walna®
Power your space

Precision In **Every Strand**

PVC Insulated Industrial Wires and Cables

CATALOGUE

Driven By Precision.
Defined By Progress.

At Walna, reliability isn't a goal, it's a standard.
Born from over 15 years of excellence in wire and cable manufacturing through Wiremann Industries, we operate with an unwavering pursuit of quality, innovation, and precision. We constantly push the limits of engineering, transforming materials into meaningful connections powering progress across homes, industries and cities.

A Legacy Built
On Strength

2009
The Spark.
Established under Wiremann Industries Pvt. Ltd.

Growth
Strategic expansion of our product portfolio and distribution network.

The Hub
Established our state-of-the-art Headquarters in Bengaluru.

Today
Operating a massive 15-acre manufacturing powerhouse in Malur, Karnataka.

At Walna, we don't just manufacture cables; we build the infrastructure of tomorrow. From our roots in 2009 to our current 15-acre high-capacity facility, our journey is defined by a commitment to powering India's industrial landscape with a workforce of 100+ dedicated professionals.

Power
Your Space

At Walna, we believe quality power inspires progress.
From residential spaces to national infrastructure and solar energy, our cables power the environments where India grows. Our promise is simple: to be your first-choice partner through certified quality, reliable supply and responsive support. As we scale, we remain "wired to work harder", investing in future-ready solutions and world-class infrastructure so you can build with absolute confidence.

A K Ostwal
Managing Director

The Walna **Advantage**

Vertical Integration

100% in-house manufacturing from copper drawing to final packing for total quality control.

Precision Engineering

State-of-the-art systems and high-speed extrusion for flawless output at scale.

Material Integrity

99.96% pure electrolytic copper and custom-compounded PVC for maximum conductivity.

Future-Ready R&D

Specialised solutions for EV, renewable energy, and next-gen infrastructure.

Tailored Solutions

Custom-engineered cables designed for specific OEM and industrial requirements.

Strict Reliability

Comprehensive lab testing to ISI and IEC standards for high-voltage and fire safety.

Quality Assurance **And Testing Facilities**

- Integrated manufacturing facility operating under ISO 9001 : 2015, ISO 14001 : 2015 and ISO 45001 : 2018 certified quality management systems.
- Advanced in-house cable testing laboratory for electrical, mechanical, thermal, and fire-performance tests.
- Cables designed and manufactured to comply with IS-694, IS-17048, IS-17293, IEC, JASO, JIS, DIN, SAE-J 1128 and other applicable standards.
- CPRI and NTH type-tested products wherever required; CE-compliant variants are available for export markets.
- State-of-the-art testing equipment and an experienced technical team ensure 100% batch testing before dispatch.
- Rigorous quality checks validate performance, safety, and long-term durability.

Certifications **And Standards**

ISO 14001 | ISO 45001 | ISO 9001 | Bureau of Indian Standards

IEC | | IS:694 CM/L-0004427460 | CE

Our Product Range

Engineered for Every Application

House Wires & Cables (Single Core)

Reliable flame-retardant, flame-retardant low smoke and Halogen free cables designed for safe and efficient power distribution in homes, offices, and commercial spaces. Engineered for consistent performance and flexibility.

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Multi-Core Flexible Cables

Designed for residential and commercial infrastructure. They serve as the connecting medium in power and control panels, cabinets & switchgears. They can also be used for other single phase connections.

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CCTV Cables

Purpose-built for reliable video transmission and maximum surveillance performance. These cables deliver high-definition signal quality and durability.

23

Speaker Cables

Engineered for pristine fidelity and rich, immersive sound in professional and home audio systems.

25

Radio Frequencial Co-Axial Cables

Advanced shielding for lossless signal transmission. Experience crystal-clear audio and video without interruption.

29

Solar Cables

UV and weather-resistant solar cables engineered for high conductivity and minimal power loss in any environment.

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Flat Submersible Cables

Cable featuring superior insulation and weather resistance, engineered for efficiency and reliability in agricultural and water applications.

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Data And Communication Cables

High-performance cables for telecom, networking, and automation systems, ensuring reliable, high-speed data transmission with minimal interference and signal degradation.

41

Rubber Cables

Highly flexible and durable cables built to perform in demanding conditions involving mechanical stress, temperature extremes, oils, and moisture.

49

Fire Survival Cables

Specialised circuit integrity cables designed to maintain power to critical safety systems during fire incidents. These cables minimise smoke and toxic gas emissions.

59

Indoor Switchboard & Telephone Cables

Specialised wiring solutions for secure power distribution and clear, interference-free signal transmission within residential and commercial buildings.

67

Automotive Cables

Precision-engineered low-tension wiring solutions for automotive and electric vehicle applications. Engineered for flexibility, heat resistance, and reliability in motion.

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Welding Cables

Durable, flexible conductors designed for high-current welding; featuring fine-stranded copper or aluminum for reliable industrial performance.

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LV Power Cables

Low-voltage cables rated up to 1.1 kV, engineered in varied materials to meet any residential or industrial environment.

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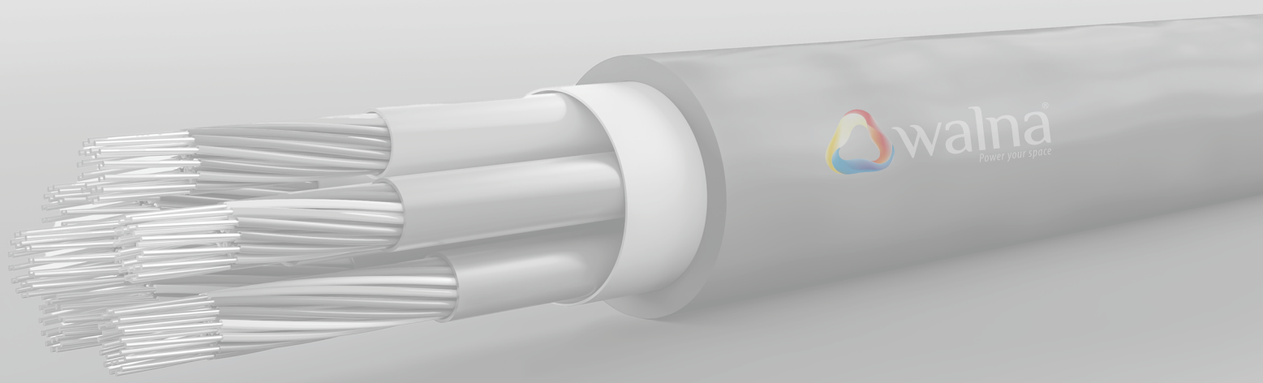


House Wiring
Single Core

Walna FR-LSH

(Flame Retardant Low Smoke and Halogen)

Application

Walna Flexible single-core cable with FR-LSH PVC insulation. This cable can be used in panels, cabinets, machines, and internal wiring with switchgears, relays, controllers, equipment, and control units, especially in hazard-prone areas. It is also ideal for flexible wiring installations in industrial and commercial areas with dense populations.

Technical Data

Approvals: IS 694 marked, CE Marked

Cable Code: Y (FR-LSH)

Voltage Grade: Up to and including 1100V

Conductor: Flexible Electrolytic Annealed Plain Copper & Annealed Tinned Copper Class -5, Class -2 as per IS 8130.

Insulation: Specially formulated FR-LSH PVC as per IS 5831. Type :A, B , C & D.

Packing: 90/100/180 mtr. In box packing up to 6 Sq. mm & Shrink wrap/Wooden drums packing for 10.0 Sq. mm and above.

Properties

- Temperature range: -15°C to +70°C & -15°C to +85°C
- Reduced smoke emission provides higher visibility
- Max. short circuit temperature rating: 160°C / 250°C
- Minimised acid gas generation
- Free from 240+ hazardous substance
- Self-extinguishing and flame retardant according to IS 10810 P–61

Sl No	Nominal Cross Sectional Area (Sq. mm)	No of Strands/ Max. strand dia. (mm)	Nominal Insulation Thickness (mm)	Maximum Diameter Over Insulation (mm)	Max. Current Carrying Capacity (A)
1	0.5	16/0.2	0.6	2.6	5
2	0.75	24/0.2	0.6	2.8	8
3	1	32/0.2	0.6	3	13
4	1.5	30/0.25	0.7	3.4	17
5	2.5	50/0.25	0.8	4.1	24
6	4	56/0.30	0.8	4.8	30
7	6	84/0.30	0.8	5.3	38
8	10	140/0.30	1	7	52
9	16	126/0.40	1	8.1	70
10	25	196/0.40	1.2	10.2	88
11	35	276/0.40	1.2	11.7	112
12	50	396/0.40	1.4	13.9	146
13	70	360/0.50	1.4	16	216
14	95	480/0.50	1.6	18.2	262

Test Parameter

Test	Test Method	Values
Limited Oxygen Index	IS 10810 P-58	> 29%
Limited Temp. Index	IS 10810 P-64	> 250 °C
Smoke Density	IS 10810 P-63	< 60 %
Acid Gas Generation	IS 10810 P-59	< 20 %

Walna HR-FR-LF

(Heat Resistant Flame Retardant Lead Free)

Application

Walna Flexible single core cable with HR-FR-LF PVC insulation. This cable can be used in panels, cabinets, machines, and internal wiring with switchgears, relays, controllers, equipment, and control units, especially in hazard-prone areas. It is also ideal for flexible wiring installations in industrial and commercial areas with dense populations.

Technical Data

Approvals: IS 694 marked, CE Marked

Cable Code: Y (HR-FR LF)

Voltage Grade: Up to and including 1100V

Conductor: Flexible Electrolytic Annealed Plain Copper & Annealed Tinned Copper. Class -5, Class -2 as per IS 8130.

Insulation: Specially formulated HR-FR LF PVC as per IS 5831. Type: A, B , C & D.

Packing: 90/100/180 mtr. In box packing up to 6 Sq. mm & Shrink wrap/Wooden drums packing for 10.0 Sq. mm and above.

Properties

- Temperature range: -15°C to +70°C & -15°C to +85°C
- Reduced smoke emission provides higher visibility
- Max. short circuit temperature rating: 160°C / 250°C
- Minimised acid gas generation
- Free from 240+ hazardous substance
- Self-extinguishing and flame retardant according to IS 10810 P-61

Sl No	Nominal Cross Sectional Area (Sq. mm)	No of Strands/ Max. strand dia. (mm)	Nominal Insulation Thickness (mm)	Maximum Diameter Over Insulation (mm)	Max. Current Carrying Capacity (A)
1	0.5	16/0.2	0.6	2.6	5
2	0.75	24/0.2	0.6	2.8	8
3	1	32/0.2	0.6	3	13
4	1.5	30/0.25	0.7	3.4	17
5	2.5	50/0.25	0.8	4.1	24
6	4	56/0.30	0.8	4.8	30
7	6	84/0.30	0.8	5.3	38
8	10	140/0.30	1	7	52
9	16	126/0.40	1	8.1	70
10	25	196/0.40	1.2	10.2	88
11	35	276/0.40	1.2	11.7	112
12	50	396/0.40	1.4	13.9	146
13	70	360/0.50	1.4	16	216
14	95	480/0.50	1.6	18.2	262
15	120	608/0.50	1.6	20.2	310
16	150	750/0.50	1.8	22.5	355
17	185	931/0.50	2	24.9	415
18	240	1200/0.50	2.2	28.4	500
19	300	1500/0.50	2.4	31	550

Walna HFFR/LSZH

(Halogen Free Flame Retardant)

WALNA HFFR /LSZH insulated with halogen free flame retardant thermoplastic compound or cross-linked halogen free flame retardant thermoset compound having low smoke emissions and corrosive gases when exposed to fire condition.

Application

This cable is designed to use in conduit and for fixed protected installation. This is also suitable to use high rise buildings, hospitals, and offices where smoke emission and toxic fume create a potential risk to life as well as the lifesaving equipment.

Characteristics

Voltage Rating

1100 V

Operation Temperature

Fixed: -15°C to +90°C

Construction

Annealed stranded bare or tinned copper conductor as per IS 8130, class 2 and class 5

Insulated with halogen free flame retardant compound type HFI-TP 70
or cross-linked halogen free flame retardant compound type
HFI-XL 70 as per IS 17048

Core Identification

Red/Black/Blue/Yellow/White/Grey

Bending Radius

Fixed installation to 6 x Overall Dia.

Test Voltage.

3000V AC at room temperature

Construction

Low Smoke Halogen Free

Flame Retardant Highly Flexible

Standard Follows

IS 8130

IS 17048

IEC 60332-1-2

Compliance

Oxygen Index > 31% as per ASTM D2863
Smoke emission test < 6% as per ASTM D2843
Acid gas generation - <0.0 As per IEC 60754-1
Underfire condition - as per EN 60332

Cable with HFI XL-70 insulation available on demand

Weight & Dimension Data

Sl No	Size (sq. mm)	Thickness (mm)	Ins dia.(mm)	Wt(kg/km)
1	1	0.7	2.67	15
2	1.5	0.7	3.00	21
3	2.5	0.8	3.62	32
4	4	0.8	4.19	49
5	6	0.8	4.74	68
6	10	1.0	6.07	113
7	16	1.0	7.13	171
8	25	1.2	8.85	269
9	35	1.2	10.00	364
10	50	1.4	11.25	452
11	70	1.4	13.53	707
12	95	1.6	15.72	960
13	120	1.6	17.28	1198
14	150	1.8	19.34	14.98
15	185	2.0	21.47	1847
16	240	2.2	24.30	2387
17	300	2.4	27.06	2979
18	400	2.6	30.84	3930
19	500	2.8	34.36	4926
20	630	2.8	37.90	6154

Electrical Characteristics

Current carrying capacity and maximum DC conductor resistance

Size	Current carrying capacity (AMPS)	Max. DC resistance
1	13	18.1
1.5	17	12.1
2.5	23	7.41
4	32	4.61
6	41	3.08
10	57	1.83
16	76	1.15
25	127	0.727
35	157	0.524
50	191	0.387
70	244	0.268
95	297	0.193
120	345	0.153
150	397	0.124
185	453	0.0991
240	535	0.0754
300	617	0.0601
400	741	0.047
500	854	0.0366
630	990	0.0283

Multi-Core **Flexible Cables**

Application

WALNA Multi-core cables are designed for residential and commercial infrastructure. They serve as the connecting medium in power and control panels, cabinets & switchgears. They can also be used for the purposes such as stationary and static appliances, motors and for other single phase connections.
Walna: PVC insulated & sheathed multi-core cables suitable for all general purpose wirings for max. operating temperature of 85°C.
Walna FR: Flame Retardant (FR) multi-core cables enhance safety and are suitable for max. operating temperature 85°C.
Walna FR-LSH: Flame Retardant Low Smoke Low Halogen (FR-LSH) cables are suitable for wiring in public places like schools, hospitals, theatres, etc for max. operating temperature 85°C.

Technical Data

Approvals : IS 694 marked, CE Marked

Conductor : Electrolytic grade annealed copper Class 5 & Class 2 as per IS 8130

Standard Cable Colour : Black, grey & white

Voltage Rating : Up to and including 1100V

Packing : Standard packing of 100 mtr. in coil. Longer length available.

On request up to and including 1100V

Walna FR-LSH

(Flame Retardant Low Smoke and Halogen)

Sl No	No. of Cores	Nominal Cross Sectional Area (Sq. mm)	Nominal Insulation Thickness (mm)	Max. D.C. Conductor Resistance at 20°C (Ω/km)	Nominal Thickness of Sheath	Maximum Overall Dimensions (mm)
1	1	0.5	0.6	39	0.9	4.3
2	2	0.5	0.6	39	0.9	6.9
3	3	0.5	0.6	39	0.9	7.3
4	4	0.5	0.6	39	0.9	8
5	5	0.5	0.6	39	0.9	8.7
6	1	0.75	0.6	26	0.9	4.5
7	2	0.75	0.6	26	0.9	7.3
8	3	0.75	0.6	26	0.9	7.7
9	4	0.75	0.6	26	0.9	8.4
10	5	0.75	0.6	26.0v	0.9	9.2
11	1	1	0.6	19.5	0.9	4.7
12	2	1	0.6	19.5	0.9	7.6
13	3	1	0.6	19.5	0.9	8.1
14	4	1	0.6	19.5	0.9	8.8
15	5	1	0.6	19.5	1	9.6
16	1	1.5	0.6	13.3	0.9	5.4
17	2	1.5	0.6	13.3	0.9	8.9
18	3	1.5	0.6	13.3	0.9	9.4
19	4	1.5	0.6	13.3	1	1o.4
20	5	1.5	0.6	13.3	1	11.4
21	1	2.5	0.7	7.98	1	6.2
22	2	2.5	0.7	7.98	1	10.3
23	3	2.5	0.7	7.98	1	10.9
24	4	2.5	0.7	7.98	1	12
25	5	2.5	0.7	7.98	1	13.2
26	1	4	0.8	4.95	1	6.8
27	2	4	0.8	4.95	1	11.6
28	3	4	0.8	4.95	1	12.4
29	4	4	0.8	4.95	1	13.6
30	5	4	0.8	4.95	1.1	15.3
31	1	6	0.8	3.3	1.1	7.5
32	2	6	0.8	3.3	1.1	13
33	3	6	0.8	3.3	1.2	13.8
34	4	6	0.8	3.3	1.2	15.5
35	1	10	1	1.9	1.3	9.4
36	2	10	1	1.9	1.3	16.5
37	3	10	1	1.9	1.4	17.7
38	4	10	1	1.9	1.4	19.5
39	1	16	1	1.2	1.4	10.9
40	2	16	1	1.21	1.4	19.4
41	3	16	1	1.21	1.4	20.6
42	4	16	1	1.21	1.4	23
43	1	25	1.2	0.78	1.4	13.6
44	2	25	1.2	0.78	1.4	23.8
45	3	25	1.2	0.78	1.5	25.6
46	4	25	1.2	0.78	1.6	28.5

Walna HR-FR-LF

(Heat Resistant Flame Retardant Lead Free)

Sl No	No. of Cores	Nominal Cross Sectional Area (Sq. mm)	Nominal Insulation Thickness (mm)	Max. D.C. Conductor Resistance at 20°C (Ω/km)	Nominal Thickness of Sheath	Maximum Overall Dimensions (mm)
1	1	0.5	0.6	39	0.9	4.3
2	2	0.5	0.6	39	0.9	6.9
3	3	0.5	0.6	39	0.9	7.3
4	4	0.5	0.6	39	0.9	8
5	5	0.5	0.6	39	0.9	8.7
6	1	0.75	0.6	26	0.9	4.5
7	2	0.75	0.6	26	0.9	7.3
8	3	0.75	0.6	26	0.9	7.7
9	4	0.75	0.6	26	0.9	8.4
10	5	0.75	0.6	26.0v	0.9	9.2
11	1	1	0.6	19.5	0.9	4.7
12	2	1	0.6	19.5	0.9	7.6
13	3	1	0.6	19.5	0.9	8.1
14	4	1	0.6	19.5	0.9	8.8
15	5	1	0.6	19.5	1	9.6
16	1	1.5	0.6	13.3	0.9	5.4
17	2	1.5	0.6	13.3	0.9	8.9
18	3	1.5	0.6	13.3	0.9	9.4
19	4	1.5	0.6	13.3	1	10.4
20	5	1.5	0.6	13.3	1	11.4
21	1	2.5	0.7	7.98	1	6.2
22	2	2.5	0.7	7.98	1	10.3
23	3	2.5	0.7	7.98	1	10.9
24	4	2.5	0.7	7.98	1	12
25	5	2.5	0.7	7.98	1	13.2
26	1	4	0.8	4.95	1	6.8
27	2	4	0.8	4.95	1	11.6
28	3	4	0.8	4.95	1	12.4
29	4	4	0.8	4.95	1	13.6
30	5	4	0.8	4.95	1.1	15.3
31	1	6	0.8	3.3	1.1	7.5
32	2	6	0.8	3.3	1.1	13
33	3	6	0.8	3.3	1.2	13.8
34	4	6	0.8	3.3	1.2	15.5
35	1	10	1	1.9	1.3	9.4
36	2	10	1	1.9	1.3	16.5
37	3	10	1	1.9	1.4	17.7
38	4	10	1	1.9	1.4	19.5
39	1	16	1	1.2	1.4	10.9
40	2	16	1	1.21	1.4	19.4
41	3	16	1	1.21	1.4	20.6
42	4	16	1	1.21	1.4	23
43	1	25	1.2	0.78	1.4	13.6
44	2	25	1.2	0.78	1.4	23.8
45	3	25	1.2	0.78	1.5	25.6
46	4	25	1.2	0.78	1.6	28.5

CCTV **Cables**

Application

These cables are specifically designed to transmit complete video frequency with minimum distortion or attenuation for security and surveillance. This cable is offered in two variants viz., 4+1 and 3+1 CCTV Camera cable.

Properties

CCTV cables are designed to optimise the quality of video signals. The dense tin coated copper screen ensures complete elimination of EMI/RFI from video signals and also provides reduced DC resistance ground path. The multi stranded construction of video core offers better flexibility and reduced bending radius.

Construction

Screened Core for Video Signal

Conductor: The central conductor is made of flexible fine wires tin coated electrolytic grade copper
Insulation: The insulation provided over the conductor is with high dielectric strength and low capacitance
Screen: Annealed tin coated copper braid screen, approx. 85% coverage
Sheath: Black colored PVC

Power Cores

Conductor: Solid electrolytic grade annealed plain copper, 0.5 mm
Insulation: The insulation provided over the conductor is of high density polyethylene (HDPE)

Cable Design Parameters

Serial No	Cable Type	Cable Size (Sq. mm) N	Nominal Cable Diameter (mm) P	Power Core Colour
1	CCTV Cable 4+1	4C + 1C x 0.25	6	RD, YL, BK, GN
2	CCTV Cable 3+	3C + 1C x 0.25	6	RD, YL, BL

Speaker **Cables**

Features

- Great for in-home applications as well as automotive, auditoriums.
- Tough, yet flexible clear insulated jacket is marked with a stripe on one side for polarity
- Mainly used in Connecting speakers, used in Public Address systems
- Available in 0.5 sq mm to 2.5 sq mm conductor sizes with 100mtrs coil packing

Speaker Cable Selection Chart							
	4 ohm Speaker				8 ohm Speaker		
Power loss in %	11	21	50		11	21	50
Lossd in db	0.5	1	3		0.5	1	3
Max distance in meters							
0.5 Sq mm(20 awg)	8	16	60		16	32	119
0.75 Sq mm(19 awg)	10	21	85		21	65	170
1.0 Sq mm(18 awg)	12	27	103		26	58	208
1.5 Sq mm(16 awg)	18	38	143		35	76	285
2.0 Sq mm(14 awg)	27	59	226		56	120	451
2.5 Sq mm(13 awg)	34	74	282		71	151	564

Selection - To use this table for the selection of cable is for example we can use maximum length of 14 awg cable in 8 ohm speaker system with power loss 21% (1.0 db) is 120 mtrs

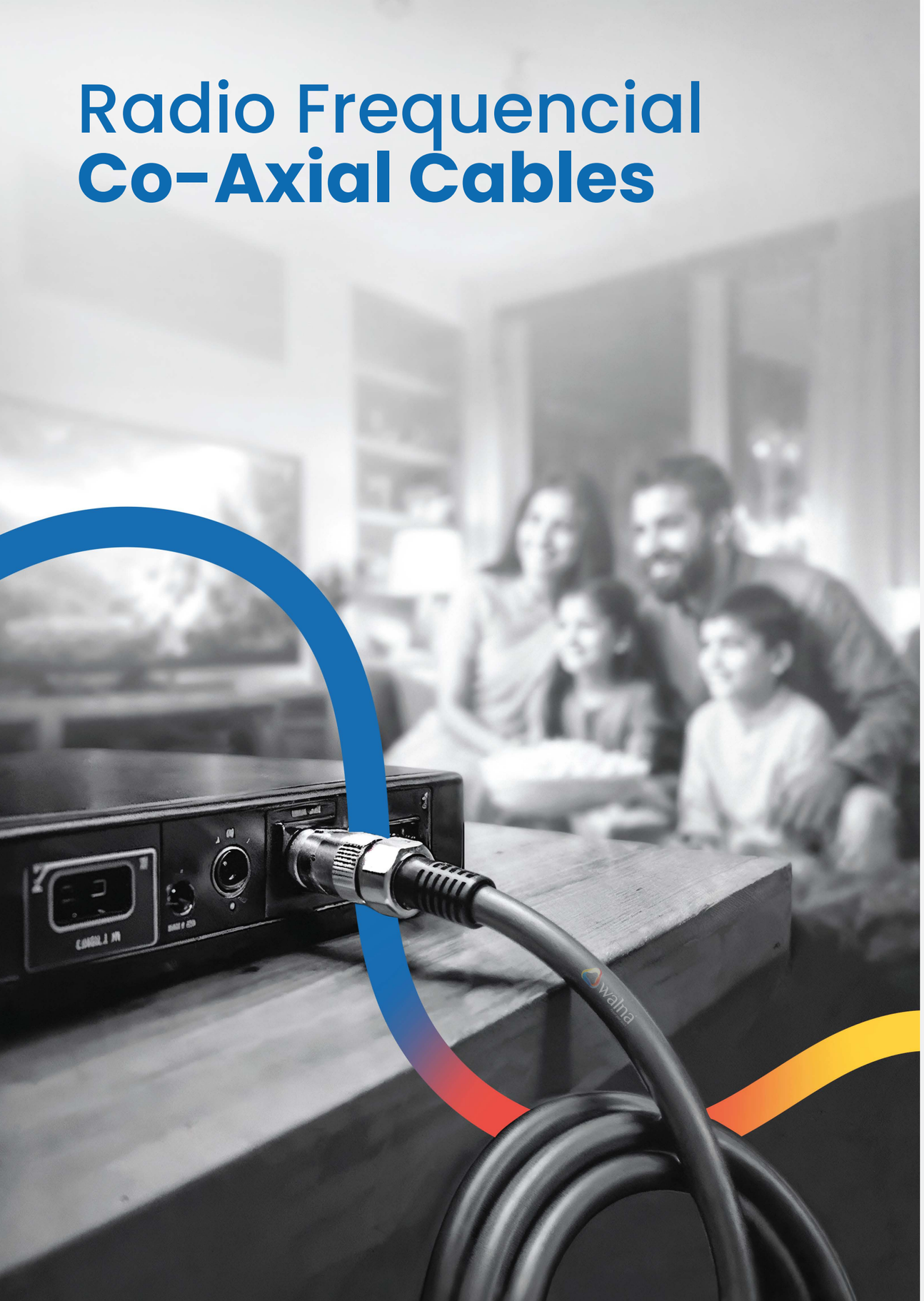
Material description : (TWIN FLAT) 2C x 0.5 Sq mm (20 awg) (16/0.2 mm ABC) Special grade transparent PVC Insulated flexible speaker cable.

SL NO	PARTICULARS	UNIT	DESCRIPTION
1	Conductor details		
1.1	Material & type		High conductivity Annealed Bare copper conductor Class - 5 as per IS : 8130/2013
1.2	Nominal cross sectional area	Sq mm	0.50
1.3	Min. Annealing	%	9
1.4	Max. dia of each strand in conductor	mm	0.19 +/- 0.002
1.5	No. of strand	No	16
1.6	Max. DC Resistance of conductor	ohms/km	39.0
1.7	Lay length	mm	25-30
2	Insulation details		
2.1	Material & type		Transparent PVC as per IS : 5831/1984
2.2	Nominal thickness	mm	0.60
2.3	Min. thickness	mm	0.44
2.4	Approx. Core dia (H X W)	mm	2.0 x 4.5(+/- 0.1)
2.5	Web Dimension (H X W)	mm	0.4 x 0.5
2.6	Colour for core identification		Transparent/Transparent-red
3	High voltage test at room temperature between core to core in air		3 kv/5 minutes
4	General		
4.1	Printing on the cable		Brand name, voltage grade, nominal cross sectional area along with sequential length marking
4.2	Voltage Grade	Volts	Up to 1100V
4.3	Test Applicable Standards		As per IS-694
4.4	Standard COIL Length	Mtrs	100/200 / P.O. Qty (+/- 5%)
4.5	Operating Temperature		-20°C to 70°C

Material description : (TWIN FLAT) 2C x 0.75 Sq mm (19 awg) (24/0.2 mm ABC) Special grade transparent PVC Insulated flexible speaker cable.

SL NO	PARTICULARS	UNIT	DESCRIPTION
1	Conductor details		
1.1	Material & type		High conductivity Annealed Bare copper conductor Class - 5 as per IS : 8130/2013
1.2	Nominal cross sectional area	Sq mm	0.75
1.3	Min. Annealing	%	9
1.4	Max. dia of each strand in conductor	mm	0.19 +/- 0.002
1.5	No. of strand	No	24
1.6	Max. DC Resistance of conductor	ohms/km	26.0
1.7	Lay length	mm	30-35
2	Insulation details		
2.1	Material & type		Transparent PVC as per IS : 5831/1984
2.2	Nominal thickness	mm	0.60
2.3	Min. thickness	mm	0.44
2.4	Approx. Core dia (H X W)	mm	2.0 x 4.5(+/- 0.1)
2.5	Web Dimension (H X W)	mm	0.4 x 0.5
2.6	Colour for core identification		Transparent/Transparent-red
3	High voltage test at room temperature between core to core in air.		3 kv/5 minutes
4	General		
4.1	Printing on the cable		Brand name, voltage grade, nominal cross sectional area along with sequential length marking
4.2	Voltage Grade	Volts	Up to 1100V
4.3	Test Applicable Standards		As per IS-694
4.4	Standard COIL Length	Mtrs	100/200 / P.O. Qty (+/- 5%)
4.5	Operating Temperature		-20°C to 70°C

Radio Frequencial **Co-Axial Cables**



WALNA Coaxial Cables are used as a transmission line for Radio frequency Signals. It's applications include feed lines connecting radio transmitters and receivers to their antennas, computer network (internet) connections, digital audio (S/PDIF), and distributing cable television signals. One advantage of coaxial over other types of radio transmission line is that, in an ideal coaxial cable the electromagnetic field carrying the signal exists only in the space between the inner and outer conductors. This allows coaxial cable runs to be installed next to metal objects such as gutters without the power losses that occur in other types of transmission lines. Coaxial cable also provides protection of the signal from external electromagnetic interference.

Application

Common applications of coaxial cables include Video and CATV distribution. RF and Microwave Transmission, computer and Instrumentation data connections.

Product Range

RG-59, RG-6,RG-11,RG-213, RG-300, RG-400, RG-500

Cable Construction

a) Conductor & Type - High Conductivity ABC/ATC (single and multi strand).

b) Insulation type - Nitrogen gas injected polyethylene foam insulation or solid PE

c) In case of foam insulation - composite Al foil laminated over the insulation.

d) Braiding type - ABC/ATC Braided for low attenuation with minimum structured return loss under extreme weather conditions to give excellent signal quality giving clear reception on higher band width covering more than 100 channels.

e) Outer Sheath - PVC ST-1/PVC ST-2/LSZH.

f) ohms - 50 ohm, 75 ohm, 100 ohm and 150 ohm.

g) Reference standard - BS and Wiremann Industries (customised)

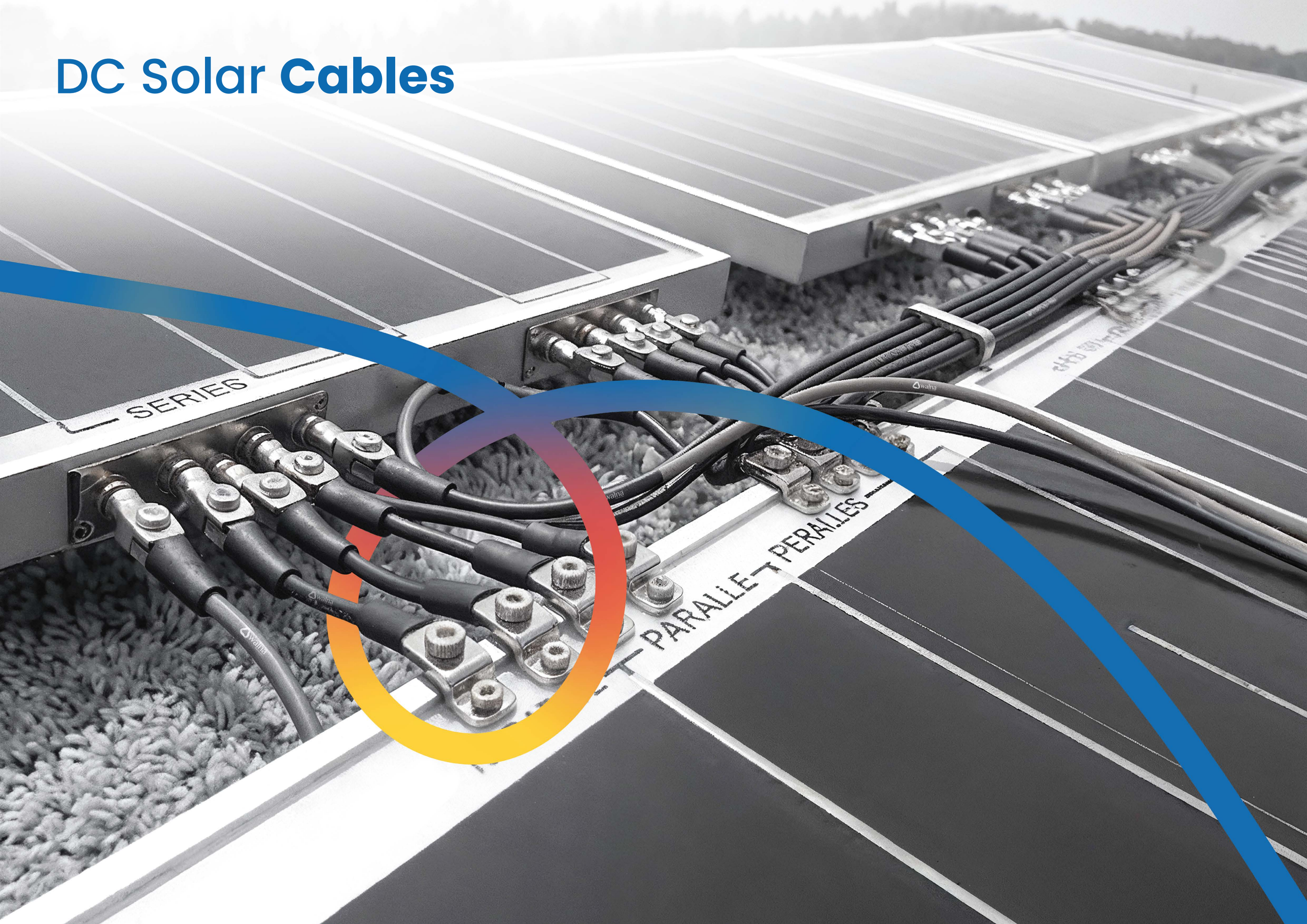
RG 59 Coaxial Cables

SL NO	PARTICULARS	UNIT	DESCRIPTION
1	**Conductor details**		
1.1	Material & type		High conductivity annealed copper clad Steel conductor (CCS)
1.2	Nominal cross sectional area	Sq mm	0.26
1.3	Min. Annealing	%	18.5
1.4	Max. dia of each strand in conductor	mm	0.58+/- 0.01
1.5	No. of strand	No	1
1.6	Max. DC Resistance of conductor	ohms/km	6.3
2	**Insulation details**		
2.1	Material & type		SOLID LDPE
2.2	Nominal thickness	mm	1.50
2.3	Min. thickness	mm	1.25
2.4	Approx. Core dia.	mm	3.75(+/- 0.15)
2.5	Colour scheme for identification of core		NATURAL
3	**Shielding**		
3.1	Type & Size		CCA (0.15 mm)
3.2	Coverage	min(%)	90.00
3.3	Wrapping & Over lapping	min(%)	Mellinex Tape (25)
4	**Sheathing details**		
4.1	Material & type		PVC Type ST3 as per IS : 5831/1984
4.2	Nominal thickness	mm	1.00
4.3	Min. thickness	mm	0.6
4.4	Nominal Cable diameter	mm	6.1 ± 0.20.2
4.5	Colour		BLACK
4.6	Impedance (nom)	ohm	75+/-5
4.7	Capacitance (nom)	pf/mtr	67.00
5	**General**		
5.1	Printing on the cable	%	Brand name, RF cable with Series name along with sequential length marking
5.2	Velocity of propagation (min)		67.00
5.3	Test Applicable Standards	mtrs	Customer Standard/ IS-5831
5.4	Standard COIL Length		100 / P.O. Qty (+/- 5%)
5.5	Operating Temperature		-30°C to 70°C
6	**Attenuation @ 20° C, db/100 MTRS**		
6.1	100	MHZ	8.7
6.2	1000	MHZ	12.54

RG 11 - Coaxial Cables

SL NO	PARTICULARS	UNIT	DESCRIPTION
1	**Conductor details**		
1.1	Material & type		High conductivity Annealled Silver Plated (ASPC) copper.
1.2	Nominal cross sectional area	Sq mm	0.88
1.3	Min. Annealing	%	13.5
1.4	Max. dia of each strand in conductor	mm	0.4+/- 0.005
1.5	No. of strand	No	7
1.6	Max. DC Resistance of conductor	ohms/km	24.0
2	**Insulation details**		
2.1	Material & type		SOLID LDPE
2.2	Nominal thickness	mm	2.90
2.3	Min. thickness	mm	2.51
2.4	Approx. Core dia.	mm	7.25(+/- 0.1)
2.5	Colour scheme for identification of core		NATURAL
3	**Shielding**		
3.1	Type & Size		ATC (0.15 mm)
3.2	Coverage	min(%)	93.00
3.3	Wrapping & Over lapping	min(%)	Mellinex tape(25)
4	**Sheathing details**		
4.1	Material & type		PVC Type ST3 as per IS : 5831/1984
4.2	Nominal thickness	mm	1.10
4.3	Min. thickness	mm	0.68
4.4	Nominal Cable diameter	mm	10.4± 0.2
4.5	Colour		BLACK
4.6	Impedance (nom)	ohm	75 ±3
4.7	Capacitance (nom)	pf/mtr	67.25
5	**General**		
5.1	Printing on the cable	%	Brand name, RF cable with Series name along with sequential length marking
5.2	Velocity of propagation (min)		66
5.3	Test Applicable Standards	mtrs	Customer Standard/ IEC -60502-1
5.4	Standard COIL Length		100 / P.O. Qty (+/- 5%)
5.5	Operating Temperature		-30°C to 90°C
6	**Attenuation @ 20° C, db/100 MTRS**		
6.1	100	MHZ	3
6.2	1000	MHZ	4.5

DC Solar **Cables**



Construction

Conductor : Fine Wire Tinned Copper Conductor according to BS EN 60228:2005 cl. 5.
Insulation : UV resistant, cross linkable, halogen free, flame retardant compound for core insulation.
Core Identification : Red, black or natural
Sheath : UV resistant, cross linkable, halogen free, flame retardant compound for Sheath over insulation.
Cable Colour : Black

Properties

A lifetime 'Partner' lasts up to 30 years even under tough conditions.

- Used in extreme weather conditions
- Equipped with UV Resistance
- Halogen-free: low smoke emission and low toxicity during fire
- Flame & Fire retardant
- Flexibility & strip ability: for fast and easy installation
- Easily recyclable: in accordance with new government norms
- Easy installation: with colour identification
- Suitable to common connector types
- As per TUV 2 Pfg 1169/08.2007. EN 50618 & IEC 60502-1

One common factor for most of the photovoltaic power systems is outdoor use, characterised by high temperatures and high UV radiation.

Features

- **Chemical Features:**
  Weather resistant.
  Resistant to mineral oils.
  Resistant to acids & alkaline.

- **Thermal Features:**
  Ambient Temperature :
  -40°C ~ +90°C.
  Maximum Temperature at Conductor:
  120°C (20000h)
  Short Circuit Temperature:
  200°C at conductor
  (max. 5 sec).

- **Electrical Features:**
  Rated Voltage:
  0.6/1 kV AC .
  Rated DC
  Voltage: 1.5 kV.
  Maximum Permitted DC Voltage:
  1.8 kV (conductor / conductor, non-earthed system, circuit not under load).

Maximum Permitted AC Voltage: 0.7/1.2 kV .

Working Voltage:
DC 1000 V.

Insulation Resistance:
1000 MW-km.

Spark Test: 6000 Vac (8400 Vdc).

Voltage Withstand:
6500V as per EN50395 for 5 min.

Technical Specification Of Dc Solar Cable

SL NO	Nominal Cross Sectional Area(Size, Sq mm)	Size of each strand (max) (mm)	No of Each Strand	Conductor Resistance (max, ohm/km)	Insulation Thickness as per TUV Specifications-2 Pfg 1169/08.2007 (mm)	Insulation Thickness as per EN-50618 -2015(nom,mm)	Outer Sheath Thickness as per TUV 2Pfg 1169/08.2007 (mm)	Outer Sheath Thickness as per EN-50618-2015 (nom,mm)	Nomonal Cable Dia. as per TUV 2Pfg 1169/08.2007,(mm)	Nominal Cable Dia. as per EN-50618-2015(mm)	Maximum Current Carrying capacity single cable in free Air (AMPS)	Maximum Current Carrying capacity when 2 cables loaded on a surface (AMPS)
1	1.5	0.26	30	13.7	0.5	0.7	0.5	0.8	4.1	4.6	30	24
2	2.5	0.26	50	8.21	0.5	0.7	0.5	0.8	4.5	5.1	41	33
3	4	0.31	56	5.09	0.5	0.7	0.5	0.8	5	5.6	55	44
4	6	0.31	84	3.39	0.5	0.7	0.5	0.8	5.55	6.1	70	57
5	10	0.41	80	1.95	0.5	0.7	0.5	0.8	6.5	7.1	98	79
6	16	0.41	126	1.24	0.5	0.7	0.5	0.9	7.55	8.3	132	107
7	25	0.41	196	0.795	0.9	0.9	1	1	10.5	10.1	176	142
8	35	0.41	276	0.565	0.9	0.9	1.1	1.1	12	11.5	218	176
9	50	0.41	396	0.393	1	1	1.2	1.2	14	13.3	276	221
10	70	0.51	360	0.277	1.1	1.1	1.3	1.2	16	15.2	347	278
11	95	0.51	475	0.21	1.1	1.1	1.5	1.3	18	16.9	416	333
12	120	0.51	608	0.164	1.2	1.2	1.6	1.3	20	18.7	488	390
13	150	0.51	750	0.132	1.4	1.4	1.7	1.4	22.5	20.8	566	453
14	185	0.51	925	0.108	1.6	1.6	1.9	1.6	25	23.2	644	515
15	240	0.51	1221	0.0817	1.7	1.7	2.1	1.7	28	26.2	755	620

Flat Submersible **Cables**

Application

Like pumps, motors and various others run perfectly on these cables, continuous use in deep well to supply power to submersible motors for the depth up to 500 mtrs. Offering protection to the entire circuit, appliances and their users, the submersible cables are one of the sturdiest inventions to get your electrical products running smoothly.

1) Conductor Type - High conductivity Annealed bare copper (class-2 or class-5).
2) Insulation Type - PVC (TYPE-A OR TYPE-C) .
3) Core Colours - red, yellow, blue OR brown, blue, black
4) Outer Sheath - ST-1/ST-2.
5) Product Range - 1.5 sq mm x 3 core to 50.0 sq mm x 3 core.

Special Features

1) Excellent resistance to moisture, abrasion, grease and oil.
2) Excellent mechanical and electrical properties.
3) Specification referred - IS-694 , IS-5831 , IS-8130.

Important

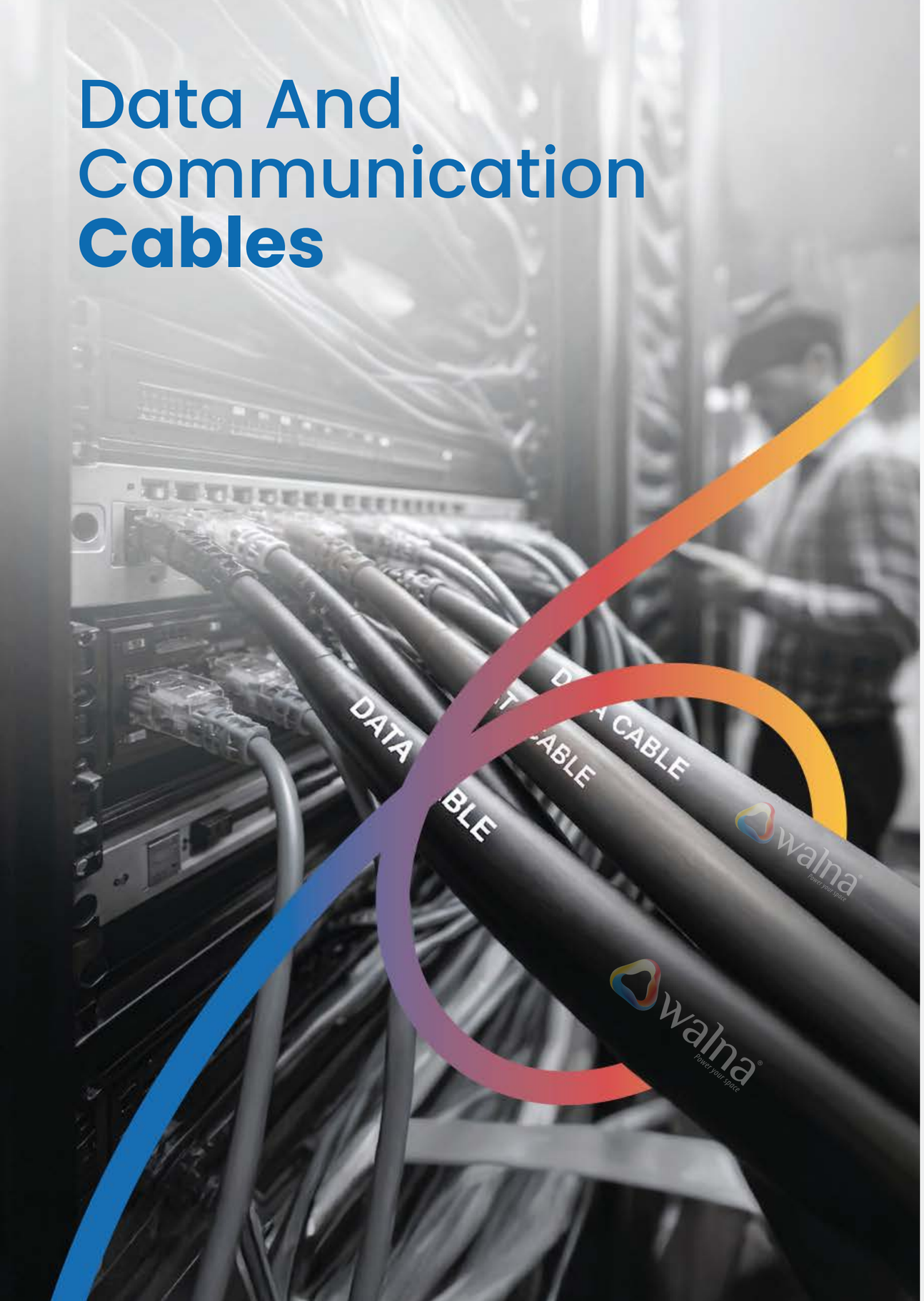
Keep fire hazards at bay while ensuring safety and reliability with Flat Submersible cables. Owing to the special safety parameters for the submersible cables, WALNA flexible cables assure a safe, reliable, fire retardant, fire resistant, lead free, non -toxic cable that is eco -friendly. These cables are flexible to be installed in different locations and offer protection under any circumstances.

3 Core Flat Submersible Cables

SL NO	Parameters	1.0 sq mm	1.5 sq mm	2.5 sq mm	4.0 sq mm	6.0 sq mm	10.0 sq mm	16.0 sq mm	25.0 sq mm	35.0 sq mm	50.0 sq mm
1	Type of Conductor		ATC/ABC								
2	Class		2 OR 5 (as per customer request)								
3	No of strand	14	22	36	56	84	80	126	196	276	396
4	Size of each strand	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4
5	Cond. Resistance	18.1	12.1	7.41	4.61	3.08	1.83	1.21	0.78	0.554	0.386
7	Insulation		PVC / XLPE (as per customer requirement)								
8	Core Colours	Red, Yellow, Blue									
9	Insulation Thicknes (nom, mm)	0.6	0.6	0.7	0.8	0.8	1	1	1.2	1.2	1.4
10	Insulation Dia. (mm, nom)	2.6	2.9	3.55	4.25	4.85	6.1	7.2	9.5	10.5	12.5
11	Outer Sheath thickness (nom, mm)		PVC (ST-1/ST-2)								
12	Outer Sheath Dia. (mm, NOM)(WXH)	0.9	0.9	1	1	1.1	1.4	1.4	2	2	2.2
13	Outer Sheath Colour	9.65X 4.5	11.1X 5.0	12.75X 6.0	15.8X 7.0	17.5X 7.8	21.5X 9.2	24.5X 10.0	32.5X 13.5	36.0X 14.8	42.5 X 17.5
14	Outer Sheath Colour		BLACK								
15	Max Current Carrying Capacity @ ambient temperature 40°C for PVC INSULATION (AMPS)	12	15	19	27	32	43	57	72	90	138
16	Max Current Carrying Capacity @ ambient temperature 40°C for XLPE INSULATION (AMPS)	12	15	28	36	44	63	80	110	129	152

One Cable.
Endless
Possibilities.

Data And Communication **Cables**



Application

These are special PVC data cables used for flexible use with free movement without tensile stress of forced movements in dry, moist and wet rooms but not suitable for open air .Wherever the construction requirements call for a minimum outer diameter these cables are being used for data and signal transmission.

Technical Data

Standard : Based on VDE 0812
Voltage grade (not for power installation) : 0.14 mm² = 350 V; >/= 0.25 mm² = 500 V
Insulation Resistance : Min. 20 GΩ x cm
Temperature Range : Flexing -5°C to +70°C. Fixed installation -30°C to +70°C
Minimum Bending Radius : For flexible use 10 x cable ø
Test Voltage : Up to 0.25 mm² = 1200 V. From 0.34 mm² = 2000 V
Breakdown Voltage : Up to 0.25 mm² = 2400 V. From 0.34 mm² = 4000 V

Cable Construction

Bare copper, fine wire conductors, bunch stranded DIN VDE 0295 cl. 5, EN 60228 cl. 5.
Special PVC core insulation TI2, to EN 50363-3.
Conductor make-up for
0.14 mm² = 7x0.16 mm.
0.25 mm² = 14 x 0.15 mm.
0.34 mm² = 19 x 0.15 mm or 7/0.25 mm
Core colours as per DIN 47100.
Cores stranded in layers with optimal lay-length.
Plastic foil wrapping for 10 cores and above
Special PVC outer sheath TM2, to EN 50363-4.1.
Colour grey (RAL 7032).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.
Capacitance (approx. Value)
up to 0.5 mm² – 120 nF/km
above 0.5 mm² – 160 nF/km.

LiYY

SL NO	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Maximum Conductor Resistance @ 20° C (ohm/km)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx Cable Weight (kg/km)
1	2 x 0.14	140	3.3	2.6	15
2	3 x 0.14	140	3.4	3.9	17.4
3	4 x 0.14	140	3.7	5.2	20.8
4	5 x 0.14	140	4	6.5	24.5
5	7 x 0.14	140	4.6	9.1	32.4
6	8 x 0.14	140	5	10.6	38.6
7	10 x 0.14	140	5.5	13.2	48
8	12 x 0.14	140	5.7	15.9	52.5
9	2 x 0.25	78	4.1	4.5	23.5
10	3 x 0.25	78	4.3	6.8	27.6
11	4 x 0.25	78	4.7	9.1	33.5
12	5 x 0.25	78	5.1	11.3	40
13	7 x 0.25	78	5.8	15.9	52.9
14	8 x 0.25	78	6.3	18.5	63.7
15	10 x 0.25	78	7.1	23.1	80.3
16	12 x 0.25	78	7.3	27.7	88.2
17	2 x 0.34	58	4.2	6.2	25.8
18	3 x 0.34	58	4.4	9.2	30.8
19	4 x 0.34	58	4.8	12.3	37.6
20	5 x 0.34	58	5.2	15.4	45.1
21	7 x 0.34	58	5.7	21.5	57
22	8 x 0.34	58	6.5	25.1	72
23	10 x 0.34	58	7.3	31.4	90.8
24	12 x 0.34	58	7.6	37.7	100.3

SL NO	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Maximum Conductor Resistance @ 20° C (ohm/km)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx Cable Weight (kg/km)
25	2 x 0.5	39	4.8	9.2	35.2
26	3 x 0.5	39	5.1	13.8	42.4
27	4 x 0.5	39	5.5	18.4	52.2
28	5 x 0.5	39	6	23	63
29	6 x 0.5	39	6.6	27.6	75
30	7 x 0.5	39	6.7	32.2	80.3
31	8 x 0.5	39	7.6	37.6	101.1
32	10 x 0.5	39	8.6	47	128.2
33	12 x 0.5	39	8.9	56.4	142.2
34	2 x 0.75	26	5.1	13.8	42.8
35	3 x 0.75	26	5.4	20.7	52.5
36	4 x 0.75	26	5.9	27.6	65.2
37	5 x 0.75	26	6.5	34.5	79.1
38	7 x 0.75	26	7.2	48.4	101.8
39	8 x 0.75	26	8.1	56.4	127.1
40	10 x 0.75	26	9.2	70.5	161.4
41	12 x 0.75	26	9.5	84.6	180.4
42	2 x 1	19.5	5.6	18.4	53.4
43	3 x 1	19.5	6	27.6	66
44	5 x 1	19.5	7.2	46.1	100.3
45	2 x 1.5	13.3	6.7	27	75.7
46	3 x 1.5	13.3	7.1	40.5	93.9
47	4 x 1.5	13.3	7.8	54	117.4

Application

These Shielded cables are used for data and signal transmission application in the electronics of computer systems, electronic control equipment and measuring devices in the tool making and machine industries.
The optimum screening substantially reduces the effect of electromagnetic interferences.

Technical Data

Standard: Based on VDE 0812
Voltage grade (not for power installation): 0.14 mm² = 350 V; >/= 0.25 mm² = 500 V
Insulation Resistance: Min. 20 GΩ x cm
Temperature Range: Flexing -5°C to +70°C. Fixed installation -30°C to +70°C
Minimum Bending Radius: Flexing 15 x cable ø. Fixed installation 6 x cable ø
Test Voltage: Up to 0.25 mm² : 1200 V; > 0.34 mm²: 1500 V.
Mutual capacitance (approx.)
Up to 0.34 mm²
C/C = 120 nF/km. C/S = 160 nF/km.
0.5 mm² to 1.5 mm²
C/C = 160 nF/km. C/S = 240 nF/km.
Inductance: Approx. 0.65 mH/km

Construction

Bare copper, fine wire conductors stranded according to DIN VDE 0295
Special PVC core insulation TI2, to EN 50363-3.
Conductor make-up for
0.14 mm² = 7/0.16 mm.
0.25 mm² = 14 x 0.15 mm.
0.34 mm² = 19 x 0.15 mm or 7/0.25 mm
Colour coded to DIN 47100 (Refer table no. 2-2).
Cores stranded in layers with optimal lay-length.
Plastic foil over the laid up cores.
Tinned copper braided screen, approx 85% coverage.
Special PVC outer sheath TM2, to EN 50363-4.1.
Colour grey (RAL 7032).

Properties

PVC self-extinguishing and flame retardant according to EN 60332-1-2.

LiYCY

SL NO	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Maximum Conductor Resistance @ 20° C (ohm/km)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx Cable Weight (kg/km)
1	2 x 0.14	1140	4	9.38	1514.2
2	3 x 0.14	140	4.1	10.73	15.7
3	4 x 0.14	140	4.4	12.52	17.9
4	5 x 0.14	140	4.6	15	21
5	7 x 0.14	140	5	18.24	24.9
6	8 x 0.14	140	5.4	20.8	28.2
7	10 x 0.14	140	6	25.05	33.6
8	12 x 0.14	140	6.2	28.05	36.9
9	2 x 0.25	78	4.9	14.92	22.4
10	3 x 0.25	78	4.9	15.81	23.4
11	4 x 0.25	78	5.3	19.47	27.9
12	5 x 0.25	78	5.7	22.48	31.9
13	7 x 0.25	78	6.2	28.32	38.8
14	8 x 0.25	78	6.8	32.23	44.1
15	10 x 0.25	78	7.6	39.1	52.9
16	12 x 0.25	78	7.8	44.27	58.6
17	2 x 0.34	58	4.9	15.27	22.9
18	3 x 0.34	58	4.9	18.52	26.3
19	4 x 0.34	58	5.3	22.72	31.4
20	5 x 0.34	58	5.7	26.7	36.3
21	7 x 0.34	58	6.2	34.45	45.2
22	8 x 0.34	58	6.8	39.2	51.4
23	10 x 0.34	58	7.6	47.64	61.8
24	12 x 0.34	58	7.8	54.48	69.2
25	2 x 0.5	39	5.8	20.13	30.6
26	3 x 0.5	39	5.8	25.08	35.8
27	4 x 0.5	39	6.3	30.85	42.8
28	5 x 0.5	39	6.8	36.84	50.1

SL NO	No. of Cores & Nominal Cross Sectional Area (Sq. mm)	Maximum Conductor Resistance @ 20° C (ohm/km)	Approx. Cable Diameter (mm)	Approx. Copper Weight (kg/km)	Approx Cable Weight (kg/km)
29	6 x 0.5	39	7.3	43.13	57.8
30	7 x 0.5	39	7.4	47.71	62.6
31	8 x 0.5	39	8.1	54.24	71.1
32	10 x 0.5	39	9.1	66.98	86.6
33	12 x 0.5	39	9.4	76.6	97.1
34	2 x 0.75	26	6.4	25.98	38.5
35	3 x 0.75	26	6.5	32.85	45.6
36	4 x 0.75	26	7	41.37	55.6
37	5 x 0.75	26	7.5	49.35	65.1
38	7 x 0.75	26	8.2	64.96	82.7
39	8 x 0.75	26	9	74.16	94.2
40	10 x 0.75	26	10.1	91.35	114.6
41	12 x 0.75	26	10.4	106.17	130.4
42	2 x 1	19.5	7	31.67	46.6
43	3 x 1	19.5	7	41.39	56.6
44	4 x 1	19.5	7.6	51.91	68.9
45	5 x 1	19.5	8.2	62.76	81.7
46	7 x 1	19.5	9	83.12	104.4
47	10 x 1	19.5	11.1	117.31	145.4
48	12 x 1	19.5	11.5	136.9	166.2
49	2 x 1.5	13.3	7.7	7.7	60.4
50	3 x 1.5	13.3	7.8	7.8	74.5
51	4 x 1.5	13.3	8.5	8.5	92.3
52	5 x 1.5	13.3	9.2	9.2	109.6
53	6 x 1.5	13.3	10	10	127.6
54	7 x 1.5	13.3	10.1	10.1	141.6
55	8 x 1.5	13.3	11.1	11.1	161.4
56	10 x 1.5	13.3	12.5	12.5	198.4
57	12 x 1.5	13.3	12.9	12.9	227.6

Where Every Strand Carries a Standard.

Rubber **Cables**

Application

Used for measuring & controlling in control equipment for conveyors and control units fixed installation and for flexible use when temporarily moved in medium mechanical condition. Used outdoors when protected and in dry or moist conditions indoor. Suitable for many applications, including use in elevators, lifts, cranes, mines, heater leads, and electric iron leads etc.

Technical Data

Temperature Range
Insulation for General Service : 60°C
Heat Resisting Insulation : 90°C
Test Voltage : 3 kV for 5 mins
Rated Voltage : 1.1 kV
Specification : IS 9968 Part – 1

Product Construction

Conductor : Annealed Tinned Copper Class 2 and Class-5 as per IS-8130
(Optional – Aluminium Conductor as per customer requirement)

Separator Tape (Optional)
Insulation : General Service elastomeric, Type IE 1 as per IS 6380-1984
(Optional Heat Resisting elastomer, Type IE 2 as per IS 6380-1984)

Tape (Optional)
Outer Sheath : General Purpose Rubber Insulation Type SE 2 as per 6380-1984
(Optional – Heat Resisting Rubber Insulation, Type SE 4 as per IS 6380-1984)

Properties

Flexibility
Abrasion Resistance
High Dielectric Strength
Flame Retardant
Medium Mechanical Stress
Long Cable life.

ELASTOMERIC RUBBER CABLES

					THICKNESS OF OUTER SHEATH (mm, Nom, SE 1/SE 2)				
Sl No	Cross Sectional Area (sq mm)	Conductor Type	Max. Conductor Resistance of class 5 conductor as per IS-8130 (ohm/km)	Thickness of Insulation (mm, Nom) (IE 1 /IE 2)	Single Core	Two Core	Three Core	Four Core	Max Current Carrying Capacity (AMPS)
1	1	Annealed Tinned Copper Conductor CLASS-2 and CLASS-5, as per IS-8130	20	1	1	1	1	1.1	11
2	1.5		13.7	1	1	1	1.1	1.1	17
3	2.5		8.21	1	1	1.1	1.1	1.1	24
4	4		5.09	1	1	1.2	1.2	1.2	38
5	6		3.39	1	1	1.2	1.2	1.3	53
6	10		1.95	1.2	1.1	1.3	1.4	1.4	70
7	16		1.24	1.2	1.1	1.4	1.4	1.5	90
8	25		0.795	1.4	1.2	1.5	1.6	1.7	120
9	35		0.565	1.4	1.2	1.6	1.7	1.8	140
10	50		0.393	1.6	1.3	1.8	1.8	2	170
11	70		0.277	1.6	1.4	1.9	2	2.1	215
12	95		0.21	1.8	1.4	2.1	2.2	2.4	260
13	120		0.164	1.8	1.5	2.2	2.3	2.5	301
14	150		0.132	2	1.6	2.4	2.5	2.7	345
15	185		0.108	2.2	1.7	2.6	2.7	2.9	392
16	240		0.0817	2.4	1.8	2.8	3	3.2	460
17	300		0.0654	2.6	1.9	3	3.2	3.5	534
18	400		0.0495	2.8	2	3.2	3.4	3.8	605

ELASTOMERIC RUBBER FLEXIBLE CABLES

					THICKNESS OF OUTER SHEATH (mm, Nom, SE 1/SE 2)				
Sl No	Cross Sectional Area (sq mm)	Conductor Type	Max. Conductor Resistance of class 5 conductor as per IS-8130 (ohm/km)	Thickness of Insulation (mm, Nom) (IE 1 /IE 2)	Single Core	Two Core	Three Core	Four Core	Max Current Carrying Capacity (AMPS)
1	6	Annealed Tinned Copper Conductor CLASS-2 and CLASS-5, as per IS-8130	3.39	1	1.6	2	2.1	2.5	53
2	10		1.95	1.2	1.8	2.4	2.5	2.7	70
3	16		1.24	1.2	1.9	2.5	2.7	2.9	90
4	25		0.795	1.4	2	3.2	3.3	3.4	120
5	35		0.565	1.4	2.2	3.3	3.4	3.5	140
6	50		0.393	1.6	2.4	3.5	3.6	3.7	170
7	70		0.277	1.6	2.6	3.6	3.7	3.9	215
8	95		0.21	1.8	2.8	3.8	4	4.1	260
0.3	120		0.164	1.8	3	4	4.1	4.3	301
10	150		0.132	2	3.2	4.2	4.3	4.5	345
11	185		0.108	2.2	3.4	4.3	4.5	4.8	392
12	240		0.0817	2.4	3.5	4.6	4.8	5.1	460
13	300		0.0654	2.6	3.5	4.9	5.1	5.4	534
14	400		0.0495	2.8	3.8	5.2	5.4	5.8	605

ELASTOMERIC RUBBER FLEXIBLE CORDS

					THICKNESS OF OUTER SHEATH (mm, Nom, SE 1/SE 2)				
Sl No	Cross Sectional Area (sq mm)	Conductor Type	Max. Conductor Resistance of class 5 conductor as per IS-8130 (ohm/km)	Thickness of Insulation (mm, Nom) (IE 1 /IE 2)	Single Core	Two Core	Three Core	Four Core	Max Current Carrying Capacity (AMPS)
1	0.5	Annealed Tinned Copper Conductor CLASS-2 and CLASS-5, as per IS-8130	40.1	0.6	0.8/5.8	0.8/8.3	0.9/8.9	0.9/9.5	6
2	0.75		26.7	0.6	0.8/6.0	0.8/8.7	0.9/9.4	0.9/10.0	7
3	1		20	0.6	0.9/6.3	0.9/9.3	0.9/9.7	0.9/10.5	11
4	1.5		13.7	0.8	1/7.3	1/10.9	1/11.5	1.1/12.6	17
5	2.5		8.21	0.9	1.1/8.0	1.1/12.4	1.1/13	1.2/14.3	24
6	4		5.09	1	1.2/9.0	1.2/14.2	1.2/15	1.3/16.5	38

Automotive
Cables

AVSS Wires

Application

These are ultra thin wall auto cables ideal for use in automotive

Standard

JASO D 611, JASO D 618

Temperature Range (3000 Hrs)

-40°C to +105°C

Construction

Soft annealed electrolytic copper Cu-ETP1 according to JIS C 3102, bare conductor construction according to JASO D 611 PVC, insulation material accordingly to JASO D 611

Packing

Available in 500 mtrs. Longer length available in spools.

Nom. Cross-section (mm²)	No. of Strands	Max. Strand Diameter (mm)	Max. Conductor Diameter (mm)	Max. DC Conductor Resistance at 20oC (Ω/km)	Standard Insulation Thickness (mm)	Overall Diameter (mm)		Approx Weight (Kg/Km)
						Max.	Tolerance	
0.3	7	0.26	0.8	50.2	0.30	1.5	-0.1	5.0
0.5	7	0.32	1.0	32.7	0.30	1.7	-0.1	7.0
0.85	19	0.24	1.2	21.7	0.30	1.9	-0.1	10.0
1.25	19	0.29	1.5	14.9	0.30	2.2	-0.1	14.0
0.3f*	19	0.16	0.8	48.9	0.30	1.5	-0.1	5.0
0.5f*	19	0.19	1.0	34.6	0.30	1.7	-0.1	7.0
0.75f*	19	0.23	1.2	23.6	0.30	1.9	-0.1	10.0
1.25f*	37	0.21	1.5	14.6	0.30	2.2	-0.1	14.0
2f*	37	0.26	1.8	9.5	0.40	2.7	-0.1	22.0

AVS Wires

Application

These are thin wall auto cables ideal for use in automotive

Standard

JASO D 611, JASO D 618 ,Temperature Range (3000 Hrs) , -40°C to +105°C

Construction

Soft annealed electrolytic copper Cu-ETP1 according to D 609-90, bare conductor construction according to JASO D 611 PVC insulation, material accordingly to JASO D 611

Packing

Available in 500 mtrs. Longer length available in spools.

Nom. Cross-section (mm²)	No. of Strands	Max. Strand Diameter (mm)	Max. Conductor Diameter (mm)	Max. DC Conductor Resistance at 20oC (Ω/km)	Standard Insulation Thickness (mm)	Overall Diameter (mm)		Approx Weight (Kg/Km)
						Max.	Tolerance	
0.3	7	0.26	0.8	50.2	0.50	1.9	-0.1	6.0
0.5	7	0.32	1.0	32.7	0.50	2.1	-0.1	8.0
0.85	11	0.32	1.2	20.8	0.50	2.3	-0.1	12.0
1.25	16	0.32	1.5	14.3	0.50	2.6	-0.1	16.0
2	26	0.32	1.9	8.81	0.50	3.1	-0.2	25.0
3	41	0.32	2.4	5.59	0.60	3.8	-0.2	39.0
5	65	0.32	2.4	3.52	0.70	4.6	-0.2	60.0
0.3f*	15	0.18	0.8	48.9	0.50	1.9	-0.1	6.0
0.5f*	20	0.18	1.0	36.7	0.50	2.1	-0.1	8.0
0.75f*	30	0.18	1.2	24.4	0.50	2.3	-0.1	11.0
1.25f*	50	0.18	1.5	14.7	0.50	2.6	-0.1	17.0
2f*	37	0.26	1.8	9.5	0.50	3.1	-0.4	24.0

AV Wires

Application

These are standard wall auto cables for ideal use in manufacturers (AV WIRES)

Standard

In accordance to JASO D 611, JASO D 618, JIS C 3406, Temperature Range (3000 Hrs) -40°C to +105°C

Construction

Soft annealed electrolytic copper Cu-ETP1 according to ISO 6722, bare conductor, construction according to ISO 6722 PVC insulation, material accordingly to ISO 6722-2011

Packing

Available in 500 mtrs. Longer length available in spools.

Nom. Cross-section (mm²)		No. of Strands	Max. Strand Diameter (mm)	Max. Conductor Diameter (mm)	Max. DC Conductor Resistance at 20oC (Ω/km)	Standard Insulation Thickness (mm)	Overall Diameter (mm)		Approx Weight (Kg/Km)
							Max.	Tolerance	
0.5	7		0.32	1.0	32.7	0.6	2.4	-0.2	10.0
0.85	11		0.32	1.2	20.8	0.6	2.6	-0.2	13.0
1.25	16		0.32	1.5	14.3	0.6	2.9	-0.2	17.0
2	26		0.32	1.9	8.81	0.6	3.4	-0.3	26.0
3	41		0.32	2.4	5.59	0.7	4.1	-0.3	40.0
5	65		0.32	3.0	3.52	0.8	4.9	-0.3	62.0
8	50		0.45	3.7	2.32	0.9	5.8	-0.3	92.0
10	63		0.45	4.5	1.84	1.0	6.9	-0.4	120.0
15	84		0.45	4.8	1.38	1.1	7.4	-0.4	160.0
0.5f*	20		0.18	1.0	36.7	0.6	2.4	-0.2	9.0
0.85f*	30		0.18	1.2	24.4	0.6	2.6	-0.2	12.0
1.25f*	50		0.18	1.5	14.7	0.6	2.9	-0.2	18.0
2f*	37		0.26	1.8	9.5	0.6	3.4	-0.4	25.0
3f*	61		0.26	2.4	5.76	0.7	4.1	-0.3	40.0

FLRY A & B Wires

Application

These are standard wall auto cables for ideal use in automotive by harness manufacturers (FLRY A & B WIRES)

Standard

In accordance to DIN 72551-6 & ISO 6722-2011
Temperature Range (3000 Hrs)-40°C to +105°C

Construction

Soft annealed electrolytic copper Cu-ETP1 according to D 609-90, bare conductor construction according to JASO D 611 PVC insulation, Material accordingly to ISO 6722-2011

Packing

Available in 300 mtrs/ 500 mtrs . Longer length available in spools.

Metric Cross Sectional Area (Sq .mm	No of Strand /Strand Diameter (mm)	Maximum Conductor Resistance at 20°C (ohm/km)		Nominal Insulation Thickness	Minimum Cable Diameter	Maximum Cable Diameter
		Plain Copper	Sn Plated Copper			
0.13	7/0.16	136	140	0.25	0.95	1.05
0.22	7/0.21	84.8	86.5	0.25	1.1	1.2
0.35	12/0.21	54.4	55.5	0.25	1.2	1.4
0.5	16/0.21	37.1	38.2	0.28	1.4	1.6
0.75	24/0.21	24.7	25.4	0.3	1.7	1.9
1	32/0.21	18.5	19.1	0.3	1.9	2.1
1.25	16/0.33	14.9	15.9	0.3	2.1	2.3
1.5	30/0.26	12.7	13	0.3	2.2	2.4
2	28/0.31	9.42	9.69	0.35	2.5	2.8
2.5	50/0.26	7.6	7.82	0.35	2.7	3
3	44/0.31	6.15	6.36	0.4	3.1	3.4
4	56/0.31	4.71	4.85	0.4	3.4	3.7
5	65/0.33	3.94	4.02	0.4	3.9	4.2
6	84/0.31	3.14	3.23	0.4	4	4.3
8	50/0.46	2.38	2.52	0.4	4.6	5
10	80/0.41	1.82	1.85	0.4	5.3	6

Fire Survival **Cables**

APPLICATION

These cables offer the advantages of an armoured 600/1000V rated, low smoke zero halogen (LSZH) cable with circuit integrity. They are intended for use in installations where vital circuits are required to continue operation in the event of the outbreak of fire. It is particularly suited for use in public buildings and constructions (such as hospitals, theatres, shopping developments, tunnels, mass transit railways, oil & petrochemical plants, power stations and computer installations) where the danger to life, equipment and structures may be greatly increased in the event of a power failure due to fire.

Standard

BS 7846

Technical Data

Voltage Rating: 600/1000V
Operating Temperature: -40°C to + 90°C
(The cable should not be flexed when either the ambient or cable temperature is below 0°C)
Minimum Bending Radius: 6 x overall diameter of cable

Construction

Construction: Plain annealed stranded copper conductors.
Conductor: For sizes up to and including 16mm² are offered in circular. Shaped conductors are offered from 25 mm² and onwards.
Insulation: Mica (fire – resistant) tapes, covered by an extruded layer of cross – linked polyethylene.
Bedding: An extruded layer of thermoplastic low smoke zero halogen (LSZH) compound.
Armour: Single layer of galvanized steel wires.
Sheath: Thermoplastic low smoke zero halogen (LSZH) compound.

Material Description : 1.5 SQ mm x 2 core ABC conductor Shielded and Unarmoured Fire Survival cables

SL NO	PARTICULARS	UNIT	DESCRIPTION
1	**Conductor details**		
1.1	Material & type		High conductivity Annealled Silver Plated (ASPC) copper.
1.2	Nominal cross sectional area	Sq mm	1.50
1.3	Min. Annealing	%	13.5
1.4	Max. dia of each strand in conductor	mm	0.26
1.5	No. of strand	No	30
1.6	Max. DC Resistance of conductor	ohms/km	13.1
1.7	Fire Protection Barrier (To Meet the requirement of Circuit Integrity test for Min. 3HR. AT 750 DEG. C AS PER IEC 60331		Wrapped with Mica Tape, 50% overlapping (in two layers)
2	**Insulation details**		
2.1	Material & type		XLPO
2.2	Nominal thickness	mm	0.60
2.3	Min. thickness	mm	0.44
2.4	Approx. Core dia.	mm	3.35 (+/- 0.05)
2.5	Colour scheme for identification of core		Brown and Blue
3	**Shielding - 1**		
3.1	Type		Al -Mylar tape
3.2	Drain Wire	min(%)	ATC (16/0.2 MM)
3.3	Over lapping	min(%)	30.00
4	**Shielding - 2**		
4.1	Type		ATC
4.2	Coverage	min(%)	80.00
5	**Sheathing details**		
5.1	Material & type		LSZH as per IEC 60502-1
5.2	Nominal thickness	mm	1.10
5.3	Min. thickness	mm	0.68
5.4	Nominal Cable diameter	mm	9.5± 0.2
5.5	Colour		RED OR BLACK
6	**General**		
6.1	Printing on the cable		Brand name, RF cable with Series name along with sequential length marking
6.2	Test Applicable Standards		EN 50288-7, IEC 60332-1, IEC 60332-3
6.3	Standard COIL Length	mtrs	100 /500/1000 P.O. Qty (+/- 5%)
6.4	Operating Temperature		-30°C to 90°C
6.5	Bending Radius	min	6D
6.6	Operating Voltage	volts	600/1000
6.7	HV TEST	kv/min	3.0 kv ac/ 2 min
6.8	Current carrying capacity (3 phase line)	amps	28

Material Description : 2.5 SQ mm x 2 core ABC conductor Shielded and Unarmoured Fire Survival cables

SL NO	PARTICULARS	UNIT	DESCRIPTION
1	**Conductor details**		
1.1	Material & type		High conductivity Annealled Silver Plated (ASPC) copper.
1.2	Nominal cross sectional area	Sq mm	2.50
1.3	Min. Annealing	%	13.5
1.4	Max. dia of each strand in conductor	mm	0.26
1.5	No. of strand	No	50
1.6	Max. DC Resistance of conductor	ohms/km	8.0
1.7	Fire Protection Barrier (To Meet the requirement of Circuit Integrity test for Min. 3HR. AT 750 DEG. C AS PER IEC 60331		Wrapped with Mica Tape, 50% overlapping (in two layers)
2	**Insulation details**		
2.1	Material & type		XLPO
2.2	Nominal thickness	mm	0.70
2.3	Min. thickness	mm	0.53
2.4	Approx. Core dia.	mm	3.90 (+/- 0.05)
2.5	Colour scheme for identification of core		Brown and Blue
3	**Shielding - 1**		
3.1	Type		Al -Mylar tape
3.2	Drain Wire	min(%)	ATC (16/0.2 MM)
3.3	Over lapping	min(%)	30.00
4	**Shielding - 2**		
4.1	Type		ATC
4.2	Coverage	min(%)	80.00
5	**Sheathing details**		
5.1	Material & type		LSZH as per IEC 60502-1
5.2	Nominal thickness	mm	1.10
5.3	Min. thickness	mm	0.68
5.4	Nominal Cable diameter	mm	10.8± 0.2
5.5	Colour		RED OR BLACK
6	**General**		
6.1	Printing on the cable		Brand name, RF cable with Series name along with sequential length marking
6.2	Test Applicable Standards		EN 50288-7, IEC 60332-1, IEC 60332-3
6.3	Standard COIL Length	mtrs	100 /500/1000 P.O. Qty (+/- 5%)
6.4	Operating Temperature		-30°C to 90°C
6.5	Bending Radius	min	6D
6.6	Operating Voltage	volts	600/1000
6.7	HV TEST	kv/min	3.0 kv ac/ 2 min
6.8	Current carrying capacity (3 phase line)	amps	36

Welding **Cables**

WALNA Single Core Insulated and Sheathed Welding cable

TPE / HOFR (Thermo Plastic Elastomer) with single and double insulated along with extra flexible copper conductors.

Application

Designed for the high current connection to automatic or hand metal arc welding electrodes. It is suitable for flexible use under rugged condition on assembly lines and conveyor system, in machine tools, in automatically operated lines and spot welding machines.

Product Range

1. 6.0 sq mm to 300 sq mm.
2. Conductor : High conductivity bare copper as per IEC -60228 , DIN-VDE 0281 confirming to class -5 & class -6.
3. Insulation : TPE (Thermoplastic Elastomer) / HOFR (white).
4. Sheath : NBR Rubber(orange or black) /(TPE)other colours can be manufactured as per customer's request .
5. Fixed Installation : -50° c to 125° c .
6. Nominal Voltage : 600/1100 volts.
7. Minimum Bending radius : 6D.
8. Flame propagation : as per IEC- 60332-1.
9. Specification Referred : CENELEC HD-22-631, VDE-0282,IEC 245-6, IS 9857 , BS 6899, IS-6380

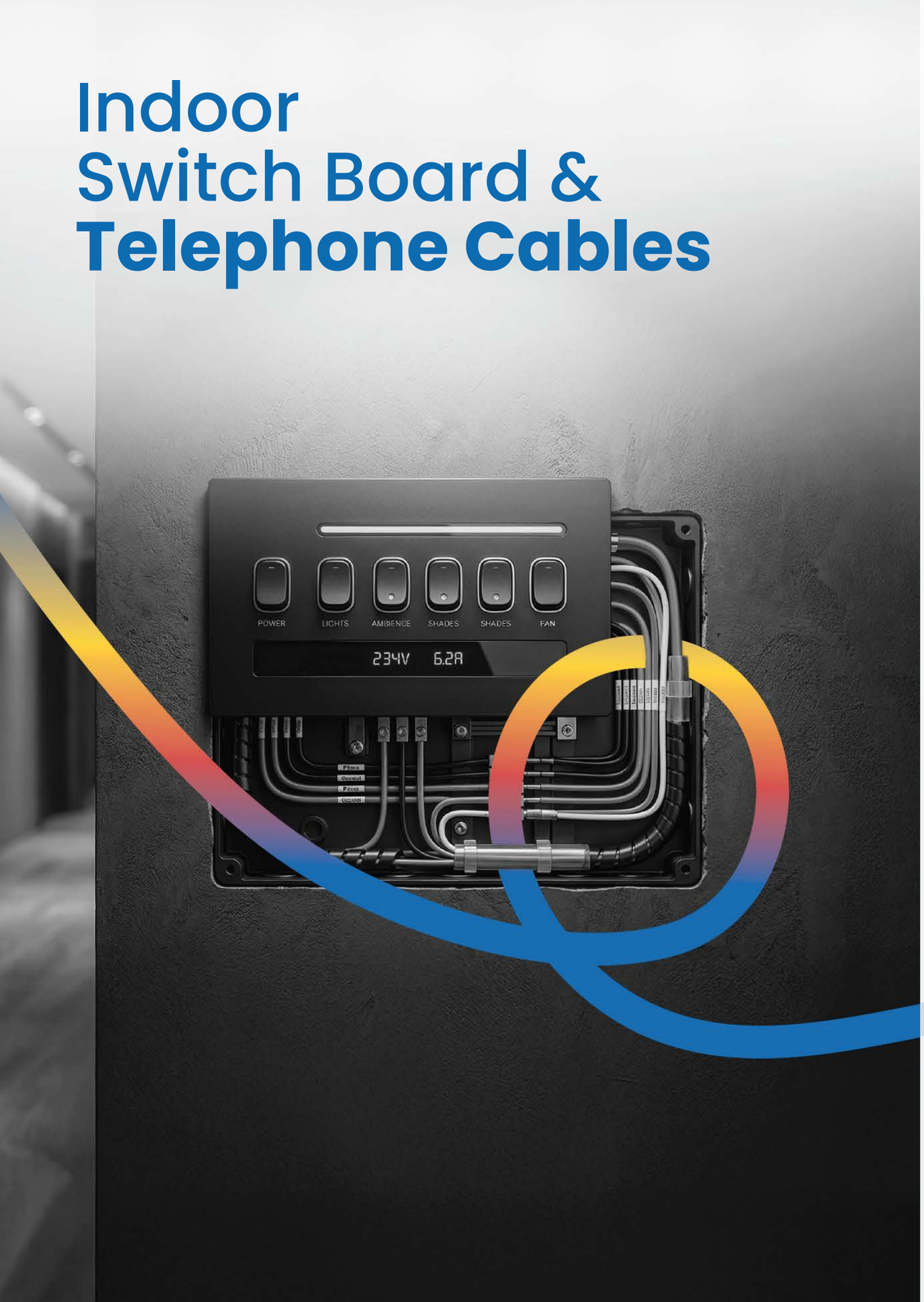
Special Features

1) Ultra high performance flexible welding lead with double insulated
2) Better flame retardant properties
3) Excellent flexibility with minimum 6D bending radius
4) Outstanding toughness and durability
5) High resistance to cuts , tears and abrasion
6) Resistance to oil, solvent and chemicals
7) Excellent ozone and weather resistance

Walna Single Core Welding Cables With Elastomeric Insulation And Sheath

SL NO	Parameters	6.0 sq mm	10.0 sq mm	16.0 sq mm	25.0 sq mm	35.0 sq mm	50.0 sq mm	70.0 sq mm	95.0 sq mm	120.0 sq mm	150.0 sq mm	185.0 sq mm	240.0 sq mm	300.0 sq mm
1	Type of Conductor	ATC/ABC												
2	Class	5 OR 6 (as per customer request)												
3	No of strand	84	140	126	196	276	396	360	475	608	750	925	122	1527
4	Size of each strand	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5
5	Cond. Resistance	3.39	1.95	1.24	0.795	0.565	0.393	0.277	0.21	0.164	0.132	0.108	0.0817	0.0654
7	Insulation (Elastomeric rubber)	IE-2/HOFR												
8	Core Colours	White or Red or as per customer requirement												
9	Insulation Thickness (nom, mm)	1	1.2	1.2	1.4	1.4	1.6	1.6	1.8	1.8	2	2.2	2.4	2.6
10	Insulation Dia. (mm)	5.2	6.8	8	9	11.5	13.5	15.5	16.5	19	20.5	23	26	28
11	Outer Sheath (Elstomeric Rubber)	SE -2 / HOFR												
12	Outer Sheath thickness (nom, mm)	1.6	1.8	1.9	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.5	3.5
13	Outer Sheath Dia (mm, nom)	8.5	10.5	12	13.5	16	18.5	20.5	22.5	25	27.5	30	33	36
14	Outer Sheath Colour													
15	Max Current Carrying Capacity (ASMPS)	50/65	65/78	95/115	125/150	145/195	195/250	248/310	310/360	385/420	425/490	495/560	585/660	698/785

Indoor Switch Board & **Telephone Cables**



Application

Used for Indoor Installation for the interconnection of Telephone , Telegraph and Electronic equipment .

Construction

1. Conductor-Solid Annealed Bare Copper/Solid Annealed Tinned Copper
2. Conductor Size-0.4 mm to 0.9 mm
3. Insulation Type-PVC/HDPE
4. Pair Wrapping-Melinex Tape with 25% overlapping
5. Armoured and Shielded-As per Customer Requirement
6. Sheath type-PVC-ST-1 (FR/GP)
7. Product Range-1 pair to 100 pairs
8. Specification Referred-DOT & ITD specification S/WS113 B, 113 C & 114 B and TEC specification No. GR/WIR-06/03(screened/unscreened) suitable for indoor telephone wiring, switch boards and intercoms. These wires are tested at 2000 volts.

Salient Features

Low cross-talk
Fire retardant
Low attenuation
High speed transmission

Telephone Switch Board Cable As Per Itd S/Ws113 B, 113 C & 114 B

SL NO	No of Pairs (P)	Conductor Type	Conductor Size (mm)	Conductor Resistance (ohm/km, max)	Insulation Type	Insulation thickness (mm, nom)	Ins Dia. (mm)	Wrapping (Over lapping 25% , min)	Outer Sheath Type and Colour	OSH Thickness (mm, nom)	Outer Sheath Dia. (mm, max)
1	1	ABC/ATC	0.5	92.2	PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.6	3.5
2	2	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.6	5.3
3	3	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.6	5.6
4	4	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.6	6.1
5	5	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.6	6.7
6	6	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.6	6.8
7	10	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.6	8.6
8	15	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.75	10.4
9	20	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.75	11.2
10	25	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.75	11.5
11	30	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.75	12.6
12	40	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	0.9	15
13	50	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	1.1	16.2
14	75	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	1.1	18.3
15	100	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	1.4	23
16	200	ABC/ATC	0.5		PVC/PE	0.2	0.95 to 1.0	Mylar	PVC (FR/GP), GREY	1.8	32.4

Telephone Switch Board Cable As Per Itd S/Ws113 B, 113 C & 114 B

SL NO	No of Pairs (P)	Conductor Type	Conductor Size (mm)	Conductor Resistance (ohm/km, max)	Insulation Type	Insulation thickness (mm, nom)	Ins Dia. (mm)	Wrapping (Over lapping 25% , min)	Outer Sheath Type and Colour	OSH Thickness (mm, nom)	Outer Sheath Dia. (mm, max)
1	1	ABC/ATC		64	PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.6	3.7
2	2	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.6	5.6
3	3	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.6	6.6
4	4	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.6	7
5	5	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.6	7.6
6	6	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.6	7.8
7	10	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.75	9.1
8	15	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.75	10.7
9	20	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.75	11.7
10	25	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.75	12
11	30	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	0.85	13.2
12	40	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	1.1	16.2
13	50	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	1.1	18.3
14	75	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	1.3	21.1
15	100	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	1.4	24.6
16	200	ABC/ATC			PVC/PE	0.2	1.0 to 1.1	Mylar	PVC (FR/GP), GREY	1.8	35.6

Telephone Switch Board Cable As Per Itd S/Ws113 B, 113 C & 114 B

SL NO	No of Pairs (P)	Conductor Type	Conductor Size (mm)	Conductor Resistance (ohm/km, max)	Insulation Type	Insulation thickness (mm, nom)	Ins Dia. (mm)	Wrapping (Over lapping 25% , min)	Outer Sheath Type and Colour	OSH Thickness (mm, nom)	Outer Sheath Dia. (mm, max)
1	1	ABC/ATC	0.7	45.7	PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.6	4.3
2	2	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.6	5.2
3	3	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.6	6.9
4	4	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.6	7.9
5	5	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.6	8.7
6	6	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.6	9.2
7	10	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.6	10.4
8	15	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.75	12.3
9	20	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.75	14
10	25	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.75	15.4
11	30	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.75	16.9
12	40	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	0.9	17.5
13	50	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	1.1	21.2
14	75	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	1.1	26.1
15	100	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	1.4	28.6
16	200	ABC/ATC	0.7		PVC/PE	0.28	1.25 to 1.35	Mylar	PVC (FR/GP), GREY	1.8	40

Not just wired.
Inspired.

LV Power **Cables**

Application

Low Voltage (LV) power cables are designed to transmit electrical energy from a power source to devices or systems operating at relatively low voltages, such as 450/750V, 600/1000V, and 650/1100V. These cables are commonly used in a variety of applications, including residential and commercial buildings, as well as industrial set ups, where low voltage is required for lighting and device activation.

WALNA's LV power cables use copper or aluminium conductors along with PVC or XLPE insulation to ensure effective power transmission and safety up to and including 1100 V. This design protects the conductor from electrical leakage and enhances durability. WALNA's LV power cables are available in different configurations, such as single-core, multicore, armoured, and unarmoured, to suit various applications and environments. These cables are also designed for DC systems with rated voltages up to and including 1500V to earth. They are widely used for power distribution in external and direct burial applications within power network systems, underground installations, and cable ducting.

What sets WALNA's LV power cables apart are their unique features: long life, high insulation resistance, flame retardant properties, low halogen, low smoke emission, and UV resistance. These attributes ensure superior safety, reliability, and performance, making Polycab the preferred choice for all your low voltage power cable needs.

Construction

Voltage	0.6V / 1.1 kV
Conductor	Stranded or Circular Shaped Copper and Aluminium
Insulation	XLPE / PVC

Inner Sheath	PVC Type ST2 / ST1 / FRLS / FR / LSZH Tape Wrapped
Armouring	Aluminium / Gal. Steel Round Wire / Flat Strip Armoured
Outer Sheath	PVC Type ST2 / ST1 / FRLS / FR / LSZH

Range

Size: 1.5 Sq.mm – 400 Sq.mm
Core: 1, 2, 3, 3.5, 4

LV Power Cables

WALNA LV Cu IEC 60502-1/IS 1554 PART-1/ IS 7098-PART-1 0.6/1kV MC-3 UA

Multi core stranded copper conductor,XLPE/PVC/EPR insulation, Laid up, Inner covering, Armoured, PVC/Polyethylene/Halogen free Outer sheathed LV Cable

- Higher dielectric strength
- Better electrical, mechanical and thermal properties
- UV resistant
- Long service life
- Low smoke emission

Multicore stranded Copper, XLPE/PVC/EPR insulation, Laid up, inner covering, PVC/Polyethylene/Halogen free sheathed unarmored cable suitable for fixed installation such as distribution network or industrial installation. These cables are designed for systems with rated AC voltage 1KV (Um=1.2 KV) between two live conductor.

WALNA - LV IS-7098-I, 3.5 C 2XWY

Three and half core Copper conductor, XLPE Insulation Inner sheathed & GI round armoured & PVC Outer sheathed cable

- Higher current rating
- Higher insulation resistance
- Better resistance to surge current
- Low dielectric losses.
- Long service life
- Higher short circuit rating

To avail GTP, please send us a request on binodnayak@walna.in

WALNA 2XWY MC-3.5, Stranded compacted copper conductor, XLPE insulated, PVC inner sheathed, Galvanised Steel round wire armour and PVC sheathed confirming to IS 7098-1 is suitable for AC single phase or three phase (earthed or unearthed) systems with rated voltage up to and including 1100V. This cable is also suitable for DC systems with rated voltage up to and including 1500V

WALNA LV AL IEC 60502-1 0.6/1kV SC AWA

Single core stranded AL conductor,XLPE/PVC/EPR insulation, Aluminium armoured, PVC/Polyethylene/Halogen free Outer sheathed LV Cable

- Higher dielectric strength
- Better electrical, mechanical and thermal properties
- UV resistant
- Long service life
- Low smoke emission

Single core stranded Aluminium conductor, XLPE/EPR/HEPR insulation, PVC/Polyethylene/Halogen free Inner, Aluminium wire armored & outer sheathed cable. suitable for fixed installation such as distribution network or industrial installation. These cable cables are designed for systems with rated AC voltage 1KV (Um=1.2 KV).

WALNA LV AL IEC 60502-1 0.6/1kV MC-3.5 SWA

Multi core stranded AL conductor, XLPE/EPR/HEPR insulation, Laid up, Inner covering, Armoured, PVC/Polyethylene/Halogen free outer sheathed LV Cable

- Higher dielectric strength
- Better electrical, mechanical and thermal properties
- UV resistant
- Long service life
- Low smoke emission

To avail GTP, please send us a request on binodnayak@walna.in

Multicore stranded Aluminium, XLPE/EPR/HEPR insulation, Laid up, inner covering, GI wire, PVC/Polyethylene/Halogen free sheathed Cable suitable for fixed installation such as distribution network or industrial installation. These cables are designed for systems with rated AC voltage 1KV (Um=1.2 KV) between two live conductor.

WALNA BS 5467 MC 0.6/1kV AC

Stranded copper conductor, XLPE/EPR Insulated, Extruded Polymeric Bedding, GS round wire armoured, PVC FRLS Outer Sheathed 0.6/1 kV LV Cable

- Low flame propagation
- Low smoke emission
- High life
- Resistant to weather exposure

WALNA BS 5467 MC stranded copper conductor thermosetting material insulated multi-core armoured cable fulfils the requirement as per BS EN 5467. These cables are suitable for fixed installation in industrial area, buildings, power network in underground, outdoor, indoor and similar application where mechanical protection is required.

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