MSJ Cables

1, Introduction

MSJ is a leader in intelligent manufacturing of cables and transformer in electrical industry. The company has several subsidiaries and three major production bases.MSJ has a flexible cable customization center, which can quickly produce customized products.

MSJ is also an expert in distribution transformer and power transformer (220KVA). The transformer and cable of MSJ will connect the Power World by a better way!

2, Product

1). PVC insulated cables (rated voltage 450/750V and below)

2). BVR PVC insulated flexible cables (rated voltage 450/750V and below)

3). 60227EC01(BV) PVC insulated cables (rated voltage 450/750V and below)

4). BVV PVC insulated and sheathed round cables (rated voltage 300/500V and below)

5). BVVB PVC insulated and sheathed flat cables (rated voltage 300/500V and below)

6). PVC insulated and sheathed control cables

7). XLPE insulated and sheathed control cables

8). PE insulated and PVC sheathed power cables (rated voltage 1.8/3kV and below)

9). Flexible customized cables

10). Dry-type transformers

11). Oil-immersed transformers

12). Prefabricated substations

13). Electric vehicles Wiring Harnesses and Connectors

14). Energy Storage Cables

15). High-Speed Copper Cables

16). Photovoltaic Cables H1Z2Z2-K

3, Core Competitiveness

Leading Technology:

Nano-insulated cables (high-temperature resistance and long life) suitable for extreme environments.

Quality and Certification:

CE/TÜV certified, participating in the development of international cable standards.

Rapid Customization Capabilities:

Provide rapid development services for ABB drive systems, robotic flexible cables, and more.

4, Why choose us?

Vertical integration advantages: Full process control from copper material processing to finished product delivery. Smart manufacturing standards: Automated production lines + digital management systems

5, Our clients

ABB, State Grid, Shanghai Electric, PowerChina, Sinotruk, etc.

6, Products list

Energy Storage Cable

（Energy storage）

Type: H07V-K / H07V-U

1, Product application

Specialized for energy storage systems (e.g., energy storage power stations, residential energy storage, industrial & commercial energy storage). It is used for power transmission, distribution and connection in AC circuits, and is compatible with core equipment such as energy storage inverters and battery packs.

2, Product ingredients

Conductor	Bare copper, IEC 60228 Cl. 5, common crosss-section 1.5-16mm²
Stranded conductor OD	3.0±0.1mm
Insulation layer	Halogen-free PVC (HF-PVC)
Insulation OD	4.5±0.15mm
Sheath layer	PVC sheath
Overall cable OD	5.7±0.2mm

3, Properties

Conductor resistance (20°C)	≤ 4.95 Ω/km
Insulation resistance(20℃)	≥500MΩ/km
Insulation resistance (70℃)	≥0.3MΩ/km
Voltage test	2500 V, 5 min (AC), no breakdown
Insulation thickness	IEC 60227
Insulation tensile strength	≥12MPa
Insulation elongation	≥150%
Sheath tensile strength	≥10MPa (wear-resistant, prolongs service life)
Sheath elongation	≥120%
Flame retardancy	IEC 60332-1-2
Rated voltage	450/750V AC
Rated frequency	50/60Hz

4, Features

Current Rating Ambient

Working temperature	-30℃~70℃
Peak conductor temp	90℃
Bending radius	6xD
Service life	≥30 years

Temperature: 40 ℃

Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other
Current rating	55A	52A	48A

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoid mechanical damage, stay away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

PVC Insulated Cable

(Indoor electrical installations)

Type: BV 1×4.0mm² 450/750V

1, Product application

Suitable for power installations and fixed wiring with rated voltage 450/750V and below, applicable to dry or damp environments such as indoors, tunnels and pipelines.

2, Product ingredients

Conductor	Stranded copper (IEC 60228 Class 1), 19/0.52mm
Insulation layer	PVC, nominal thickness 0.8mm, color: red/blue/yellow (optional)
OD	4.6±0.2mm

3, Properties

Rated voltage	450/750V
Conductor dc resistance (20℃)	≤4.61Ω/km
Insulation resistance (20℃)	≥100 MΩ·km
Voltage test	AC 2.5 KV, 5min
Insulation tensile strength	≥12.5MPa
Insulation elongation	≥150%
Minimum bending radius	4×D
Reference current-carrying capacity	32A

4, Features

	Long-term operating temperature	70℃
Current	Short-circuit temperature (5s)	160℃
Rating	Installation temperature	≥0℃
Ambient Temperature: 40°C		
	Installation method	Free in air

5, Packaging and Transportation

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20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoided mechanical damage, stayed away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

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PV DC Cable

(Solar farms)

Type: EN50618 : 2014 H1Z2Z2-K 1*4mm^2

1, Product application

Internal connections: Connections between solar panels, between solar panels and combiner boxes, between combiner boxes and inverters, and other connections between devices within the system.

External connections: Connections between the photovoltaic system and external related equipment.

2, Product ingredients

Conductor	Copper, stranded structure,1*4mm²
Inner insulation	LSZH cross-linked polyolefin
Nominal Thickness	0.85mm
Jacket	XLPE (black/red)

3, Properties

Conductor dc resistance @20℃	5.09Ω/km（≤4.95Ω/km）
Cable withstand voltage	4.5kV AC/5min, no breakdown
Rated voltage	DC 1.5/1.8 kV (to EN 50618)
Dielectric Strength (AC)	6.5 KV/5min
Operating temp	-40~+90 °C
Bending radius	6×D (outer diameter)
Flame resistance	IEC 60332-1-2
Avg. insulation thickness	0.73mm（≥0.7mm）
Outer insulation	LSZH cross-linked polyolefin
Flame test	EN60332-1-2
Smoke density	EN61034-2
Halogen free	EN50525-1
Ozone resistance	EN50396
Oil resistance	EN60811
UV resistant	EN60811-501

4, Features

Maximum conductor temperature	120℃
Short-circuit temperature	250℃, 5S
Low-temperature impact condition	-40°C, stored for 16 hours (16h), compliant with EN 60811-506 standard
Service life	≥25 years

Current Rating Ambient Temperature: 60 ℃

Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoided mechanical damage, stayed away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

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Halogen-Free Cable

(Photovoltaic systems)

Type: EN50618 : 2014 1x4.0mm^2 DC 1500V

1, Product application

Suited for connecting photovoltaic system components inside and outside of buildings and equipment.

2, Product ingredients

Conductor	Stranded tinned copper (IEC 60228, Class 5); 52/0.30mm (mix0.295mm max0.30mm)
Standard OD	2.46mm
Inner insulation	Halogen free crosslinked polyolefin Color: Black
ID	3.9±0.15mm
Outer insulation	Halogen free crosslinked polyolefin Color: Black/Red
OD	5.7±0.2mm

3, Properties

Maximum resistance of conductor at 20°C	≤ 5.09 Ω/km
Insulation resistance at 20°C	≥580 MΩ km
Insulation resistance at 90℃	≥0.58 MΩ km
Surface resistance of sheath	$\geq 10^9$ Ω
Voltage test of finished cable	AC 6.5KV 5min, No break
DC voltage test of insulation	1800V,240h(85℃,3%Nacl) No break
Tensile strength of insulation	≥10.3Mpa
Elongation of insulation	≥125%
Tensile strength of sheath	≥10.3Mpa
Elongation of sheath	≥125%
Shrinkage resistance	≤2%
Acid and alkali resistant	EN 60811-404
Ozone resistant	EN60811-403/EN50396-8.1.3
UV-resistant	EN 50289-4-17
Dynamic penetrate force	EN 50618-Annex D
Winding at low temperature	EN 60811-504
Impact at low temperature	EN 60811-506
Fire performance	IEC60332-1-2
Chlorine and bromine content	EN 50618
Thermal endurance test	EN60216-1, EN60216-2, T120

4, Features

Current Rating	Rated voltage	EN: DC1500V, AC1000V
	Working temperature	-40~90℃
	Max. conductor temperature	120℃
	Short circuit temperature	250℃ 5S
	Bending radius	6xD
	Service life	≥70 years

Ambient Temperature: 60 ℃

Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other
Current rating	55A	52A	44A

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoid mechanical damage, stay away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

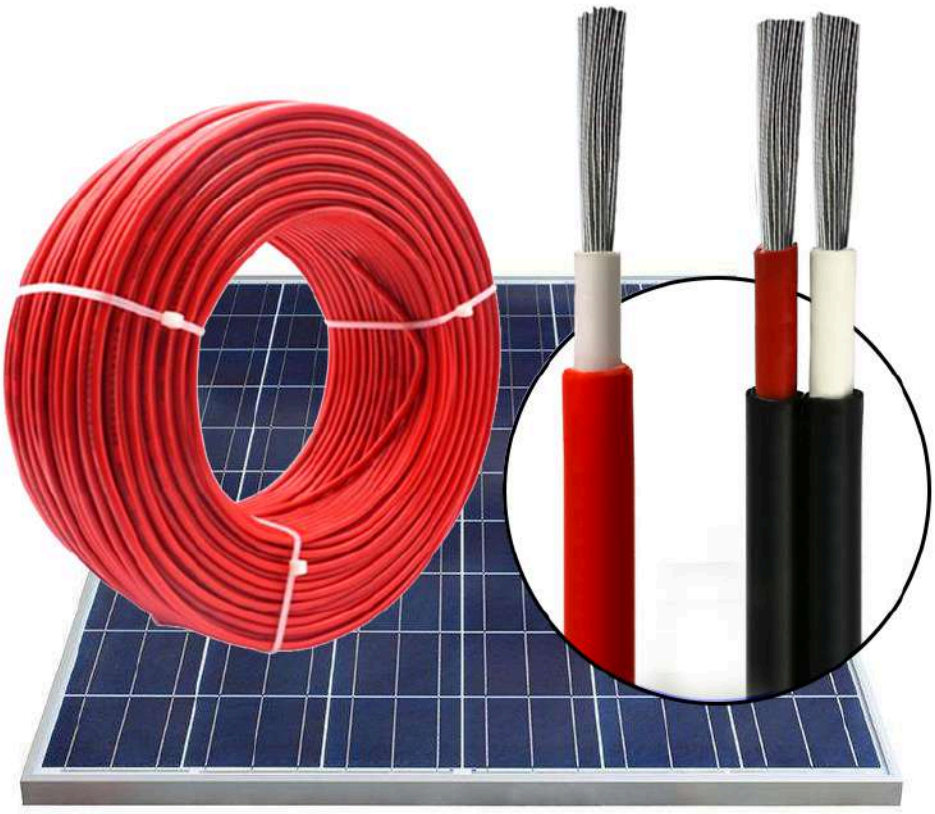
If the cables have become damp, they should be dried before use.

If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

Halogen-Free Cable

(PV Systems)



Type: EN50618 : 2014 1x6.0mm^2 DC1500V

1, Product application

This product is specialized for PV systems.

2, Product ingredients

Conductor	Stranded tinned copper (IEC 60228, Class 5; 74×0.30mm, with a mixed diameter range of mix0.295mm max0.30mm)
Stranded OD	3.0mm
Inner insulation	Halogen free crosslinked polyolefin Color: Black
ID	4.5+0.15mm
Outer insulation	Halogen free crosslinked polyolefin Color: Black/Red
OD	6.3 ± 0.2mm

3, Properties

Maximum resistance of conductor at 20°C	≤ 3.39 Ω/km
Insulation resistance at 20°C	≥500 MΩ km
Insulation resistance at 90℃	≥0.50 MΩ km
Surface resistance of sheath	$\geq 10^{9}\Omega$
Voltage test of finished cable	Halogen free crosslinked polyolefin Color: Black/Red
DC voltage test of insulation	6.3 ± 0.2mm
Tensile strength of insulation	≥10.3Mpa
Elongation of insulation	≥125%
Tensile strength of sheath	≥10.3Mpa
Elongation of sheath	≥125%
Shrinkage resistance	≤2%
Acid and alkali resistant	EN 60811-404
Ozone resistant	EN60811-403/EN50396-8.1.3
UV-resistant	EN 50289-4-17
Dynamic penetrate force	EN 50618-Annex D
Winding at low temperature	EN 60811-504
Impact at low temperature	EN 60811-506
Fire performance	IEC60332-1-2
Chlorine and bromine content	EN 50618
Thermal endurance test	EN60216-1, EN60216-2, T120

4, Features

Current Rating

Rated voltage	EN: DC1500V, AC1000V
Working temperature	-40~90℃
Max. conductor temperature	120℃
Short circuit temperature	250℃ 5S
Bending radius	6xD
Service life	≥70 years

Ambient Temperature: 60 ℃

Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other
Current rating	70A	67A	57A

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoided mechanical damage, stayed away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

High-Speed Copper Cable

(Data centers)

Specification: EQSPPD4A-324CXX

Type : QSFP+ to QSFP+

1, Product application

This is a passive direct-attach copper cable designed for Ethernet applications. It is engineered for high-speed data transmission between servers and switches, featuring a durable wired structure and individual packaging for ease of deployment.

With excellent temperature tolerance and customizable length options, this cable reliably supports modern data center and enterprise networking equipment where high-speed, stable, and adaptable connectivity is essential.

2, Product ingredients

QSFP+ connectors	Gold-plated pins
Conductor material	Oxygen-free copper
Shielding	Aluminum foil + copper braid

3, Properties

Data rate	40G
Operating voltage	3.3V ±5%
Impedance	100Ω ±10%
Dielectric withstand voltage	1500V AC, 1 min
Insulation resistance	≥1000MΩ @500V DC
Bend radius	Static: ≥30mm; Dynamic: ≥60mm
Tensile strength	≥150N
Crush resistance	≥1000N/100mm
Maximum length	7m
Signal integrity	BER (bit error rate) < 1e-12
Transmission distance	Up to 7m
Conductor material	99.99% oxygen-free copper
Jacket material	Flame retardant PVC
Connector housing	Zinc alloy
Contact pins	Gold-plated (30u")

4, Features

Vibration resistance	10g
Return loss	> 15dB @ 25GHz
Crosstalk	> 30dB @ 25GHz
Compatibility	Fully compatible with IEEE 802.3ba and InfiniBand QDR specifications
Total bandwidth	40 Gb/s
Channels	4 independent duplex channels
Data rates	10 Gbps / 5 Gbps / 2.5 Gbps
Power supply	Single 3.3 V
Power consumption	< 1.5 W

The product ensures	Operating temperature	-40°C - +85°C
	Cable size range	24 AWG to 30 AWG

precise signal synchronization with low transmission loss and minimal signal reflection, enabling efficient and stable data transfer.

5, Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

Standard Length: 2 meters per rod/piece.

Unit of Sale: Sold per rod/piece, Individual package.

Custom lengths are available upon request.

6, Storage

Inspection: Check cables quarterly. Look for insulation damage, loose/oxidized connectors, and surface dirt.

Cleaning: Wipe surface contaminants with a dry cloth. Avoid corrosive cleaners.

Connectors: Regularly check QSFP+ pins. Clean oxidation/dirt with swabs for good contact.

Repairs: Fix minor insulation damage with standard tape. Replace cables if connectors are broken or speed drops below 40Gbps.

Testing: Perform transmission testing every 6 months. Ensure transmission rate ≥40 Gbps, normal SNR, and no packet loss.

Cu/PVC/PVC Power Cable

（Industrial power）

Type : VV 0.6/1kv 3*50+1*25

1, Product application

Suitable for power transmission and distribution systems with a rated voltage up to 0.6/1 kV. It is widely used in fixed installations such as industrial plants, commercial buildings, municipal engineering, and residential complexes.

This cable is applicable for indoor, tunnel, cable trench, and direct burial environments. It serves as power lines to connect distribution equipment, motors, transformers, and other electrical devices.

2, Product ingredients

Conductor	Copper, stranded (to GB/T 3956, Class 1), 3×50mm² + 1×25mm²
Insulation	PVC insulation, color-coded
Sheath	PVC, black
Overall diameter	≈28.5 ±0.5mm

3, Properties

Rated voltage	0.6/1kV
Operating temp.	-15℃~+40℃
Short-circuit temp.	≤160°C (max 5s)
Bending radius	static: ≥6D; dynamic: ≥12D
Conductor resistance (20°C)	≤0.38 Ω/km (50mm²); ≤0.72 Ω/km (25mm²)
Insulation resistance (20°C)	≥1000 MΩ·km
Voltage test	3kV/5min no breakdown
Insulation tensile strength	≥12.5MPa
Insulation elongation	≥125%
Sheath tensile strength	≥12MPa
Sheath elongation	≥150%

4, Features

	Long-term	70℃
	Short-circuit temperature (5s)	160℃
	Halogen-free	meets IEC 60754 requirements
	Fire performance	complies with IEC 60332-1-2
Current Rating	Service life	≥70 years

Ambient Temperature: 40 ℃

Installation method	Free in air	Buried in soil	Conduit, single

Current rating	130A	120A	110A

5, Packaging and Transportation

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6, Storage

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Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

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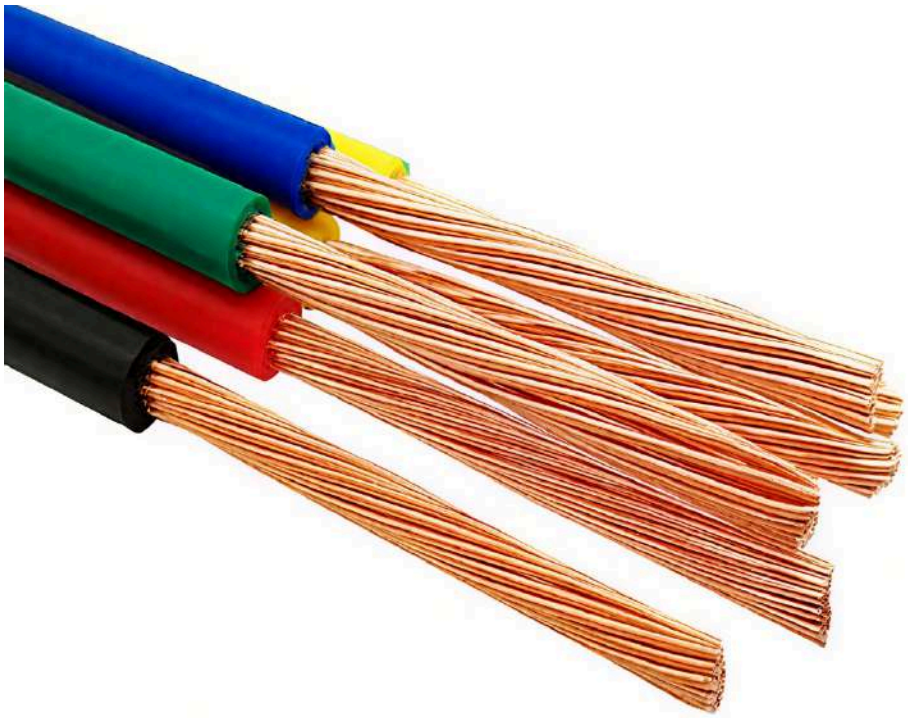
LSZH Cable, Cross-Linked Polyolefin

（Fire-safe buildings）



Type: WDZ(A、B、C)-BYJ 2.5mm^2

1, Product application

Suitable for high-rise buildings, subways, underground streets, large shopping malls, hospitals, large power stations and important industrial and mining enterprises and other places related to fire safety and rescue.

Used as power transmission lines in environments requiring low smoke, halogen-free, flame-retardant and fire-resistant performance during combustion.

2, Product ingredients

Conductor	High-purity stranded copper wire (compliant with IEC 60228), ensuring excellent conductivity
Insulation layer	Excellent insulation performance, low smoke and halogen-free

3, Properties

Conductor dc resistance (20°C)	≤4.0Ω/km
Insulation resistance (20℃)	≥1000 MΩ·km
Finished product withstanding voltage	AC 3.5kV, 5min no breakdown
Insulation tensile strength	≥12.0MPa
Insulation elongation	≥150%
Sheath tensile strength	≥11.0MPa
Halogen-free performance	Halogen content ≤0.5% (EN 50618)
Low-smoke performance	Light transmittance ≥80% (IEC 61034)
Service life	≥30 years (under normal service conditions)

4, Features

Current Rating	Maximum rated conductor temperature	90℃
	Short-circuit temperature (5s)	250℃
	Installation temperature	≥0℃

Ambient Temperature: 40 ℃

Installation method	Free in air	Underground direct burial (25℃ soil)
Current rating	65A	58A

5, Packaging and Transportation

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6, Storage

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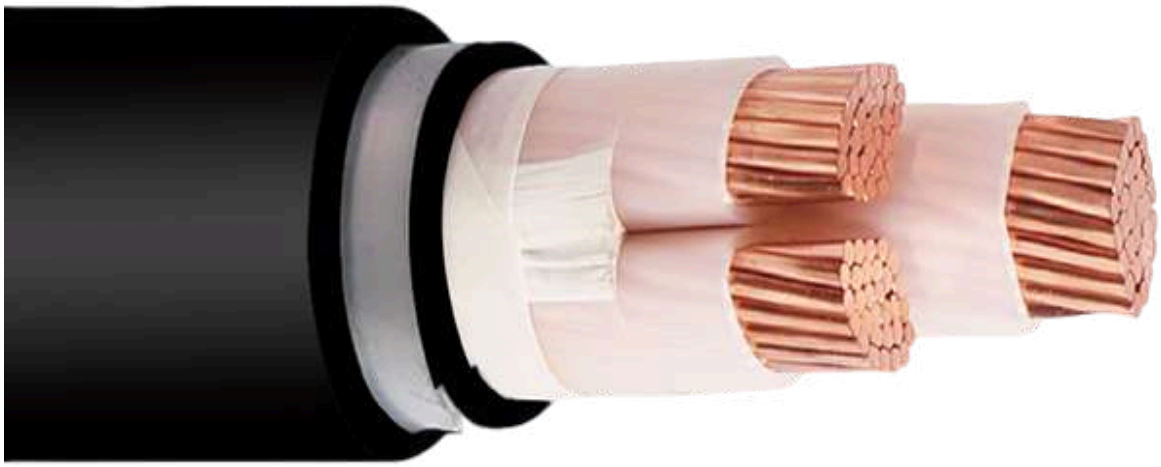
XLPE/PVC Power Cable

（Building power）



Type: YJV 0.6/1kV 4*95+1*50

1, Product application

Suitable for power transmission and distribution in industrial and civil buildings, such as factories, residential communities, commercial complexes, etc.

Applicable to fixed laying in indoors, tunnels, cable trenches, and underground (not immersed in water for long-term).

Ideal for power supply systems with AC 0.6/1kV, connecting equipment like transformers, switchgears, and motors.

2, Product ingredients

Conductor	Copper,4*95 + 1*50 mm², class 2
Insulation	XLPE, color-coded as per standard
Sheath	PVC, black
Sheath thickness	2.2 ± 0.2 mm
Overall diameter	≈40 ±1mm

3, Properties

Rated voltage	0.6/1kV（AC）
Operating temp.	-40~90℃
Short-circuit temp.	250℃/5s
Bending radius	≥12×OD
Conductor resistance (20°C)	≤0.193Ω/km (95mm²); ≤0.387Ω/km (50mm²)
Insulation resistance (20°C)	≥1000 MΩ·km
AC voltage test	3kV, 5min no breakdown
Insulation tensile strength	≥12.5MPa
Insulation elongation	≥125%
Sheath tensile strength	≥12MPa
Sheath elongation	≥150%
Chemical resistance	per EN 60811-404
Ozone resistance	per EN 60811-403
Flame retardancy	IEC 60332-1-2

4, Features

Long-term	70℃
Short-circuit temperature	160℃/(5s)
Installation temperature	≥0℃
Service life	≥30 years

Current

Rating Ambient Temperature: 40 ℃

Installation method	Free in air	Buried in soil

Current rating	250A	200A

5, Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoided mechanical damage, stayed away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

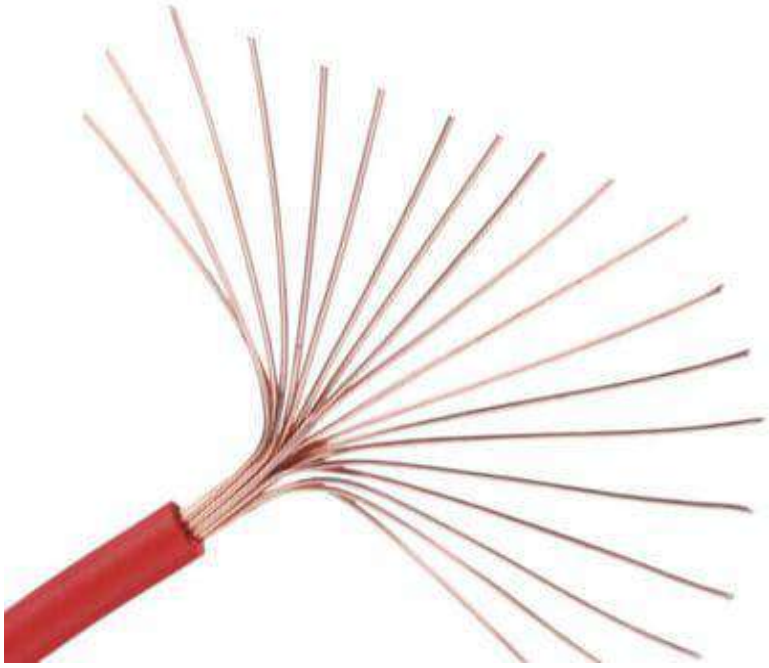
If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

BVR Cable

(≤450/750V, PVC)

Cabling System



Type: GB/T 5023 - 2008 BVR 1×2.5,BVR 1×4

1, Product application

Specialized for fixed wiring in AC 50/60Hz electrical systems with rated voltage ≤450/750V, such as residential buildings, commercial complexes, industrial workshops, and electrical equipment internal wiring.

2, Product ingredients

Conductor	Stranded bare copper (IEC 60228, Class 1/2/5); strand count & diameter vary by conductor cross-section (e.g., 1.5mm² 19×0.31mm; 2.5mm²: 19×0.41mm)
Stranded OD	Varies by cross-section (e.g., 1.5mm²: ≈1.8mm; 4mm²: ≈2.6mm)
Inner insula on	PVC (Polyvinyl Chloride) resin; Color: Black/White/Red/Yellow/Green (customizable))
Outer insula on	Complies with GB/T 5023.3, min. thickness varies by cross-section (e.g., 1.5mm²: ≥0.7mm; 4mm²: ≥0.8mm)
OD	Varies by cross-section (e.g., 1.5mm²: ≈3.2mm; 4mm²: ≈4.2mm)

3, Properties

Conductor DC Resistance (20℃)	≤12.1Ω/km (1.5mm²); ≤7.41Ω/km (2.5mm²); ≤4.61Ω/km (4mm²) (complies with IEC 60228)
Insulation Resistance (20℃)	≥100MΩ·km
Insulation Voltage Test	AC 2000V, 5min, no breakdown
Insulation Tensile Strength	≥12.5MPa (original); ≥8.5MPa (after thermal aging)
Insulation Elongation at Break	≥150% (original); ≥100% (after thermal aging)
Thermal Endurance	Long-term working temp: -15~70℃; max. conductor temp under overload: 105℃ (short-term)
Flame Retardancy	Complies with GB/T 18380.1-2001 (vertical flame test)
Acid & Alkali Resistance	Resistant to dilute acid/alkali (per EN 60811-404)
Bending Radius	≥4×cable OD (fixed installation); ≥6×cable OD (mobile installation)

4, Features

Current Rating	Rated Voltage	≤450/750V AC
	Flexibility	Good bending performance, suitable for narrow/complex wiring spaces
	Current Rating	1.5mm²: 20A; 2.5mm²: 28A; 4mm²: 40A (free in air)
Ambient	Service life	≥20 years (under normal working conditions)

Temperature: 30 ℃

Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other
Current rating	55A	52A	48A

5, Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoid mechanical damage, stay away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

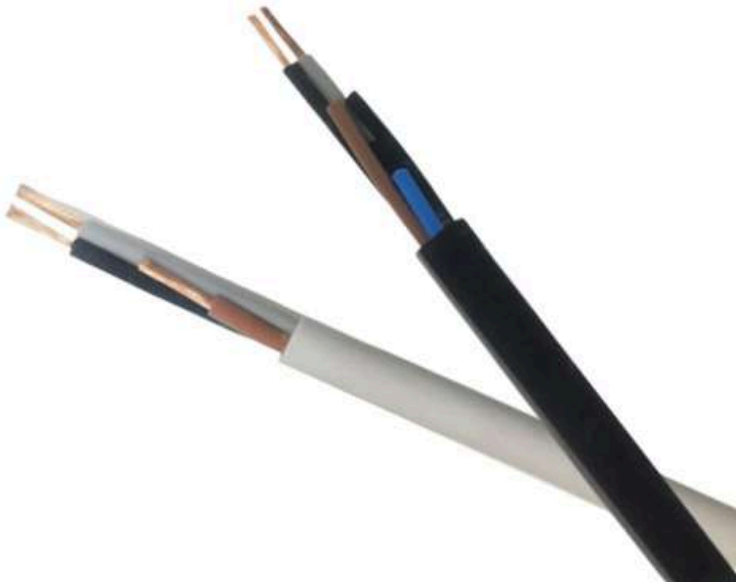
If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

BVV Cable

（≤300/500V, PVC）

Fixed Installation



Type: GB/T 5023-2008 EN50618 : 2014 1x6.0mm² DC1500V

1, Product application

Specialized for fixed wiring in AC 50/60Hz low-voltage electrical systems with rated voltage ≤300/500V, such as residen al indoor wiring, commercial office power distribu on, household electrical appliance internal connec ons, and small-scale industrial equipment wiring.

2, Product ingredients

Conductor	Solid/bare copper (IEC 60228, Class 1); conductor cross-sec on range: 0.75mm²~10mm² (e.g., 2.5mm²: single wire diameter ≈1.78mm)
Stranded OD	Varies by cross-sec on (e.g., 1.5mm²: ≈1.38mm; 4mm²: ≈2.25mm)
Inner insula on	PVC (Polyvinyl Chloride) resin; Color: Black/White/Red/Yellow-Green (grounding, mandatory color)
Insula on Thickness	Complies with GB/T 5023.3, min. thickness: 0.5mm (0.75mm²) ~ 1.0mm (10mm²)
Outer Sheath	PVC resin; Color: Black (standard) / White (customizable); Sheath thickness: ≥0.6mm (0.75mm²) ~ ≥1.2mm (10mm²)
OD	Varies by cross-sec on (e.g., 2.5mm²: ≈4.8mm; 4mm²: ≈5.5mm)

3, Properties

Conductor DC Resistance (20℃)	≤22.8Ω/km (0.75mm²); ≤13.7Ω/km (1.5mm²); ≤8.61Ω/km (2.5mm²) (complies with IEC 60228)
Insulation Resistance (20℃)	≥200MΩ·km
Insulation Voltage Test	AC 1500V, 5min, no breakdown
Insulation/Sheath Tensile Strength	≥12.0MPa (original); ≥8.0MPa (after thermal aging)
Insulation/Sheath Elongation at Break	≥150% (original); ≥100% (after thermal aging)
Thermal Endurance	Long-term working temp: -10~60℃; Max. conductor temp under overload: 105℃ (short-term, ≤5s)
Flame Retardancy	Complies with GB/T 18380.1-2001 (vertical flame test, no continuous burning)
Sheath Abrasion Resistance	No sheath damage after 100 cycles of abrasion test (per EN 60811-203)
Bending Radius	≥4×cable OD (fixed installation); ≥6×cable OD (temporary movement)

4, Features

Current Rating Ambient

Rated Voltage	≤300/500V AC
Service Life	≥15 years (under normal indoor working conditions)
Current Rating (Ambient Temp 30℃)	1.5mm²: 16A; 2.5mm²: 25A; 4mm²: 32A (free in air)
Protection Performance	Double-layer protection (PVC insulation + PVC sheath), good moisture/abrasion resistance

Temperature: 30 ℃

Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other

Current rating	55A	52A	48A

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoid mechanical damage, stay away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

BVVB Flat Cable

（≤300/500V, PVC）

Exposed Cabling in Residential Buildings

Type: GB/T 5023.4-2008 BVVB 2×1.5mm² 300/500V

1, Product application

Specialized for fixed flat wiring in AC 50/60Hz low-voltage electrical systems with rated voltage ≤300/500V, such as residen al indoor wall/floor concealed wiring, commercial office narrowspace distribu on, household appliance (e.g., air condi oner, water heater) power connec ons, and small-scale industrial equipment flat-layout wiring.

2, Product ingredients

Conductor	Stranded nned copper (IEC 60228, Class 5; 840×0.285mm, with a mixed diameter range of 0.277mm to 0.293mm max)
Conductor OD per Core	Varies by cross-sec on (e.g., 1.5mm²: ≈1.38mm; 2.5mm²: ≈1.78mm)
Inner insula on	PVC (Polyvinyl Chloride) resin; Color: Red/Black (2C) / Red/Black/Yellow-Green (3C, grounding core)
Insula on Thickness	Complies with GB/T 5023.4, min. thickness: 0.5mm (0.75mm²) ~ 0.8mm (6mm²)
Outer Sheath	PVC resin; Color: Black (standard) / White (customizable); Flat sheath size (2C×2.5mm²): ≈10.5×5.0mm (L×W)
Cable Overall Size	Varies by core count & cross-sec on (e.g., 3C×1.5mm²: ≈12.0×5.2mm; 2C×4mm²: ≈13.2×5.8mm)

3, Protection Performance Properties

Conductor DC Resistance (20℃)	≤22.8Ω/km (0.75mm²); ≤13.7Ω/km (1.5mm²); ≤8.61Ω/km (2.5mm²) (complies with IEC 60228)
Insulation Resistance (20℃)	≥200MΩ·km
Insulation Voltage Test	AC 1500V, 5min, no breakdown
Insulation/Sheath Tensile Strength	≥12.0MPa (original); ≥8.0MPa (after thermal aging)
Insulation/Sheath Elongation at Break	≥150% (original); ≥100% (after thermal aging)
Thermal Endurance	Long-term working temp: -10~60℃; Max. conductor temp under overload: 105℃ (short-term, ≤5s)
Flame Retardancy	Complies with GB/T 18380.1-2001 (vertical flame test)
Sheath Abrasion Resistance	No sheath damage after 100 cycles (per EN 60811-203)
Bending Radius	≥6×cable width (fixed installation); ≥8×cable width (temporary movement)

4, Features

Current	Rated Voltage	≤300/500V AC
Rating	Service Life	≥15 years (normal indoor environment)
Ambient	Current Rating (Ambient Temp 30℃)	2C×1.5mm²: 16A; 2C×2.5mm²: 25A; 3C×4mm²: 32A (free in air)
	Structural Advantage	Flat shape, small installation space occupation; suitable for narrow/concealed wiring scenarios
	Protection Performance	Double-layer PVC protection (insulation + sheath), good moisture/impact resistance

Temperature: 30 ℃

	Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other
	Current rating	55A	52A	48A

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoid mechanical damage, stay away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

KVV Cable

（PVC）

Fixed Installation Control Circuits

Type: GB/T 9330 – 2020 1ZR - KVV

1, Product application

Specialized for signal transmission and control circuits in industrial automa on systems, power distribu on cabinets, mechanical equipment, and electrical control systems (rated voltage complies with relevant standards for control cables). Suitable for fixed installa on in indoor, tunnel, or cable trench environments.

2, Product ingredients

Conductor	Stranded bare copper (IEC 60228, Class 5); core count: 2C~37C; cross-sec on range: 0.5mm²~2.5mm² (e.g., 1.0mm²: 19×0.25mm)
Conductor OD per Core	Varies by cross-sec on (e.g., 0.75mm²: ≈0.98mm; 1.5mm²: ≈1.38mm)
Inner Insula on	PVC (Polyvinyl Chloride) resin; Color: Black/White/Red/Yellow/Green (color-coded for core iden fica on)
Insula on Thickness	Complies with control cable standards, min. thickness: 0.4mm (0.5mm²) ~ 0.6mm (2.5mm²)
Outer Sheath	PVC resin; Color: Black (standard) / Gray (customizable); Sheath thickness: ≥0.8mm (2C×0.75mm²) ~ ≥1.2mm (10C×2.5mm²)
Cable OD	Varies by core count & cross-sec on (e.g., 2C×1.0mm²: ≈6.2mm; 5C×1.5mm²: ≈8.5mm)

3, Properties

Conductor DC Resistance (20℃)	≤36.0Ω/km (0.5mm²); ≤22.8Ω/km (0.75mm²); ≤13.7Ω/km (1.5mm²) (complies with IEC 60228)
Insula on Resistance (20℃)	≥500 MΩ km
Insula on Voltage Test	AC 2000V, 5min, no breakdown
Insula on/Sheath Tensile Strength	≥12.0MPa (original); ≥8.0MPa (a er thermal aging)
Insula on/Sheath Elonga on at Break	≥150% (original); ≥100% (a er thermal aging)
Thermal Endurance	Long-term working temp: -10~70℃; Max. conductor temp under overload: 105℃ (short-term, ≤5s)
Flame Retardancy	Complies with IEC 60332-1-2 (ver cal flame test)
Signal Transmission Performance	Capacitance between cores: ≤100nF/km; A enua on: ≤1dB/km (at 1kHz)
Bending Radius	≥6×cable OD (fixed installa on); ≥8×cable OD (temporary movement)

4, Features

Current Rating	Rated Voltage	Common: 450/750V AC (complies with control cable standards)
	Service Life	≥15 years (normal indoor industrial environment)
	Current Rating	1.0mm²: 10A; 1.5mm²: 16A; 2.5mm²: 25A (free in air, per core)
	Signal Stability	Low capacitance & attenuation, suitable for accurate control signal transmission
	Protection Performance	Double-layer PVC protection, good moisture, oil, and abrasion resistance

Ambient Temperature: 30 ℃

Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other
Current rating	55A	52A	48A

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoid mechanical damage, stay away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

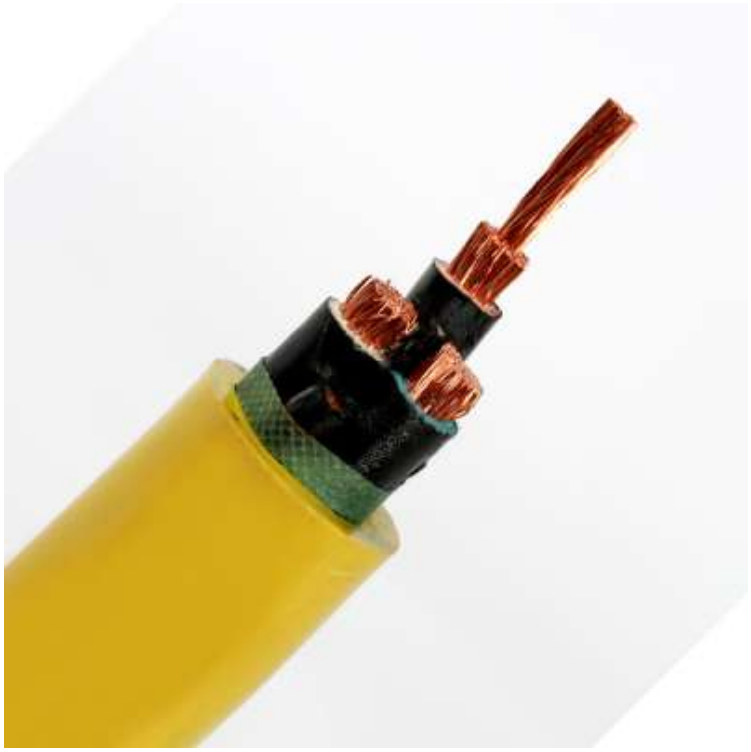
If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

PE/PVC Power Cable

（≤1.8/3kV）

Low-Voltage Power Transmission in Fixed Installation Scenarios



Type: MT 818.12 - 2009 VLV22

1, Product application

Specialized for power transmission and distribu on in AC 50/60Hz low-to-medium voltage electrical systems with rated voltage ≤1.8/3kV, such as industrial parks, commercial complexes, residen al communi es, and small-scale power sta ons. Suitable for fixed installa on in indoor, cable trench, pipe, or direct-burial environments (armored type only for direct burial).

2, Product ingredients

Conductor	sec on range: 4mm²~240mm² (e.g., 10mm² copper conductor: 7×1.35mm)
Conductor OD	Varies by cross-sec on & material (e.g., 25mm² copper: ≈6.0mm; 50mm² aluminum: ≈7.8mm)
Inner Insulation	PE (Polyethylene) resin; Color: White/Translucent; Thickness: ≥1.2mm (10mm²) ~ ≥3.0mm (240mm²)
Outer Sheath	PVC (Polyvinyl Chloride) resin; Color: Black (standard); Thickness: ≥1.8mm (10mm²) ~ ≥4.0mm (240mm²)
Armored Layer	Steel tape (for VV22/VLV22); Steel wire (for VV32/VLV32); Thickness: ≥0.3mm (steel tape)
Cable OD	Varies by structure (e.g., VV 1×25mm²: ≈12.5mm; VV22 1×50mm²: ≈18.2mm)

3, Properties

Conductor DC Resistance (20℃)	Copper: ≤4.43Ω/km (10mm²); ≤1.83Ω/km (25mm²); Aluminum: ≤7.39Ω/km (10mm²) (complies with IEC 60228)
Insulation Resistance (20℃)	≥1000MΩ·km
AC Voltage Test	3.5kV, 5min, no breakdown (rated voltage 1.8/3kV)
Insulation Tensile Strength	≥12.0MPa (original); ≥8.0MPa (after thermal aging)
Sheath Elongation at Break	≥150% (original); ≥100% (after thermal aging)
Thermal Endurance	Long-term working temp: -20~70℃; Max. conductor temp under short circuit: 250℃ (≤5s)
Flame Retardancy	Complies with IEC 60332-1-2 (vertical flame test); Flame-retardant type (ZR-) complies with IEC 60332-3-22
Bending Radius	Non-armored: ≥12×cable OD; Armored: ≥20×cable OD (fixed installation)

4, Features

Current

Rating

Ambient

Rated Voltage	≤1.8/3kV AC (Um=3kV)
Service Life	≥20 years (normal indoor/outdoor environment)
Current Rating	VV 1×25mm²: 115A; VV 1×50mm²: 165A; VLV 1×50mm²: 130A (free in air)
Protection Performance	PE insulation (good electrical insulation) + PVC sheath (moisture/oil resistance); armored type adds mechanical impact resistance
Cost-Effectiveness	Aluminum-core type (VLV series) has lower cost, suitable for large-span power transmission with low load density

Temperature: 30 ℃

	Installation method	Free in air	On surface without direct contact	Cable surfaces are adjacent to each other
	Current rating	55A	52A	48A

5,Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384,000m
40ft	100m	40	192Roll	768,000m

6, Storage

It must be kept away from moisture, dust, and pollution, avoid mechanical damage, stay away from fire sources, and take measures to prevent rodents and insects.

Maintenance Instructions

Regularly inspect the cable for any damage, especially the insulation layer or oxidation of the conductor.

If any dust, oil stains, or other contaminants are found on the cable surface, which should be promptly wiped clean with a clean cloth.

If the cables have become damp, they should be dried before use.

If the insulation layer of the cable has minor damage, it can be repaired using appropriate insulation tape. The cable must be replaced if it has any severe damage.

Additionally, the cable should undergo regular insulation performance tests and related inspections to ensure that its performance meets requirements, based on the frequency of use and environmental conditions.

Prefabricated Substation

（Urban grid）

Type: YBW-12/0.4-(30～6300)kVA

1, Product application

Ideal for AC 50Hz, 12kV and below power systems, this unit efficiently manages electricity distribution and control. Perfect for urban areas, commercial centers, factories, industrial parks, infrastructure sites, and rural grid upgrades. Provides reliable power adaptation for various environments and applications.

2, Product ingredients

Enclosure	High-strength steel construction, IP33 rated, corrosion-resistant treated
HV compartment	Equipped with circuit breaker, disconnector, and safety interlock system
Transformer compartment	Accommodates 30-6300kVA oil-immersed or dry-type transformer
LV compartment	Includes circuit breaker, contactor, and distribution protection system
Busbar system	Copper/aluminum busbar, low contact resistance

3, Properties

Rated voltage	HV:12kV; LV:0.4kV
Rated frequency	50Hz
Rated capacity	30～6300kVA
Temperature rise limit	Winding:≤65K (oil-immersed)/80K (dry-type); enclosure:≤30K
Protection degree	IP33
Operating temperature	-25℃～+40℃
Humidity	Daily avg.≤95%; monthly avg.≤90%（25℃）

4, Features

Quick installation	Installed within 3-7Energy-Saving days
Earthquake resistance	8 degrees
Altitude	≤1000m
Noise level	≤65dB
Flexible expansion	Modular design for easy addition/modification
Energy - saving & Eco - friendly	Low energy consumption, small footprint, low noise
High safety	Fully enclosed with reliable grounding
Compact structure	Covers only 1/3 of traditional substations
Service life	≥30 years

5,Packaging and Transportation

Packaging method: integrated/separate packaging, securely fixed. Use moisture-proof wooden boxes and plastic film (rust-proof, shock-proof). Internal components are fixed to the base, and cushioning material is filled between the equipment and the packaging box (or transport frame). Clear warning labels are affixed.

Avoid outdoor storage; prevent collisions and overturning. Lifting operations must follow marked instructions; lift each unit individually and secure firmly.

Supports sea, land, and air transportation; keep away from heat sources.

Container	Set/wooden box
20ft	1unit
40ft	2unit

6, Storage

It must be kept away from moisture, dust, and corrosive substances to avoid component damage. Prevent mechanical impacts, stay clear of heat sources, and take measures against rodents and pests.

Routine Maintenance Steps:

Regularly inspect the substation's exterior for deformation, especially the cabinet body, doors, and sealing strips. Check connections (busbars, terminals) for looseness, overheating, or oxidation.

If dust, oil stains, or foreign matter accumulate on the surface (e.g., on the cabinet, heat sinks), wipe them off promptly with a clean, dry cloth.

If internal components (transformers, switches) show signs of dampness (e.g., condensation, water ingress), dry them thoroughly before restoring power.

For minor insulation damage (e.g., small cracks on insulators), repair using suitable insulating materials. If damage is severe (e.g., large cracks, breakdown), replace the affected parts immediately.

Additionally, conduct regular electrical performance tests (insulation resistance, voltage withstand, etc.) and overall inspections based on usage frequency and environmental conditions to ensure safe and stable operation.

Oil-Immersed Transformer

（Power grids）

Type: S20-10/0.4-(30～2500)kVA

1, Product application

Suitable for AC 50Hz, 12kV and below power transmission and distribution systems, new energy like wind, solar and energy storage, smart grids, etc., for voltage and power conversion, distribution and control.

2, Product ingredients

Enclosure	Protection class IP63+, anti-corrosion
High-voltage coil	T1 oxygen-free copper, multi-layer cylindrical winding
Low-voltage coil	T1 copper foil/wire, stay curtain air channels
Iron core	High permeability silicon steel, 5-step structure
Transformer oil	High voltage-insulation plant mineral oil

3, Properties

Rated voltage	HV:10kV; LV:0.4kV
Rated frequency	50Hz
Rated capacity	30～2500kVA
Temperature rise limit	Winding: ≤65K (oil-immersed); enclosure: ≤30K
Protection degree	IP63
Operating temperature	-25℃～+40℃

4, Features

Earthquake resistance	8 degrees
Altitude	≤1000m
Noise level	≤65dB
Service life	≥30 years

5,Packaging and Transportation

Packaging method: integrated/separate packaging, securely fixed. Use moisture-proof wooden boxes and plastic film (rust-proof, shock-proof). Internal components are fixed to the base, and cushioning material is filled between the equipment and the packaging box (or transport frame). Clear warning labels are affixed.

Avoid outdoor storage; prevent collisions and overturning. Lifting operations must follow marked instructions; lift each unit individually and secure firmly.

Supports sea, land, and air transportation; keep away from heat sources.

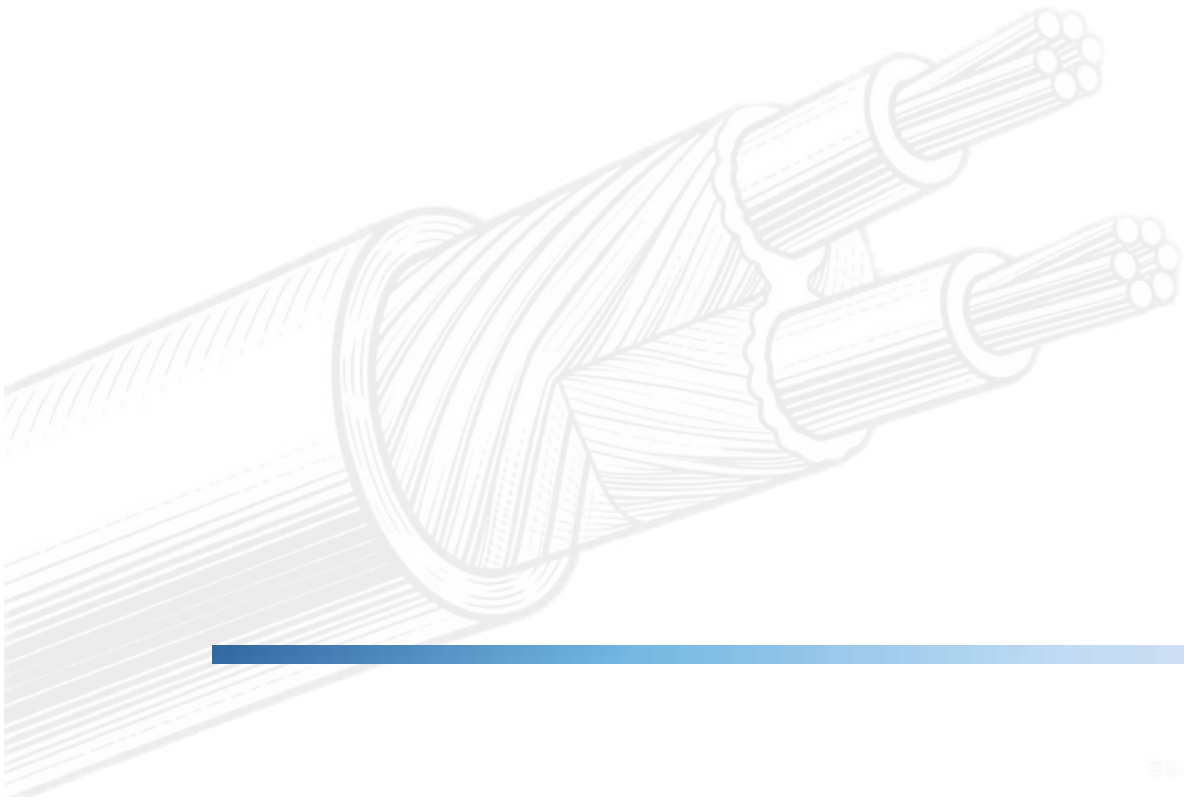
Container	Set/wooden box
20ft	5unit
40ft	10unit

6, Storage

To ensure safe operation, store the equipment in dry, clean conditions away from corrosive substances, impact, heat sources and pests.

Perform daily checks by inspecting for deformation (cabinet, doors, seals) and checking connections for looseness, overheating or rust. Keep surfaces clean by wiping dust and oil with a dry cloth.

For troubleshooting, dry any damp parts (transformers, switches) before powering on; repair small insulation cracks and replace badly damaged parts. Regularly test electrical performance (insulation, voltage) based on usage and environment.



Dry-Type Transformer

（Power distribution）

Type: SCB14-10/0.4-(30～2500)KVA

1, Product application

Applied in AC 50Hz, 12kV and below power distribution systems for power conversion, distribution and control.

2, Product ingredients

Enclosure	Aluminum alloy / Stainless steel
High-voltage coil	Oxygen-free copper (T1)
Low-voltage coil	Copper foil / Copper wire (T1)
Iron core	Silicon steel
Busbar system	Silent fan

3, Properties

Rated voltage	HV:10kV; LV:0.4kV
Rated frequency	50Hz
Rated capacity	30～2500kVA
Temperature rise limit	Winding: ≤65K (oil-immersed); enclosure: ≤30K
Protection degree	IP2X
Operating temperature	-25℃～+40℃

4, Features

Earthquake resistance	8 degrees
Altitude	≤1000m
Noise level	≤65dB
Service life	≥30 years

5,Packaging and Transportation

Packaging method: integrated/separate packaging, securely fixed. Use moisture-proof wooden boxes and plastic film (rust-proof, shock-proof). Internal components are fixed to the base, and cushioning material is filled between the equipment and the packaging box (or transport frame). Clear warning labels are affixed.

Avoid outdoor storage; prevent collisions and overturning. Lifting operations must follow marked instructions; lift each unit individually and secure firmly.

Supports sea, land, and air transportation; keep away from heat sources.

Container	Set/wooden box
20ft	4unit
40ft	8unit

6, Storage

To ensure safe operation, store the equipment in dry, clean conditions away from corrosive substances, impact, heat sources and pests.

Perform daily checks by inspecting for deformation (cabinet, doors, seals) and checking connections for looseness, overheating or rust. Keep surfaces clean by wiping dust and oil with a dry cloth.

For troubleshooting, dry any damp parts (transformers, switches) before powering on; repair small insulation cracks and replace badly damaged parts. Regularly test electrical performance (insulation, voltage) based on usage and environment.

Wire Harness and Connectors

for New Energy Vehicles

Engineered to Customer Application Requirements

1, Product application

As the medium of high-voltage power transmission, the high-voltage wiring harness connects various components on the high-voltage system, transmits electrical energy and shields external signal interference, and is the main carrier of power output of new energy vehicles.

High voltage harness has the characteristics of high voltage, high current, high protection level and anti-electromagnetic interference, is the neural network of new energy vehicle high voltage system, is related to the vehicle performance and safety of the key components.

2, System assembly

Relay group assembly	Rear door wire harness
Engine wire harness	LHR door transition harness
Front bulkhead harness	License lamp wire
Floor wire harness	Instrument panel harness
LHF door wire harness	Door switch wire
RHF door wire harness	Dome lamp wire

3, Product component

Automotive Wiring	Conductor	annealed soft copper
	Insulation	PVC, XLPE, TPE
Connector	Housing	PA6、PA66、ABS、PBT、pp
Terminal	Body	brass or phosphor bronze
	Plating	tin-plated / silver-plated

4, Technical Parameters

Voltage level	12V/24V
Insulation resistance	≥20MΩ
Corrosion resistance	salt spray test needs to pass 96 hours
Protection degree	to reach IP67

5, Packaging and Transportation

Packaging materials should be moisture-proof, shock-proof, and corrosion-resistant. Common materials include moisture-proof paper, foam, and aluminum foil. Cable specifications, models, length, and other information should be clearly marked on the outside of the packaging.

It's forbidden to store in open-air. During transportation, it must ensure that the cable reel is not dropped from the top or is damaged mechanically. It can be transported by truck, train, ship, and airplane.

Container	Type ($4mm^2$)	Wooden box	Cable/wooden box	Total length (m)
20ft	100m	20	192Roll	384000m
40ft	100m	40	192Roll	768000m

6, Storage

Must be stored in a dry, clean, and pollution-free environment, avoiding moisture, dust, and exposure to chemical pollutants.

Keep away from fire sources and take effective measures to prevent damage from rodents and insects. Avoid mechanical squeezing, impact, and scratches from sharp objects; ensure packaging remains intact.

Regularly inspect the appearance of wiring harnesses and connectors, focusing on whether the insulation layer is damaged, the conductor is oxidized, or the connector terminals are corroded or deformed.

Regularly inspect the appearance and insulation performance. Clean or replace immediately if damage, oxidation or contamination is found.

Always disconnect power during operation for safety. Dispose of discarded components in accordance with environmental requirements.