



# APSTECHS UK LTD.

Design And Engineering Solutions For Power Sector



**Connecting Future:  
Cables Built on  
Global Standards**

## Introduction

Discover our extensive range of cables, designed to meet International and British Standards. At APSTECHS, we understand that reliable power connectivity is essential for any project, which is why we offer a diverse selection of high-quality cables tailored to various applications.

Our power cables are engineered for performance and durability, ensuring they can withstand the demands of both commercial and industrial environments. Each product undergoes rigorous testing to guarantee compliance with the highest safety and quality standards.

## Standards

### Low Voltage Cables

IEC 60502	BS 7889	IEC 60287
IEC 60227	BS 7884	IEC 60183
IEC 60227	BS 50182	

### Medium Voltage Cables

IEC 60502	BS 7835	IEC 60840
BS 6622	BS 7870	IEC 60287

### High & Extra High Voltage Cables

IEC 60840	IEC 60287
IEC 60228	
IEC 62067	

Application	Type & Size	Options
Cables for Power Supply to Residential, Commercial & Industrial units	PVC/XLPE Power cables for 1.1 kV & 3.3 kV for Electrical Substations as per IEC 60502. Sizes: Single Core 10 sq. mm - 1000 sq. mm Multicore 6 sq. mm - 630 sq. mm	Conductor - Stranded / Solid, Circular / Shaped Aluminium / Copper Insulation - PVC / HR PVC Inner Sheath - PVC / HR PVC / FRLS / PVC Unarmoured / Armoured - G.S. Round Wire/ Flat Strip or Aluminium Wire / Flat Strip Outer Sheath - PVC/ HR PVC/ FRLS PVC
Heavy Duty XLPE Power cables for Power Generation Distribution	XLPE Power cables Up to 19/33 kV grade 33 kV (E) as per IEC 60840 Sizes: Single Core: 95 sq. mm - 1000 sq. mm Multicore: 95 sq. mm - 400 sq. mm	Conductor - Circular/Shaped - Aluminium/Copper Insulation - XLPE Inner sheath - PVC / HR PVC / FRLS Unarmoured / Armoured - G.S Round Wire / Flat Strip or Aluminium Wire / Flat Strip Outer sheath - PVC / HR PVC / FRLS
EHV XLPE Power cables for Transmission"	EHV Cables grade up to 220 kV as per IEC 60840 / IEC 62067 Sizes: Single Core: 240 sq. mm - 1000 sq. mm	Conductor - Stranded Circular Compacted / Milliken - Aluminium/Copper Insulation - XLPE Metallic Screen - Aluminium Corrugated / Polyol + Copper Wire Outer Sheath - PVC / HDPE
Arial Bunched/ Bundled required for overhead power distribution	PE/XLPE insulated 1.1 kV to 33 kV as per BS 7835	Conductor - Stranded Circular compacted Aluminium Insulation - PE/XLPE Messenger conductor - All Aluminium Alloy-Bare/ Insulated Street Light Cond. - Stranded Circular Compacted Aluminium, Bare/Insulated
Fire Survival Cables for fire hazardous/ prone areas	Annealed electrolytic copper conductor, heat barrier, XLPE, LSZH inner sheath G.S. wire and LSZH outer sheath as per BS 7846 testing as per IEC 331 & BS 6387	Conductor - Solid/Stranded, Plain /Tinned Heat Barrier - Mica Tape Insulation - XLPE Inner sheath - LSZH Compound Armoured - G.S. Round Wire/ Flat Strip Outer sheath - LSZH Compound
Solar cable for Solar plant	Trinned cooper XLPO insulated & LSZH sheathed 1100 Vac/1800 Vdc as per TUV specifications 2PFG - 1169/08-2007	Conductor - Flexible trinned copper Insulation - Cross linked polyolefin compound Sheath - XLPO/ LSZH Compound
Copper Control Cables for Power Switch yard Control / Relay Equipment	Annealed electrolytic copper conductor, PVC/XLPE insulated, PVC sheathed 650 V / 1100 V grade as per BS 6387	Conductor - Solid/Stranded, Plain /Tinned Insulation - PVC/HR PVC/XLPE Inner sheath - PVC/HR PVC/FRLS/Zero Halogen Unarmoured / Armoured - G.S. Round Wire / Flat Strip Outer sheath - PVC/HR PVC/FRLS/Zero Halogen Additional Option: Overall shielding with Aluminium mylar tape with 100% coverage & 25% overlap on laid up cores for static noise rejection.

Application	Type & Size	Options
Flat cables for Submersible Pumps & Motors	Stranded Plain copper, PVC insulated & PVC sheathed of 1.1 kV grade as per BS 7671 Sizes: 3 core - 1.5 sq. mm to 50 sq. mm	Insulation - PVC / HR PVC Sheathing - PVC / HR PVC
Instrumentation Signal Cables for Process control & Instrumentation	PVC Sheathed 225 V/650 V/1100 V grade cables as per BS 5308. Sizes: 0.5 sq. mm / 0.75 sq. mm / 1.0 sq. mm / 1.5 sq. mm	Conductor - Stranded / Solid, plain / tinned Insulation - PVC / HR PVC / P.E / Zero Halogen Shielding - Individual Pair / Overall pairs Drain wire - Solid Stranded Inner sheath - PVC / HR PVC Zero Halogen Unarmoured/Armoured-G.S. Round Wire, Flat Strip Outer sheath - PVC / HR PVC/ FRLS / Zero Halogen Compound
Flexible & Cord Cables for appliances, Machine Tools & Equipment Wiring	Multistrand, flexible, bright annealed electrolytic copper conductor, PVC insulated and sheathed up to 1100 V as per BS 7671 Sizes: Single, Two, Three or Four core up to 25 sq. mm	Insulation - PVC / HR PVC / FRLS / Zero Halogen Unsheathed /Sheathed - PVC / HR PVC / FRLS
Wiring Cables for electrical industry	Multistrand Flexible, up to 1100 V grade PVC Cables as per BS 7884 Sizes: Single core 1.0 sq. mm - 630 sq. mm	Conductor - Bright Annealed Copper Insulation - PVC/ HR PVC/ FRLS PVC / Zero Halogen
Energy Cables for Power Supply to Telephone Exchanges / UPS / Battery Backup / Equipments	PVC Flexible Cables up to 1.1 kV grade as per BS 7671 Sizes: 1.0 sq. mm up to 240 sq. mm Single / Multi Core	Conductor - Stranded / annealed Copper Insulation FR – Flame retardant PVC Insulate industrial cables 1100v with S3 features FR-LSH PVC Insulated industrial cables 1100 V
Air Field Lighting Cables	Stranded plain annealed copper, PVC insulated & PVC sheathed of 5 kV grade Sizes: Single core & Two core in 6 sq.mm, 16 sq.mm & 25 sq.mm	Insulation - PVC / XLPE
FS Wire	Flexible Cables up to 450 V/750 V generally to BS 7211 Sizes: 1.0 up to 240 sq. mm Single Core	Conductor - Stranded Flexible Copper Insulation - Glass mica tape & HFFR Compound
Telecom / Switch board cables for Indoor Telephones	Annealed Copper conductor, PVC Insulated as per DOT TEC Spec No: G/WIR-06/02 Sizes: 0.4 sq. mm / 0.5 sq. mm / 0.6 sq. mm / 0.7 sq. mm / 0.9 sq. mm	Conductor - Tinned / Plain Insulation - PVC / HR PVC / Nylon Inner sheath - PVC/ HR PVC/ FRLS Unarmoured / Armoured - G.S. round wire / Flat Strip Outer sheath - PVC/HR PVC/FRLS Additional Option - Individual / Overall pair/ Shielding / Screening
Coaxial cables for Telcom/ CATV / MATV industry	Available in specified RG & UR Series as per MIL-C-17 / BS 2316 Sizes: Suitable for Impedance of 50 $\Omega$ / 75 $\Omega$ / 100 $\Omega$ / 125 $\Omega$	Conductor - Plain / Tinned / Copper Clad Steel / Silver Plated Insulation - Solid / Foam / Semi air spaced Screen - Single / Double braid Sheath - PVC / HR PVC / FRLS / P.E

## 3-Core 11 kV XLPE Aluminium Cables

XLPE (cross-linked polyethylene) cable is a widely used type of electrical cable known for its excellent properties.

### Available Dimensions :

11kV 3 Core 95 mm <sup>2</sup>
11kV 3 Core 120 mm <sup>2</sup>
11kV 3 Core 150 mm <sup>2</sup>
11kV 3 Core 240 mm <sup>2</sup>
11kV 3 Core 300 mm <sup>2</sup>

### Features:

**Thermal Performance:** XLPE insulation allows for higher temperature ratings compared to PVC.

**Durability:** Resistant to moisture, chemicals, and environmental stress.



## Triplex 11kV XLPE Aluminium Cables

A triplex cable configuration typically consists of three insulated conductors twisted together, providing a compact and efficient solution for medium voltage power distribution.

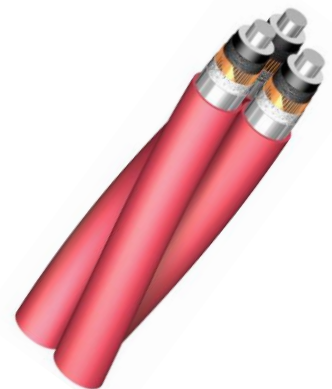
### Available Dimensions :

11kV Triplex 95 mm <sup>2</sup>
11kV Triplex 120 mm <sup>2</sup>
11kV Triplex 150 mm <sup>2</sup>
11kV Triplex 240 mm <sup>2</sup>
11kV Triplex 300 mm <sup>2</sup>
11kV Triplex 400 mm <sup>2</sup>

### Features:

**Efficiency:** Compact design reduces the amount of material required and improves space efficiency.

• **Flexibility:** Stranded conductors offer better flexibility compared to solid cores, making them easier to install in various conditions.



## Single-Core 11 kV XLPE Aluminium Cables

XLPE (cross-linked polyethylene) cable is a widely used type of electrical cable known for its excellent properties.

### Available Dimensions :

11kV Single Core 95 mm <sup>2</sup>
11kV Single Core 120 mm <sup>2</sup>
11kV Single Core 150 mm <sup>2</sup>
11kV Single Core 240 mm <sup>2</sup>
11kV Single Core 300 mm <sup>2</sup>
11kV Single Core 400 mm <sup>2</sup>
11kV Single Core 500 mm <sup>2</sup>
11kV Single Core 630 mm <sup>2</sup>
11kV Single Core 800 mm <sup>2</sup>

### Features:

**Thermal Performance:** XLPE insulation allows for higher



## Single-Core 11 kV XLPE Copper Cables

XLPE (cross-linked polyethylene) cable is a widely used type of electrical cable known for its excellent properties.

### Available Dimensions :

11kV Single Core 150 mm <sup>2</sup>
11kV Single Core 240 mm <sup>2</sup>
11kV Single Core 300 mm <sup>2</sup>
11kV Single Core 400 mm <sup>2</sup>
11kV Single Core 500 mm <sup>2</sup>
11kV Single Core 630 mm <sup>2</sup>

### Features:

**Thermal Performance:** XLPE insulation allows for higher temperature ratings compared to PVC.

**Durability:** Resistant to moisture, chemicals, and environmental



## Single-Core 33 kV XLPE Aluminium Cables

XLPE (cross-linked polyethylene) cable is a widely used type of electrical cable known for its excellent properties.

### Available Dimensions :

33kV Single Core 150 mm <sup>2</sup>
33kV Single Core 240 mm <sup>2</sup>
33kV Single Core 300 mm <sup>2</sup>
33kV Single Core 400 mm <sup>2</sup>
33kV Single Core 500 mm <sup>2</sup>
33kV Single Core 630 mm <sup>2</sup>
33kV Single Core 800 mm <sup>2</sup>

### Features:

**Thermal Performance:** XLPE insulation allows for higher temperature ratings compared to PVC.

**Durability:** Resistant to moisture, chemicals, and environmental stress.



## Single-Core 33 kV XLPE Copper Cables

XLPE (cross-linked polyethylene) cable is a widely used type of electrical cable known for its excellent properties.

### Available Dimensions :

33kV Single Core 240 mm <sup>2</sup>
11kV Single Core 300 mm <sup>2</sup>
11kV Single Core 400 mm <sup>2</sup>
33kV Single Core 500 mm <sup>2</sup>
33kV Single Core 630 mm <sup>2</sup>
33kV Single Core 800 mm <sup>2</sup>
33kV Single Core 1000 mm <sup>2</sup>

### Features:

**Thermal Performance:** XLPE insulation allows for higher temperature ratings compared to PVC.





## DC Cables

### STANDARDS

IEC62930

### CHARACTERISTICS

Voltage Rating

U0 : 1000V AC

V0 : 1500V DC

Test Voltage 50 Hz, 5 min 10kV AC

Temperature Range (3000h): -40°C to + 150°C



## Solar Cables

Solar cables are used to link solar panels to other electrical components of a DC system. Solar cables are used on the direct current side of solar systems and have a nominal DC voltage of 1.5 kV in accordance with international standards TUV 2pfg 1169/08.2007 or EN 50618.

These cables are suitable for both indoor and outdoor usage, and have a high mechanical strength under adverse weather conditions. Cables are built to endure the harsh climatic conditions seen in any permanent, transportable, roof-mounted, or aesthetically integrated solar system. These cables are made of aluminium (stranded-circular) and copper conductors that can be stranded or multistranded.

This cable is insulated with XLPE/XLPO and UV-resistant outer sheath.



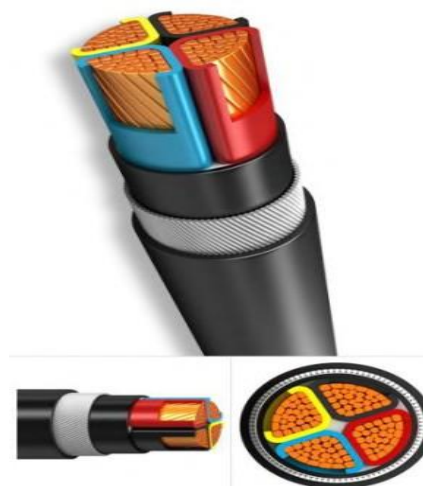


## LV Power Cables

APSTECHS Power cables are utilised in power distribution applications such as industrial, commercial, institutional and residential. They are used in a wide range of sectors, such as renewable energy, steel cement, railroads and several other industrial industries among others.

These cables are made from EC grade aluminium or annealed/tinned electrolytic copper. Conductors might be solid, stranded, compact, circular or sector shaped.

PVC/XLPE extrusion insulated, with cores put up on ST-1/ST-2 inner-sheath extruded PVC (FR/FRLSH/LSZH) unarmoured/armoured Extruded PVC ST-1/ST-2 (FR/FRLSH/LSZH) encased cables from single core to 1000sqmm and multi-core to 4C\*400sqmm.



## MV Power Cables

APSTECHS Power cables are utilised in power distribution applications such as industrial, commercial, institutional and residential. They are used in a wide range of sectors, such as renewable energy, steel cement, railroads and several other industrial industries among others.

These cables are made from EC grade aluminium or annealed/tinned electrolytic copper. IEC 60811 is met by all conductors. Conductors might be solid, stranded, compact, circular or sector shaped.

XLPE extruded insulation with cores installed  
Unarmoured/Armoured Extruded PVC ST-1/ST-2 (FR/FRLSH/LSZH) inner-sheath Extruded PVC ST-1/ST-2 (FR/FRLSH/LSZH) Multi-core to 4C\*400 mm<sup>2</sup> encased cables and single core to 1000 mm<sup>2</sup> encases cables.

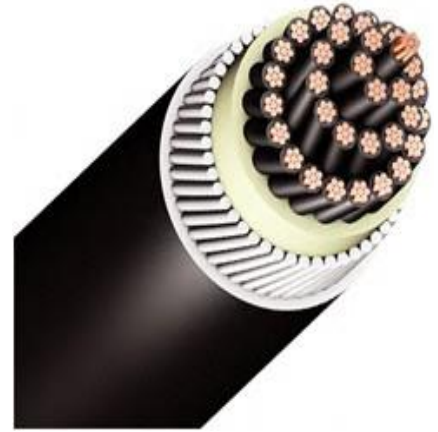


## LV Control Cables

APSTECHS Control Cables are used to link control circuits, communication systems, electrical panels, and control panels, among other things. The cables are made of annealed bare or tinned electrolytic copper. IEC 60502 is met by all conductors. The conductors are either solid or stranded.

PVC/XLPE extrusion Unarmoured/Armoured, Extruded PVC ST-1/ST-2 (FR/FRLSH/LSZH), Extruded PVC ST-1/ST-2 (FR/FRLSH/LSZH) coated cables in 1.5 mm and 2.5 mm sizes, up to 61 cores.

Cables are made in accordance with IEC: 60502(p-1) /BS: 5467, as well as client specifications.





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