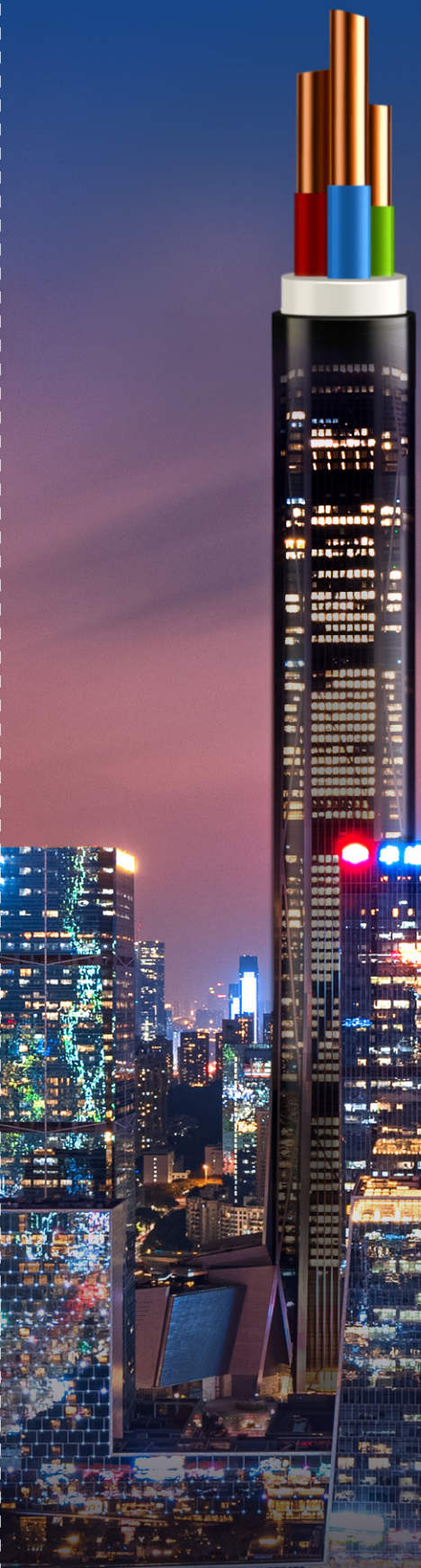
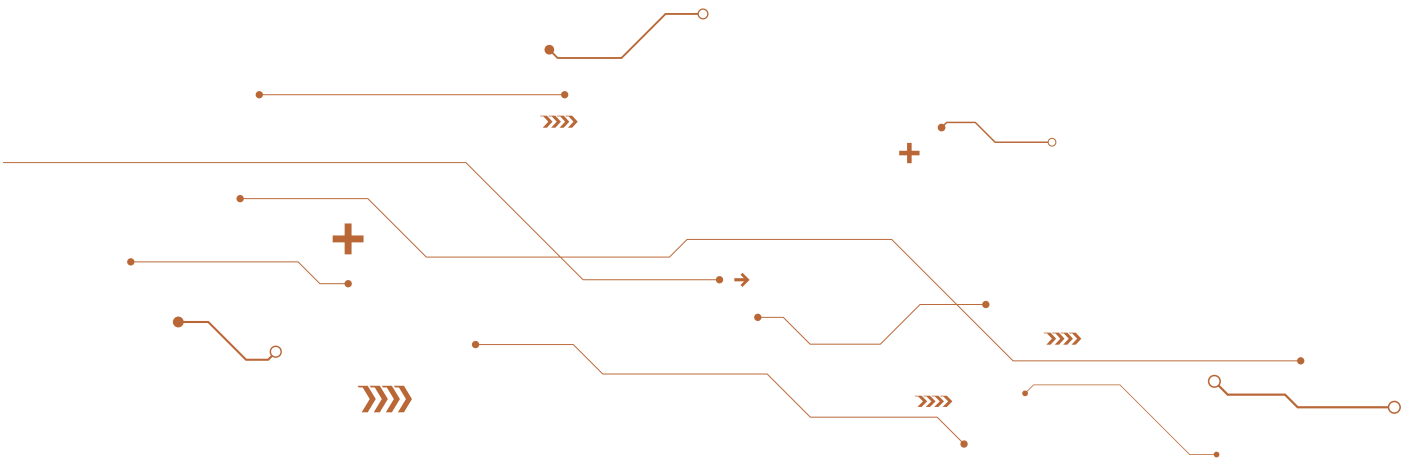
APAR
CABLE SOLUTIONS



THE FUTURE OF WIRING IN INDIA

PRODUCT CATALOGUE

LIGHT DUTY CABLES



APAR
CABLE SOLUTIONS

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ABOUT APAR

POWERING A SMARTER WORLD SINCE 1958

We are a technology-driven, customer-focused company that delivers - innovative, cost-effective, quality products & services. We believe that with an innovation-first mindset, we can find impactful solutions for our customers. Trusted by major power generation, transmission, distribution, renewables, automotive, telecom, railways and defence companies globally.

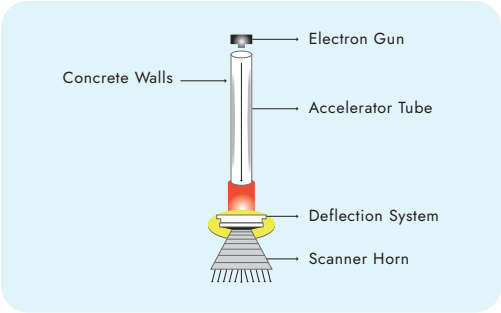
Group Revenue is 14,352 Cr	65 Years of experience	Footprint in over 140+ countries
Over 1500+ employees	Around 49% of exports	9 Manufacturing units

Founded by Late Mr. Dharmsinh D. Desai in 1958, APAR Industries Limited is a billion-dollar company that holds a leadership position in its three principal business segments. Today we have emerged as one of the world's most respected and successful business conglomerates operating in diversified portfolios like speciality oils, conductors, cables, lubricants, Telecom, speciality automotive and polymers.

Today, we are ranked as the **world's largest Conductor manufacturer** and **3rd largest Transformer Oil manufacturer**. Trusted by major transformer OEMs, Power Utilities, Global EPC Majors, Automotive OEMs and Telecom companies for over six decades, we have been leading the innovation curve in our industry segments in over **140 countries**.

APAR ventured into the cable solutions business after acquiring Uniflex Cables in 2008 and has grown steadily from **₹127 Cr. in 2008-09 to ₹3,263 Cr in FY 22 - 23.** Our two state-of-the-art facilities at Umbergaon and Khatalwada in South Gujarat (150 km from Mumbai) are well equipped with advanced manufacturing & testing facilities. The Khatalwada facility is **India's largest Electron Beam (E-Beam) facility**, with **four e-beam** irradiation machines (one 1.5 MeV, two 2.5 MeV & one 3 MeV). As India's largest manufacturer of special application cables, we cater to various speciality sectors like railway locomotives, coaches, naval ships, submarines, solar, windmills, hybrid cables, harness, telecommunication and general-purpose LV, MV, XLPE cables, and flexible wires & cables.

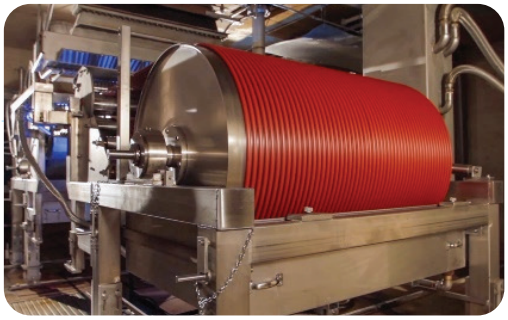
E-BEAM TECHNOLOGY



An Electron Gun is housed in a thick vessel where electrons are accelerated in an accelerator tube & directed to a scanning device magnetically to scan.

The cables are passed under the beam through a set of under beam equipment.

Highly accelerated electrons penetrate the insulation or sheath of cables.

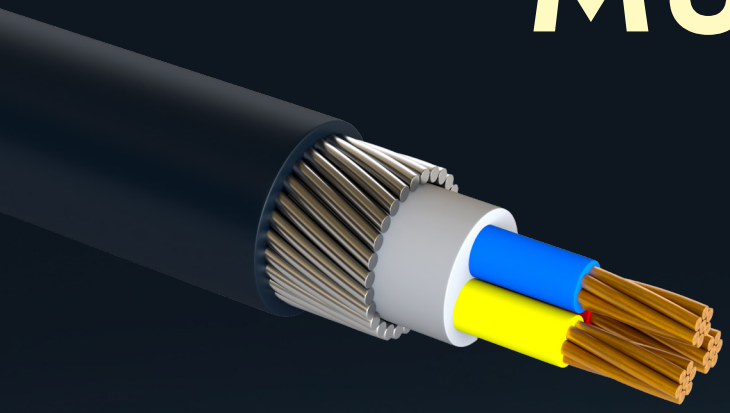


Generates carbon radicals which cross-links polymer chains of plastic three dimensionally with each other.
Electron beam Irradiated cables and wires offer superior performance as compared to conventional PVC or XLPE cables.

FEATURES & ADVANTAGES

- ENHANCED PRECISION
- CUSTOMIZABILITY
- REDUCED IMPURITIES
- SUPERIOR MATERIAL PROPERTIES
- EFFICIENT PRODUCTION
- ENERGY EFFICIENCY
- ENVIRONMENTALLY FRIENDLY

HOUSE WIRE & MULTICORE CABLES



APAR CABLE SOLUTIONS

APAR Anushakti | HR FR PVC

HEAT RESISTANT FLAME RETARDANT PVC

APAR Anushakti is an innovative wire manufactured using Electron Beam Technology, providing a 50% increase in current capacity and superior heat resistance, making it India's safest house wire. It features copper conductors, Twin Screw manufacturing, and Flame Retardant PVC insulation with excellent fire resistance, surpassing IS 694: 2010 standards.

FEATURES & ADVANTAGES

- HEAT-RESISTANT @ 105° C
- FLAME-RETARDANT
- MELT-RESISTANT
- SHORT-CIRCUIT RESISTANT
- ANTI-TERMITE
- VERY LOW LEAKAGE
- 50% MORE CURRENT CARRYING CAPACITY
- ENERGY SAVING

50 YEARS OF LIFE

POWERED BY E-BEAM TECHNOLOGY

TECHNICAL CHARACTERISTICS AND STANDARDS

TEST	Temperature Index	Oxygen Index	Smoke density (light absorption)	Acid gas generation	Shelf life
SPECIFICATION VALUES	≥ 250°C	> 29%	75%	20%	> 50 Years

Single Core, unsheathed HR FR PVC Cables for 1100 V as per IS 694					Current Carrying Capacity	
Nominal Area of Copper Conductor/ Class of Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	In Conduit/ Trunking	Unenclosed- Clipped directly to surface or on cable tray
Sq.mm	(No./Dia.mm)	mm	mm	ohms	amps	amps
Class 5 - 0.5 Sq.mm	16/0.2	0.6	2.10	39	6	10
Class 5 - 0.75 Sq.mm	24/0.2	0.6	2.20	26	11	16
Class 5 - 1 Sq.mm	32/0.2	0.6	2.40	19.5	16	24
Class 5 - 1.5 Sq.mm	30/0.25	0.7	2.85	13.3	20	32
Class 5 - 2.5 Sq.mm	50/0.25	0.8	3.50	7.98	27	44
Class 5 - 4 Sq.mm	56/0.3	0.8	4.00	4.95	36	58
Class 5 - 6 Sq.mm	84/0.3	0.8	4.50	3.3	47	74
Class 5 - 10 Sq.mm	80/0.4	1.0	6.10	1.91	-	83
Class 5 - 16 Sq.mm	126/0.4	1.0	7.30	1.21	-	105
Class 2 - 1 Sq.mm	7/0.43	0.7	2.70	18.1	17	25
Class 2 - 1.5 Sq.mm	7/0.53	0.7	3.00	12.1	21	33
Class 2 - 2.5 Sq.mm	7/0.67	0.8	3.60	7.41	29	47
Class 2 - 4 Sq.mm	7/0.85	0.8	4.10	4.61	39	61
Class 2 - 6 Sq.mm	7/1.04	0.8	4.70	3.08	51	77

- **CORE** - Single Core
- **INSULATION** - HR FR PVC
- **LENGTH** - 45 Mtr, 90 Mtr, 100 Mtr & 180 Mtr (Also available in custom sizes)
- **COLOUR** - Red, Green, Blue, Black, White, Yellow (Also available in custom colours)

APAR Anushakti | HR FR LSH (Low Smoke Low Halogen)

HEAT RESISTANT FLAME RETARDANT LOW SMOKE LOW HALOGEN

We've introduced "APAR Anushakti", a groundbreaking wire product utilizing cutting-edge Electron Beam Technology (E-Beam) with a 50% increase in current carrying capacity and higher temperature resistance, positioning it as the safest house wire choice in India; responding to demand, we've also introduced HR FR LSH wires, addressing fire hazards with enhanced fire safety, low smoke emissions, and reduced toxic gas release, prioritizing safety and reliability in electrical installations.

FEATURES & ADVANTAGES

- LOW SMOKE
- LOW HALOGEN
- HEAT-RESISTANT @ 105°C
- ENERGY SAVING
- FLAME-RETARDANT
- MELT-RESISTANT
- SHORT-CIRCUIT RESISTANT
- ANTI-TERMITE
- 50% MORE CURRENT CARRYING CAPACITY
- VERY LOW LEAKAGE

TECHNICAL CHARACTERISTICS AND STANDARDS

TEST	Temperature Index	Oxygen Index	Smoke density (light absorption)	Acid gas generation
SPECIFICATION VALUES	≥ 250°C	≥ 29%	≤ 60%	≤ 20%

Single Core, unsheathed HR FR-LSH PVC Cables for 1100 V as per IS 694					Current Carrying Capacity 2 Cables, single phase	
Nominal Area of Copper Conductor/ Class of Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	In Conduit/ Trunking	Unenclosed- Clipped directly to surface or on cable tray
Sq.mm	(No./Dia.mm)	mm	mm	ohms	amps	amps
Class 5 - 0.75 Sq.mm	24/0.2	0.6	2.20	26.0	11	16
Class 5 - 1 Sq.mm	32/0.2	0.6	2.40	19.50	16	24
Class 5 - 1.5 Sq.mm	30/0.25	0.7	2.85	13.30	20	32
Class 5 - 2.5 Sq.mm	50/0.25	0.8	3.50	7.98	27	44
Class 5 - 4 Sq.mm	56/0.3	0.8	4.0	4.95	36	58
Class 5 - 6 Sq.mm	84/0.3	0.8	4.50	3.30	47	74
Class 2 - 1 Sq.mm	7/0.43	0.7	2.70	18.1	17	25
Class 2 - 1.5 Sq.mm	7/0.53	0.7	3.00	12.1	21	33
Class 2 - 2.5 Sq.mm	7/0.67	0.8	3.60	7.41	29	47
Class 2 - 4 Sq.mm	7/0.85	0.8	4.10	4.61	39	61
Class 2 - 6 Sq.mm	7/1.04	0.8	4.70	3.08	51	77

- **CORE** - Single Core
- **INSULATION** - HR FR - LSH PVC
- **LENGTH** - 90 Mtr & 180 Mtr (Also available in custom sizes)
- **COLOUR** - Red, Green, Blue, Black, White, Yellow (Also available in custom colours)

APAR Shakti | FR LSH (Low Smoke Low Halogen)

FLAME RETARDANT LOW SMOKE LOW HALOGEN

APAR's Single core Flexible Wires and Cables, made with finely drawn annealed bare copper strands and Flame Retardant low smoke low halogen (FR-LSH) PVC insulation, find applications in low voltage signals, electrical motors, appliances, control panels, transformers, electrical boards, and battery cables, boasting high thermal stability, insulation resistance, and fire safety with low smoke and toxic gas emission in case of fire.

FEATURES & ADVANTAGES

- LOW SMOKE
- LOW HALOGEN
- FLAME-RETARDANT
- ENERGY SAVING
- BETTER FLEXIBILITY
- LONGER LIFE
- EXCELLENT INSULATION RESISTANCE
- LEAD FREE
- ANTI-TERMITE
- 100% CONDUCTIVITY

TECHNICAL CHARACTERISTICS AND STANDARDS

TEST	Temperature Index	Oxygen Index	Smoke density (light absorption)	Acid gas generation	Service life
SPECIFICATION VALUES	≥ 250°C	≥ 29%	≤ 60%	≤ 20%	>25 Years

Single Core, unsheathed FR LSH PVC Cables for 1100 V as per IS 694 | **Current Carrying Capacity 2 tables, single phase**

Nominal Area of Copper Conductor/ Class of Conductor	Conductor Construction	Thickness of Insulation (180 mtr)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	In Conduit/ Trunking	Unenclosed- directly to surface or on cable tray
Sq.mm	(No./Dia.mm)	mm	mm	ohms	amps	amps
Class 5 - 0.75 Sq.mm	24/0.2	0.6	2.20	26	6	7
Class 5 - 1 Sq.mm	32/0.2	0.6	2.40	19.5	11	12
Class 5 - 1.5 Sq.mm	30/0.25	0.7	2.85	13.3	13	16
Class 5 - 2.5 Sq.mm	50/0.25	0.8	3.50	7.98	18	22
Class 5 - 4 Sq.mm	56/0.3	0.8	4.00	4.95	24	29
Class 5 - 6 Sq.mm	84/0.3	0.8	4.50	3.3	31	37
Class 5 - 10 Sq.mm	80/0.4	1.0	6.1	1.91	-	46
Class 5 - 16 Sq.mm	126/0.4	1.0	7.30	1.21	-	62
Class 2 - 1 Sq.mm	7/0.43	0.7	2.70	18.1	12	13
Class 2 - 1.5 Sq.mm	7/0.53	0.7	3.00	12.1	14	17
Class 2 - 2.5 Sq.mm	7/0.67	0.8	3.60	7.41	19	24
Class 2 - 4 Sq.mm	7/0.85	0.8	4.10	4.61	26	31
Class 2 - 6 Sq.mm	7/1.04	0.8	4.70	3.08	33	40

- **CORE** - Single Core
- **INSULATION** - FR-LSH PVC
- **LENGTH** - 90 Mtr & 180 Mtr (Also available in custom sizes)
- **COLOUR** - Red, Green, Blue, Black, White, Yellow (Also available in custom colours)

APAR Shakti | FR PVC

FLAME RETARDANT PVC

APAR's Single core Flexible Wires and Cables, featuring conductors made from high-quality copper strands and insulated with in-house formulated Flame Retardant (FR) PVC compound, serve various applications including low voltage signals, electrical motors, appliances, control panels, transformers, electrical boards, and battery cables, offering exceptional thermal stability, insulation resistance, and fire safety with a high critical oxygen index and temperature resistance..

FEATURES & ADVANTAGES

- FLAME-RETARDANT
- ENERGY SAVING
- LONGER LIFE
- BETTER FLEXIBILITY

TECHNICAL CHARACTERISTICS AND STANDARDS

TEST	Temperature Index	Oxygen Index	Service life
SPECIFICATION VALUES	≥ 250°C	≥ 29%	> 25 Years

Single Core, unsheathed FR Cables for 1100 V as per IS 694 | **Current Carrying Capacity 2 Cables, single phase**

Nominal Area of Copper Conductor/ Class of Conductor	Conductor Construction	Thickness of Insulation (180 mtr)	Approx Overall Diameter	Conductor Resistance (Max) per km @20°C	In Conduit/ Trunking	Unenclosed- directly to surface or on cable tray
Sq.mm	(No./Dia.mm)	mm	mm	ohms	amps	amps
Class 5 - 0.5 Sq.mm	16/0.2	0.6	2.10	39	3	4
Class 5 - 0.75 Sq.mm	24/0.2	0.6	2.20	26	6	7
Class 5 - 1 Sq.mm	32/0.2	0.6	2.40	19.5	11	12
Class 5 - 1.5 Sq.mm	30/0.25	0.7	2.85	13.3	13	16
Class 5 - 2.5 Sq.mm	50/0.25	0.8	3.50	7.98	18	22
Class 5 - 4 Sq.mm	56/0.3	0.8	4.00	4.95	24	29
Class 5 - 6 Sq.mm	84/0.3	0.8	4.50	3.3	31	37
Class 5 - 10 Sq.mm	80/0.4	1.0	6.10	1.91	-	46
Class 5 - 16 Sq.mm	126/0.4	1.0	7.30	1.21	-	62
Class 2 - 1 Sq.mm	7/0.43	0.7	2.70	18.1	12	13
Class 2 - 1.5 Sq.mm	7/0.53	0.7	3.00	12.1	14	17
Class 2 - 2.5 Sq.mm	7/0.67	0.8	3.60	7.41	19	24
Class 2 - 4 Sq.mm	7/0.85	0.8	4.10	4.61	26	31
Class 2 - 6 Sq.mm	7/1.04	0.8	4.70	3.08	33	40

- **CORE** - Single Core
- **INSULATION** - FR PVC
- **LENGTH** - 90 Mtr & 180 Mtr (Also available in custom sizes)
- **COLOUR** - Red, Green, Blue, Black, White, Yellow (Also available in custom colours)

APAR CABLE SOLUTIONS

APAR Mahashakti | ROUND MULTICORE

Round Multicore - Annealed Copper Conductor, XLPO insulated and special Elastomer sheathed cable

APAR Mahashakti cables, developed in-house, feature XLPO compounds providing protection against electric shock, high oxygen and temperature resistance for fire safety, exceptional overload capacity, non-melting insulation, and improved aging properties for an extended operating life.

FEATURES & ADVANTAGES

- Flexible & Cord Cables for all electrically operated machines & equipments (e.g. Air-conditioners/Refrigerators/Motors etc.)
- Annealed Copper Conductor, XLPO insulated and special Elastomer sheathed cable
- Various sizes ranging from 0.5 sq. mm to 50 sq. mm are available in 2, 3, and 4 cores. Larger cores and sizes can be obtained upon request.
- 101% copper conductivity, 99.95% pure bare copper conductor

TECHNICAL CHARACTERISTICS AND STANDARDS

Annealed Copper Conductor, XLPO insulated and special Elastomer sheathed cable

Nominal Area of Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Nominal Thickness of Sheath			Approx Overall Diameter			Conduct or Resistance (Max) per km @20°C	Current Carrying Capacity 2 cables, single phase
			2 Core	3 Core	4 Core	2 Core	3 Core	4 Core		
Sq.mm	mm	mm	mm	mm	mm	mm	mm	mm	ohms	Amps
0.5	19/0.20	1	1	1	1	8.5	9.2	10	39	7
0.75	24/0.2	1	1	1	1.1	9.0	9.5	10.5	26	11
1	32/0.2	1	1	1	1.1	9.5	10	11	19.5	14
1.5	30/0.25	1	1	1.1	1.1	10	11	12	13.3	21
2.5	50/0.25	1	1.1	1.1	1.1	11	11.5	13	7.98	27
4	56/0.30	1	1.2	1.2	1.2	12.5	13	14	4.95	39
6	84/0.4	1	2	2.1	2.5	15	16	18.5	3.3	46
10	80/0.4	1.2	2.4	2.5	2.7	19.5	21	23	1.91	63
16	126/0.4	1.2	2.5	2.7	2.9	22	24	26.5	1.21	85
25	196/0.4	1.4	3.2	3.3	3.4	27.5	29.5	32	0.78	105
35	276/0.4	1.4	3.3	3.4	3.5	30	36	35.5	0.554	130
50	396/0.4	1.6	3.5	3.6	3.7	33.5	40.5	39.5	0.386	165

- **CORE** - 2 Core/ 3 Core/ 4 Core
- **INSULATION** - XLPO
- **LENGTH** - 100 Mtrs Coil, 500 Mtrs Drum, 1000 Mtrs Drum
- **COLOUR** - Black

APAR Shakti | ROUND MULTICORE

PVC Insulated & PVC Sheathed

APAR Multicore Flexible Wires and Cables are versatile for low voltage applications, boasting highly flexible copper conductors with high dielectric strength, exceptional thermal stability, insulation resistance, and safety features, making them suitable for various electrical uses.

FEATURES & ADVANTAGES

- LEAD FREE
- ANTI-TERMITE
- 100% CONDUCTIVITY
- LONGER LIFE
- ENERGY SAVING
- BETTER FLEXIBILITY

TECHNICAL CHARACTERISTICS AND STANDARDS

ROUND MULTICORE, PVC INSULATED & PVC SHEATHED - 2 CORE

Nominal Area of Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	Max Current Carrying Capacity 2 Cables Single, Phase
Sq.mm	(No./Dia.mm)	mm	mm	mm	ohms	amps
2 x 0.5	16/0.2	0.6	0.9	6.4	39.0	4
2 x 0.75	24/0.2	0.6	0.9	6.7	26.0	7
2 x 1	32/0.2	0.6	0.9	7.0	19.5	12
2 x 1.5	30/0.25	0.6	0.9	7.6	13.3	16
2 x 2.5	50/0.25	0.7	1.0	9.0	7.98	20
2 x 4	56/0.3	0.8	1.0	10.5	4.95	27
2 x 6	84/0.3	0.8	1.1	11.8	3.30	34
2 x 10	80/0.4	1.0	1.3	15.1	1.91	44
2 x 16	126/0.4	1.0	1.4	17.7	1.21	61
2 x 25	196/0.4	1.2	1.4	21.2	0.780	69
2 x 35	276/0.4	1.2	1.6	23.9	0.554	88
2 x 50	396/0.4	1.4	2.0	29.1	0.386	116
2 x 70	360/0.5	1.4	2.2	32.5	0.272	155
2 x 95	475/0.5	1.6	2.4	36.7	0.206	190

ROUND MULTICORE, PVC INSULATED & PVC SHEATHED - 3 CORE

Nominal Area of Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	Max Current Carrying Capacity 2 Cables Single, Phase
Sq.mm	(No./Dia.mm)	mm	mm	mm	ohms	amps
3 x 0.5	16/0.2	0.6	0.9	6.7	39.0	3
3 x 0.75	24/0.2	0.6	0.9	7.1	26.0	6
3 x 1	32/0.2	0.6	0.9	7.5	19.5	10
3 x 1.5	30/0.25	0.6	0.9	8.0	13.3	14

Nominal Area of Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	Max Current Carrying Capacity 2 Cables Single, Phase
Sq.mm	(No./Dia.mm)	mm	mm	mm	ohms	amps
3 x 2.5	50/0.25	0.7	1.0	9.6	7.98	18
3 x 4	56/0.3	0.8	1.0	11.1	4.95	24
3 x 6	84/0.3	0.8	1.2	12.7	3.30	30
3 x 10	80/0.4	1.0	1.4	16.2	1.91	39
3 x 16	126/0.4	1.0	1.4	18.9	1.21	55
3 x 25	196/0.4	1.2	1.5	22.9	0.780	60
3 x 35	276/0.4	1.2	1.6	25.6	0.554	77
3 x 50	396/0.4	1.4	2.0	31.1	0.386	102
3 x 70	360/0.5	1.4	2.2	34.8	0.272	140
3 x 95	475/0 5	1 6	2.4	39 2	0 206	165

ROUND MULTICORE, PVC INSULATED & PVC SHEATHED - 4 CORE

Nominal Area of Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	Max Current Carrying Capacity 2 Cables Single, Phase
Sq.mm	(No./Dia.mm)	mm	mm	mm	ohms	amps
4 x 0.5	16/0.2	0.6	0.9	7.3	39.0	3
4 x 0.75	24/0.2	0.6	0.9	7.7	26.0	6
4 x 1	32/0.2	0.6	0.9	8.1	19.5	10
4 x 1.5	30/0.25	0.6	1.0	9.0	13.3	14
4 x 2.5	50/0.25	0.7	1.0	10.5	7.98	18
4 X 4	56/0.3	0.8	1.0	12.2	4.95	24
4 X 6	84/0.3	0.8	1.2	13.9	3.30	30
4 X 10	80/0.4	1.0	1.4	17.9	1.91	39
4 X 16	126/0.4	1.0	1.4	20.8	1.21	55
4 X 25	196/0.4	1.2	1.6	25.4	0.780	60
4 X 35	276/0.4	1.2	1.7	28.5	0.554	77
4 X 50	396/0.4	1.4	2.0	34.3	0.386	102
4 X 70	360/0.5	1.4	2.2	38.4	0.272	140
4 X 95	475/0.5	1.6	2.4	43.3	0.206	165

- **CORE** - 2 Core/ 3 Core/ 4 Core
- **INSULATION** - PVC
- **LENGTH** - 100 Mtrs Coil, 500 Mtrs Drum, 1000 Mtrs Drum
- **COLOUR** - Black

APAR Alum Shakti | ROUND MULTICORE

Stranded bare ALUMINIUM conductor, inner core HR PVC insulated, and the outer sheath is HR PVC material sheathed cable.

Stranded bare aluminium conductor: The cable comprises a stranded bare aluminium conductor, an inner core insulated with high-temperature-resistant (HR) PVC material, and an outer sheath made of HR PVC material, offering protection against electrical interference, physical damage, moisture, abrasion, and environmental factors.

FEATURES & ADVANTAGES

- **HIGH CURRENT CARRYING CAPACITY**
- **EXCELLENT FLEXIBILITY**
- **LOW CONDUCTOR RESISTANCE**
- **HEAT RESISTANT**
- **EXCEPTIONAL MECHANICAL PROPERTIES**

Round Multicore, Stranded bare ALUMINIUM conductor, inner core HR PVC insulated, and the outer sheath is HR PVC material sheathed cable

Nominal Area of Aluminium Conductor	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diameter	Conductor Resistance (Max) per km @20° C	Max Current Carrying Capacity, Single Phase
Sq.mm	mm	mm	mm	ohms	amps
2 x 1.5	0.6	0.9	7.8	18.1	16
2 x 2.5	0.7	1.0	9.3	12.1	21
2 x 4	0.8	1.0	10.8	7.41	28
2 x 6	0.8	1.1	12.5	4.61	32
2 x 10	1.0	1.2	15.4	3.08	40
2 x 16	1.0	1.3	18.7	1.91	54
3 x 1.5	0.6	0.9	8.3	18.1	15
3 x 2.5	0.7	1.0	9.9	12.1	20
3 x 4	0.8	1.1	11.7	7.41	27
3 x 6	0.8	1.1	13.4	4.61	31
3 x 10	1.0	1.2	16.5	3.08	39
3 x 16	1.0	1.3	20.0	1.91	53
4 x 1.5	0.6	0.9	9.1	18.1	15
4 x 2.5	0.7	1.0	10.8	12.1	20
4 x 4	0.8	1.1	12.8	7.41	27
4 x 6	0.8	1.2	14.8	4.61	31
4 x 10	1.0	1.3	18.3	3.08	39
4 x 16	1.0	1.4	22.2	1.91	53

- **CORE** - 2 Core/ 3 Core/ 4 Core
- **INSULATION** - HR PVC
- **COLOUR** - Outer Sheath Black, Custom Color Available
- **LENGTH** - 100 Mtrs Coil, 500 Mtrs Drum, 1000 Mtrs Drum - 2 Core
  100 Mtrs Coil, 500 Mtrs Drum, 1000 Mtrs Drum | 500 Mtrs Drum, 1000 Mtrs Drum - 3 Core
  100 Mtrs Coil, 500 Mtrs Drum, 1000 Mtrs Drum | 500 Mtrs Drum, 1000 Mtrs Drum - 4 Core

APAR Mahashakti | FLAT MULTICORE

3 Core Flat, XLPO insulated and special Elastomer sheathed cable

APAR Mahashakti cables feature specially developed PVC compounds and XLPO compound with high-temperature ratings, providing protection against electric shock, short circuits, and fire hazards, while also demonstrating excellent insulation resistance and durability even under long-term overload conditions.

FEATURES & ADVANTAGES

- **MAXIMUM OPERATING TEMPERATURE UP TO 70°C**
- **HIGH OPERATING LIFE OF THE CABLES**
- **INCREASE FLEXIBILITY**
- **SPECIALLY IN-HOUSE FORMULATED XLPO COMPOUND**

TECHNICAL CHARACTERISTICS AND STANDARDS

3 Core Flat, XLPO insulated and special Elastomer sheathed cable

Nominal Area of Copper Conductor	Number of Wire/ Diameter of Wire	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diameter (Width/Height)	Conductor Resistance (Max) per km @20° C
Sq.mm	(No./Dia.mm)	mm	mm	mm	ohms
1.5	30/0.26	0.65	0.95	10.30 x 4.90	13.3
2.5	50/0.26	0.75	1.05	12.6 x 5.8	7.98
4	56/0.31	0.85	1.1	14.8 x 6.60	4.95
6	84/0.31	0.85	1.3	16.95 x 7.4	3.3
10	140/0.31	1.2	1.7	24.15 x 10.15	1.91
16	226/0.31	1.05	1.6	26.2 x 10.7	1.21
25	354/0.31	1.4	2	32.8 x 13.6	0.78
35	495/0.31	1.4	2.25	37.4 x 15.8	0.554
50	703/0.31	1.5	2.3	42.6 x 17.4	0.386

- **CORE** - 3 Core
- **INSULATION** - XLPO
- **LENGTH** - 500/1000 m
- **COLOUR** - Grey

**Also available in XLPE and Rubber insulation*

^Also available in flexible aluminium conductor

APAR Shakti | FLAT MULTICORE

Stranded Bare Annealed Copper Conductor PVC Insulated & PVC Sheathed Flat submersible cable

APAR 3 Core Flat Submersible Pump cables, featuring specially formulated PVC insulation and sheath for submersible pump motor applications, have a high abrasion-resistant outer sheath, excellent mechanical and electrical properties, resistance to moisture , chemical and water, making them suitable for challenging underground and underwater conditions with a maximum operating temperature of 70°C.

FEATURES & ADVANTAGES

- IS: 694 and other International specifications
- Maximum operating temperature up to 70°C
- High operating life of the cables
- Increase Flexibility
- Specially In-house formulated PVC compound

TECHNICAL CHARACTERISTICS AND STANDARDS

3 Core Flat, Stranded Bare Annealed Copper Conductor

Nominal Area of Copper Conductor	Conductor Construction	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diamension (Width x Thicknes)	Conductor Resistance(Max) Per km @20° C	Max Current Carrying Capacity
Sq.mm	(No./Dia. mm)	mm	mm	mm	ohms	amps
1.5	30/0.25	0.6	0.9	10.3 X 4.7	13.3	14
2.5	50/0.25	0.7	1.0	12.4 X 5.5	7.98	15
4	56/0.3	0.8	1.0	14.5 X 6.3	4.95	26
6	84/0.3	0.8	1.1	16.4 X 7.0	3.30	31
10	140/0.3	1.0	1.4	21.3 X 9.0	1.91	42
16	226/0.3	1.0	1.4	24.9 X 10.3	1.21	57
25	354/0.3	1.2	2.0	31.3 X 13.2	0.780	72
35	495/0.3	1.2	2.0	34.9 X 14.4	0.554	90
50	703/0.3	1.4	2.2	41.8 X 16.9	0.386	115

- **CORE** - 3 Core
- **TYPE** - Copper Conductor
- **LENGTH** - 500/1000 m
- **COLOUR** - Black

APAR Alum Shakti | FLAT MULTICORE

Stranded Bare Aluminium Conductor, Insulation HR PVC & Outer Sheath HR PVC

APAR 3 Core Flat Submersible Pump cables, featuring multistranded flexible aluminium conductors and In-house formulated HR PVC insulation and abrasion-resistant PVC sheath, are ideal for submersible pump motor applications with excellent mechanical and electrical properties, resistance to abrasion, moisture, chemical, and water, suitable for challenging underground and underwater conditions, and have a maximum operating temperature of 85°C.

FEATURES & ADVANTAGES

- IS: 694 and other International specifications
- Maximum operating temperature up to 85° C
- High operating life of the cables
- Increase Flexibility
- Specially In-house formulated PVC compound

TECHNICAL CHARACTERISTICS AND STANDARDS

3 Core Flat, stranded bare ALUMINIUM conductor, inner core HR PVC insulated and outer sheath is HR PVC

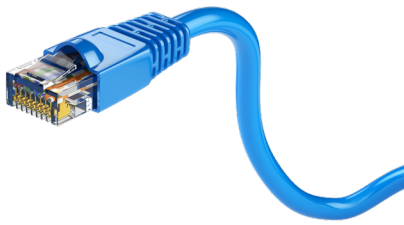
Nominal Area of Copper Conductor	Thickness of Insulation (Nominal)	Thickness of Outer Sheath (Nominal)	Approx Overall Diamensi (Width x Thickness)	Conductor Resistance (Max) per km @20° C	Max Current Carrying Capacity
Sq.mm	mm	mm	mm	ohms	amps
2.5	0.7	1.0	13.0 X 5.7	12.1	20
4	0.8	1.0	15.5 X 6.6	7.41	27
6	0.8	1.1	18.8 X 7.8	4.61	31
10	1.0	1.4	23.3 X 9.7	3.08	39
16	1.0	1.4	27.0 X 11.0	1.91	53

- **CORE** - 3 Core
- **TYPE** - Aluminium Conductor
- **LENGTH** - 500 m
- **COLOUR** - Black

TELECOMMUNICATIONS CABLE

APAR Tarang Shakti | LAN CABLE (CAT 5, CAT 6, CAT 6E)

APAR LAN Cables, designed for high-speed network access, feature four twisted copper wire pairs to prevent interference, are flexible, and provide reliable signal transmission, with CAT 6 (With Separator) cables optimized for high-performance data transmission with low Bit Error Rate.



Specification

Type: LAN Colour: Grey

Application

A multi-pair performance cable that consists of twisted pair conductors, used mainly for data transmission. Category 6 is recommended for all new installations, supports a frequency range of up to 250MHz and is designed for transmission speeds of up to 1 gigabit per second (Gigabit Ethernet).

Characteristic

Temperature Rating: -20°C to +60°C

Minimum Bending Radius: Fixed: 4 x overall diameter | Flexed: 8 x overall diameter

Construction

Conductor: Class 1 solid copper conductor

Insulation: HDPE (High Density Polyethylene)

Screen: Aluminium foil

Sheath: PE (Polyethylene)

Sheath Colour: Black

TECHNICAL CHARACTERISTICS AND STANDARDS

Cable Type	Packing
24 AWG Cat 6 UTP Unarmoured FR PVC Cable	305 m
24 AWG Cat 6 UTP Wire Armoured LSZH Cable	305 m

TECHNICAL SPECIFICATIONS FOR LAN CABLES OF CATEGORIES 5E, 6, AND 6A

Specification	Category 5e (Cat 5e)	Category 6 (Cat 6)	Category 6a (Cat 6a)
Maximum Data Rate	1 Gbps	1 Gbps	10 Gbps
Maximum Frequency	100 MHz	250 MHz	500 MHz
Maximum Cable Length	100 meters	100 meters	100 meters
Maximum Cable Length	100 meters	100 meters	100 meters
Cable Construction	Four twisted pairs of copper wires (eight total conductors) with a specified impedance of 100 ohms.	Four twisted pairs of copper wires (eight total conductors) with a specified impedance of 100 ohms. Cat 6 cables have tighter twists and better shielding.	Similar to Cat 6, with larger gauge conductors and more robust shielding.
Cable Diameter	Typically around 5.8 mm (0.23 inches)	Typically around 6.2 mm (0.24 inches)	Typically around 7.0 mm (0.28 inches)
Performance	Suitable for basic networking needs and up to 1 Gbps data transmission.	Better performance and reduced signal degradation compared to Cat 5e. Suitable for higher bandwidth applications.	Designed for 10 Gbps Ethernet connections overfull 100-meter distance. Suitable for high-performance applications.

APAR Tarang Shakti | CATV

APAR CATV cables are engineered to deliver exceptional signal quality and minimize interference, making them a trusted choice for cable television

Application

- A 4 pair high performance cable that consists of twisted pair conductors, used mainly for data transmission. Category 5 supports a frequency range of up to 100MHz and is designed for transmission speeds of up to 1 gigabit per second (Gigabit Ethernet).

Characteristic

Temperature Rating: -20°C to +60°C

- **Minimum Bending Radius:** Fixed: 4 x overall diameter | Flexed: 8 x overall diameter

Construction

Conductor: Class 1 solid copper conductor

Insulation: HDPE (High Density Polyethylene)

Drain Wire: Tinned Copper

Screen: Aluminium foil

Sheath: PE (Polyethylene)

APAR Tarang Shakti | CCTV

APAR CCTV cables are constructed with high-quality materials, including RG-59 Coaxial Cu. Cable and three cores of Annealed Tinned flexible Cu. conductor, ensuring distortion-free video signals and reliable power supply for CCTV cameras and video equipment, making them ideal for transmitting the complete video frequency range.

Features & Advantages

- Flame Retardant Cable
- High Quality Copper wire
- Complete Reliability
- Copper Braiding
- Supports Hybrid Cable
- Shielded Communication Cable

TECHNICAL CHARACTERISTICS AND STANDARDS

CCTV CABLE

Color & Material of Outer Sheath	FR PVC_White (IEC 60332-1)
Cable Diameter (Oval)	5.8 + /- 0.4mm
Jacket Thickness	0.75 + /- 0.2mm

COAXIAL CABLE

Inner Conductor	Copper
No. of Conductors	1.00
Dielectric	Solid PE
Color	Natural
Diameter	0.60 +/ -0.03mm
Thickness	1.50+/- 0.2mm
Shield	6mm (Copper Color Aluminum Myler tape)
Shield - Braiding	Copper Braiding
Dia. of Braid Wire	0.11 +/- 0.02mm
No. of Braiding wires	48
Coax jacket	PVC Type ST1
Colour	Black
Thickness	0.45 +/ - 0.02mm
III) Insulated Cores	Type A
Core Colour	Red, Yellow, Grey

CONDUCTOR

No. of Strands	16.00
Strand Diameter	0.1+/- 0.02mm
Insulation	PVC Type A
Thickness (Average)	0.50 +/- 0.02mm
Diameter (Average)	1.45+/- 0.2mm

TECHNICAL CHARACTERISTICS AND STANDARDS

CABLE TYPE	CABLE SIZE
CCTV Cable	CCTV 3+1
CCTV Cable	CCTV 4+1
CCTV Cable	CCTV 6+1
CCTV Cable	CCTV 3+1 Armoured
CCTV Cable	CCTV 4+1 Armoured
CCTV Cable	CCTV 6+1 Armoured

APAR Tarang Shakti | UNINYVIN CABLE

Application

These cables are used in UPS systems and server rooms as the nylon and fiber glass braid on the cable does not allows the heat generated in the conductor, due to continuous operation, to be felt in the surrounding areas. These cables are widely used in aircraft cabling.

TECHNICAL CHARACTERISTICS AND STANDARDS — UNINYVIN

Size	Nominal Conductor Area	Diameter of Conductor	No. of Wire & Nominal Diameter	Minimum Radial Thickness of PVC Insulation	Nylon Braiding & Lacquering	Overall Diameter of Finished Cable
	Sq.mm			mm	mm	mm
Uninyvin - 0000	1 C x 109 mm²	15.621 x 14.859	666 x 0.457	0.787	0.381 x 0.127	18.7 x 17.9
Uninyvin - 000	1 C x 84.2 mm²	13.919 x 13.157	513 x 0.457	0.762	0.381 x 0.1271	6.9 x 16.1
Uninyvin - 00	1 C x 68.3 mm²	12.446 x 11.684	416 x 0.457	0.686	0.381 x 0.127	15.4 x 14.6
Uninyvin - 0	1 C x 53 mm²	10.973 x 10.338	323 x 0.457	0.635	0.381 x 0.127	13.7 x 13.0
Uninyvin - 1	1 C x 40.7 mm²	9.754 x 9.119	248 x 0.457	0.559	0.381 x 0.127	12.2 x 11.7
Uninyvin - 2	1 C x 33.3 mm²	8.763 x 8.128	203 x 0.457	0.483	0.381 x 0.127	11.0 x 10.5
Uninyvin - 4	1 C x 21.5 mm²	6.909 x 6.452	294 x 0.305	0.483	0.381 x 0.127	9.3 x 9.8
Uninyvin - 6	1 C x 13.3 mm²	5.537 x 5.080	182 x 0.305	0.381	0.381 x 0.127	7.6 x 7.3
Uninyvin - 8	1 C x 8.76 mm²	4.242 x 3.937	120 x 0.305	0.381	0.381 x 0.127	6.3 x 5.9
Uninyvin - 10	1 C x 5.33 mm²	3.150 x 2.896	73 x 0.305	0.381	0.381 x 0.127	5.0 x 4.6
Uninyvin - 12	1 C x 3.22 mm²	2.438 x 2.286	110 x 0.191	0.279	0.178 x 0.076	3.8 x 3.5
Uninyvin - 14	1 C x 2.05 mm²	1.956 x 1.803	70 x 0.193	0.279	0.178 x 0.076	3.4 x 3.0
Uninyvin - 16	1 C x 1.171 mm²	1.549 x 1.397	40 x 0.193	0.229	0.178 x 0.076	2.8 x 2.5
Uninyvin - 18	1 C x 0.966 mm²	1.321 x 1.219	33 x 0.193	0.229	0.178 x 0.076	2.5 x 2.3
Uninyvin - 20	1 C x 0.556 mm²	1.041 x 0.940	19 x 0.193	0.229	0.178 x 0.076	2.3 x 2.0
Uninyvin - 22	1 C x 0.347 mm²	0.838 x 0.737	19 x 0.152	0.23	0.178 x 0.076	2.0 x 1.8

Cable Construction

Conductor: Annealed tinned copper to IS:10241 Part 3, uniformly bunched to form a circular shape

Insulation: Special core insulation HR-PVC 105° C

Primary Braid: Braided with glass fiber, 100% coverage

Secondary Braid: Braided with nylon fiber, 100% coverage

Lacquer: Overall construction is finally lacquered with nylon varnish

Properties

IMax Operating Voltage: 600V r.m.s.

Operating Temperature Range: -35°C to 105°C

Resistant to ester-based fluids (hydraulic oil), acids, c

hemicals and solvents.

The nylon and glass fibers are very good heat resistant materials.

APAR Tarang Shakti | SPEAKER CABLE

APAR speaker cables are crafted with a multi-wire, bright annealed bare electrolytic grade Cu. conductor, each core individually insulated with in-house formulated high oxygen and temperature index FR transparent insulation, ensuring distortion-free voice transmission with minimal dB loss for optimal instrument performance.

Application

Suitable in dry locations for connections of portable power consumers submitted to weak mechanical strength like light electrical hand-held equipment and in and on lighting units. Also referred to as a speaker wire.

Characteristics

- Voltage Rating Uo/U - 300/300V
- Test Voltage - 2000V
- Temperature Rating - Flexing: -5°C to +70°C
- Minimum Bending Radius - 6x Overall Diameter

Features & Advantages

For Speaker Cables

Transparent FR PVC insulated, twin core copper conductor (Flexible)

2C x 0.5 Sq.mm to 2C X 2.5 sq. mm

TECHNICAL CHARACTERISTICS AND STANDARDS

CABLE TYPE	CABLE SIZE	PACKING
Speaker Cable	2C x 0.5 sq.mm	90m
Speaker Cable	2C x 0.75 sq.mm	90m
Speaker Cable	2C x 1 sq.mm	90m
Speaker Cable	2C x 1.5 sq.mm	90m
Speaker Cable	2C x 2.0 sq.mm	90m
Speaker Cable	2C x 2.5 sq.mm	90m

APAR

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