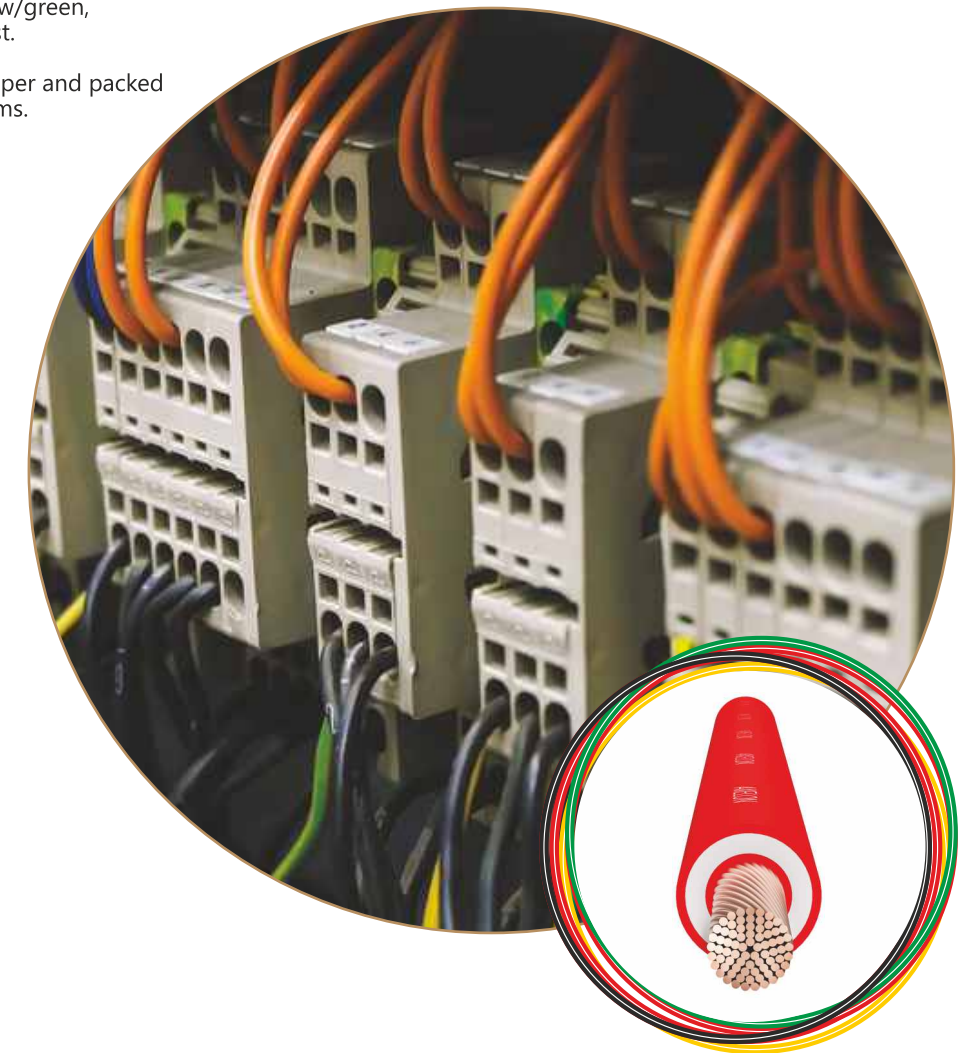
**Marking :** The cables are printed with generic marking **ACE - FR - LF**

**Colours :** Red, Yellow, Blue, Green, Black, Yellow/green, Grey, White. Other Colors Available On Request.

**Packing :** 100 mtr coils packed in Plastic Wrapper and packed in protective cartons, 500 mtrs in wooden drums.

#### Unique Features :

- 101% Cu CONDUCTIVITY
- > 30% OXYGEN INDEX
- 100% BUNCHED COPPER
- HIGH HEAT RESISTANCE
- 100% ELECTROLYTIC COPPER
- NO INVISIBLE HAIRLINE FRACTURE
- MAXIMUM STRETCHABILITY
- LOW BENDING RADIUS



#### Cable Structure : Single Core Flexibles

Features	FR	FRLS	HFFR
Type of insulation	70°C / 105°C Heat Resistant PVC	Flame Retardant Low Smoke (FRLS)	Halogen Free (HFFR)
Type of Applications	Wiring of panels for use in high ambient temperature	Wiring in High density critical installations in public places and fire prone areas	Wiring in high density critical installations in public places and vicinity of electronic systems
Applications Standards	IS-694, BS 6004, IEC 60227, DIN VDE-0281-3	IEC 60332-1, BS 4066-1, EIC-60754-1, ASTM-D-2843, ASTM-D-2863	IEC 60332-1&3, BS 4066-1&3, IEC 60754-1&2, ASTM-D-2563, BS 7211, DIN VDE-0282-9

FLEXIBLES - SINGLECORE - PANEL WIRE



SINGLE CORE FLEXIBLE CABLES - PANEL WIRE

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

Size Dimensions and Ratings

Nominal Cross Sectional Area of Conductor	Number/Nom. Dia of Wires* (Nom.)	Thickness of Insulation (Nom.)	Overall Diameter Max.	Current Rating Casing	D.C. Resistance (Max.) at 20°c
Sq. mm	Number / mm	mm	mm	Amps	Ohm / km
0.50	16/0.20	0.60	2.600	4.00	39.00
0.75	24/0.20	0.60	2.800	7.00	26.00
1.00	32/0.20	0.60	3.000	12.00	19.50
1.50	30/0.25	0.60	3.800	16.00	13.30
2.50	50/0.25	0.70	4.000	22.00	7.980
4.00	56/0.30	0.80	4.800	29.00	4.950
6.00	84/0.30	0.80	6.400	37.00	3.300
10.00	80/0.40	1.00	6.300	51.00	1.910
16.00	126/0.40	1.00	7.400	68.00	1.210
25.00	196/0.40	1.20	9.100	86.00	0.780
35.00	276/0.40	1.20	10.30	110.0	0.554
50.00	396/0.40	1.40	12.20	145.0	0.386
70.00	354/0.50	1.40	14.10	215.0	0.272
95.00	484/0.50	1.60	16.40	260.0	0.206
120.00	608/0.50	1.60	18.00	305.0	0.161
150.00	750/0.50	1.80	20.10	355.0	0.129
185.00	925/0.50	2.00	22.30	415.0	0.106
240.00	1210/0.50	2.20	25.20	500.0	0.0801
300.00	1520/0.50	2.40	28.50	585.0	0.0641

\*The number & diameter of conductor strands are for reference only and governed by conductor resistance.  
The above data is indicative only, and may be revised without prior information. Axelon will not be responsible for any damages arising out of incorrect application of list product.  
'As per IS:3961 (Part V)-1968'

Multicore Flexibles

Type of insulation	Type of Sheathing	Applicable Standards	Typical Applications
Standard PVC	Standard PVC, HRPVC	IS 694, BS 6500, IEC 60227, DIN VDE-0281	Power Cords for appliance, temporary power supplies. 3 core flat cables are suitable for submersible pump applications
Heat Resistant PVC up to 105°c	Standard PVC, HRPVC	IS 694, BS 6500, IEC 60227, DIN VDE-0281	Hi-power appliances, ovens, temporary power supply in higher temperature areas.
Standard PVC of FRLS	FRLS (Flame Retardant Low Smoke)	IS 694, BS 6500, IEC 60227, DIN VDE-0281, IEC 60754-1, IEC 60332-1, BS-4066-1, ASTM D 2843, ASTM D-2863	Power cords for application used in fire prone areas, flame proof equipments, machine tools used in critical locations and heat zones.

MULTI CORE



MULTICORE FLEXIBLE CABLES

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Conductor** : EC Grade Annealed Copper With High Flexibility Class 5 And Uniform Resistance Properties.

**Insulation** : All Insulation Grades in PVC exceeds the requirements as Stated in **IS 5831**. All Grades Of Insulation Are "RoHS" Compliant With 70° C And 85° C Rating

**Marking** : The cables are printed with generic marking **AXELON**

**Insulation Colours** : Red, Yellow, Blue, Green, Black, Yellow / Green, Grey, White. Other Colors Available On Request.

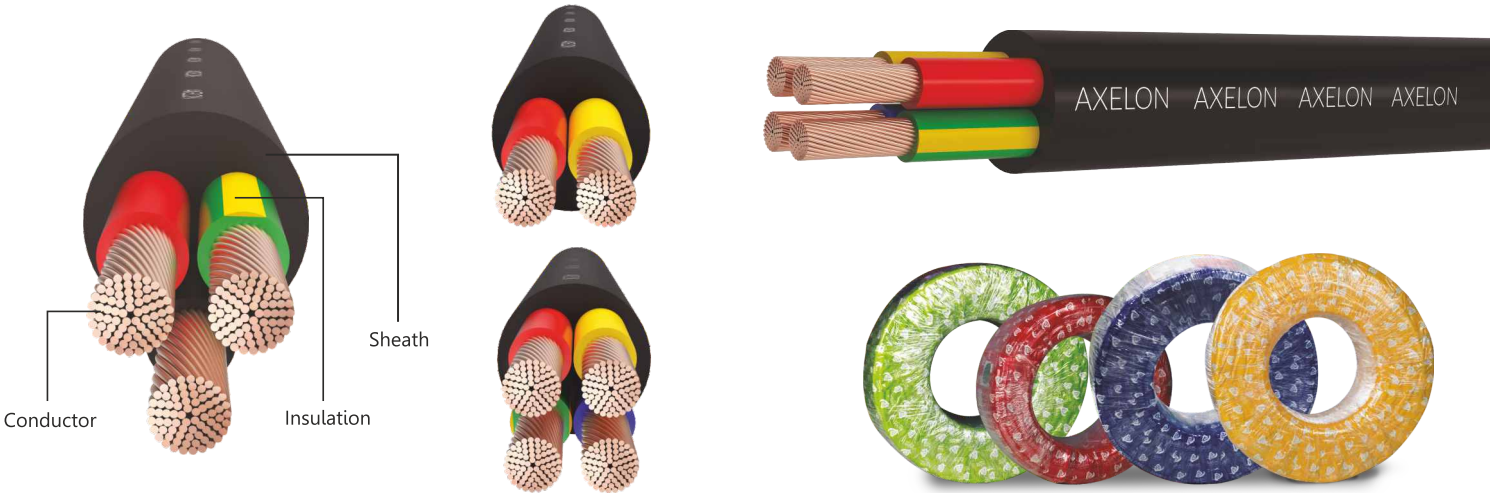
**Sheath Colours** : Black, Blue, White, Grey. Others colours available on Request.

**Packing** : Standard packing of 100 mtr. in coils. Longer length available on request

Size Dimensions and Ratings

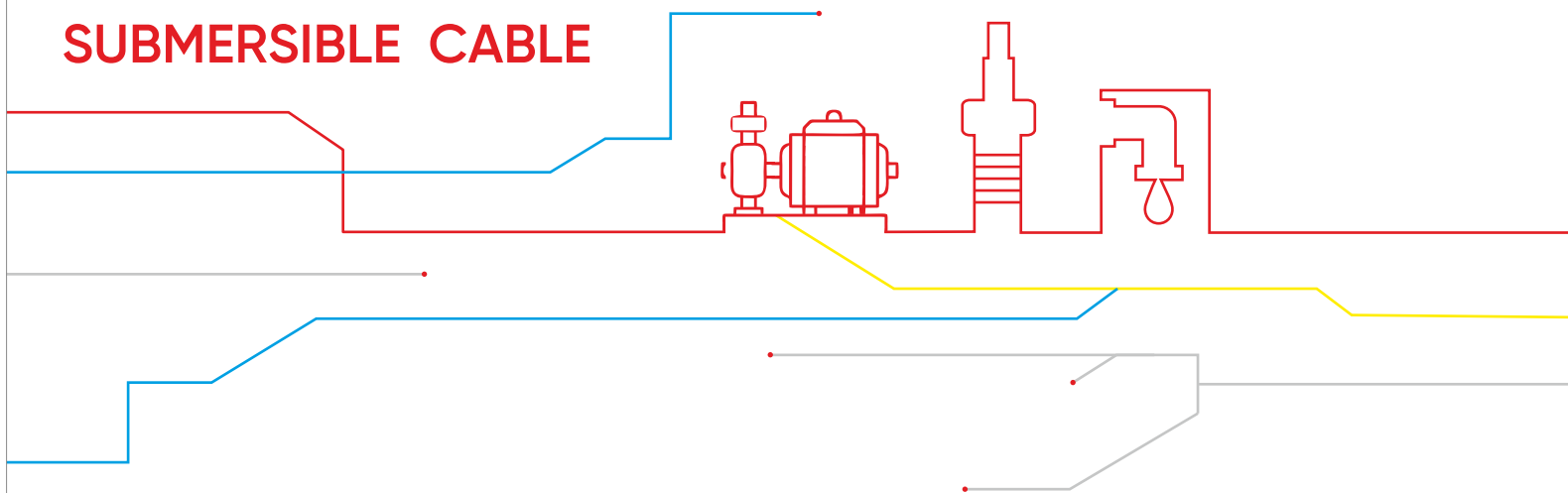
Size	No/Nominal Dia of Conductor strands*	Nominal Insulation Thickness (mm)	Nominal THICKNESS OF SHEATH				Approx. Overall diameter					Voltage /Amp per mtr.		Max. D.C. Conductor Resistance at 20°C
			2 CORE	3 CORE	4 CORE	5 CORE	2 CORE	3 CORE	4 CORE	5 CORE	Current Rating	DC or single phase AC	3 Phase AC	
Sq. mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	amps	mv	mv	ohms
0.50	16/0.20	0.60	0.90	0.90	0.90	0.90	6.90	7.30	8.00	8.70	4.0	83.0	72.0	39.00
0.75	24/0.20	0.60	0.90	0.90	0.90	0.90	7.30	7.70	8.40	9.20	7.0	56.0	48.0	26.00
1.00	32/0.20	0.60	0.90	0.90	0.90	1.00	7.60	8.10	8.80	9.60	11.0	43.0	37.0	19.50
1.50	30/0.25	0.60	0.90	0.90	1.00	1.00	8.90	9.40	10.4	11.4	14.0	31.0	26.0	13.30
2.50	50/0.25	0.70	1.00	1.00	1.00	1.00	10.3	10.9	12.0	13.2	19.0	18.0	16.0	7.980
4.00	56/0.30	0.80	1.00	1.00	1.00	1.10	11.6	12.4	13.6	15.3	26.0	11.0	9.60	4.950
6.00	84/0.30	0.80	1.10	1.20	1.20	-	13.0	13.8	15.5	-	33.0	7.30	6.00	3.300
10.00	141/0.30	1.00	1.30	1.40	1.40	-	16.5	17.7	19.5	-	45.0	4.40	3.50	1.910
16.00	226/0.30	1.00	1.40	1.40	1.40	-	19.4	20.6	23.0	-	60.0	2.80	2.20	1.210
25.00	196/0.40	1.20	1.40	1.50	1.60	-	23.8	25.6	28.5	-	75.0	0.20	1.40	0.780
35.00	276/0.40	1.20	1.60	1.60	1.70	-	27.2	29.3	32.7	-	95.0	0.20	1.00	0.554
50.00	396/0.40	1.40	2.00	2.00	2.00	-	32.0	34.6	38.6	-	125.0	0.20	0.80	0.386
70.00	360/0.50	1.40	2.20	2.20	2.20	-	36.8	39.6	44.3	-	170.0	0.20	0.60	0.272

Note : \* The number and diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria  
The above data is indicative and may be revised without prior intimation. As per IS:3961 (Part V)-1968





## SUBMERSIBLE CABLE



KISAANMITRA



### CORE PVC FLAT SUBMERSIBLE CABLES

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Application :** The PVC insulated and sheathed 3 Core Flat Cables are mainly used in pump connections. They are also used in many industrial applications. The sheath is specially made out to resist tough and difficult condition of usage, excellent resistant to water, conditionally resistant to oil and grease

**Conductor :** Electrolytic grade annealed copper

**Marking :** The cables are printed with generic marking  
**AXELON KISAANMITRA**

**Core Colour :** Red, Yellow (center core), Blue

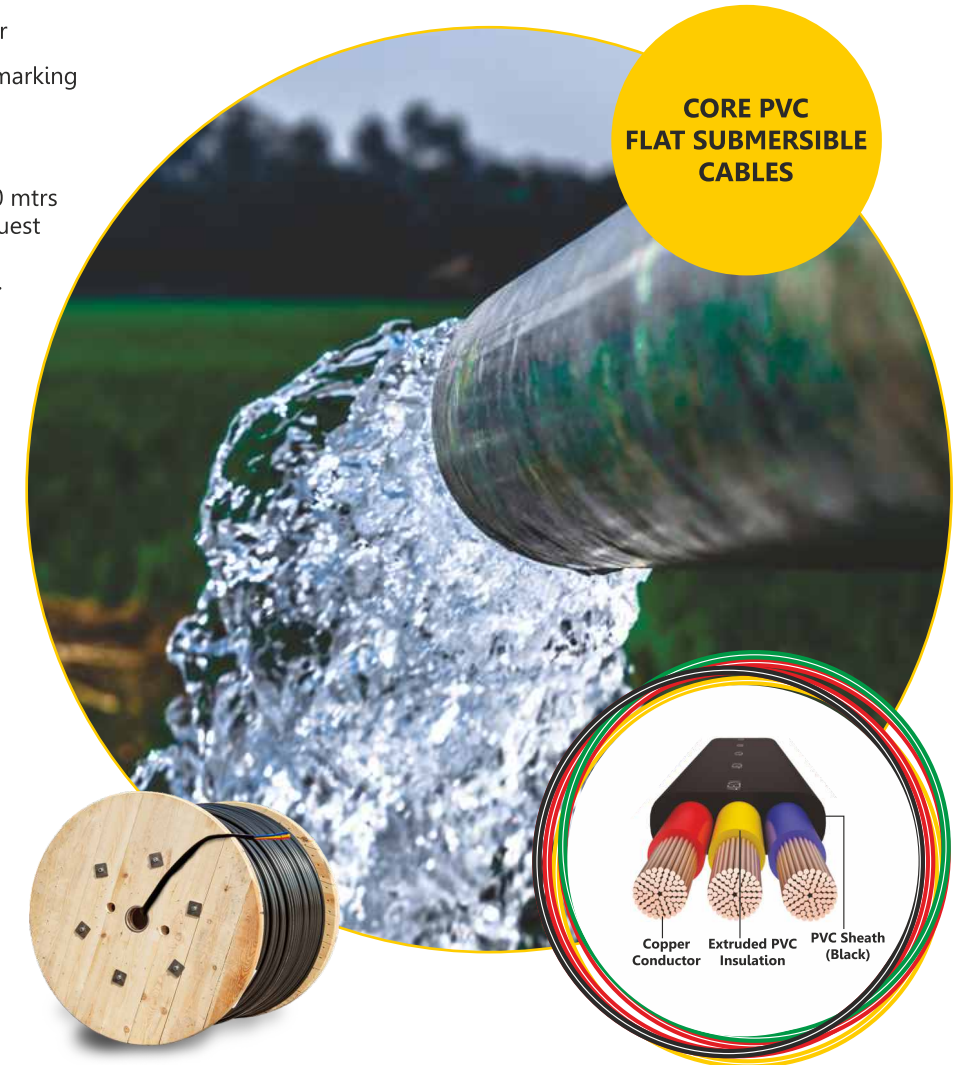
**Packing :** Std. packing of 300 mtrs in coils, 500 mtrs wooden drums. Longer length available on request

**Sheathing Colours :** Black, Grey, White & Blue.

#### Unique Features :

- HIGH ABRASION RESISTANT SPECIAL GRADE PVC
- BEST QUALITY EC GRADE COPPER FOR POWER SAVING
- TOUGH & FLEXIBLE CABLE PROVIDES SAFETY
- 75°C WET CONDITION 90°C IN DRY AREA
- EXCELLENT WEATHER, MOISTURE, OIL & GREASE RESISTANT

#### CORE PVC FLAT SUBMERSIBLE CABLES



#### Size Dimensions and Ratings

Conductor Construction		Conductor resistance at 20 °C (Ω/km) Max.	Nom. Insulation thickness (mm)	Nominal sheath thickness (mm)	Approx. overall dimensions (W X H) (mm) +/- 0.5 mm	Current carrying capacity (Ampere)
Cross Sectional Area (Sq. mm)	No./Max. dia of strands (mm)					
3C X 1.00	32/0.20	19.5	0.60	0.9	11.0 X 5.40	12
3C X 1.50	30/0.250	13.3	0.60	0.9	12.0 X 5.60	18
3C X 2.50	50/0.250	7.98	0.70	1.0	13.0 X 6.20	24
3C X 4.00	56/0.30	4.95	0.80	1.0	15.3 X 7.10	28
3C X 6.00	84/0.30	3.30	0.80	1.1	19.2 X 8.40	36
3C X 10.00	140/0.30	1.91	1.00	1.4	24.2 X 10.40	48
3C X 16.00	126/0.40	1.21	1.00	1.4	29.0 X 12.40	64
3C X 25.00	196/0.40	0.78	1.20	2.0	36.5 X 15.70	80
3C X 35.00	276/0.40	0.554	1.20	2.0	40.5 X 17.20	100
3C X 50.00	396/0.40	0.386	1.40	2.2	46.5 X 19.30	130





CORE XLPE FLAT SUBMERSIBLE CABLES

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

XLPE-PVC Flat cables are manufactured with rigid manufacturing controls to sustain complete immersion in water and protection against rain water. The conductors are uniformly drawn from high purity electrolytic grade copper on high precision drawing machines with superb flexibility. Compactly bunched to offer uniform resistance across all conductors extruded on dual screw extrusion machine with inline monitoring of cable diameter and high voltage spark testing.

**Application :** These Cables are mainly used in pump connection. Though they are mainly used to supply power to pumps, they are also used in industrial applications. These cables are specially manufactured keeping in mind the serve, tough and difficult conditions in which they are used.

**Conductor :** Electrolytic grade annealed plain copper to EN 60228, uniformly bunched to form a circular shape

**Insulation :** Cross linked polyethylene XLPE

**Colours :** Red, Yellow (Centre core), Blue

**Packing :** Std. packing of 300 mtrs in coils, 500 mtr wooden drums. Longer length available on request

**Sheathing Colours :** Black, Grey, White & Blue.

- HIGH ABRASION RESISTANT  
SPECIAL GRADE PVC
- BEST QUALITY EC GRADE  
COPPER FOR POWER  
SAVING
- TOUGH & FLEXIBLE  
CABLE PROVIDES SAFETY
- 75°C WET CONDITION  
90°C IN DRY AREA
- EXCELLENT WEATHER,  
MOISTURE, OIL & GREASE  
RESISTANT

CORE XLPE  
FLAT SUBMERSIBLE  
CABLES



Size Dimensions and Ratings

Conductor Construction		Conductor resistance at 20 °C (Ω/km) Max.	Nom. Insulation thickness (mm)	Nominal sheath thickness (mm)	Approx. overall dimensions (W X H) (mm) +/- 0.5 mm	Current carrying capacity (Ampere)
Cross Sectional Area (Sq. mm)	No./Max. dia of strands (mm)					
3C X 1.00	32/0.20	19.5	0.60	0.9	11.0 X 5.40	12
3C X 1.50	30/0.250	13.3	0.60	0.9	12.0 X 5.60	18
3C X 2.50	50/0.250	7.98	0.70	1.0	13.0 X 6.20	24
3C X 4.00	56/0.30	4.95	0.80	1.0	15.3 X 7.10	28
3C X 6.00	84/0.30	3.30	0.80	1.1	19.2 X 8.40	36
3C X 10.00	140/0.30	1.91	1.00	1.4	24.2 X 10.40	48
3C X 16.00	126/0.40	1.21	1.00	1.4	29.0 X 12.40	64
3C X 25.00	196/0.40	0.78	1.20	2.0	36.5 X 15.70	80
3C X 35.00	276/0.40	0.554	1.20	2.0	40.5 X 17.20	100
3C X 50.00	396/0.40	0.386	1.40	2.2	46.5 X 19.30	130



CABLE SELECTION CHART

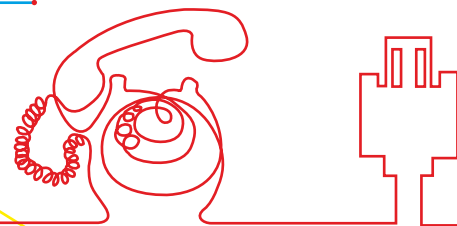
100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

SUBMERSIBLE PUMPSET CABLE SELECTION CHART FOR 415 V, 3 PHASE - 50 Hz.																			
HP	LENGTH IN METERS																		
	10	20	30	40	50	60	70	80	90	100	120	140	160	180	200	250	300	350	400
1.0/1.5	1.0	1.0	1.0	1.0															
3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	2.5	2.5	4.0	4.0	4.0	6.0
4.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	4.0	4.0	4.0	6.0	6.0	6.0
5.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	4.0	4.0	6.0	6.0	6.0	10.0
6.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.0	4.0	4.0	2.0	2.0	10.0	10.0	10.0
7.5 S	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.0	4.0	6.0	6.0	10.0	10.0	10.0	16.0
7.5 D	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.5	2.5	4.0	4.0	4.0	6.0	6.0	10.0
10.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.0	4.0	4.0	6.0	6.0	10.0	10.0	10.0
12.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	4.0	4.0	6.0	6.0	10.0	10.0	10.0	16.0
15.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	6.0	6.0	6.0	10.0	10.0	10.0	10.0	16.0
17.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	6.0	6.0	10.0	10.0	10.0	16.0	16.0	16.0
20.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	10.0	10.0	10.0	10.0	16.0	16.0	16.0	125.0
25.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	10.0	10.0	10.0	16.0	16.0	16.0	16.0	25.0
30.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	10.0	10.0	10.0	16.0	16.0	16.0	16.0	25.0
40.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	16.0	16.0	16.0	25.0	25.0	25.0	25.0	35.0
50.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	25.0	25.0	35.0	35.0	35.0	50.0





## TELEPHONE CABLES & LAN CABLES



## TELEPHONE CABLES

- Copper type** : Drawn from 8mm wire rod- electrolytic cathode grade of 99.97% purity
- Reference to IS standard for conductors** : IS 8130 : 1984 with latest amendments
- Conductor construction** : Single solid in 0.4mm and 0.5mm conductor size
- Standard insulation base** : Special grade high density polyethylene
- Standard jacketing Base** : Jacketing of FR (Flame Retardant) PVC compound made from virgin grade PVC resin
- Insulation type for all sizes** : Single coloured pressure extrusion
- Jacketing type for all pairs** : Generally tubular extrusion
- Rip cord** : Nylon

Size	Packing	Colour	Conductor size
1 Pair	100 mtr coil	Light Grey	0.40 & 0.50 mm
2 Pair	100 mtr coil	Light Grey	0.40 & 0.50 mm
3 Pair	100 mtr coil	Light Grey	0.40 & 0.50 mm
4 Pair	100 mtr coil	Light Grey	0.40 & 0.50 mm
5 Pair	100 mtr coil	Light Grey	0.40 & 0.50 mm



NO VOICE  
BREAK OR LOSS



ZERO NOISE  
LEVEL



VOICE  
CLARITY



NO CROSS  
TALK

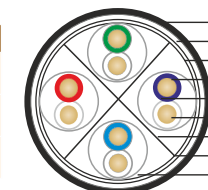


NO ECHO  
SOUND

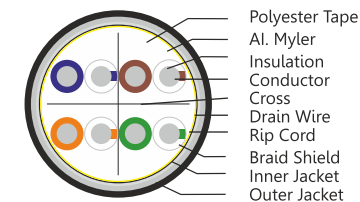


## LAN CABLES

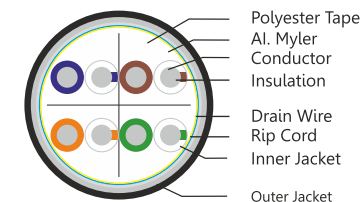
Size	Packing	Colours
CAT 5E	305 mtr tangle free	Light Grey
CAT 6	305 mtr tangle free	Light Grey
CAT 6 OUTDOOR	305 mtr wooden drum	Black



CAT 6 UTP



CAT 6 OUTDOOR STP



CAT 5E UTP



LOW STRUCTURAL  
RETURN LOSS



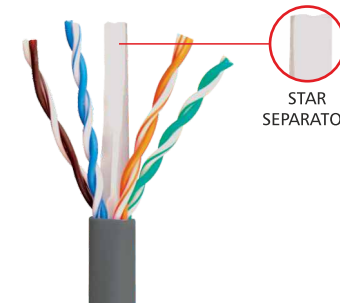
MAXIMUM  
NOISE IMMUNITY



HIGHER DATA TRANSFER  
SPEEDS (UPTO 1000 MBPS)

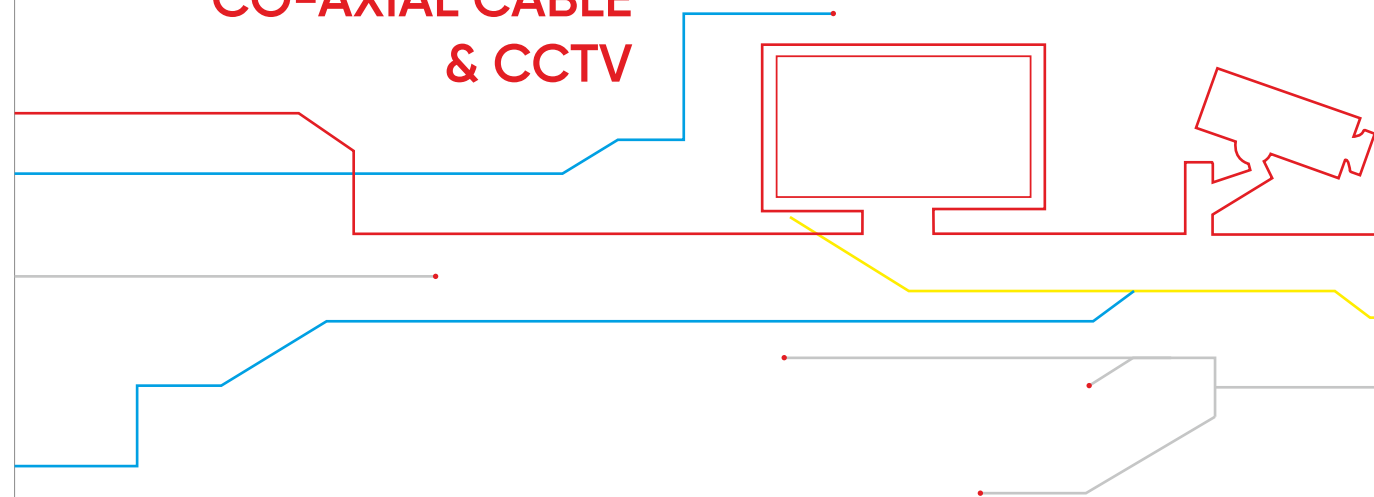


HIGH ACR VALUES  
(LOW BIT ERROR RATE)





## CO-AXIAL CABLE & CCTV



### Co-Axial Cable

HIGHER BANDWIDTH  
(MAXIMUM NUMBERS  
OF CHANNELS)

MINIMUM  
STRUCTURAL LOSS

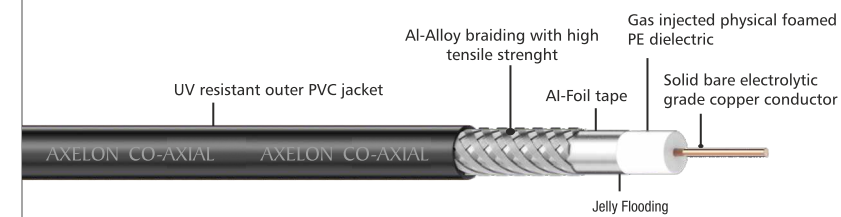
LOW ATTENUATION  
VALUE

HIGH FIDELITY  
PICTURE QUALITY

SUPERIOR  
SOUND QUALITY

MOISTURE  
PROOF

Size	Packing	Colours
RG 6	305 mtr	Black
RG 6 CCS	305 mtr	Black
RG 11	305 mtr	Black



### CCTV

FLAME  
RETARDANT CABLE

COPPER  
BRAIDING

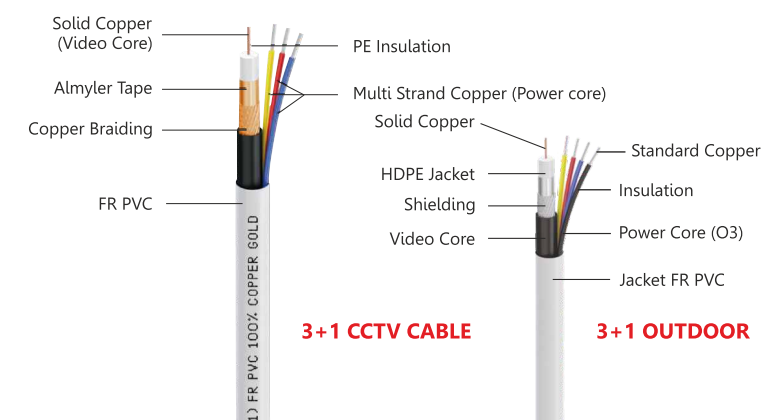
COMPLETE  
RELIABILITY

HIGH QUALITY  
COPPER WIRE

SUPPORTS  
HYBRID CABLE

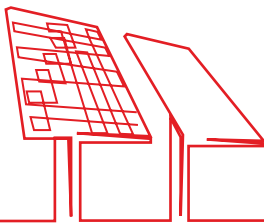
SHIELDED  
COMMUNICATION CABLE

Size	Packing	Colours
CCTV 3+1	100 mtr	White
CCTV 4+1	100 mtr	White
CCTV 3+1 Outdoor Cables	100 mtr	Black





SOLAR CABLE



SOLAR PVC CABLE



Solar energy is the most abundant source of energy on our planet. Solar energy is converted in to electrical energy by means of arrays of Photovoltaic modules. Specially designed Photovoltaic cables are used in these modules.

Advantages :

- 

HIGH THERMAL  
RATING FOR STAND  
EXTREME  
TEMPERATURES
- 

SPECIALLY DESIGNED  
FOR STAND  
EXTREME WEATHER  
CONDITIONS
- 

EXCELLENT  
RESISTANCE  
TO HEAT  
PRESSURE
- 

EXCELLENT  
ABRASION AND  
NOTCH  
RESISTANT
- 

ROHS  
COMPLIANT



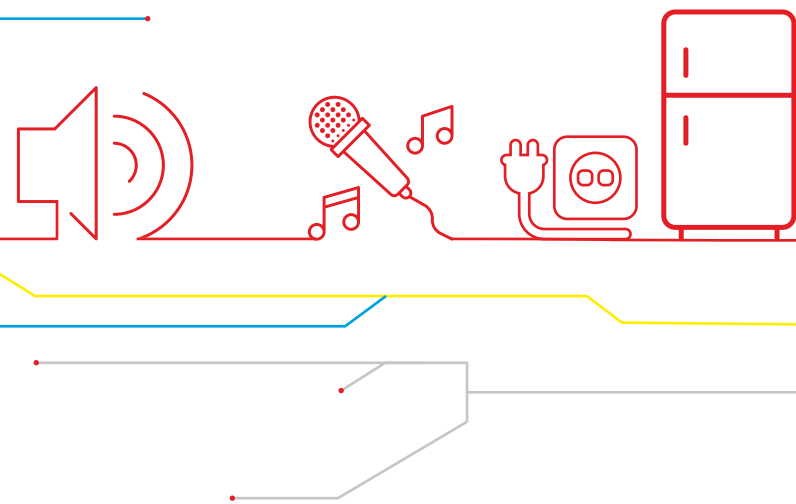
Application :  
These cables are connected between individual modules and the string combiner box (Junction).

TECHNICAL SPECIFICATIONS

Parameter	TÜV 2Pfg 1169 / 08.2007	TÜV 2Pfg 1990 / 05.12 and EN 50618
Rated Voltage - AC ( Uo/U )	0.6 / 1.0 kV	-
DC ( C - to - E)**	0.9 kV	1.5 kV
Maximum Permissible Voltage DC ( V ) (Circuit under NO LOAD)	1.8 kV ( C - to - C)* Un-earthed system	1.8 kV ( C - to - E)** Earthed system
Conductor Material	Electrolytic, Multi Strand Annealed Bunched Tinned Copper	
Conductor Flexibility Class	5	
Insulation & Sheath Material	Cross-linked Polyolefin Halogen Free Flame Retardant	
Max. Temp at conductor	120°C (20000Hrs), EN 60216-1	
Operating temp range	- 40°C to 90°C	
Thermal Characteristics Performance		
Damp Heat	1000Hrs at 90°C with 85% humidity, According to EN 60068 - 2 - 78	
Pressure at High Temp.	4Hrs at 140°C, According to EN 60811 - 3 - 1	
Thermal Endurance	20000Hrs, 50% Residual elongation, According to EN 60216 - 2	
Weathering / UV Resistance (According to HD 605/A1)	720Hrs	1500Hrs
Performance under fire conditions		
Flame Propagation	According to EN 60332 - 1 - 2	
Halogen Free	Less than 0.5%, According to EN 50267 - 2 - 1/ -2 IEC 60684 - 2	
Acid / Alkaline Resistance (Oxal Acid, Sodium Hydroxide)	Tensite strength Variation + 30% elongation min 100%, According to EN 60811 - 2 - 1	
Electrical Chacterstics : in kV		
AC Test Voltage - 5 Mins	6.5	11
DC Test Voltage - 5 Mins	15	25
AC Spark Test Voltage	10	12
Mechanical Characteristics of Insulation & Sheath		
Tensile strength	Insulation: 6.5 N/mm2, Sheath: 8.0 N/mm2 Min., According to EN 60811-1-1	
Elongation		
Dynamic Penetration	Minimum force to penetrate sheath and insulation F (N)	
	50 x OD	150 x Conductor Dia.
Notch Propogation	Withstands Voltage test ( half of rated voltage) after Notch propogation.	



SPEAKER CABLE  
& PLUG MOLDING



SPEAKER CABLE



TWIN FLAT FLEXIBLE CABLE

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Application :** Speaker cables are highly recommended for use in connecting speakers, public address system for clear and distortion free voice with low DB loss.

**Conductor :** Oxygen Free flexible Copper conductor

**Colour :** Availability: Transparent / black / white with red tracer for polarity identification. Also available in grey.

**Packing :** The delivery length is available in 100mtr. coils.

Equivalent AWG	Nominal Cross Sectional Area (Sq. mm)	Max. Dc Resistence of Cond. at 20°c	Max. Overall Dimensions (WxH) (MM)
22	0.5	39.0	4.2 X 2.1
19	0.75	26.0	1.7 X 2.4
18	1.00	19.5	5.7 X 2.9
16	1.50	13.3	6.0 X 3.0
14	2.50	7.98	7.0 X 3.6
12	4.00	4.95	8.4 X 4.1
10	6.00	3.30	9.6 X 4.7



PLUG MOULDING



MULTICORE FLEXIBLE CABLES

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

**Application :** Axelon can offer cords in various sizes and specification as per customer requirement these are extensively used in electronic industry, especially in TV, Video games, DVD player, Voltage stabilizer, Water heaters , Electrical & Electronic home appliances.

**Conductor :** Annealed, Plain, Flexible Copper Conductor

**Insulation :** PVC Type – A as per IS 5831

**Cable Jacket :** Type – ST1 PVC as per IS 5831

**Power Cord Standard :** IS 1293 : 2005

**Colour :** Black (other colours as per customer order)

**Brass Pins :** Solid Brass Pins

**Moulded Plug :** Moulding grade PVC as per IS 5831  
Power Cord Length: Customer Choice

**Length :** As per Customer Requirement.





## WINDING WIRE

## WINDING WIRE

### SUBMERSIBLE WINDING WIRE

#### AXELON WINDING WIRES

Axelon Proudly presents the Poly wrapped winding wire commonly known as " SUBMERSIBLE COPPER" Winding Wire." The copper conductor is wrapped with thin polyester film & Biaxial Oriented Poly Propylene (BOPP)" The modern plant with sophisticated wrapping heads & inline continuous heat shrinkage furnace is installed to get uniform covering. A complete quality assurance testing by instruments covering all governing standards is available. The test standards followed are IS 8783:1995

#### CONDUCTOR

100% EC Grade Copper

#### APPLICATION

Used in submersible pump motors of all for domestic and industrial application.

#### SIZE

0.40mm to 3.00mm conductor

#### PACKING

Available in coil form with sustainable length as per size, in polythene bag and packed in inner & outer corrugated boxes.

#### WINDING WIRE SPECIFICATIONS AS PER IS 8783 (PART4/SECTION3): 1995 SOLID COPPER CONDUCTOR.

Conductor Diameter (Nominal)	Outer Diameter (Nominal) mm	Max. Resistance of Conductor at 20° C ohm/km
0.4	0.75	137.200
0.5	0.85	87.800
0.6	0.95	60.980
0.7	1.05	43.550
0.8	1.15	34.300
0.9	1.25	27.100
1.0	1.40	21.950
1.1	1.50	17.500
1.2	1.60	15.260
1.3	1.70	12.580
1.4	1.80	11.200
1.5	1.90	9.757
1.6	2.10	8.575
1.7	2.20	7.596
1.8	2.30	6.775
1.9	2.40	6.081
2.0	2.50	5.488
2.1	2.60	4.884
2.2	2.70	4.630
2.3	2.80	4.230
2.4	2.90	3.890
2.5	3.00	3.580
2.6	3.10	3.310
2.7	3.30	3.070
2.8	3.50	2.860
2.9	3.70	2.660
3.0	3.90	2.490

\*Tolerance of outer Diameter (+1) 0.05 mm, Over all dimension be in

\*Over all dimension be increased or decreased as per client requirement.

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity



#### BENEFITS OF AXELON'S WIRE

VERY HIGH DIELECTRIC STRENGTH.



LONG LIFE GUARANTEED.



GREATER TENSILE STRENGTH



COST-OPTIMISED FOR HIGHER SAVINGS.



EASILY BENDABLE FOR EASY WINDING.



SAVES ENERGY - ETP GRADE HIGH CONDUCTIVITY ANNEALED COPPER USED



FIRM INSULATION FOR HIGH MECHANICAL STRENGTH



LESS CURRENT LEAKAGE - NO AIR GAP BETWEEN THE FILMS.



VERY HIGH RESISTANCE TO TEARS.



MANUFACTURED BY ULTRA MODERNAUTOMATIC PLANT AS PER IS 8783 (PART 4 / SEC 3)



EXTREME TEMPERATURE RESISTANCE.



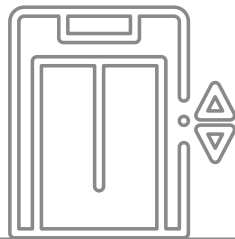
#### TESTING FACILITIES FOR SUBMERSIBLE WINDING WIRES

following are the testing facilities with modern High precision instruments with us

S.No.	Name of the Tests	Units	Testing Instruments used
1	Size (Diameters)	mm	Digital Micrometers
2	Elongation	Percentage	Tensile tester
3	Conductor Resistance	Ohm/KM	Resistance Meter
4	Volume Resistivity	Ohm-cm	Million mega meter
5	High Voltage Test	Kv	High Voltage tester
6	Thermal Ageing	Change in Elongation & tensile	Ageing Oven & tensile tester
7	Shrinkage Test	Percent	Circulating Hot air oven
8	Water Absorption	mg/cm <sup>2</sup>	Vacuum Oven & Pump Desecrator
9	Hot Deformation	Percent	Circulating Hot air oven
10	Heat Shock Test	No sign of Cracks/scales separation of layers	Circulating Hot air oven & Mandrels



## ELEVATOR CABLE



## ELEVATOR



### MULTICORE FLAT FLEXIBLE CABLES

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity

Continues bending radius changes during the movement of current of cranes / hoists or lifts are made easy with Axelon Multicore Flat Flexible Cables which have been designed to meet the demand for high flexibility needed for these applications. These cables have been put to rigorous testing to meet internationally accepted specification for such applications.

**Conductor :** Bunched construction of Annealed Bare Copper, Class 5 of Electrolytic Grade of IS 8130: 1984.

**Insulation :** Specially formulated PVC compound IS 5831 to give glossy finished core with high flexibility.

**Sheathing :** Special Thermoplastic Material IS 5831 to give glossy finished sheath with high flexibility.

**Unique Identification :** Special knurled surface finish throughout the width of the cable for flat and knurled stripe is given for Round Multicore Flexible Cables to give unique identification.

**Range :** Flat as well as Round Multicore Flexible Cables can be offered from 3 cores to maximum 10 cores from sizes 0.5 sq.mm to 4 sq.mm and 3 core, 4 core upto 12 cores. in sizes 6 sq.mm to 10 sq.mm.



NO SPARKING &  
NO OVERHEATING



100% BUNCHED  
COPPER



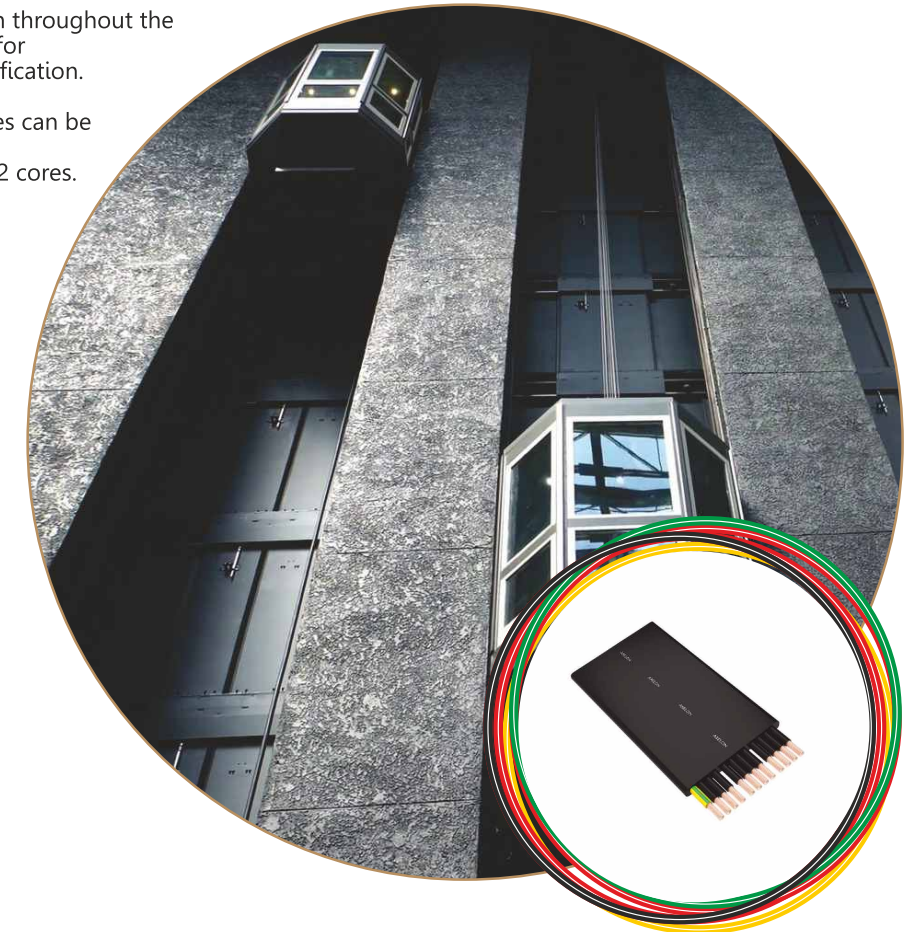
VERY HIGH  
FLEXIBILITY



100% ELECTROLYTIC  
COPPER



SUITABLE FOR USAGE  
FROM -15°C TO +70°C  
APPLICATION



**Temperature of the Conductor :** -15°C to +70°C.

**Identification of Cores :** For 5 cores & above black insulation & core number printed in white ink. For up to 4 Cores, core colours as per colour coding Red, Yellow, Blue and Yellow / Green.

**Colour :** Generally Black / Grey. Any other colour required will be against bulk orders.

**Packing Length :** 100 mtrs in coils or 500 mtrs or 1000 mtrs. Drums supply for certain sizes.

#### Size Dimensions and Ratings

Nom. Area of Conductor sq. mm	No. Dia of Strand mm*	Thickness of Insulation mm	Nom. Thickness of Sheathing mm mm	Maximum Overall Dimensions in mm											
				3 CORE		4 CORE		6 CORE		7 CORE		10 CORE		12 CORE	
				W	H	W	H	W	H	W	H	W	H	W	H
1.50	48/0.20	0.70	0.90	10.75	4.95	13.4	4.95	18.7	4.95	21.35	4.95	29.3	4.95	34.6	4.95
2.50	80/0.20	0.70	1.00	12.80	5.75	16.1	5.75	22.6	5.75	25.9	5.75	35.7	5.75	42.25	5.75
4.00	128/0.20	0.80	1.00	14.90	6.45	18.9	6.45	26.8	6.45	30.8	6.45	42.7	6.45	50.65	6.45
6.00	84/0.30	0.80	1.10	16.70	7.20	21.2	7.20	-	-	-	-	-	-	-	-
10.0	141/0.30	1.00	1.40	21.25	9.10	27.1	9.10	-	-	-	-	-	-	-	-



## WELDING CABLES

### CROSS SECTIONAL VIEW

#### Application

For the transmission of high currents from the electric welding machine to the welding tool. Suitable for flexible use under rough conditions, on assembly lines and conveyor systems, in machine tool & motor car manufacturing, ship building, for manually and automatically operated line and spot welding machines.

### TECHNICAL CHARACTERISTIC

#### Flame Propagation Property

Flame Retardant Test as per IEC-60332-1

#### Voltage Rating

1100V AV voltage

#### Operating Temperature Rating

-20 TO +105 DEG

#### Minimum Bending Radius

6 x Overall Dia

### CABLE CONSTRUCTION

#### Conductor

Extra Flexible Annealed Bare  
Copper As per ICE -60288 (CLASS-6)

#### Separator

PET (Polyester Tape)

#### Insulation

- HOFR (Heat, Oil & Flame Resistance) +TPR
- TPR + TPR (Thermoplastic Rubber)

#### Sheath Color



\*note: any other colour on special required can all supply

### STANDARD

IS-9857:1990,  
BS-EN60228, CLASS-6

### FEATURES OF WELDING CABLE

- High Conductivity  
Copper Conductor
- High Resistance To Cuts,  
Tears And Abrasion
- Magnificent Electrical, Flame &  
Heat Resistance Properties
- Exceptionally Resistance To Oil,  
Chemical, Solvent, & Ozone
- Excellent Flexibility  
Hence Lasts Longer

### TECHNICAL DATA TABLE

#### Current Rating

The maximum current ratings of flexible welding cables for different duty cycles are based on an ambient air temperature of 25°C and a maximum conductor temperature of 105°C. The percentage duty cycles for various processes and applications are as follows :

- Automobile Welding : up to 100%
- Semi-Automatic Welding : 30% to 85%
- Manual Welding : 0% to 60%
- Very intermittent or Occasional Welding : up to 20%

#### Voltage Drop

When total cable lengths in excess of 1.5 mtrs., are involved, it may be necessary to use cables of larger cross section to ensure that the voltage drop is not excessive and welding currents are maintained at adequate levels.

### TECHNICAL INFORMATION

Cross Sectional Area	Copper Construction	Nominal Thickness	Outer Dia Appx.	Max. Conductor Resistance at 20°C	Current rating					
					Welding applications					
					Duty Cycle					
					100%	85%	80%	60%	35%	20%
Sq. mm	Nos / Dia mm	mm	mm	Ω/km	amp	amp	amp	amp	amp	amp
10.00	320 / 0.200	2.00	10.04	1.910	100	100	100	101	106	116
16.00	513 / 0.200	2.00	11.25	1.210	135	136	136	139	150	174
25.00	783 / 0.200	2.00	12.96	0.780	180	182	183	190	213	254
35.00	1121 / 0.200	2.00	14.82	0.554	225	229	231	243	279	338
50.00	702 / 0.300	2.20	16.78	0.386	285	293	296	316	371	457
70.00	999 / 0.300	2.40	19.17	0.272	355	367	373	403	482	602
95.00	1332 / 0.300	2.60	21.88	0.206	430	448	456	498	606	765
120.00	1702 / 0.300	2.80	24.03	0.161	500	524	534	587	721	917

\*The number of wires is approximate and wire diameter is nominal; they shall be such as to satisfy the requirements of conductor resistance of IEC 60228 / DIN VDE 0295 / IS 8130 / BS 6360

\*In view of continuous improvements in our design and process, specifications given here in are subject change without notice.

#### Rating Factors for variation in ambient temperature

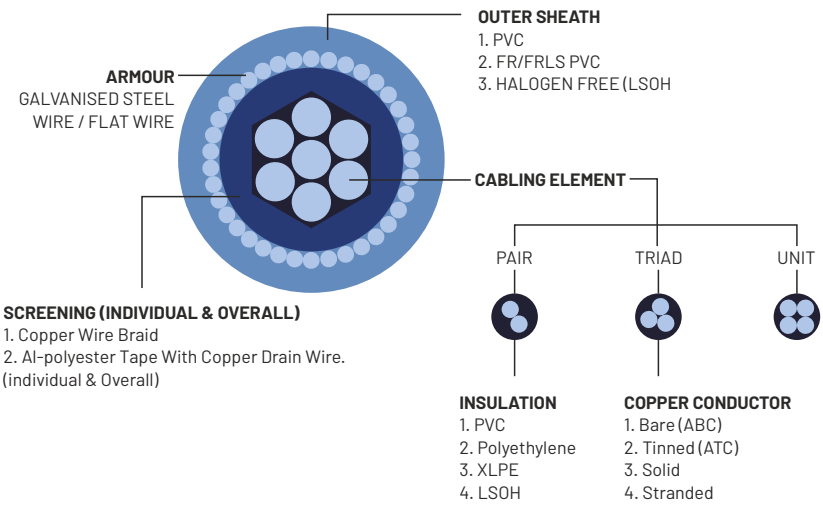
Ambient Temperature °C	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°
Rating Factor	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.69	0.64	0.57



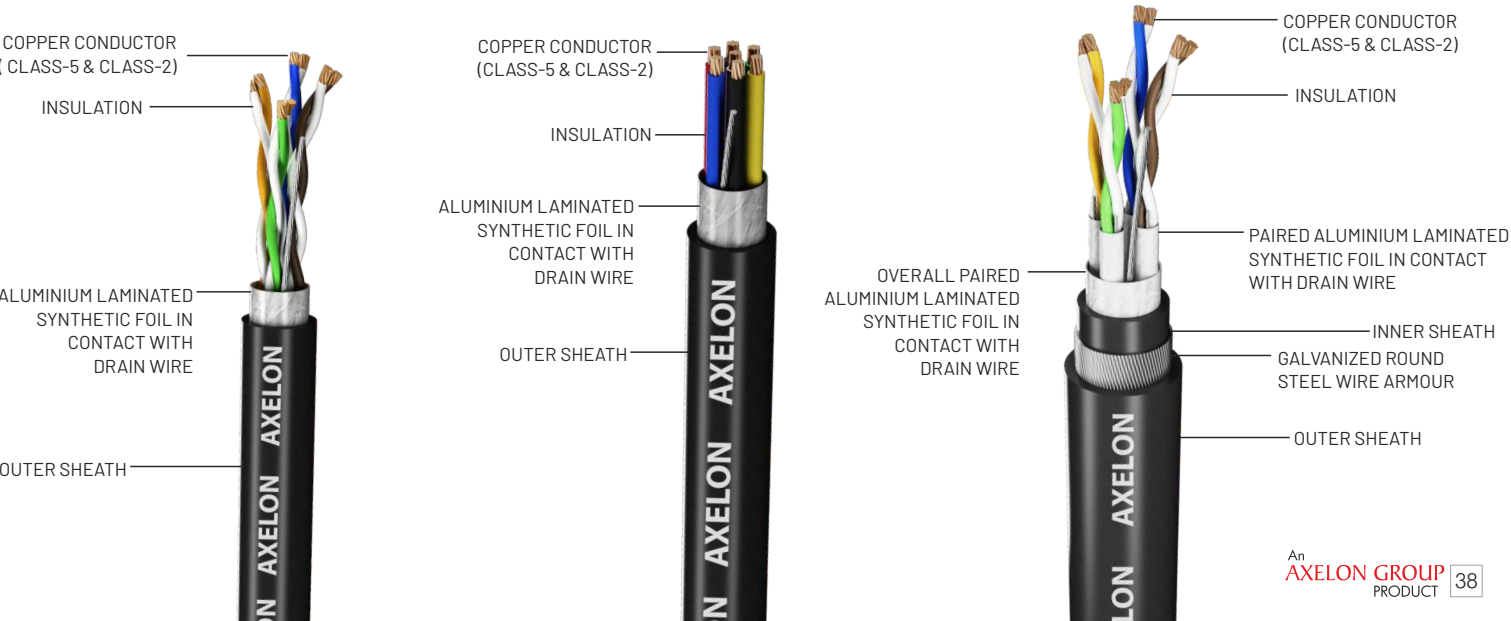


INSTRUMENTATION CABLE (SHIELDED)

COPPER THAT LASTS LONGER



ESSENTIAL PROPERTIES OF INSTRUMENTATION CABLE



WHY CHOOSE US?

Axelon with its fastidious efforts in managing quality, poignant in-process control during manufacture and the understanding of cable designing, is proud to say that it is capable of supplying instrumentation cables meeting any indian/international standard or a specific requirement desired by the project authority

FEATURES OF INSTRUMENTATION CABLE

- Excellent Noise Reduction Property
- Great Mechanical Strength With Flexibility
- Enhanced Transmission Performance With Desired L/R Ratio
- Resistance to Electromagnetic Interference

INTRODUCING FIRE ALARM & FIRE SURVIVAL CABLE

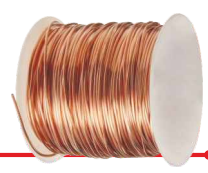
- FIRE & HIGH HEAT RESISTANT
- LONG TERM CIRCUIT INTEGRITY IN A FIRE
- NO SMOKE & TOXIC GAS EMISSIONS
- ZERO HALOGEN GASES



WE KNOW THE SIGNIFICANCE OF SAFETY



# BUNCHED Cu CONDUCTOR



99.97% Cu Purity | 101% Conductivity

## STRANDED / FLEXIBLE

Axelon manufactures a broad range of flexible bunched and strands which are used primarily in specialty single and multi conductor cables also used in special applications like motor brush leads, circuit breaker shunts and flexible bus bar.


At Axelon Bunching is done on **Niehoff's** double twist bunchers suitable for variety of cross sections handling delicate wires as 0.05 mm and capable to deliver mostly any type of construction including complex unilay geometry.


Stranding, at Axelon is done both on planetary and rigid machines to handle flexible (class V) wires and solid / thick wires. Compacted conductors and shaped conductors is Axelon speciality. Bare Copper Conductors manufactured by Axelon meets the requirements of all International Standards like ASTM, BS, and IEC etc.


### BUNCHING / STRANDING GEOMETRY


- S (LHS) / Z (RHS)
- Uni lay
- Concentric
- Sectoral Conductor
- Round Compact Conductor


### Unique Features

- 

NO NEED OF REWINDING  
FROM SMALLER TO  
BIGGER SPOOLS
- 

CROSS SECTION:  
RANGING FROM Ø  
0.10 SQ MM TO 630SQ MM
- 

BASE MATERIALS  
100 %CU-ETP  
GRADE
- 

100 % ONLINE  
ANNEALING ON NIEH  
OFF MACHINE
- 

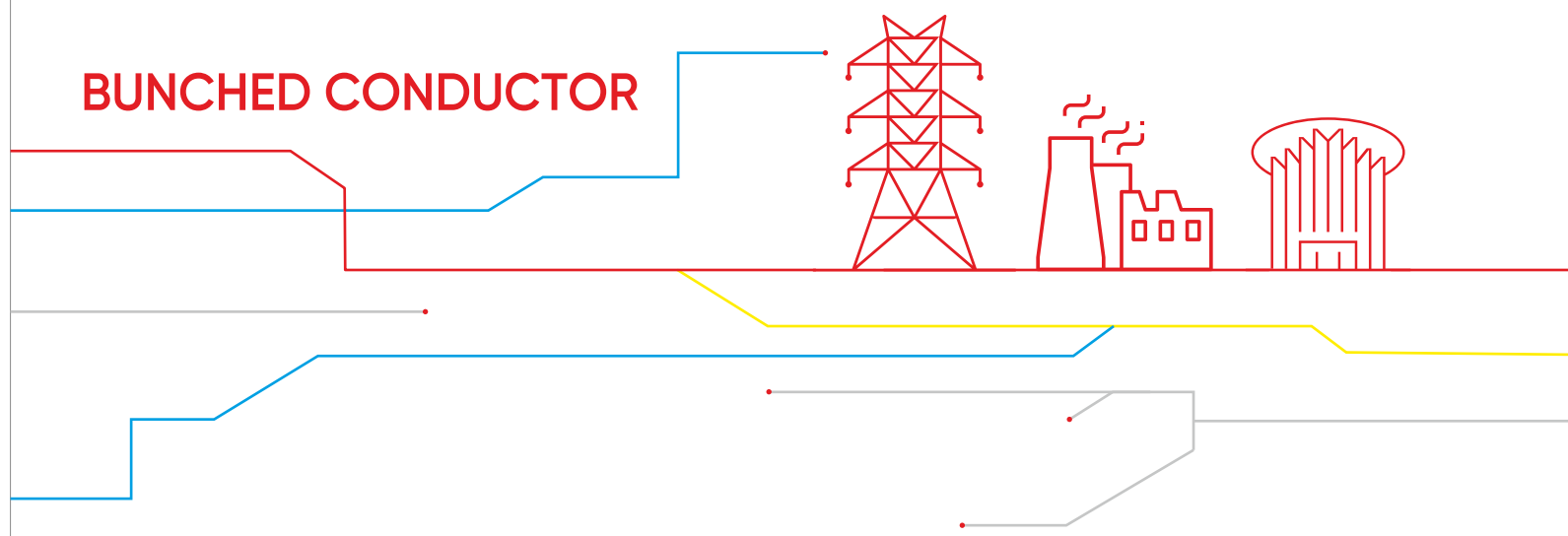
NO JOINTS  
WITHIN THE SPOOLS



BUNCHED Cu CONDUCTOR

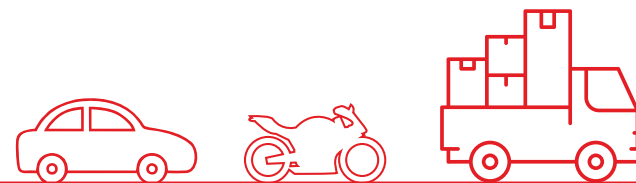
Brand	: Axelon Wire
Diameter	: 0.15mm - 2.95mm
Alloy Or Not	: Non Alloy
Condition	: New
Packaging	: Iron Spools / Bobbins
Ideal For	: All types of Cables & Wires
No. of Core	: 3 to 37
Tinned Plated Copper Wire	: YES
Swg	: 11 to 38
Resistivity	: As per ISI

## BUNCHED CONDUCTOR





## AUTO CABLES



## AUTO CABLES



**100% Spark Tested | 99.97% Cu Purity | 101% Conductivity**

**Application :** Axelon Auto Cables are widely used in internal wiring of new generation of automobile like cars, buses, etc. for the purpose of igniting the spark plug, lighting of panel lights, night lamps, head lamps, sign boards, wiping, charging, signalling, and for the purpose of activating power windows, rear view mirrors, central locks, cigrate lighters, horn, steering, motorised antenna, Stereo system etc.

**Product Range :** Axelon Auto Cable with annealed high conductive plain copper conductor of 101 % Conductivity ,99.97% Purity and 105° C heat resistance PVC insulation with or without strips.

### Technical Data

Auto cable as per IS:2465, JISC:3406, JASO D611, BS 6862

Auto cable conforming to IS:2465, JISC:3406, JASO D611, BS 6862 are design for a temp. Of 15-105° c.

Electrolytic grade copper conductors conform to is 8130-1984 or ise:60228

PVC conforms to TYPE C grade of is 5131-1984

### Unique Feature :



1 KV FOR 30 MIN  
UNDER SALT SOLUTION.



ISO 6722 CLASS  
B (T2) PASS



DIN 72551-6  
PASS



ABRASION  
RESISTANCE.



COMPATIBLE WITH  
VEHICLE & GEAR OIL



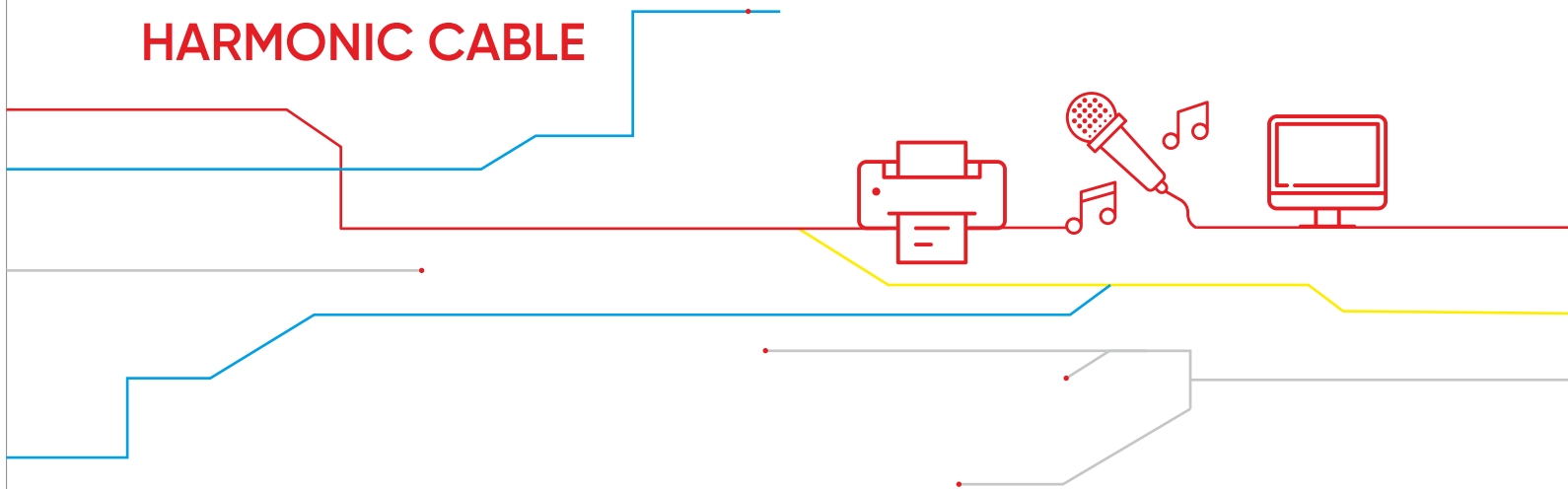
COMPATIBLE WITH HI-TECH  
HARNESS EQUIPMENT



### AUTOMOTIVES AS PER ISO 6722

Nominal Area conductor Sq mm	No. of Strands No.	Nominal Wire DIA mm	Max. Continous Rating of Cablesat 12 V Amps/watt	Application & Usage (Tentive)
0.75	9	0.3	5 amp-60 watts	Tail lamp, car alarm, Number plate lighting, fog lights, Stereos, Screen displays sys.
1.00	14	0.3	8 amp-105 watts	
1.50	21	0.3	12 amp-153 watts	Head lights, cigarlights, Spot lights, heaters, hazard lights
2.00	28	0.3	17 amp-210 watts	
2.50	35	0.3	35 amp-420 watts	Battery feed cables, armatures circuits
3.00	44	0.3	27 amp-330 watts	
4.50	65	0.3	35 amp-420 watts	Alternators, Dynmo circuits
6.00	85	0.3	42 amp-500 watts	
7.00	97	0.3	50 amp-600 watts	Heavy duty alternator circuits
8.50	120	0.3	60 amp-720 watts	

HARMONIC CABLE



HARMONISED CABLE



H05VV-F FLEXIBLE CORDS

100% Spark Tested | 99.97% Cu Purity | 101% Conductivity


**Cable Standard**  
Conductor : Fine Stranded Copper (Class 5 – Flexible Plain Copper) to VDE 0295 IEC 60228  
Standard : VDE – 0281 Part – 5 & Part – 2  
Insulation : PVC T12 to VDE – 0281 Part – 1  
Sheath : PVC Tm2  
Colour : Red, Yellow, Blue, Black, Green, Yellow/Green, Grey, White, Brown, Violet, Pink, Turquoise, Other colour available on request

**Technical Data**  
Working Voltage : VDE 300/500 V  
Working Temp : -5 C to 70 C  
Operating Temp : 20 C to +80 C  
Nominal Voltage : 300/500V  
Test Voltage : 2500 V  
Insulation Resistance : Min. 20 M xkm  
Min. Bending Radius : 7 x Cable diameter


**Standard Packing :** Coils 100, 200, 500, 1000 M

**Application :**  
H05VV-F cordage is a flexible PVC insulated, PVC jacketed harmonized cord recommended for use in electronic and electrical equipment such as office


Silent Features :




HEAT RESISTANCE INSULATION




HIGH CURRENT CARRYING CAPACITY




LESS HEAT ENERGY RADIATION




HIGH COMPATIBILITY CORES




LONGER LIFE



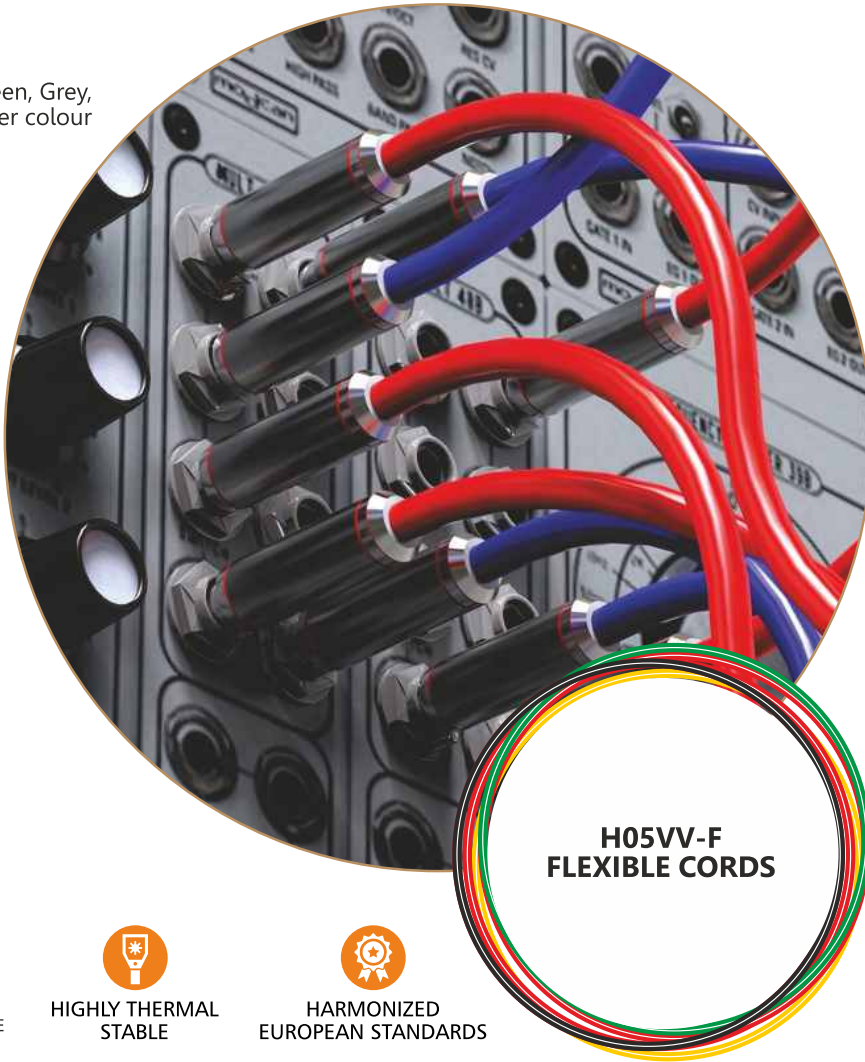
EXCELLENT WEATHER, MOISTURE, OIL & GREASE RESISTANT



HIGHLY THERMAL STABLE



HARMONIZED EUROPEAN STANDARDS



Cable Size	Insulation thickness	Sheath Thickness in mm				Max overall diameter in mm								Max conductor resistant at 20°C	Min insulation resistant at 70°C
		2 Core	3 Core	4 Core	5 Core	2 Core		3 Core		4 Core		5 Core			
						Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit	Lower limit	Upper limit		
Sq.mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Ω/km	MΩ/km
0.75	0.60	0.80	0.80	0.80	0.80	5.70	7.20	6.00	7.60	6.60	8.30	7.40	9.30	26.0	0.011
1.00	0.60	0.80	0.80	0.90	0.90	5.90	7.50	6.30	8.00	7.10	9.00	7.80	9.80	19.5	0.010
1.50	0.70	0.80	0.90	1.00	1.10	6.80	8.60	7.40	9.40	8.40	10.5	9.30	11.6	13.3	0.010
2.50	0.80	1.00	1.00	1.10	1.20	8.40	10.6	9.20	11.4	10.1	12.5	11.2	13.9	7.98	0.0095
4.00	0.80	1.10	1.20	1.20	1.40	9.70	12.1	10.5	13.10	11.5	14.3	13.00	16.1	4.95	0.0078

- All are class 5 flexible conductor
- Insulation grade is T12
- Sheathing grade is TM2





		Cables with Solid/Stranded Copper Conductor				Cables with Flexible Copper Conductor			
Conductor Size Sq. mm	Insulation Thickness in mm	Code of Cable	Copper Construction No./mm	Copper Resistance Max. At 20° C ohm/km	Overall Diameter Max.mm	Code of Cables	Copper Construction No./mm	Copper Resistance Max. At 20° C ohm/km	Overall Diameter Max.mm
0.50	0.60	H05V-U	1/0.80	36.00	2.30	H05V-K	16/0.20	39.00	2.60
0.75	0.60	H05V-U	1/0.97	24.50	2.50	H05V-K	24/0.20	26.00	2.80
1.00	0.60	H05V-U	1/1.13	18.10	2.70	H05V-K	32/0.20	19.50	3.00
1.50	0.70	H07V-R	7/0.53	12.10	3.30	H07V-K	30/0.25	13.30	3.40
2.50	0.80	H07V-R	7/0.67	07.41	4.00	H07V-K	50/0.25	07.98	4.10
4.00	0.80	H07V-R	7/0.85	04.61	4.60	H07V-K	56/0.30	04.95	4.80
6.00	0.80	H07V-R	7/1.04	3.08	5.20	H07V-K	84/0.30	03.30	5.30
10.0	1.00	H07V-R	7/1.35	1.83	6.70	H07V-K	80/0.40	01.91	6.80
16.0	1.00	H07V-R	7/1.70	1.15	7.80	H07V-K	126/0.40	01.21	8.10
25.0	1.20	H07V-R	7/2.14	0.272	9.70	H07V-K	196/0.40	0.780	10.20
35.0	1.20	H07V-R	7/2.50	0.524	10.90	H07V-K	276/0.40	0.554	11.70
50.0	1.40	H07V-R	19/1.78	0.387	12.50	H07V-K	396/0.40	0.386	13.90
70.0	1.40	H07V-R	19/2.14	0.268	14.60	H07V-K	360/0.50	0.272	16.00
95.0	1.60	H07V-R	19/2.52	0.193	17.10	H07V-K	475/0.50	0.206	18.20
120	1.60	H07V-R	37/2.03	0.153	18.80	H07V-K	608/0.50	0.161	20.20
150	1.80	H07V-R	37/2.25	0.124	20.90	H07V-K	750/0.50	0.129	22.50

**Note :** The Construction of the Conductors are Only for Guidelines & as Par Market Convention, It may vary with prescribed limit of BS : 6360 with related Classes & tables.

Harmonized Cade is described below		
Cable Code	Type of Conductor	Voltage Grade
H05V-U	Solid	300/500V
H05V-K	Flexible	300/500V
H07V-R	Stranded	450/750V
H07V-K	Flexible	470/750V

Solid Conductors are as per Class-1	Stranded Conductors are as per Class-2	Flexible Conductors are as per Class-5	According to BS 6360
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CREDENTIALS & AFFILIATIONS

Being compliant to all legal requirements is of utmost importance for Axelon Industries. Over the years, Axelon periodically review all compliance requirements and meet the necessary standards across all systems in the electrical industry. We are proud to be registered and certified by various associations that serve as a symbol of safety promise to our customers.





SURAKSHA MAN



## BRINGING SAFETY TO LIFE

Axelon Wires & Cables is a brand of trust and quality. To create a larger impact on this and represent our brand in the market, we have come up with this idea of humanizing our brand with a mascot "Suraksha Man" whose characteristics are well aligned to our products and company's motive.

Our products & services are directly related to the well-being of premises & people with usage of high quality wires to ensure safety, hence Axelon Industries believes "Suraksha Man" is the right mascot who can connect with our customers and make them feel related. This will not only build long-term relationships with our loyal customers but also helps us stand out as an organization that strongly believes in safety over business.

## CHOOSING A WIRE, HERE IS WHAT ALL YOU NEED TO KNOW!

To avoid electricity mishaps occurring due to electrical sources along with the installation of right MCB/ELCB and GOOD QUALITY WIRES kindly keep in mind the below points and ensure the safety and wellbeing of your premises and people.



### Quality of Conductor

The one who conduct the electricity i.e. wires should be made of electrolyte for example pure copper to ensure optimum current carrying capacity of the wire.



### Insulation Quality

Choose the wires with good insulation capacity as overheating of copper can lead to melting & fusing of insulation resulting in short circuit or fire. If your wire's insulation capacity is good it can prevent the spread of fire and control toxic smoke. To protect your home and loved ones choose wires with good insulation.



### Resistance power of the wire

Make sure to choose wire that fulfils and conform to required resistance parameters defining the safe electric load carrying capacity of the wire.





## CARING ABOUT **THE FUTURE**

Axelon believes that connectivity makes a better platform for humans to progress. Influenced by this belief, we strive to become the most trusted company, with innovation at every step, we design the smartest connecting solutions. Our idea to connect all happily is already in motion and we are connecting the society efficiently & sustainably.



**We believe in**  
*Sustainability*