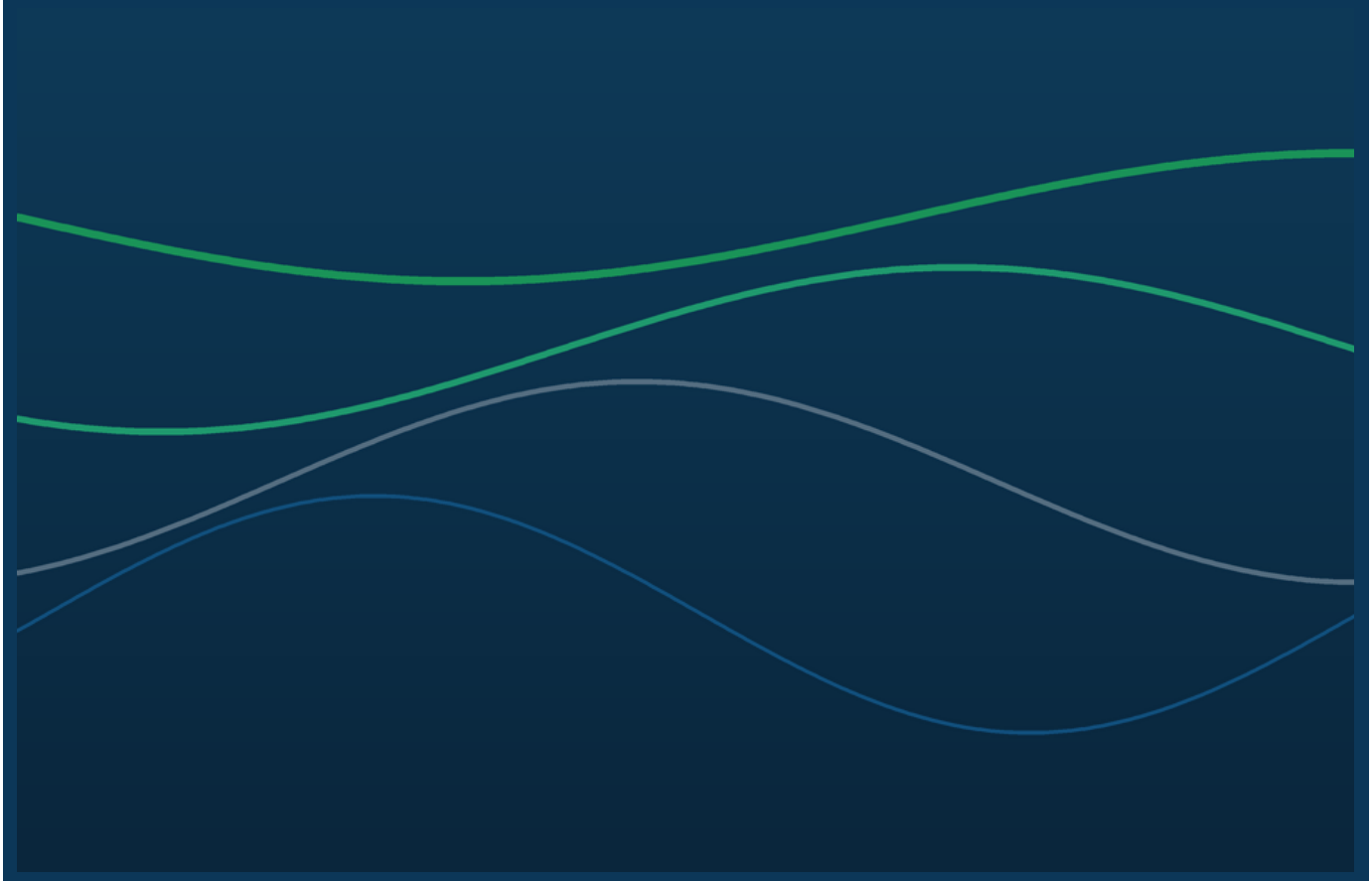
ALUMTEK



LOW VOLTAGE CABLES

Technical Catalog

Power & installation cables · Concentric, armored & control cables · Bare overhead conductors

Edition 0. 2026 · Tehran, Iran

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About Alumtek

Alumtek was established in 1963 as a private joint-stock company and built its first manufacturing complex on a 70,000 m² site near the Qazvin–Tehran highway. In 1967 the company converted to public joint-stock status, and by the end of the 1960s it had installed the country's first dedicated line for aluminum aerial conductor manufacturing. Over the following decades Alumtek expanded steadily: the Alumrad subsidiary was formed in 1977 to produce aluminum rod domestically, and in 2002 new production capacity was added for ACSR conductors, AAAC alloy conductors and OPGW cables. Following privatization in 2007, Alumtek continues to operate as a fully private enterprise with facilities in Tehran.

Today the group runs four production lines covering aerial conductors (42,000 t/year), building and industrial profiles (8,000 t/year), aluminum rod and wire (27,000 t/year) and aluminum billets (10,000 t/year), supported by roughly 200 employees. Building on this metallurgical and conductor manufacturing base, this catalog presents Alumtek's range of low voltage power and installation cables for building, industrial and distribution applications.

1963 FOUNDED	**70,000 m²** SITE AREA	**~200** EMPLOYEES
4 PRODUCTION LINES	**42,000 t/yr** AERIAL CONDUCTOR CAPACITY	**27,000 t/yr** ALUMINUM ROD & WIRE CAPACITY

Company Milestones

- **1963** — Founded as a private joint-stock company; first plant built near the Qazvin–Tehran highway.
- **1967** — Converted to public joint-stock company status.
- **1968–69** — New extrusion presses installed; Iran's first aluminum aerial-conductor line commissioned.
- **1977** — Alumrad subsidiary established for domestic aluminum rod production.
- **2002** — Capacity added for ACSR, AAAC alloy conductors and OPGW cable.
- **2007** — Privatized; continues to operate as an independent private enterprise.

Standards & Quality

All cable families in this catalog are designed and tested in accordance with the IEC 60227 and IEC 60502-1 series for PVC and XLPE insulated cables at rated voltages up to and including 1000 V, with construction requirements aligned to IEC 60228 (conductors) and IEC 60332-1 (flame retardance). Bare overhead conductors follow IEC 61089. Routine, sample and type tests are carried out in Alumtek's in-house laboratory, covering conductor resistance, insulation resistance, dielectric withstand (HV spark/AC), and mechanical construction checks prior to dispatch.

Construction & Testing Notes

- Conductors: plain or tinned annealed copper and aluminum/aluminum-alloy, Class 2 (stranded) or Class 5 (flexible) per IEC 60228.
- Insulation & sheath: PVC (TI1/TI2) and XLPE compounds selected for the specified temperature class and application.
- Identification: cores identified by color coding or printed numbering per IEC 60446.
- Testing: 100% routine electrical testing; type tests repeated periodically per IEC 60502-1 / IEC 60227.
- Marking: continuous surface print with manufacturer name, cable type, rated voltage and cross-section.
- Packing: delivered on wooden or steel drums, end-sealed to prevent moisture ingress during transport and storage.

Note: Alumtek's principal historical business is bare aerial conductors for power transmission and distribution. The insulated low voltage cable range presented in this catalog is a sample technical dataset prepared for cataloging/demonstration purposes and should be verified against the manufacturer's official datasheets before specification or procurement.









Alumtek corp.

Aluminum Cables with PVC Insulation

Unarmored | Reliable | Efficient

Low Voltage Power Cable



- High Conductivity
- Safe & Durable
- Wide Temperature Range
- Environment Friendly

Alumtek corp.

NAYY 0.6/1 kV PVC Power Cable

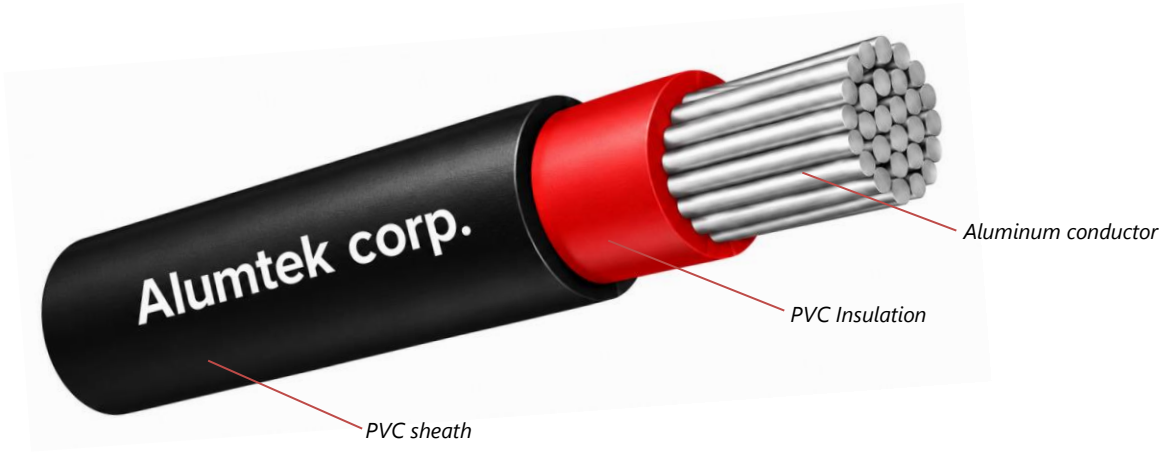
Aluminum conductor, PVC insulated, PVC sheathed — unarmored



Description: Al/PVC/PVC low-voltage power cables consist of an aluminum conductor, PVC insulation and an outer PVC sheath. These cables are designed for power distribution and electrical installations where mechanical protection against external forces is not required. They are available in single-core and multicore configurations from 1 to 4 cores

Typical Applications: Low-voltage power distribution Industrial and commercial installations Building electrical systems Distribution panels and switchboards Cable ducts, trays and conduits Fixed indoor and outdoor installations

Standard: IEC 60502-1



1 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
1×25 RM	1.2	1.4	11.4	167	1.200
1×35 RM	1.2	1.4	12.5	205	0.868
1×50 RM	1.4	1.4	14.0	263	0.641
1×70 RM	1.4	1.4	15.7	340	0.443
1×95 RM	1.6	1.5	18.0	451	0.320
1×120 RM	1.6	1.5	19.6	539	0.253
1×150 RM	1.8	1.6	21.5	655	0.206
1×185 RM	2.0	1.7	23.9	815	0.164
1×240 RM	2.2	1.8	26.9	1028	0.125
1×300 RM	2.4	1.9	29.9	1270	0.100
1×400 RM	2.6	2.0	33.4	1601	0.778
1×500 RM	2.8	2.1	36.8	1978	0.0605
1×630 RM	2.8	2.2	40.6	2450	0.0469

NAYY 0.6/1 kV PVC Power Cable

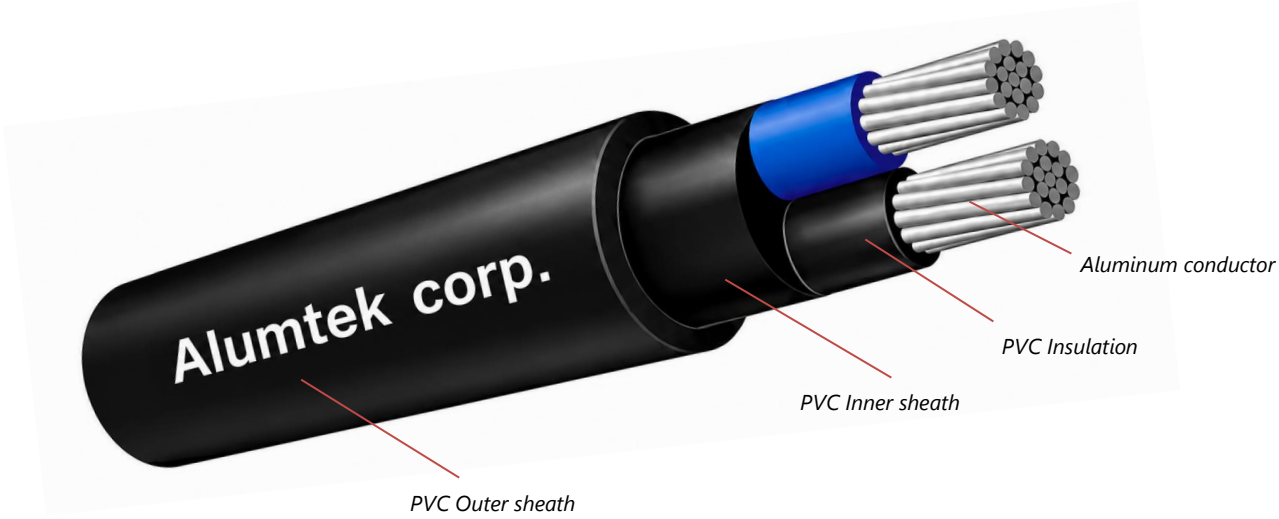
Aluminum conductor, PVC insulated, PVC sheathed — unarmored



Description: Al/PVC/PVC low-voltage power cables consist of an aluminum conductor, PVC insulation and an outer PVC sheath. These cables are designed for power distribution and electrical installations where mechanical protection against external forces is not required. They are available in single-core and multicore configurations from 1 to 4 cores

Typical Applications: Low-voltage power distribution Industrial and commercial installations Building electrical systems Distribution panels and switchboards Cable ducts, trays and conduits Fixed indoor and outdoor installations

Standard: IEC 60502-1



2 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
2×25 RM	1.2	1.8	23.0	674	1.20
2×35 RM	1.2	1.8	25.2	822	0.868
2×50 SM	1.4	1.8	25.1	551	0.641
2×70 SM	1.4	1.9	28.5	710	0.443
2×95 SM	1.6	2.0	32.8	948	0.320
2×120 SM	1.6	2.1	35.5	1149	0.253
2×150 SM	1.8	2.2	39.2	1400	0.206
2×185 SM	2.0	2.4	43.5	1745	0.164
2×240 SM	2.2	2.5	48.7	2201	0.125
2×300 SM	2.4	2.7	54.1	2744	0.100

NAYY

0.6/1 kV PVC Power Cable

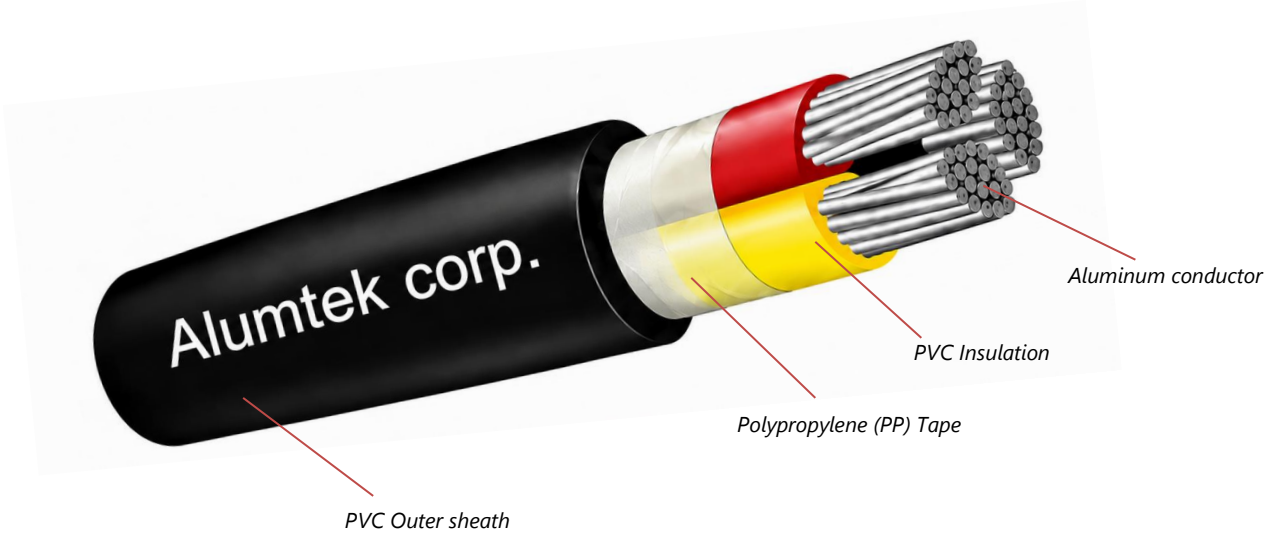
Aluminum conductor, PVC insulated, PVC sheathed — unarmored



Description: Al/PVC/PVC low-voltage power cables consist of an aluminum conductor, PVC insulation and an outer PVC sheath. These cables are designed for power distribution and electrical installations where mechanical protection against external forces is not required. They are available in single-core and multicore configurations from 1 to 4 cores

Typical Applications: Low-voltage power distribution Industrial and commercial installations Building electrical systems Distribution panels and switchboards Cable ducts, trays and conduits Fixed indoor and outdoor installations

Standard: IEC 60502-1



3 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
3×25 RM	1.2	1.8	24.3	760	1.20
3×35 RM	1.2	1.8	26.7	935	0.868
3×50 SM	1.4	1.8	28.4	755	0.641
3×70 SM	1.4	1.9	32.4	998	0.443
3×95 SM	1.6	2.1	37.3	1340	0.320
3×120 SM	1.6	2.2	40.6	1632	0.253
3×150 SM	1.8	2.3	44.8	2000	0.206
3×185 SM	2.0	2.5	49.8	2495	0.164
3×240 SM	2.2	2.7	56.1	3170	0.125
3×300 SM	2.4	2.8	62.2	3919	0.100

NAYY

0.6/1 kV PVC Power Cable

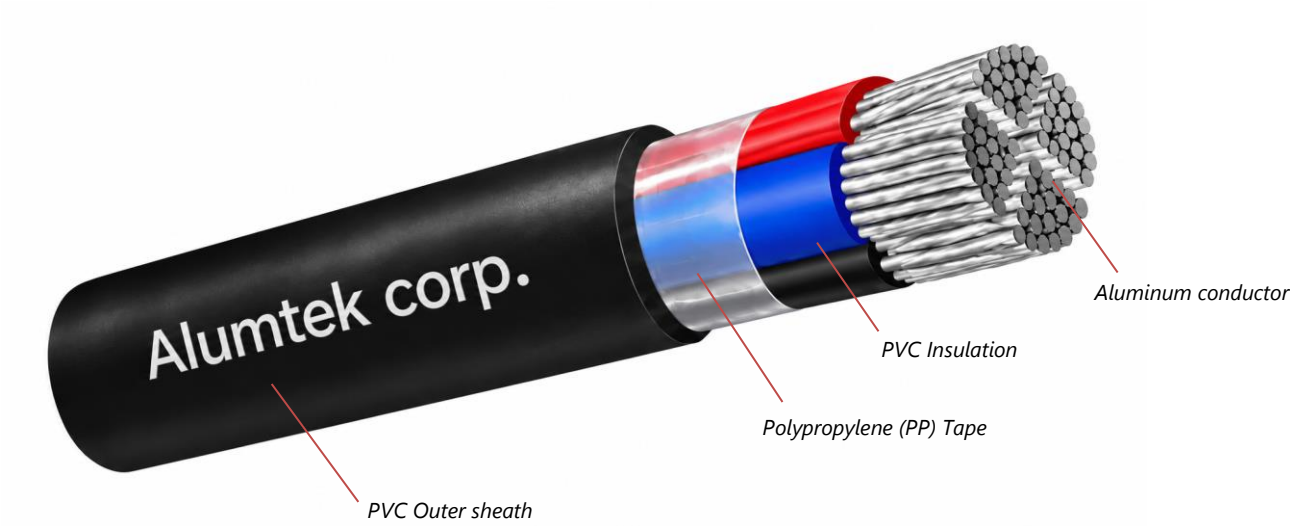
Aluminum conductor, PVC insulated, PVC sheathed — unarmored



Description: Al/PVC/PVC low-voltage power cables consist of an aluminum conductor, PVC insulation and an outer PVC sheath. These cables are designed for power distribution and electrical installations where mechanical protection against external forces is not required. They are available in single-core and multicore configurations from 1 to 4 cores

Typical Applications: Low-voltage power distribution Industrial and commercial installations Building electrical systems Distribution panels and switchboards Cable ducts, trays and conduits Fixed indoor and outdoor installations

Standard: IEC 60502-1



4 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
4×25 RM	1.2	1.8	26.4	893	1.20
4×35 RM	1.2	1.8	29.1	1105	0.868
4×50 SM	1.4	1.9	31.8	993	0.641
4×70 SM	1.4	2.0	36.1	1309	0.443
4×95 SM	1.6	2.2	41.6	1765	0.320
4×120 SM	1.6	2.3	45.2	2142	0.253
4×150 SM	1.8	2.5	50.0	2640	0.206
4×185 SM	2.0	2.6	55.3	3260	0.164
4×240 SM	2.2	2.9	62.8	4171	0.125
4×300 SM	2.4	3.1	69.7	5190	0.100

Alumtek corp.

Aluminum Cables with PVC Insulation

Armored | Reliable | Efficient

Low Voltage Power Cable



- High Conductivity
- Safe & Durable
- Wide Temperature Range
- Environment Friendly

Alumtek corp.

NAYRY

0.6/1 kV PVC Concentric Power Cable

Aluminum Conductor, PVC Insulation, PVC Bedding, Aluminum Wire Armour (AWA), PVC Outer Sheath

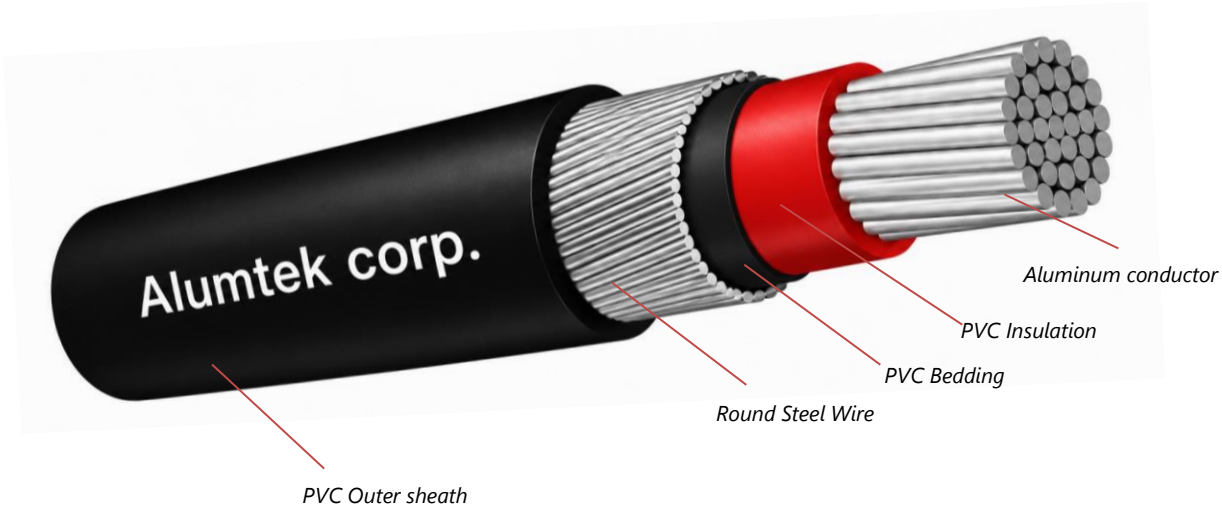


Description Al/PVC/BD/AWA/PVC is a single-core armored low-voltage power cable consisting of an aluminum conductor, PVC insulation, PVC bedding, aluminum wire armour and an outer PVC sheath. The aluminum wire armour provides mechanical protection while maintaining suitability for single-core applications.

Typical Applications: Power distribution, industrial installations, underground installations, cable trenches, ducts and areas where additional mechanical protection is required. Suitable for fixed installations and applications where a non-magnetic armor is required for single-core cables.

Standard: IEC 60502-1

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1 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
1×25 RM	1.2	1.6	1.8	17.7	400	1.20
1×35 RM	1.2	1.6	1.8	18.8	460	0.868
1×50 RM	1.4	1.6	1.8	20.4	545	0.641
1×70 RM	1.4	1.6	1.8	22.1	656	0.443
1×95 RM	1.6	1.6	1.8	24.2	795	0.320
1×120 RM	1.6	1.6	1.8	25.7	901	0.253
1×150 RM	1.8	1.6	1.8	27.4	1047	0.206
1×185 RM	2.0	1.6	1.8	29.8	1230	0.164
1×240 RM	2.2	1.6	1.9	32.9	1490	0.125
1×300 RM	2.4	2.0	2.0	36.5	1879	0.100
1×400 RM	2.6	2.0	2.1	40.5	2299	0.778

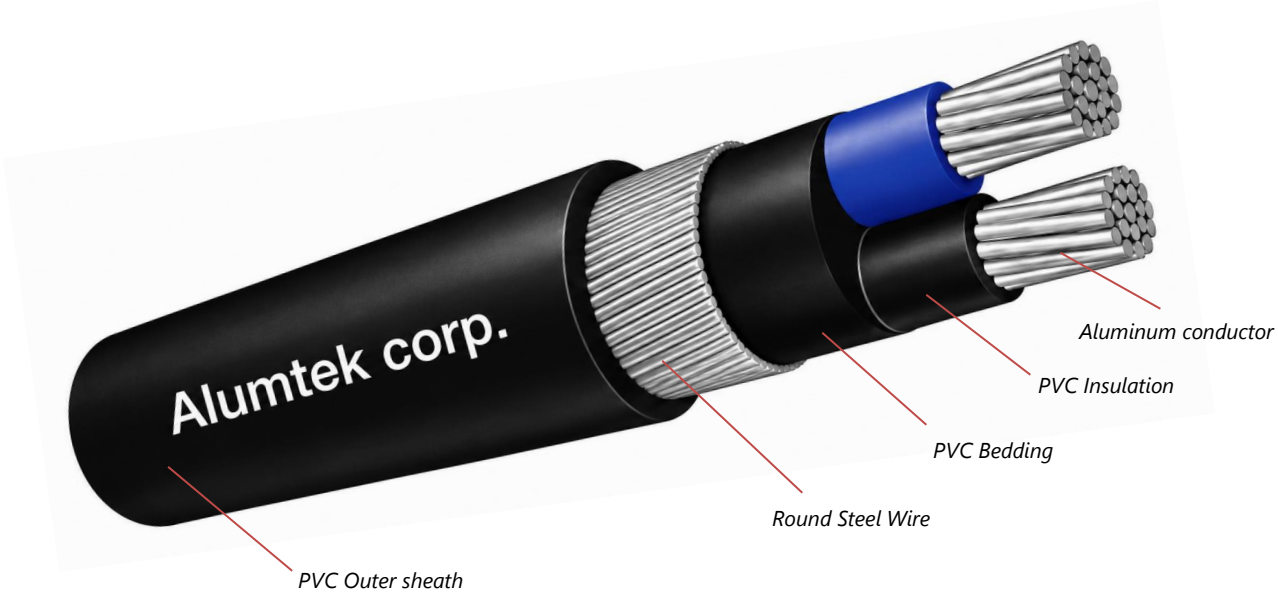
NAYRY

0.6/1 kV PVC Concentric Power Cable

Aluminum Conductor, PVC Insulation, PVC Bedding, Steel Wire Armour (SWA), PVC Outer Sheath



Description: Al/PVC/BD/SWA/PVC low-voltage armored power cables consist of aluminum conductors, PVC insulation, PVC bedding, steel wire armour and an outer PVC sheath. The steel wire armour provides mechanical protection and enhances the cable's resistance to external mechanical stresses.
Typical Applications: Industrial and commercial power distribution, underground installations, cable trenches, power supply systems, building services, and installations where mechanical protection is required.
Standard: IEC 60502-1



2 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
2×25 RM	1.2	1.6	1.8	26.2	1301	1.20
2×35 RM	1.2	1.6	1.8	28.4	1509	0.868
2×50 SM	1.4	2.0	1.9	31.8	1743	0.641
2×70 SM	1.4	2.0	2.0	35.1	2059	0.443
2×95 SM	1.6	2.0	2.2	40.1	2548	0.320
2×120 SM	1.6	2.0	2.3	42.8	2878	0.253
2×150 SM	1.8	2.5	2.4	47.5	3696	0.206
2×185 SM	2.0	2.5	2.6	52.2	4390	0.164
2×240 SM	2.2	2.5	2.8	58.0	5170	0.125
2×300 SM	2.4	2.5	2.9	63.6	6066	0.100

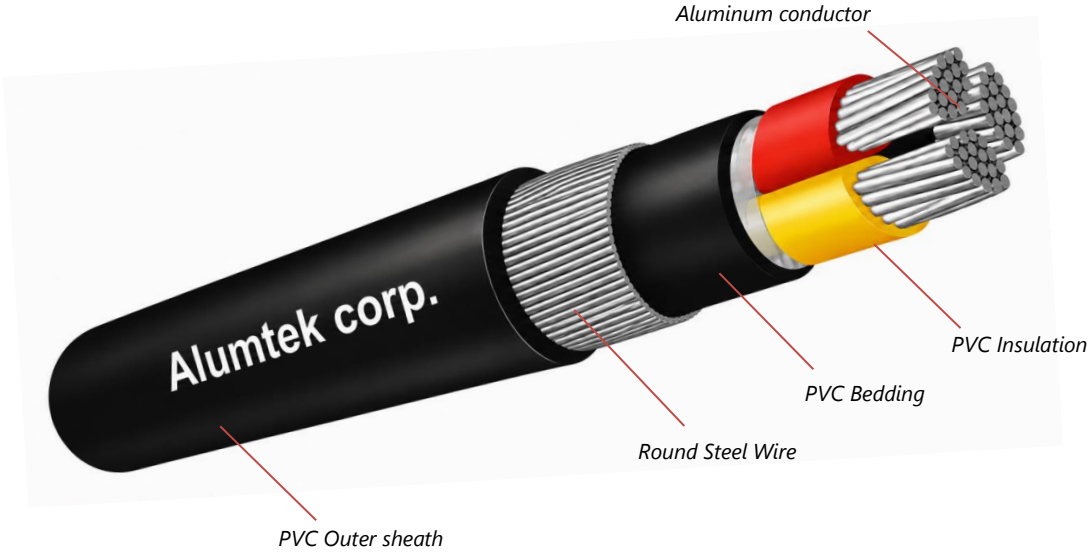
NAYRY

0.6/1 kV PVC Concentric Power Cable

Aluminum Conductor, PVC Insulation, PVC Bedding, Steel Wire Armour (SWA), PVC Outer Sheath



Description: Al/PVC/BD/SWA/PVC low-voltage armored power cables consist of aluminum conductors, PVC insulation, PVC bedding, steel wire armour and an outer PVC sheath. The steel wire armour provides mechanical protection and enhances the cable's resistance to external mechanical stresses.
Typical Applications: Industrial and commercial power distribution, underground installations, cable trenches, power supply systems, building services, and installations where mechanical protection is required.
Standard: IEC 60502-1



3 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
3×25 RM	1.2	1.6	1.8	27.5	1425	1.20
3×35 RM	1.2	2.0	1.9	31.2	1890	0.868
3×50 SM	1.4	2.0	2.0	35.3	2098	0.641
3×70 SM	1.4	2.0	2.1	39.6	2560	0.443
3×95 SM	1.6	2.0	2.2	44.4	3119	0.320
3×120 SM	1.6	2.0	2.3	47.6	3561	0.253
3×150 SM	1.8	2.5	2.5	53.6	4649	0.206
3×185 SM	2.0	2.5	2.7	58.9	5440	0.164
3×240 SM	2.2	2.5	2.9	65.6	6481	0.125
3×300 SM	2.4	2.5	3.0	71.6	7581	0.100

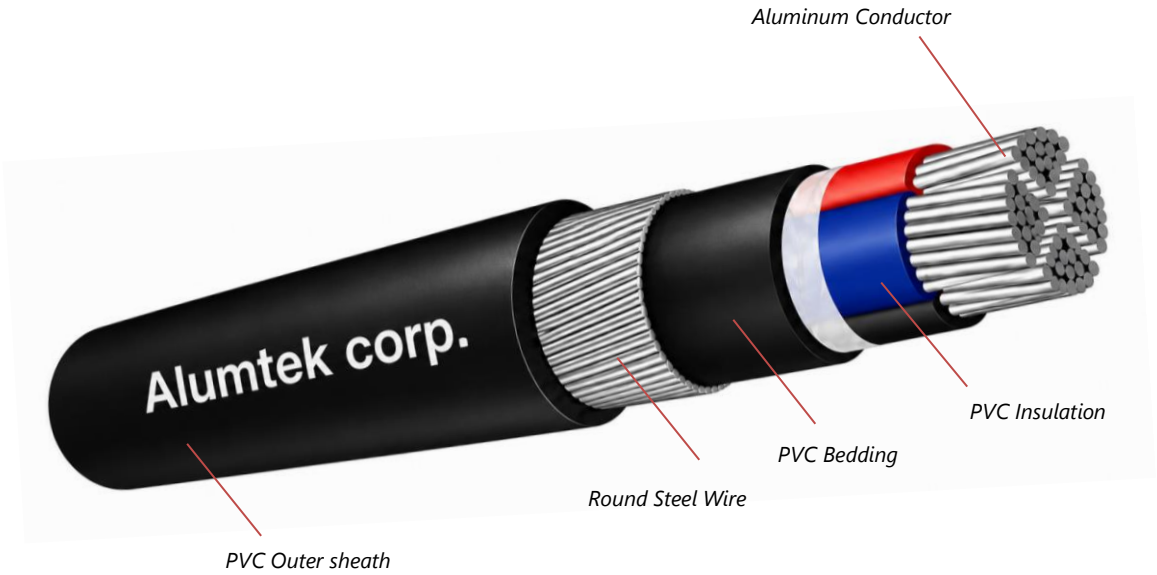
NAYRY

0.6/1 kV PVC Concentric Power Cable

Aluminum Conductor, PVC Insulation, PVC Bedding, Steel Wire Armour (SWA), PVC Outer Sheath



Description: Al/PVC/BD/SWA/PVC low-voltage armored power cables consist of aluminum conductors, PVC insulation, PVC bedding, steel wire armour and an outer PVC sheath. The steel wire armour provides mechanical protection and enhances the cable's resistance to external mechanical stresses.
Typical Applications: Industrial and commercial power distribution, underground installations, cable trenches, power supply systems, building services, and installations where mechanical protection is required.
Standard: IEC 60502-1



4 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
4×25 RM	1.2	2.0	1.8	30.6	1835	1.20
4×35 RM	1.2	2.0	1.9	33.6	2160	0.868
4×50 SM	1.4	2.0	2.1	39.0	2501	0.641
4×70 SM	1.4	2.0	2.2	43.4	3025	0.443
4×95 SM	1.6	2.5	2.4	49.9	4126	0.320
4×120 SM	1.6	2.5	2.5	54.0	4785	0.253
4×150 SM	1.8	2.5	2.7	59.1	5531	0.206
4×185 SM	2.0	2.5	2.8	64.8	6543	0.164
4×240 SM	2.2	2.5	3.1	72.2	7852	0.125
4×300 SM	2.4	2.5	3.3	79.1	9265	0.100

Alumtek corp.

Aluminum Cables with XLPE Insulation

Unarmored | Reliable | Efficient

Low Voltage Power Cable



- High Conductivity
- Safe & Durable
- Wide Temperature Range
- Environment Friendly

Alumtek corp.

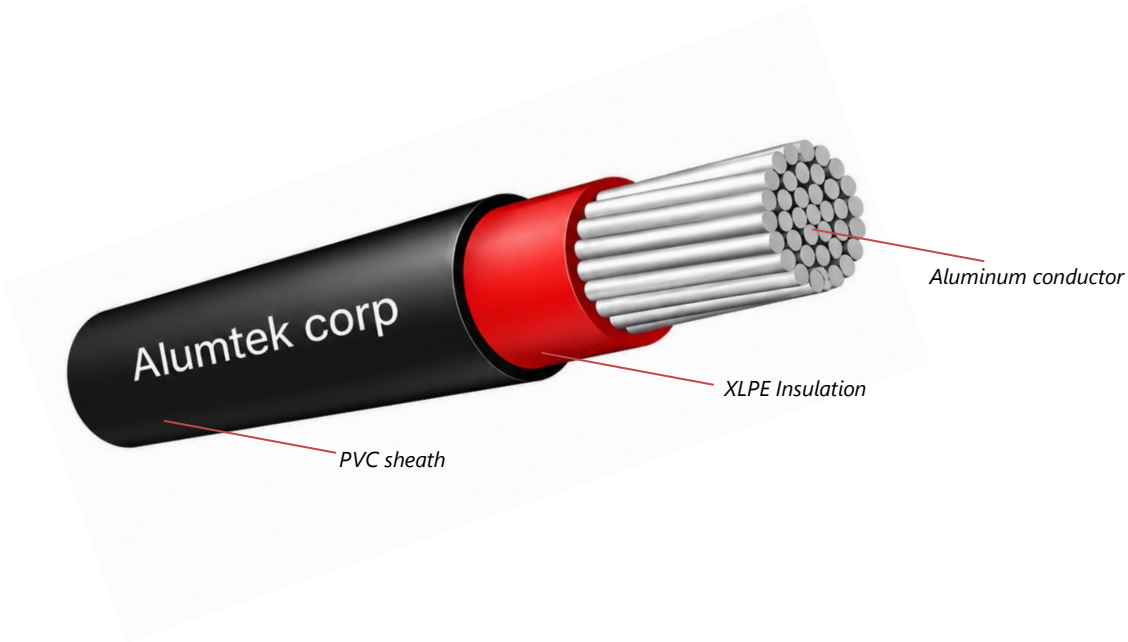
NA2XY

0.6/1 kV XLPE Power Cable

Aluminum conductor, XLPE insulated, PVC sheathed — unarmored



Description: AI/XLPE/PVC low-voltage power cables consist of an aluminum conductor, XLPE insulation and an outer PVC sheath. XLPE insulation provides excellent thermal, electrical and mechanical properties and allows higher continuous operating temperatures compared with PVC-insulated cables. These cables are available in single-core and multicore configurations from 1 to 4 cores.
Typical Applications: Low-voltage power distribution, industrial and commercial installations, building electrical systems, distribution panels and switchboards, cable ducts, trays and conduits, and fixed indoor or outdoor installations.
Standard: IEC 60502-1



1 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
1×25 RM	0.9	1.4	10.8	141	1.20
1×35 RM	0.9	1.4	11.9	176	0.868
1×50 RM	1.0	1.4	13.2	220	0.641
1×70 RM	1.1	1.4	15.1	298	0.443
1×95 RM	1.1	1.5	17.0	385	0.320
1×120 RM	1.2	1.5	18.8	471	0.253
1×150 RM	1.4	1.6	20.7	582	0.206
1×185 RM	1.6	1.6	22.9	712	0.164
1×240 RM	1.7	1.7	25.7	898	0.125
1×300 RM	1.8	1.8	28.2	1119	0.100
1×400 RM	2.0	1.9	32.0	1414	1.20
1×500 RM	2.2	2.0	35.4	1754	0.868
1×630 RM	2.4	2.2	39.8	2244	0.641

NA2XY

0.6/1 kV XLPE Power Cable

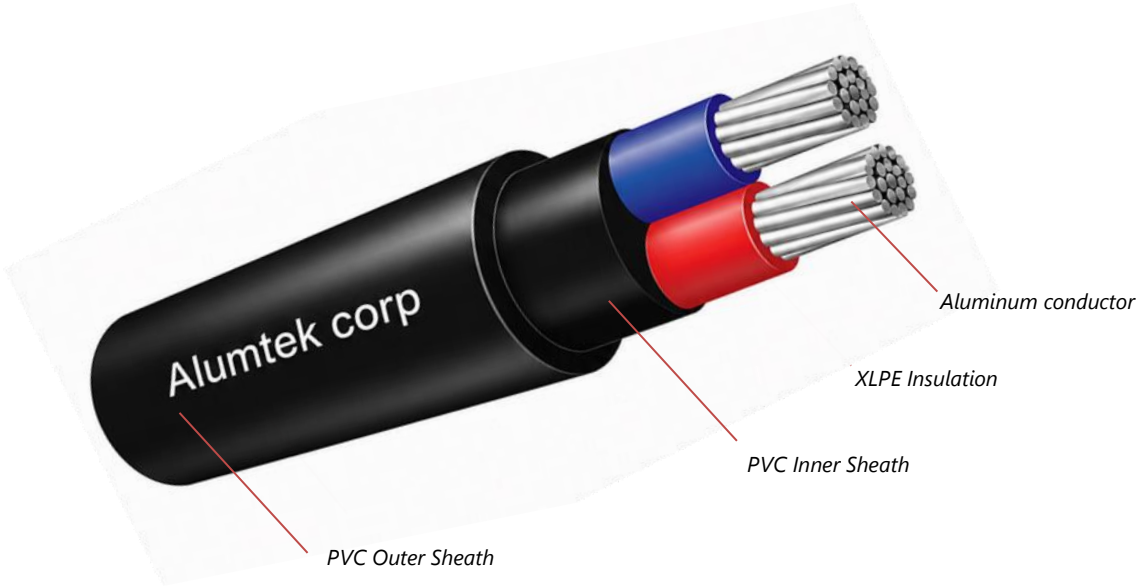
Aluminum conductor, XLPE insulated, PVC sheathed — unarmored



Description: AI/XLPE/PVC low-voltage power cables consist of an aluminum conductor, XLPE insulation and an outer PVC sheath. XLPE insulation provides excellent thermal, electrical and mechanical properties and allows higher continuous operating temperatures compared with PVC-insulated cables. These cables are available in single-core and multicore configurations from 1 to 4 cores.

Typical Applications: Low-voltage power distribution, industrial and commercial installations, building electrical systems, distribution panels and switchboards, cable ducts, trays and conduits, and fixed indoor or outdoor installations.

Standard: IEC 60502-1



2 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
2×25 RM	0.9	1.8	21.8	5^9	1.20
2×35 RM	0.9	1.8	24.0	727	0.868
2×50 SM	1.0	1.8	23.3	472	0.641
2×70 SM	1.1	1.8	26.8	625	0.443
2×95 SM	1.1	1.9	30.5	818	0.320
2×120 SM	1.2	2.0	33.7	1011	0.253
2×150 SM	1.4	2.2	37.5	1257	0.206
2×185 SM	1.6	2.3	41.6	1550	0.164
2×240 SM	1.7	2.5	46.7	1962	0.125
2×300 SM	1.8	2.6	51.3	2414	0.100

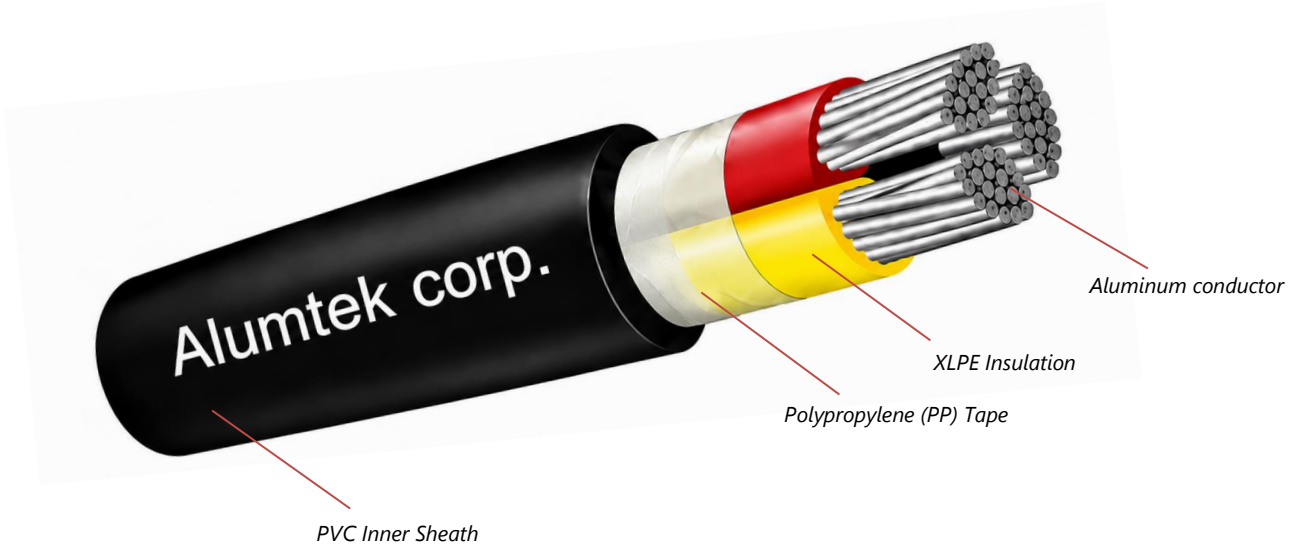
NA2XY

0.6/1 kV XLPE Power Cable

Aluminum conductor, XLPE insulated, PVC sheathed — unarmored



Description: AI/XLPE/PVC low-voltage power cables consist of an aluminum conductor, XLPE insulation and an outer PVC sheath. XLPE insulation provides excellent thermal, electrical and mechanical properties and allows higher continuous operating temperatures compared with PVC-insulated cables. These cables are available in single-core and multicore configurations from 1 to 4 cores.
Typical Applications: Low-voltage power distribution, industrial and commercial installations, building electrical systems, distribution panels and switchboards, cable ducts, trays and conduits, and fixed indoor or outdoor installations.
Standard: IEC 60502-1



3 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
3×25 RM	0.9	1.8	23.0	657	1.20
3×35 RM	0.9	1.8	25.4	619	0.868
3×50 SM	1.0	1.8	26.5	654	0.641
3×70 SM	1.1	1.9	31.0	889	0.443
3×95 SM	1.1	2.0	34.8	1153	0.320
3×120 SM	1.2	2.1	38.4	1437	0.253
3×150 SM	1.4	2.3	42.8	1784	0.206
3×185 SM	1.6	2.4	47.7	2204	0.164
3×240 SM	1.7	2.6	53.4	2793	0.125
3×300 SM	1.8	2.7	59.1	3440	0.100

NA2XY 0.6/1 kV XLPE Power Cable

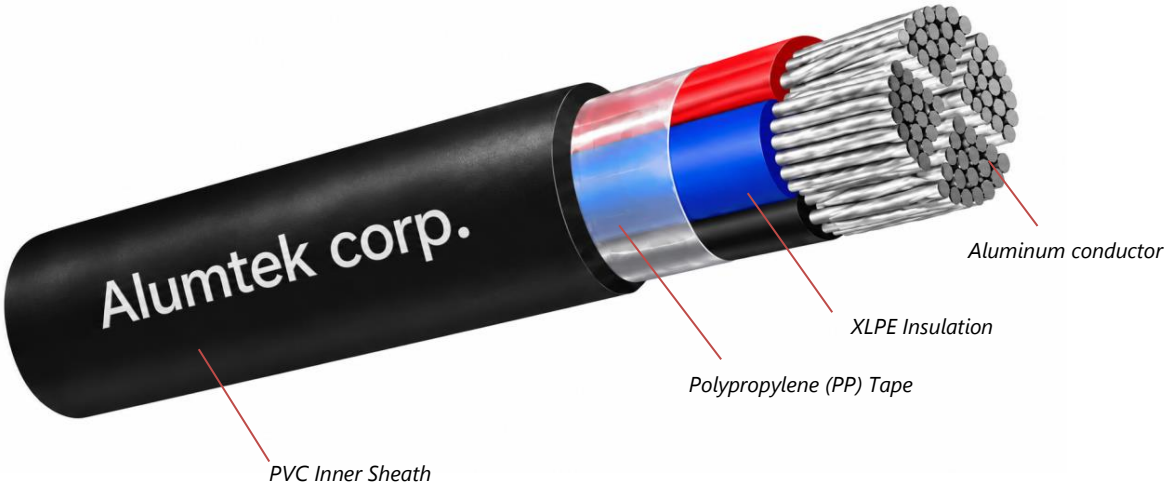
Aluminum conductor, XLPE insulated, PVC sheathed — unarmored



Description: AI/XLPE/PVC low-voltage power cables consist of an aluminum conductor, XLPE insulation and an outer PVC sheath. XLPE insulation provides excellent thermal, electrical and mechanical properties and allows higher continuous operating temperatures compared with PVC-insulated cables. These cables are available in single-core and multicore configurations from 1 to 4 cores.

Typical Applications: Low-voltage power distribution, industrial and commercial installations, building electrical systems, distribution panels and switchboards, cable ducts, trays and conduits, and fixed indoor or outdoor installations.

Standard: IEC 60502-1



4 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
4×25 RM	0.9	1.8	25.0	769	1.20
4×35 RM	0.9	1.8	27.6	957	0.868
4×50 SM	1.0	1.8	29.4	8224	0.641
4×70 SM	1.1	2.0	34.5	1155	0.443
4×95 SM	1.1	2.1	38.7	1508	0.320
4×120 SM	1.2	2.3	43.0	1890	0.253
4×150 SM	1.4	2.4	47.6	2315	0.206
4×185 SM	1.6	2.6	53.1	2893	0.164
4×240 SM	1.7	2.8	59.9	3660	0.125
4×300 SM	1.8	3.0	66.1	4545	0.100

Alumtek corp.

Aluminum Cables with XLPE Insulation

Armored | Reliable | Efficient

Low Voltage Power Cable



- High Conductivity
- Safe & Durable
- Wide Temperature Range
- Environment Friendly

Alumtek corp.

NA2XRY 0.6/1 kV XLPE Concentric Power Cable

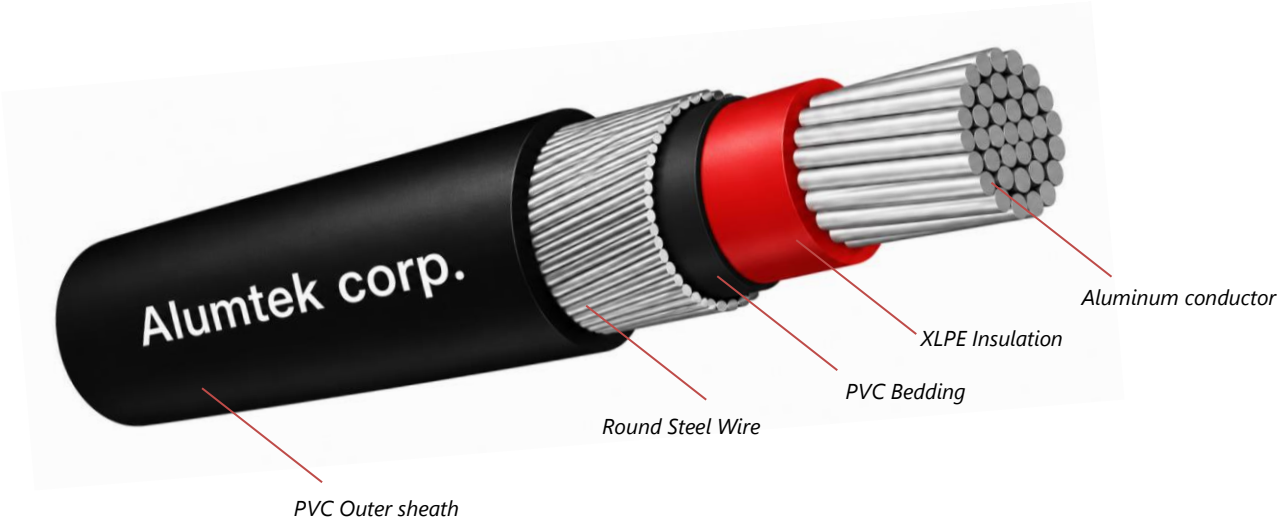
Aluminum Conductor, XLPE Insulation, PVC Bedding, Aluminum Wire Armour (AWA)PVC Outer Sheath



Description: AI/XLPE/BD/AWA/PVC is a single-core armored low-voltage power cable consisting of an aluminum conductor, XLPE insulation, PVC bedding, aluminum wire armour and an outer PVC sheath. The AWA layer provides mechanical protection while its non-magnetic construction makes it suitable for single-core cable applications.

Typical Applications: Power distribution, industrial installations, underground installations, cable trenches and ducts, and fixed installations where mechanical protection is required. Particularly suitable for single-core applications requiring non-magnetic armor.

Standard: IEC 60502-1



1 core cable

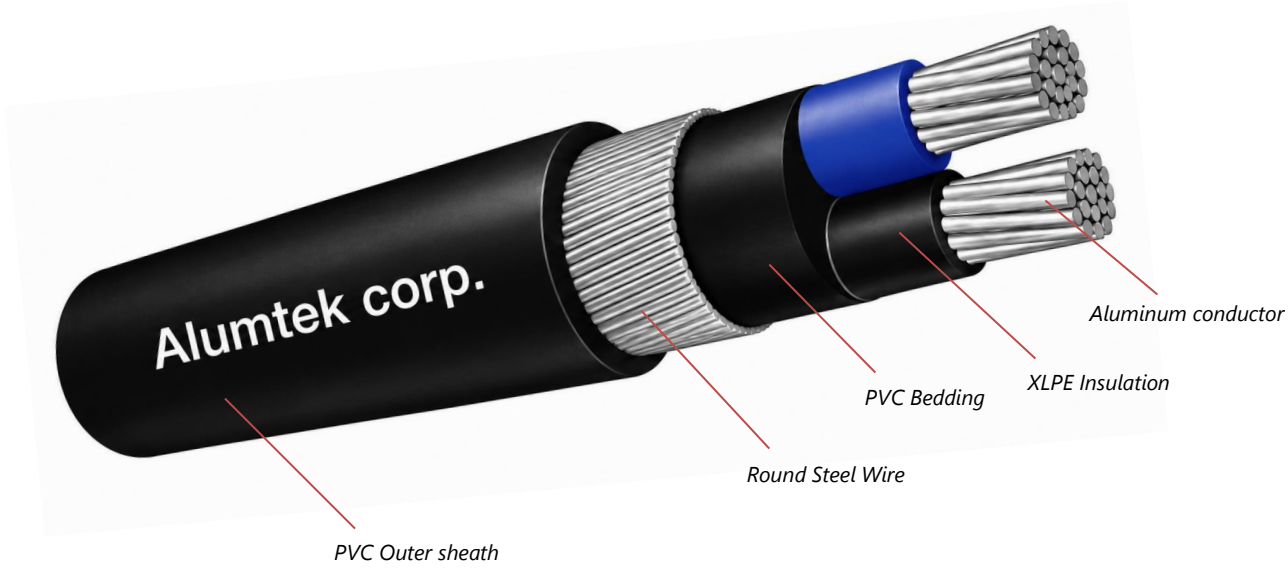
NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
1×25 RM	0.9	1.6	1.8	17.1	369	1.20
1×35 RM	0.9	1.6	1.8	18.2	425	0.868
1×50 RM	1.0	1.6	1.8	19.6	494	0.641
1×70 RM	1.1	1.6	1.8	21.5	601	0.443
1×95 RM	1.1	1.6	1.8	23.2	718	0.320
1×120 RM	1.2	1.6	1.8	24.9	830	0.253
1×150 RM	1.4	1.6	1.8	26.6	952	0.206
1×185 RM	1.6	1.6	1.8	28.8	1120	0.164
1×240 RM	1.7	1.6	1.9	31.9	1358	0.125
1×300 RM	1.8	1.6	1.9	34.2	1598	0.100
1×400 RM	2.0	2.0	2.1	39.3	2108	1.20
1×500 RM	2.2	2.0	2.2	42.8	2511	0.868
1×630 RM	2.4	2.0	2.3	46.9	3065	0.641

NA2XRY 0.6/1 kV XLPE Concentric Power Cable

Aluminum Conductor, XLPE Insulation, PVC Bedding, Steel Wire Armour (SWA)PVC Outer Sheath



Description: AI/XLPE/BD/SWA/PVC low-voltage armored power cables consist of aluminum conductors, XLPE insulation, PVC bedding, steel wire armour and an outer PVC sheath. The XLPE insulation provides high thermal performance, while the steel wire armour provides mechanical protection against external stresses.
Typical Applications: Industrial and commercial power distribution, underground installations, cable trenches, power supply systems, building services, and fixed installations where enhanced mechanical protection is required.
Standard: IEC 60502-1



2 core cable

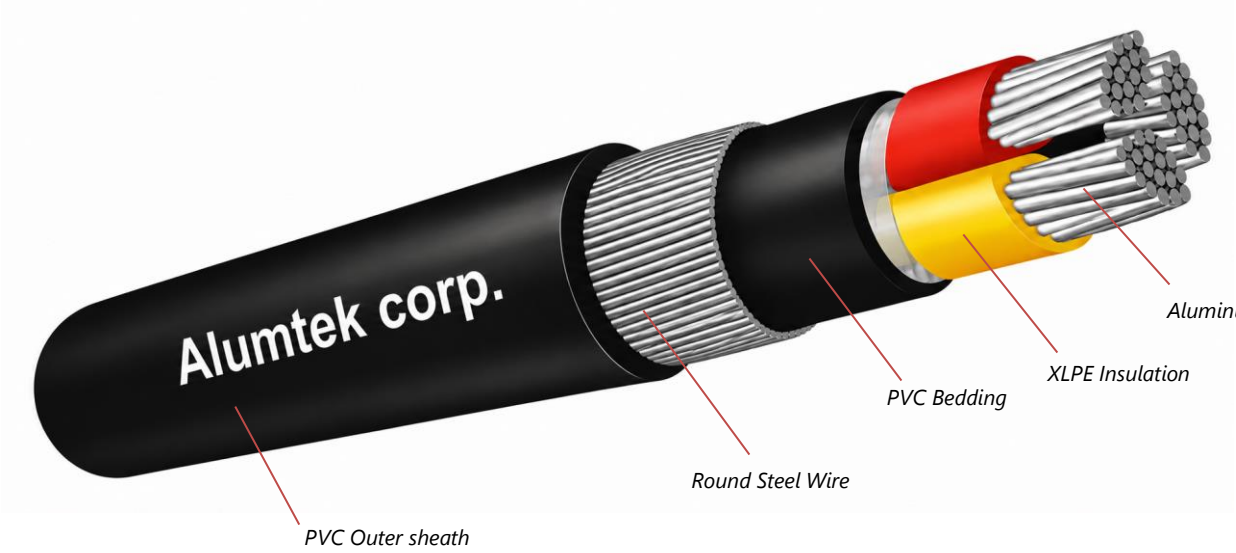
NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
2×25 RM	0.9	1.6	1.8	25.0	1171	1.20
2×35 RM	0.9	1.6	1.8	27.2	1368	0.868
2×50 SM	1.0	2.0	1.9	30.0	1572	0.641
2×70 SM	1.1	2.0	2.0	33.7	1890	0.443
2×95 SM	1.1	2.0	2.1	37.7	2315	0.320
2×120 SM	1.2	2.0	2.2	41.0	2676	0.253
2×150 SM	1.4	2.0	2.3	44.5	3060	0.206
2×185 SM	1.6	2.5	2.5	50.4	4095	0.164
2×240 SM	1.7	2.5	2.7	55.5	4765	0.125
2×300 SM	1.8	2.5	2.8	60.8	5585	0.100

NA2XRY 0.6/1 kV XLPE Concentric Power Cable

Aluminum Conductor, XLPE Insulation, PVC Bedding, Steel Wire Armour (SWA)PVC Outer Sheath



Description: AI/XLPE/BD/SWA/PVC low-voltage armored power cables consist of aluminum conductors, XLPE insulation, PVC bedding, steel wire armour and an outer PVC sheath. The XLPE insulation provides high thermal performance, while the steel wire armour provides mechanical protection against external stresses.
Typical Applications: Industrial and commercial power distribution, underground installations, cable trenches, power supply systems, building services, and fixed installations where enhanced mechanical protection is required.
Standard: IEC 60502-1



3 core cable

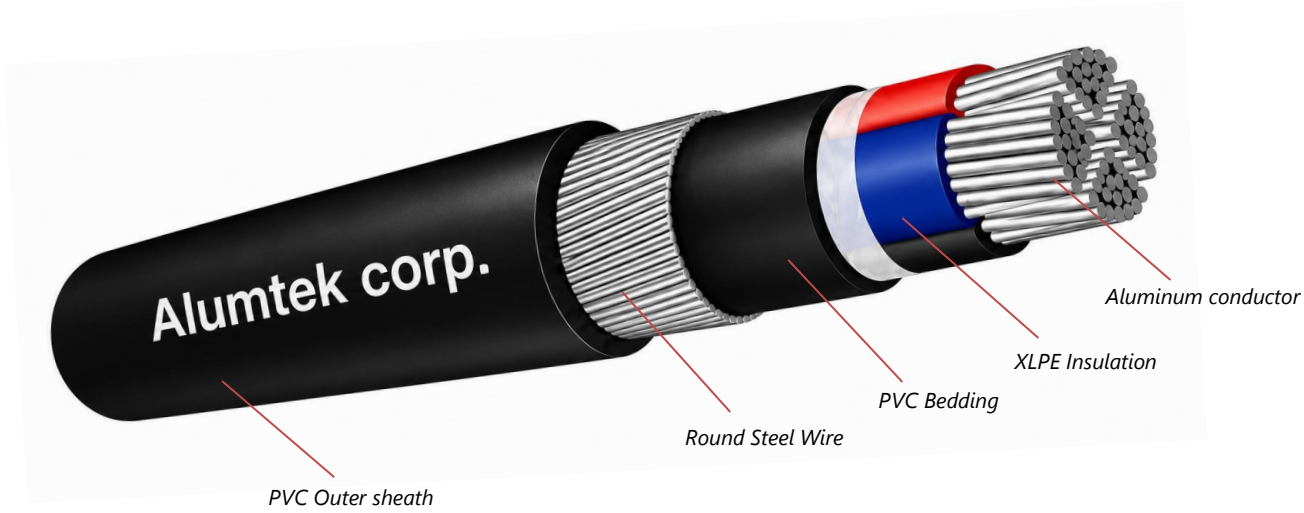
NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
3×25 RM	0.9	1.6	1.8	26.2	1293	1.20
3×35 RM	0.9	1.6	1.8	28.6	1515	0.868
3×50 SM	1.0	2.0	1.9	33.2	1884	0.641
3×70 SM	1.1	2.0	2.0	37.5	2307	0.443
3×95 SM	1.1	2.0	2.2	42.1	2845	0.320
3×120 SM	1.2	2.0	2.3	45.7	3283	0.253
3×150 SM	1.4	2.5	2.5	51.6	4325	0.206
3×185 SM	1.6	2.5	2.6	56.7	5047	0.164
3×240 SM	1.7	2.5	2.8	62.9	6052	0.125
3×300 SM	1.8	2.5	3.0	68.7	7025	0.100

NA2XRY 0.6/1 kV XLPE Concentric Power Cable

Aluminum Conductor, XLPE Insulation, PVC Bedding, Steel Wire Armour (SWA)PVC Outer Sheath



Description: AI/XLPE/BD/SWA/PVC low-voltage armored power cables consist of aluminum conductors, XLPE insulation, PVC bedding, steel wire armour and an outer PVC sheath. The XLPE insulation provides high thermal performance, while the steel wire armour provides mechanical protection against external stresses.
Typical Applications: Industrial and commercial power distribution, underground installations, cable trenches, power supply systems, building services, and fixed installations where enhanced mechanical protection is required.
Standard: IEC 60502-1



4 core cable

NO. of cores & cross section (mm^2)	Insulation thickness (mm)	Wire Armour Diameter (mm)	Sheath thickness (mm)	Overall dia. (mm)	Total Weight (kg/km)	Maximum Conductor Resistance (Ω/Km)
4×25 RM	0.9	1.6	1.8	28.2	1452	1.20
4×35 RM	0.9	2.0	1.9	32.1	1935	0.868
4×50 SM	1.0	2.0	2.0	36.1	2171	0.641
4×70 SM	1.1	2.0	2.1	41.5	2768	0.443
4×95 SM	1.1	2.0	2.3	46.0	3324	0.320
4×120 SM	1.2	2.5	2.5	51.8	4391	0.253
4×150 SM	1.4	2.5	2.6	56.6	5104	0.206
4×185 SM	1.6	2.5	2.8	62.2	5971	0.164
4×240 SM	1.7	2.5	3.0	69.3	7193	0.125
4×300 SM	1.8	2.5	3.2	75.5	8422	0.100

Alumtek corp.

COVERED CONDUCTORS

AAAC | All Aluminium Alloy Conductors

ACSR | Aluminium Conductor Steel Reinforced



World Leaders in Technology Often Copied, Never Equalled...

ACSR CC

ACSR Covered Conductor 12/20 kV (Um 24 kV)

Aluminum Conductor, Steel Reinforced, XLPE Covering



Description:

Aluminum Conductor Steel Reinforced (ACSR) with black XLPE insulation/covering. The conductor consists of aluminum wires reinforced with a galvanized steel core, providing high mechanical strength and reliable electrical performance.

Typical Applications:

- Overhead distribution lines
- Suitable for systems with a maximum voltage of 24 kV
- Designed for continuous operation at temperatures up to 80°C
- Short-circuit temperature up to 200°C for 5 seconds



Standard: BS EN 50182, EN 50397

Technical Data	Unit	Dingo	Cougar	Hyena	Otter		Mink	Ferret	Fox	Weasel
Nominal Cross-Sectional Area	mm²	170	140	120	95		70	50	40	35
Number & Nominal Dia. of Aluminum Wires	N/mm	18/3.35	18/3.05	7/4.39	6/4.22		6/3.66	6/3.00	6/2.79	6/2.59
Number & Nominal Dia. of Steel Wires	N/mm	1/3.35	1/3.05	7/1.93	1/4.22		1/3.66	1/3.00	1/2.79	1/2.59
Cover Thickness	mm	2.3	2.3	2.3	2.3		2.3	2.3	2.3	2.3
Approx. Overall Diameter	mm	20.51	19.09	18.44	16.63		15.03	13.15	12.55	11.98
Approx. Weight	kg/km	631	534	562	437		342	245	218	194
Mechanical Specifications										
Minimum Breaking Load[1]	Kgf	3460	3116	4194	2939		2223	1553	1343	1157
Final Elastic Modulus	Kgf/mm²	7070	7070	7990	7990		8400	8400	8400	8400
Linear Expansion Coefficient	1/°C	21.2×10^{-6}	21.2×10^{-6}	19.5×10^{-6}	19.5×10^{-6}		18.9×10^{-6}	18.9×10^{-6}	18.9×10^{-6}	18.9×10^{-6}
Electrical Specifications										
Maximum DC Resistance at 20°C[2]	Ω/km	0.180	0.217	0.263	0.333		0.443	0.659	0.763	0.885
AC Resistance at 25°C	Ω/km	0.185	0.223	0.276	0.340		0.452	0.673	0.778	0.903
AC Resistance at 75°C	Ω/km	0.221	0.266	0.330	0.408		0.542	0.806	0.932	1.082
Current Carrying Capacity[3]										
Permissible Current at 25°C	A	505	446	400	339		280	215	195	178
Permissible Current at 40°C	A	423	374	335	285		235	181	164	148

1. *The tensile strength of the compacted conductor shall be at least 95% of the tensile strength of the conductor before compaction.*
2. *The electrical resistance of the conductor after compaction shall not increase by more than 5% compared with the resistance before compaction.*
3. *The permissible current ratings at ambient temperatures of 25°C and 40°C are calculated based on a conductor operating temperature of 75°C and a wind speed of 0.6 m/s.*

- ***Covered Conductor for 33 KV Lines are also Possible to Produce as per Customer Request.***

AAAC CC

AAAC Covered Conductor 12/20 kV (Um 24 kV)

All Aluminum Alloy Conductor, XLPE Covered



Description:

All Aluminum Alloy Conductor (AAAC) with black XLPE covering, designed for overhead power distribution networks. The conductor provides high mechanical strength, good electrical conductivity, and reliable performance under outdoor operating conditions.

Typical Applications:

- Suitable for applications requiring a high permissible operating temperature
- Maximum continuous operating temperature: 80°C
- Short-circuit temperature: 200°C for up to 5 seconds

Standard: BS EN 50182, EN 50397

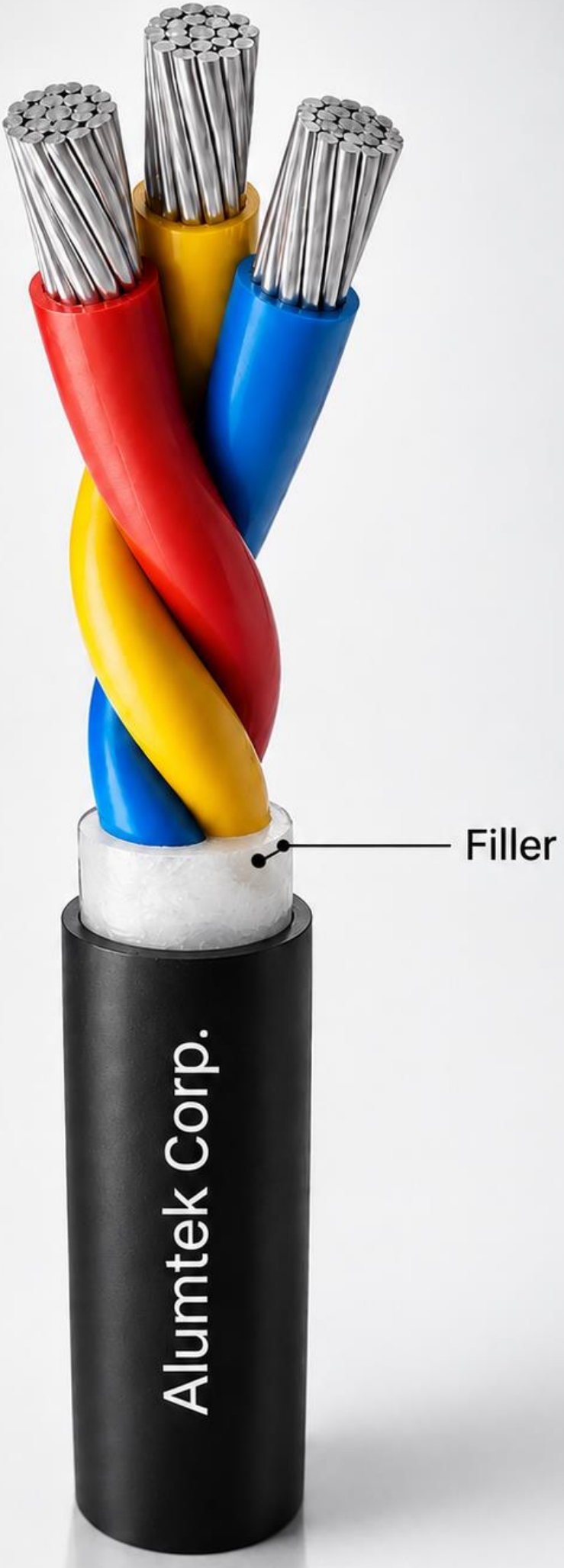


Technical Data	Unit	180	120	70	50	35
Nominal Cross-Sectional Area	mm^2	180	120	70	50	35
Number & Nominal Diameter of Wires	—	19/3.48	19/2.80	7/3.61	7/2.95	7/2.54
Cover Thickness	mm	2.3	2.3	2.3	2.3	2.3
Approx. Overall Diameter	mm	21.13	17.90	14.90	13.00	11.84
Approx. Weight	kg/km	627	429	284	205	163
Mechanical Specifications						
Minimum Breaking Load[4]	kgf	5168	3346	2046	1366	1012
Final Elastic Modulus	kgf/mm^2	6378	6378	6378	6378	6378
Linear Expansion Coefficient	1/°C	23×10^{-6}	23×10^{-6}	23×10^{-6}	23×10^{-6}	23×10^{-6}
Electrical Specifications						
Maximum DC Resistance at 20°C[5]	Ω/km	0.183	0.282	0.459	0.687	0.934
AC Resistance at 25°C	Ω/km	0.187	0.288	0.468	0.701	0.952
AC Resistance at 75°C	Ω/km	0.223	0.345	0.560	0.838	1.139
Current Carrying Capacity[6]						
Permissible Current at 25°C	A	507	379	258	213	168
Permissible Current at 40°C	A	425	318	216	179	141

1. *The tensile strength of the compacted conductor shall be at least 95% of the tensile strength of the conductor before compaction.*
2. *The electrical resistance of the conductor after compaction shall not increase by more than 5% compared with the resistance before compaction.*
3. *The permissible current ratings at ambient temperatures of 25°C and 40°C are calculated based on a conductor operating temperature of 75°C and a wind speed of 0.6 m/s.*

**The design and production of other sizes and types of conductors can be provided according to customer requirements. Covered conductors with one or more covering layers are also available.*

- ***Covered Conductor for 33 KV Lines are also Possible to Produce as per Customer Request.***


Filler
Alumtek Corp.


Alumtek corp.
ABC
Aerial Bundled Cable
Safe | Reliable | Durable
Low Voltage Power Cable
High Conductivity
Safe & Durable
Wide Temperature Range
Environment Friendly
Alumtek corp.
Alumtek corp.

ABC

Aerial Bundled Cable (0.6-1.0 KV) with Steel Messenger-IRAN

All Aluminum Conductor, XLPE TIX5



Description:

Aerial Bundled Cable (ABC) designed for overhead low-voltage power distribution networks in Iran. This six-core cable features aluminum conductors with XLPE insulation and a steel messenger for mechanical support. It provides reliable electrical performance, excellent mechanical strength, and durability under various environmental conditions, making it suitable for urban and rural overhead power distribution systems.

Typical Applications:

Used for low-voltage overhead power distribution networks, including electricity distribution from poles to residential, commercial, and industrial areas. Suitable for outdoor installations where high reliability, mechanical strength, and reduced clearance requirements are needed.

Standard: Tavanir Iran / BS EN 50182

Applicable national utility specifications and relevant international standards.



Specifications of Phase and Lighting Conductors with Compacted Aluminum Conductor

No.	Description		Unit	16 mm²	25 mm²	35 mm²	50 mm²	70 mm²	95 mm²	120 mm²
1	Maximum DC Electrical Resistance of Conductor at 20°C		Ω/km	1.91	1.20	0.868	0.641	0.443	0.320	0.253
2	Maximum Electrical Resistivity of Annealed Aluminum Conductor at 20°C		Ω·m	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}
3	Number of Strands in Conductor		—	7	7	7	7	12 or 19	19	19
4	Average Thickness of Conductor Insulation	Minimum	mm	1.2	1.4	1.6	1.6	1.8	1.8	1.8
		Maximum	mm	1.5	1.7	2.0	2.0	2.2	2.4	2.4
5	Minimum Thickness at Any Point of Conductor Insulation		mm	0.98	1.16	1.34	1.34	1.52	1.52	1.52
6	Diameter of Each Uninsulated Conductor Strand	Minimum	mm	4.6	5.8	6.8	7.9	9.7	11.0	12.0
		Maximum		4.8	6.1	7.3	8.4	10.2	12.0	13.0
7	Diameter of Each Insulated Conductor Strand	Minimum	mm	7.0	8.6	10.0–10.8	11.1	13.3	14.8	15.6
		Maximum		7.5	9.2	10.8	11.9	14.1	15.8	16.7
8	Approx. Weight per Unit Length of Each Conductor Strand	Without Insulation	kg/km	42	67	93	126	182	251	316
		With Insulation	kg/km	65	100	136	175	248	338	398

Specifications of Steel Messenger Wire

No.	Description		Unit	16 mm²	25 mm²
1	Diameter of Steel Messenger Wire (Without Coating)	Minimum	mm	4.61	5.70
		Maximum	mm	4.81	5.90
2	Diameter of Steel Messenger Wire (With Coating)	Minimum	mm	7.0	8.1
		Maximum	mm	7.6	8.9
3	Average Thickness of XLPE Sheathing	Minimum	mm	1.2	1.2
		Maximum	mm	1.4	1.5
4	Minimum Thickness at Any Point of Messenger Wire Sheathing		mm	0.98	0.98
5	Approx. Weight per Unit Length of Messenger Wire — Without Coating		kg/km	107	160
6	Approx. Weight per Unit Length of Messenger Wire — With Coating		kg/km	127	187

ABC Aerial Bundled Cable (0.6-1.0 KV) with Steel Messenger-IRAN

All Aluminum Conductor, XLPE TIX5

Approximate Weight of General Network Cable (Six Cores)			
No.	Cable Size	Unit	Approximate Weight
1	**3×35 + 25 + 25 + 25 + 25**	**kg/km**	**806**
2	**3×50 + 50 + 25 + 50 + 50**	**kg/km**	**964**
3	**3×70 + 70 + 70 + 25 + 25**	**kg/km**	**1259**
4	**3×95 + 95 + 50 + 25 + 25**	**kg/km**	**1619**
5	**3×120 + 120 + 120 + 25 + 25**	**kg/km**	**1896**

Ridge Dimensional Specifications				
No.	Ridge Dimension	Type	Unit	Value
1	**Spacing Between Adjacent Ridges (Cable)**	**Phase**	**mm**	**1.0 ± 0.3**
		Neutral	**mm**	**0.6 ± 0.3**
2	**Distance Between Two Adjacent Lines (Ridges)**	**Phase**	**mm**	**5 ± 1**
		Neutral	**mm**	**3 ± 1**
3	**Height of the Ridge Line (Cable)**	**—**	**mm**	**0.6 ± 0.2**

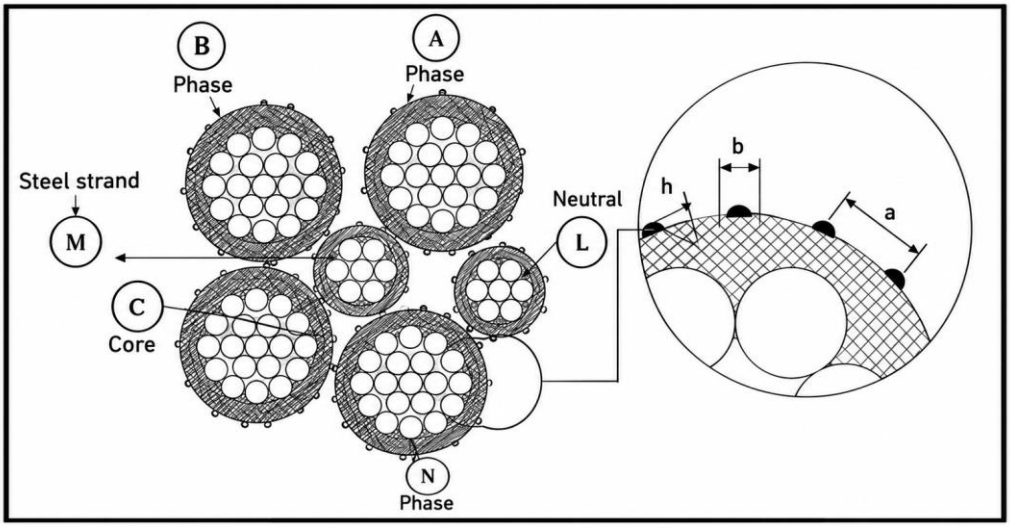


Figure: Cross-section of cable and wires related to the overhead cable

ABC Aerial Bundled Cable (0.6-1.0 KV) with AAAC Messenger-IRAN

All Aluminum Conductor, XLPE TIX5



Description:

Six-core Aerial Bundled Cable (ABC) with XLPE-insulated aluminum conductors and an AAAC messenger, designed for 0.6/1 kV overhead power distribution networks in Iran. It provides reliable electrical performance, mechanical strength, and durability for safe and efficient overhead electricity distribution.

Typical Applications:

Used for low-voltage overhead power distribution networks, including electricity distribution from poles to residential, commercial, and industrial areas. Suitable for outdoor installations where high reliability, mechanical strength, and reduced clearance requirements are needed.

Standard: HD 626-S1 / BS EN 50182

Applicable national utility specifications and relevant international standards.

Specifications of Phase and Lighting Conductors with Compacted Aluminum Conductor

No.	Description		Unit	Cross-sectional Area (mm²)						
1	Nominal cross-sectional area of conductor		mm²	16	25	35	50	70	95	120
2	Number of conductor wires		–	7	7	7	7	19	19	19
3	Nominal diameter of conductor wires before stranding		mm	1.72	2.20	2.60	3.00	2.20	2.60	2.83
4	Conductor diameter (without sheath)	Minimum	mm	4.6	5.8	6.8	7.9	9.7	11.0	12.0
		Maximum		4.8	6.1	7.3	8.4	10.2	12.0	13.0
5	Outer diameter (with sheath and without air gap)	Minimum	mm	7.0	8.6	10.0	11.1	13.0	14.6	15.6
		Maximum		7.5	9.2	10.8	11.9	14.1	15.8	16.7
6	Approximate weight per unit length of conductor	Without sheath	kg/km	42	67	93	126	182	251	316
		With sheath		65	100	136	175	248	328	398
7	Minimum average thickness of extruded sheath (without air gap)		mm	1.2	1.4	1.6	1.6	1.8	1.8	1.8
8	Maximum average thickness of extruded sheath (without air gap)		mm	1.5	1.7	2.0	2.0	2.2	2.4	2.4
9	Minimum thickness at any point of extruded sheath		mm	0.98	1.16	1.34	1.34	1.52	1.52	1.52
10	Maximum conductor electrical resistance at 20°C		Ω/km	1.91	1.20	0.868	0.641	0.443	0.320	0.253

Specifications of Insulated Neutral Messenger Wire with Non-Compacted Alloy Aluminum Conductor

No.	Description	Unit	50 mm²	70 mm²
1	Nominal cross-sectional area of conductor	mm²	50 (Actual cross-sectional area: 54.6)	70
2	Number of conductor wires	–	7	7
3	Nominal diameter of conductor wires before stranding	mm	3.15	3.61
4	Diameter of non-compacted conductor (without gap)	mm	Min.: 9.2 Max.: 9.6	Min.: 10.7 Max.: 11.0
5	Outer diameter of stranded conductor (with gap and without filler)	mm	Min.: 12.4 Max.: 13.0	Min.: 13.9 Max.: 14.4
6	Approximate weight per unit length of insulated messenger wire	kg/km	Without sheath: 149 With sheath: 201	Without sheath: 196 With sheath: 258
7	Minimum breaking load of conductor	N	15300	20000
8	Minimum average thickness of extruded sheath	mm	1.6	1.6
9	Maximum average thickness of extruded sheath	mm	1.9	1.9
10	Minimum thickness at any point of extruded sheath	mm	1.34	1.34
11	Maximum conductor electrical resistance at 20°C	Ω/km	0.630	0.500

Specifications of XLPE Insulation for ABC Cables					
No.	Description			Unit	Requirement
1	Maximum conductor operating temperature			°C	90
2	Type of insulation (according to Reference Definition 3)			–	TIX-5
3	Mechanical properties before aging		Minimum tensile strength	MPa	14.5
			Minimum elongation at break	%	200
4	Aging conditions		Aging temperature	°C	150
			Aging time	h	240
5	Change in mechanical properties before and after aging		Maximum change in tensile strength before and after aging	%	±25
			Maximum change in elongation at break before and after aging	%	±25
6	Heat Aging Test Conditions and Requirements	Temperature		°C	200
		Time at elevated temperature		min	15
		Tension at elevated temperature		MPa	0.3
		Maximum change in length under load		%	100
		Maximum permanent elongation without load		%	15
7	Shrinkage Test Conditions and Requirements	Time in oven		h	1
		Temperature		°C	100
		Maximum longitudinal shrinkage		%	4
8	Carbon black content			%	Min.: 2.0 , Max.: 3.0

Weight per Unit Length and Overall Diameter of Self-Supporting Cable Assembly			
No.	Number and Cross-Sectional Area of Conductors (mm²)	Approx. Weight of Cable Assembly (kg/km)	Approx. Overall Diameter of Cable Assembly (mm)
1	3 × 35 + 16 + 50	684	33
2	3 × 50 + 16 + 50	803	36
3	3 × 70 + 16 + 70	1083	41
4	3 × 95 + 25 + 70	1362	44
5	3 × 120 + 25 + 70	1575	46

Dimensions of Ribs on the Insulation of Low-Voltage Three-Phase Self-Supporting Cable				
Symbol	Description	Unit	Phase Conductor	Insulated Neutral Messenger
b	Rib width	mm	1 ± 0.2	0.6 ± 0.2
h	Rib height	mm	0.5 ± 0.1	0.3 ± 0.1
a	Distance between two adjacent ribs	mm	5 ± 1	3 ± 1

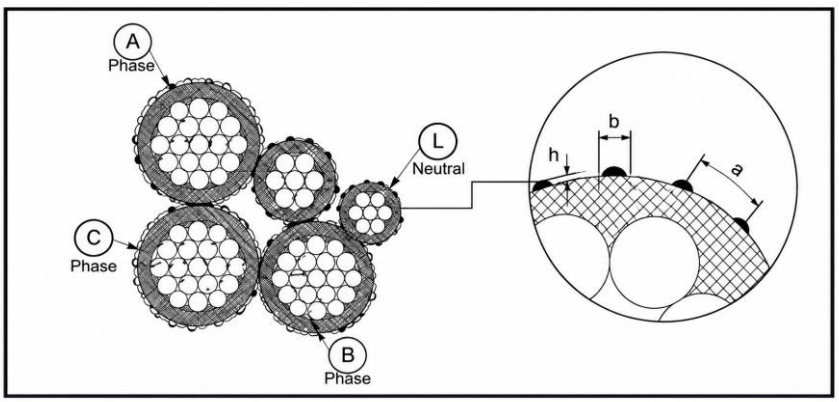


Figure: Cross-section of cable and wires related to the overhead cable

Alumtek corp.

ABC
Aerial Bundled Cable

Safe | Reliable | Durable

Low Voltage Power Cable



- High Conductivity
- Safe & Durable
- Wide Temperature Range
- Environment Friendly

Alumtek corp.

ABC
TWISTED CABLE

Aerial Bundled Cable (0.6-1.0 KV) with AAC Messenger- IRAQ

All Aluminum Conductor, HDPE



Description:
Five-core Aerial Bundled Cable (ABC) with HDPE-insulated aluminum conductors and an AAC messenger, designed for 0.6/1 kV overhead power distribution networks in Iraq. It provides reliable electrical performance, mechanical strength, and durability for safe and efficient overhead electricity distribution.

Typical Applications:
Used for low-voltage overhead power distribution networks, including electricity distribution from poles to residential, commercial, and industrial areas. Suitable for outdoor installations where high reliability, mechanical strength, and reduced clearance requirements are needed.
Standard: IRAQ Specification / BS EN 50182
Applicable national utility specifications and relevant international standards.



Specifications of Conductive Strands

No.	Description		Unit	16 mm²	25 mm²	35 mm²	50 mm²	70 mm²	95 mm²	120 mm²
1	Maximum DC Electrical Resistance of Conductor at 20°C		Ω/km	1.91	1.20	0.868	0.641	0.443	0.320	0.253
2	Maximum Electrical Resistivity of Annealed Aluminum Conductor at 20°C		Ω·m	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}	0.028264×10^{-6}
3	Number of Strands in Conductor		—	7	7	7	7	12 or 19	19	19
4	Average Thickness of Conductor Insulation	Minimum	mm	1.2	1.4	1.6	1.6	1.8	1.8	1.8
		Maximum	mm	1.5	1.7	2.0	2.0	2.2	2.4	2.4
5	Minimum Thickness at Any Point of Conductor Insulation		mm	0.98	1.16	1.34	1.34	1.52	1.52	1.52
6	Diameter of Each Uninsulated Conductor Strand	Minimum	mm	4.6	5.8	6.8	7.9	9.7	11.0	12.0
		Maximum		4.8	6.1	7.3	8.4	10.2	12.0	13.0
7	Diameter of Each Insulated Conductor Strand	Minimum	mm	7.0	8.6	10.0–10.8	11.1	13.3	14.8	15.6
		Maximum		7.5	9.2	10.8	11.9	14.1	15.8	16.7
8	Approx. Weight per Unit Length of Each Conductor Strand	Without Insulation	kg/km	42	67	93	126	182	251	316
		With Insulation	kg/km	65	100	136	175	248	338	398

ABC
TWISTED CABLE

Aerial Bundled Cable (0.6-1.0 KV) with AAC Messenger- IRAQ

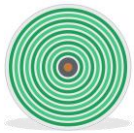
All Aluminum Conductor, HDPE

Approximate Weight of General Network Cable			
No.	Cable Size	Unit	Approximate Weight
1	2*16	kg/km	126
2	2*35	kg/km	241
3	2*50	kg/km	324
4	2*70	kg/km	451
5	2*95	kg/km	618
6	2*120	kg/km	760
7	4*16	kg/km	252
8	4*25	kg/km	366
9	4*35	kg/km	481
10	4*50	kg/km	648
11	4*70	kg/km	901
12	4*95	kg/km	1236
13	4*120	kg/km	1521
14	3*50+25	kg/km	578
15	3*70+35	kg/km	796
16	3*95+50	kg/km	1089
17	3*120+70	kg/km	1366
18	3*50+25+16	kg/km	641
19	3*70+35+16	kg/km	859
20	3*95+50+16	kg/km	1190
21	3*95+70+16	kg/km	1213
22	3*120+70+16	kg/km	1453

ABC
TWISTED CABLE

Aerial Bundled Cable (0.6-1.0 KV) with AAAC Messenger- IRAQ

All Aluminum Alloy Conductor, XLPE



Description:

Aerial Bundled Cable (ABC) designed for overhead low-voltage power distribution networks in Iraq. This five-core cable features aluminum conductors with HDPE (High-Density Polyethylene) insulation and an AAAC (All Aluminum Alloy Conductor) messenger for mechanical support. The cable provides reliable electrical performance, excellent mechanical strength, and durability under various environmental conditions, making it suitable for urban and rural overhead power distribution systems.

Typical Applications:

Used for low-voltage overhead power distribution networks, including electricity distribution from poles to residential, commercial, and industrial areas. Suitable for outdoor installations where high reliability, mechanical strength, and reduced clearance requirements are needed.

Standard: HD 626-S1 / BS EN 50182

Applicable national utility specifications and relevant international standards.



Electrical and Dimensional Characteristics

Designation		Conductor					Average Thickness of Insulating Sheath (mm)	Core	
Type	Nominal Cross-Section (mm²)	Number of Wires	Max. Electrical Resistance at 20°C (Ω/km)	Conductor Diameter Min. (mm)	Conductor Diameter Max. (mm)	Breaking Force min (daN)		Min. Outside Diameter (mm)	Max. Outside Diameter (mm)
Phases	16	7	1.91	4.6	5.1	–	1.2	7.0	7.8
	25	7	1.20	5.8	6.3	–	1.4	8.6	9.4
	35	7	0.868	6.8	7.3	–	1.6	10.0	10.9
	50	7	0.641	7.9	8.4	–	1.6	11.1	12.0
	70	12	0.443	9.7	10.2	–	1.8	13.3	14.2
	95	19	0.320	11.0	12.0	–	1.8	14.6	15.7
	120	19	0.253	12.0	13.1	–	1.8	15.6	16.7
	150	19	0.206	13.9	15.0	–	1.7	17.3	18.6
Messenger (Neutral)	54.5 / (50)	7	0.63	9.2	9.6	1660 / 1520	1.6	12.3	13.0
	70	7	0.5	10.0	10.2	2050	1.5	12.9	13.6
	95	19	0.343	12.2	12.9	2750	1.6	15.3	16.3
Lighting	16	1	1.91	4.6	5.1	–	1.2	7.0	7.8

Ridge Dimensional Specifications

No.	Ridge Dimension	Type	Unit	Value
1	Spacing Between Adjacent Ridge (Cable)	Phase	mm	1.0 ± 0.3
		Neutral	mm	0.6 ± 0.3
2	Distance Between Two Adjacent Lines (Ridge)	Phase	mm	5 ± 1
		Neutral	mm	3 ± 1
3	Height of the Ridge Line (Cable)	—	mm	0.6 ± 0.2




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Sample technical catalog — verify data before specification