

SOLAR CABLES

Electric cables for **solar PV** installations





 **Top Cable**

- ▶ **Topsolar PV ZZ-F / H1Z2Z2-K**
EN 50618 / TÜV 2Pfg 1169-08 / UTE C 32-502



- ▶ **Topsolar PV DUAL ZZ-F / H1Z2Z2-K / PV Wire**
UL PV WIRE / UL USE-2 / EN 50618 / TÜV 2Pfg 1169-08 / UTE C 32-502





DC Network

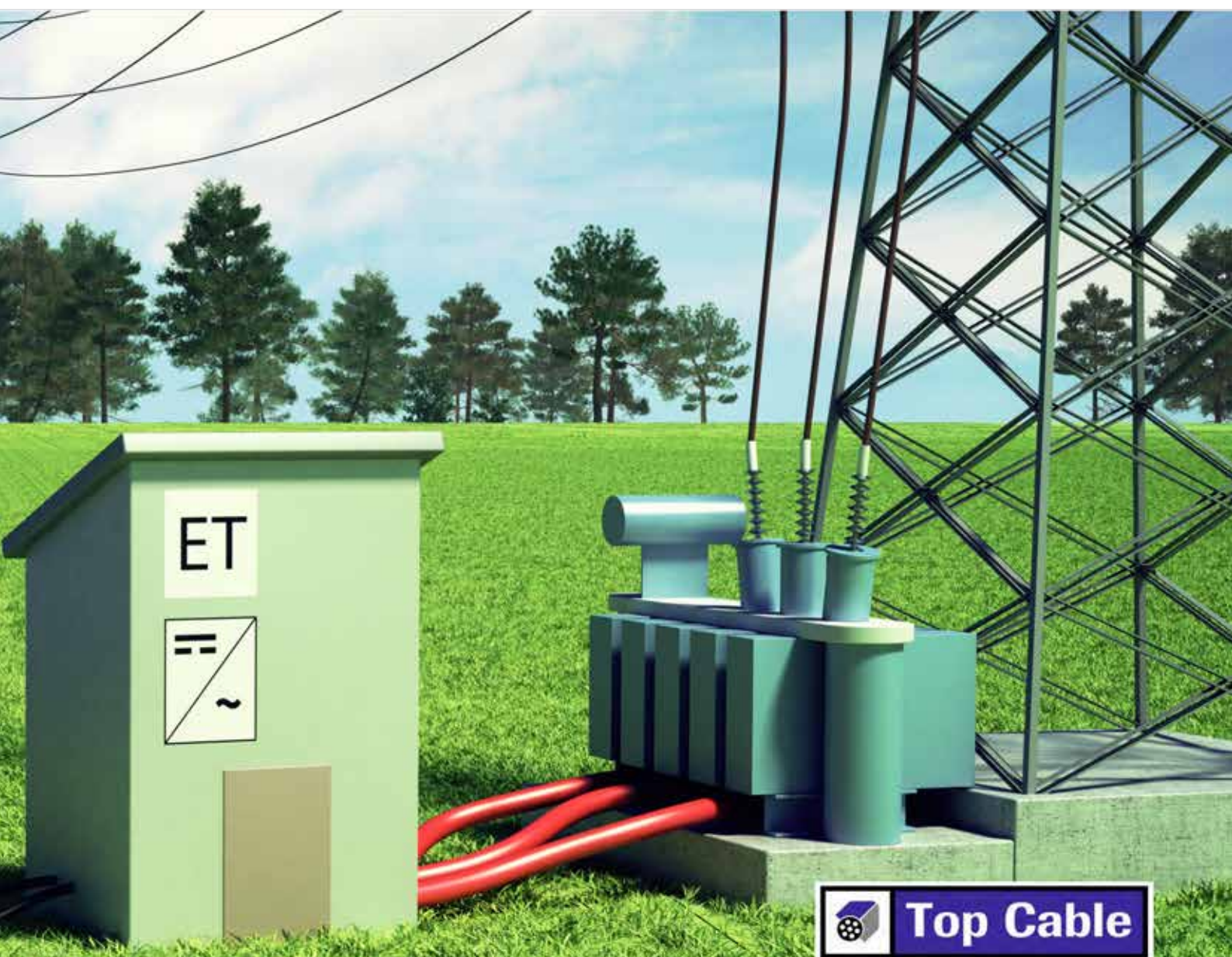
Rodent and termite protection
UV & water resistance



Medium-Voltage Network

Copper & Aluminium conductor
XLPE and Rubber Insulation

Armoured cable
Up to 66 kV





TOP CABLE

Top Cable is an internationally recognized manufacturer of electric cables, and is highly thought of by professional Engineers & Electricians around the world. As a multinational Corporation with offices and warehouse located around the globe, Top Cable is committed to providing the best products and services to our clients worldwide.

Teamwork has always been the key to the success of our company. Our emphasis on human capital investments has made Top Cable one of the leading cable manufacturers in Europe. We are committed to providing electric cables of the highest standards to our clients on a global scale.



Top Cable is committed to providing the best products and services to our clients worldwide.

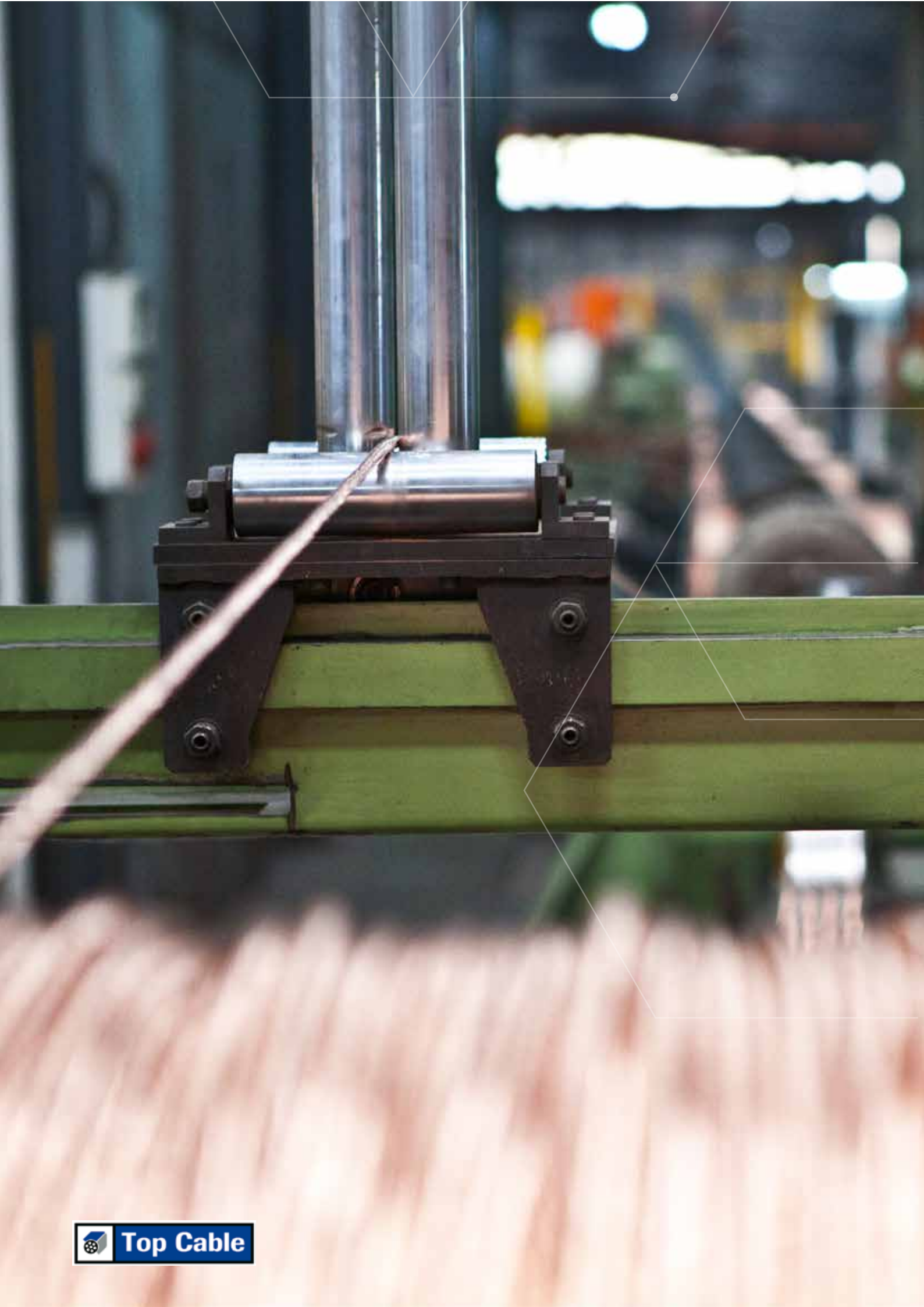


Teamwork has always been the key to the success of our company.



Top Cable is one of the leading cable manufacturers in Europe.





QUALITY, a priority in Top Cable



Top Cable's products have passed stringent standards set by both Spanish and European certifying bodies. Our company strongly believes in selecting the best raw materials, adopting rigorous control systems and employing the latest technology in all our production.

Our state of the art logistic warehouse in Barcelona (Spain), is one example of our commitment to providing high quality cables and excellent service to all our clients. This initiative has earned us the ISO 9001 award in 1994.



Top Cable as a trademark has become synonymous with quality worldwide.



Our laboratories are equipped to carry out the most rigorous tests.



The company process control systems are guaranteed by internationally recognized Certifying bodies.



Manufacturers of a complete Range of Solar cables

Whether it is an off-grid application or a grid connected PV-System – our cables meet the same high expectations that are demanded from the solar modules – which are a long service life and high weather resistance.

Our products have both TÜV approval for the European market and UL approval according to the most stringent solar specifications

Customers of Top Cable receive their Solar deliveries on schedule from the standard stock in Barcelona. Large buffer stocks are available there to ensure flexibility. Currently, Top Cable manages several individual customer stocks across the world in order to avoid out-of-stock situations in the supply chain. By agreement, suitable purchase contracts can be made to create further buffer stocks on a worldwide basis, which can be tailored and managed to individual requirements.



Customers of Top Cable receive their Solar deliveries on schedule from the standard stock in Barcelona.



The Top Cable solar range provides long service life and high weather resistance cables.



These cables are designed, manufactured and tested in accordance with the most exigent international standards



An INTEGRATED manufacturing process

Top Cable was founded in 1985, and since then has been focusing on investment in technology which sustains advancement through extensive research and development programmes. The aim is to continuously improve our cables and to ensure a large production capacity that can meet the various demands in the global economy. Our Top Cable Design & Development Centre and research laboratories were established to provide research work and to identify new areas of improvement that will enable us to constantly provide high performance cables that are suited for multiple applications in various industries.

Being conscious of the importance of optimal costing, our company has opted for the integration of our processes, through focusing each of our production centers into a specialized production unit, while co-ordinating with one another to optimize common resources.



Top Cable submits all its manufacturing processes to the most stringent controls.



Being conscious of the importance of optimal costing, our company has opted for the integration of our processes.



All the centres have R&D teams with their own laboratories capable of designing high quality cables for various applications.



Halogen FREE CABLES

Halogen free cables improve the fire safety by not emitting toxic fumes or thick smoke. In addition no corrosive gases are emitted in the event of a fire. The halogen free range of cables includes both flame retardant and fire resistant cables.

Because personal safety is our top priority, halogen free cables are suitable for installations where fire, smoke emission and toxic fumes create a potential threat to life and equipment.



**THEY DO NOT EMIT
TOXIC FUMES**

Thus avoiding the often lethal effects of gasses and acids produced by the combustion of cables that contain halogens.



**THEY DO NOT EMIT
CORROSIVE SUBSTANCES**

As they do not emit hydrochloric acid, the electronic equipment and computers do not suffer corrosive damage.



LOW SMOKE EMISSION

LSZH Toxfree cables prevent the loss of visibility in the case of fire, thus allowing people to be evacuated quickly and facilitating the work of the rescue team.



**NO FIRE PROPAGATION
PROPERTIES**

The special no fire propagation properties of the LSZH Toxfree cable range prevent disasters and improve the safety of the installations.



FIRE RESISTANCE

Fire resistant cables transmit electric power in the extreme conditions of a prolonged fire, assuring an electric supply to emergency services.



**ENVIRONMENTALLY
FRIENDLY**

They do not emit dioxins into the atmosphere as they do not contain any halogen substances.



Value Added SERVICE

Our company values all our clients and therefore we adhere to the philosophy of prompt customer service. To further instill the philosophy of value added service, we have invested in a state of the art logistics centre with the latest warehouse management system. This system our clients to draw on various cables at any optimises the cable supply to our customers to meet their current requirements. This sophisticated infrastructure enables our clients to save on storage, distribution and administration costs.

Selecting the best transport companies for each destination as well as the type of shipment guarantees an extension of our service to destinations around the world. A worldwide computing platform co-ordinates all the logistics activities in real time.



The Top Cable Automated logistic Centre has all the latest WMS (Warehouse Management System) technology.



At Top Cable we optimize the way in which we meet our clients requirements by saving them on multiple storage, distribution and administration costs.



Apart from our attention to detail in regard to logistics, Top Cable's sales teams offer unrivalled attention to the commercial side of the company.





ENVIRONMENTAL & Corporate Social Responsibilities



We can speak of sales growth, benefits and assets yet this would be irrelevant without a sense of social and environmental responsibility as a company.



Top Cable is committed to protecting the environment. We strongly believe in using environmentally friendly processes in all stages of our production. One of our company's goals is to uphold Sustainable Social Development and seek to educate the public about the importance of keeping our planet green for future generations.



Top Cable is committed to protecting the environment.



The companies that form Top Cable have established recycling systems for the residues produced during the process of producing an electric cable.



Top Cable supports sustainable social development.





Interconnecting Pannels

Low-Voltage

Topsolar PV ZZ-F / H1Z2Z2-K
Topsolar PV DUAL ZZ-F / H1Z2Z2-K / PV Wire

Copper & Aluminium conductor
Steel tape and wire armouring



TOPSOLAR PV ZZ-F / H1Z2Z2-K

TÜV & EN solar PV cable.

EN 50618/ TÜV 2Pfg 1169-08 / UTE C 32-502

DESIGN

1. Conductor

Class 5 (flexible) tinned copper, based on EN 60228 and IEC 60228.

2. Insulation

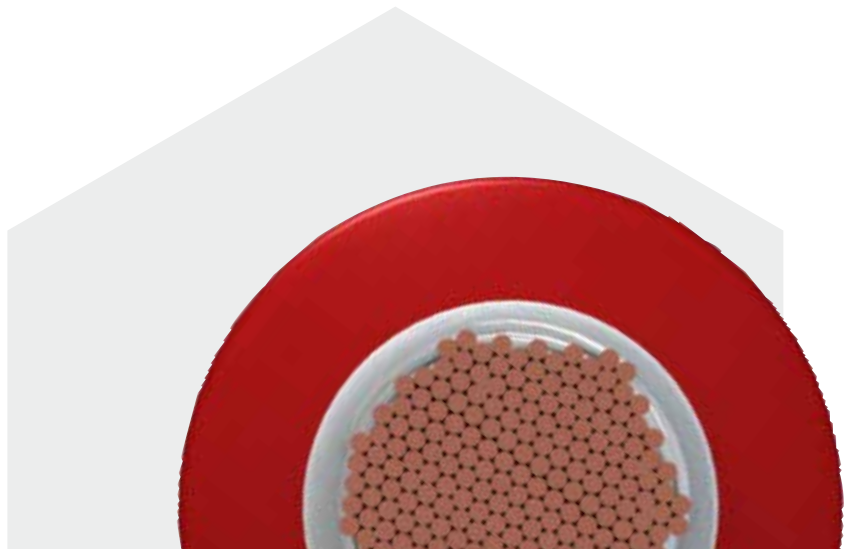
Low smoke zero halogen (LSZH) rubber.

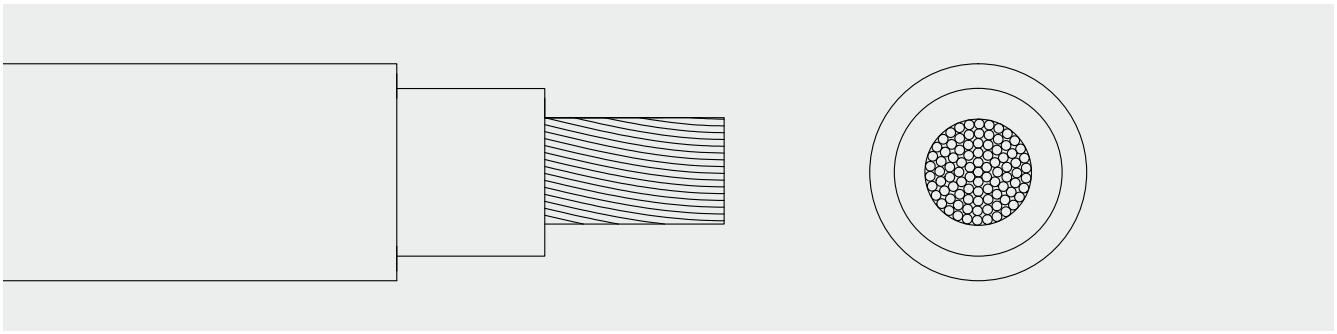
3. Outer sheath

Low smoke zero halogen (LSZH) rubber, red or black colour.

APPLICATIONS

TopSolar ZZ-F is a solar PV cable, TÜV & EN certified, specially designed for the connection of photovoltaic panels. This versatile single-conductor cable is designed to meet the varying needs of the solar industry. Highly flexible cable, compatible with all major connectors. Suitable for wet, damp and humid locations.





CHARACTERISTICS



Electrical performance

LOW VOLTAGE 1,5/1,5 1kV · (1,8) kV



Standard

EN 50618/ TÜV 2Pfg 1169-08 / UTE C 32-502



Approvals

CE
TÜV
EN
RoHS



Thermal performance

Maximum service temperature: 120°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C.



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.
LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.
Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%
Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.



Mechanical performance

Minimum bending radius: x3 cable diameter.
Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Excellent.
Grease & mineral oils resistance: Excellent.



UV Resistant

UV Resistant based on EN 50618 and TÜV 2Pfg 1169-08.



Water performance

Water presence: AD8 submerged.



Estimated Lifetime

Estimated lifetime 30 years based on UNE-EN 60216-2.



Other

Meter by meter marking.



Installation conditions

Open Air.
Buried.



Applications

Solar PV installations - strings cable.





TOPSOLAR PV DUAL 600V ZZ-F/H1Z2Z2-K/PV WIRE

TÜV, UL and EN solar PV cable.

UL PV WIRE / UL USE-2 / EN 50618 / TÜV 2Pfg 1169-08 / UTE C 32-502

DESIGN

1. Conductor

Class 5 (flexible) tinned copper, based on EN 60228 and IEC 60228.

2. Insulation

Low smoke zero halogen (LSZH) rubber
(XLEVA type according to UL / E16 according to TÜV).

3. Outer sheath

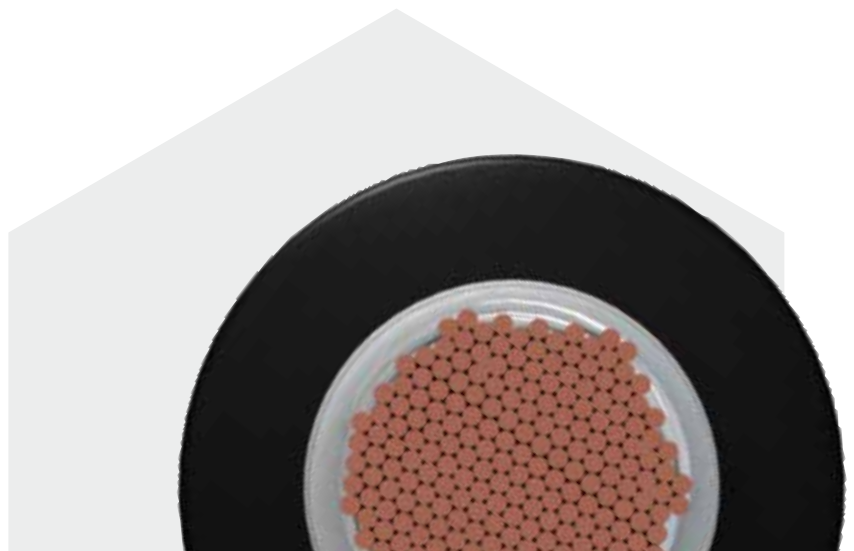
Low smoke zero halogen (LSZH) rubber,
(XLEVA type according to UL / E16 according to TÜV).

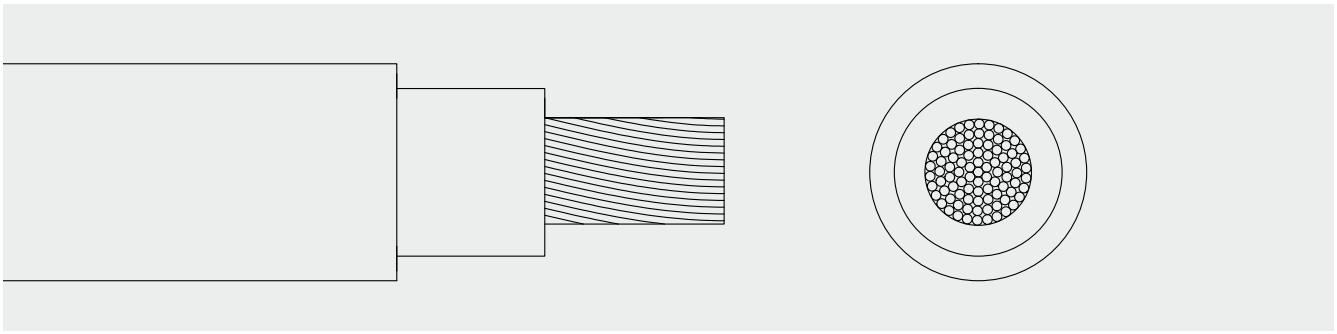
Black colour.

APPLICATIONS

Topsolar PV ZZ-F Dual 600 V cable is TÜV, UL and EN certified, as requested by the leading global manufacturers of photovoltaic panels and junction boxes. This cable is specially designed for the connection of photovoltaic panels, meeting the varying needs of the solar industry. Highly flexible cable, compatible with all major connectors. Suitable for wet, damp and humid locations.

TOP CABLE TOPSOLAR PV ZZ-F





CHARACTERISTICS



Electrical performance

UL 600 V
EN DC 1,5/1,5 1kV · (1,8) kV



Standard

UL PV WIRE / UL USE-2 / EN 50618 / TÜV 2Pfg 1169-08 /
UTE C 32-502



Approvals

CE
UL LISTED
TÜV
EN
RoHS



Thermal performance

Maximum service temperature: 120°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C.



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.

LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.

Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%

Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.

Flame resistance UL VW-1.



Mechanical performance

Minimum bending radius: x3 cable diameter.

Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Excellent.

Grease & mineral oils resistance: Excellent.



UV Resistant

UV Resistant based on EN 50618, TÜV 2Pfg 1169-08 and UL 2556.



Water performance

Water resistance: AD8 submerged..



Estimated Lifetime

Estimated lifetime 30 years based on UNE-EN 60216-2.



Other

Meter by meter marking.



Installation conditions

Open Air.

Buried.



Applications

Solar PV installations - strings cable.



See more technical data on the particular cable specification.

For more information: sales@topcable.com



TOPSOLAR PV DUAL 2kV ZZ-F/H1Z2Z2-K/PV WIRE

TÜV, UL and EN solar PV cable.

UL PV WIRE / UL USE-2 / EN 50618 / TÜV 2Pfg 1169-08 / UTE C 32-502

DESIGN

1. Conductor

Class 5 (flexible) tinned copper, based on EN 60228 and IEC 60228.

2. Insulation

Low smoke zero halogen (LSZH) rubber
(XLEVA type according to UL / E16 according to TÜV).

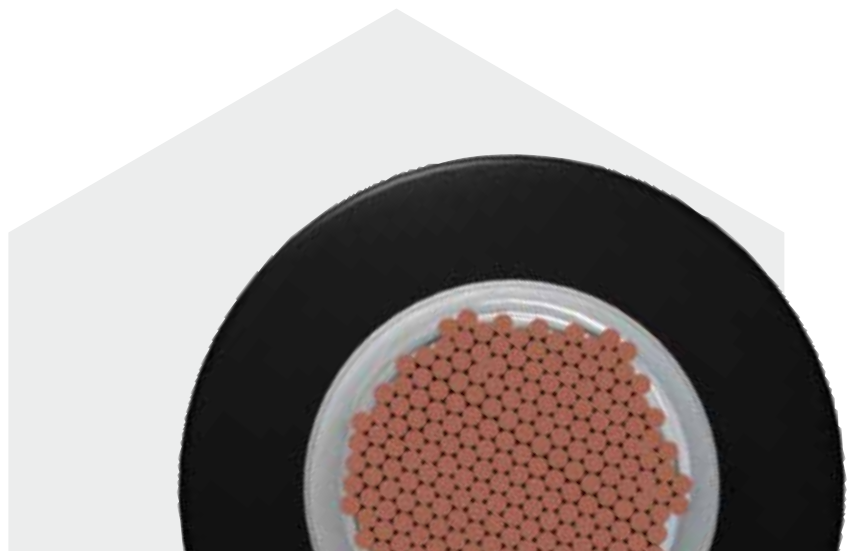
3. Outer sheath

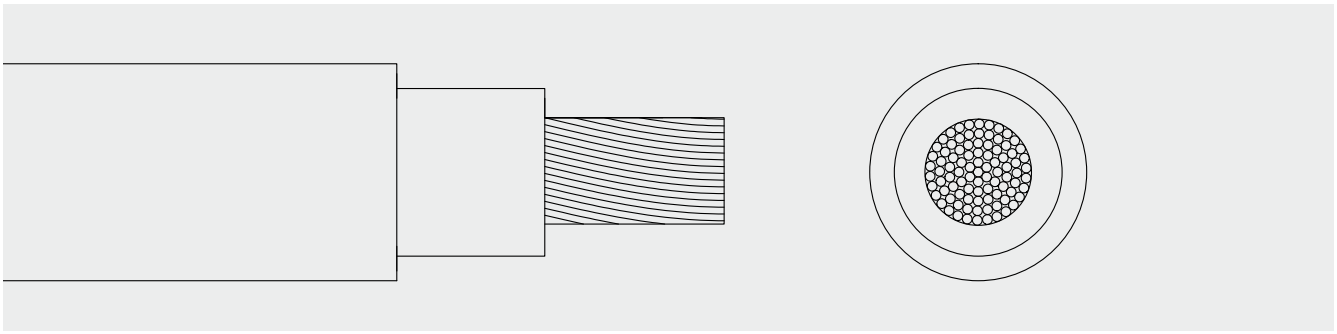
Low smoke zero halogen (LSZH) rubber,
(XLEVA type according to UL / E16 according to TÜV).

Black colour.

APPLICATIONS

Topsolar PV ZZ-F Dual cable is TÜV, UL and EN certified, as requested by the leading global manufacturers of photovoltaic panels and junction boxes. This cable is specially designed for the connection of photovoltaic panels, meeting the varying needs of the solar industry. Highly flexible cable, compatible with all major connectors. Suitable for wet, damp and humid locations.





CHARACTERISTICS



Electrical performance

UL 2000 V
EN DC 1,5/1,5 kV · (1,8) kV



Standard

UL PV WIRE / UL USE-2 / EN 50618 / TÜV 2Pfg 1169-08 /
UTE C 32-502



Approvals

CE
UL LISTED
TÜV
EN
RoHS



Thermal performance

Maximum service temperature: 120°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C.



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.

LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.

Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%

Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.

Flame Resistance UL VW-1.



Mechanical performance

Minimum bending radius: x3 cable diameter.

Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Excellent.

Grease & mineral oils resistance: Excellent.



UV Resistant

UV Resistant based on EN 50618, TÜV 2Pfg 1169-08 and UL 2556.



Water performance

Water resistance: AD8 submerged..



Estimated Lifetime

Estimated lifetime 30 years based on UNE-EN 60216-2.



Other

Meter by meter marking.



Installation conditions

Open Air.

Buried.



Applications

Solar PV installations - strings cable.



See more technical data on the particular cable specification.

For more information: sales@topcable.com

POWERHARD RV AL / U-1000 AR2V

Aluminium cable for power transmission.

UNE-HD 603-5N / NF C 32-321

DESIGN

1. Conductor

Aluminium, class 2 based on EN 60228 and IEC 60228.

2. Insulation

Cross-linked polyethylene (XLPE)

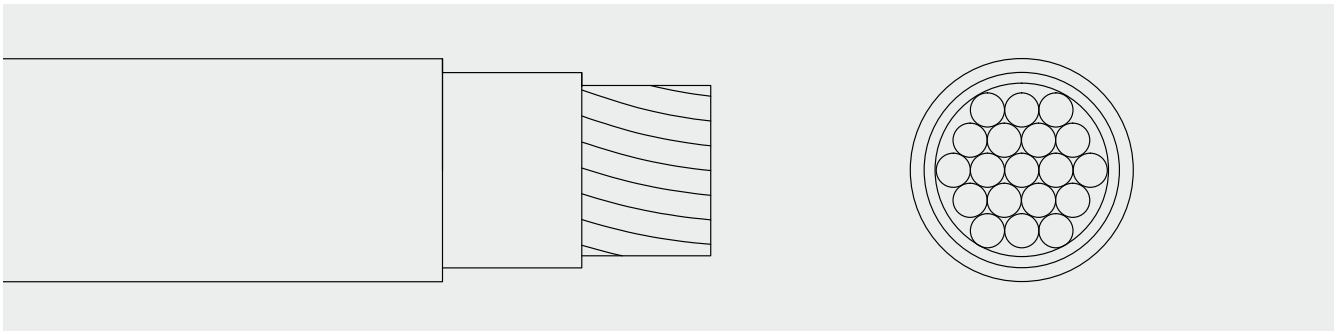
3. Outer sheath

Flexible PVC, Black or grey colour.

APPLICATIONS

This Powerhard Aluminium cable is suitable for all types of underground and open air installations. This cable is designed for connections between string boxes and photovoltaic inverters in large scale rooftops and ground farms.





CHARACTERISTICS



Electrical performance

LOW VOLTAGE DC 0,9/1,5 (1,8)kV



Standard

UNE-HD 603-5N / NF C 32-321



Approvals

CE
NF-USE
AENOR
RoHS



Thermal performance

Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations).



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.
Reduced emission of halogens. Chlorine <15%.



Mechanical performance

Minimum bending radius: x 5 cable diameter.
Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Good.
UV Resistant: UNE 211605 and NF-C 32-323.



Water performance

Water resistance: AD7 Immersion.



Other

Meter by meter marking.



Installation conditions

Open Air.
Buried.
In conduit.



Applications

Solar PV installations - DC feeders cable.



TOXFREE ZH RZ1 (AS) AL

Aluminium halogen free (LSZH) cable for power transmission

IEC 60502-1 / UNE 21123-4

DESIGN

1. Conductor

Aluminium, class 2, based on UNE-EN 60228 and IEC 60228.

2. Insulation

Cross-linked polyethylene (XLPE).

3. Outer sheath

Low Smoke Zero Halogen (LSZH) polyolefin. Green colour, non-toxic and fire retardant.

APPLICATIONS

Toxfree RZ1 AL is an aluminium LSZH cable for fixed installations. These cables are specially recommended for the connections between the string boxes and the inverters when a low smoke zero halogen cable is mandatory.

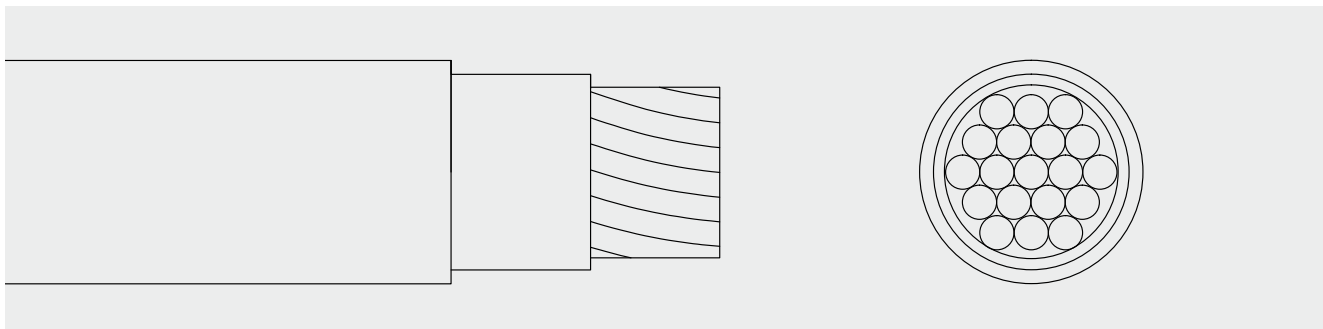
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TOP CABLE TOXFREE ZH RZ1 (AS) AL





CHARACTERISTICS



Electrical performance

LOW VOLTAGE DC 0,9/1,5 (1,8)kV



Standard

IEC 60502-1 / UNE 21123-4



Approvals

CE
RoHS



Thermal performance

Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations).



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.
Fire non-propagation based on UNE-EN 60332-3 and IEC 60332-3.
LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.
Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%
Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.



Mechanical performance

Minimum bending radius: x 5 cable diameter.
Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Acceptable.
UV Resistant: UNE 211605.



Water performance

Water resistance: AD5 Jets.



Other

Meter by meter marking.



Installation conditions

Open Air.
Buried.
In conduit.



Applications

Solar PV installations - DC feeders cable.





TOPSOLAR PV AL 600V PV WIRE

UL PV cable.

UL PV WIRE

DESIGN

1. Conductor

Compact aluminum (8.000 series).

2. Insulation

Low smoke zero halogen (LSZH) rubber (XLEVA type according to UL).

3. Outer sheath

Low smoke zero halogen (LSZH) rubber (XLEVA type according to UL). Black colour.

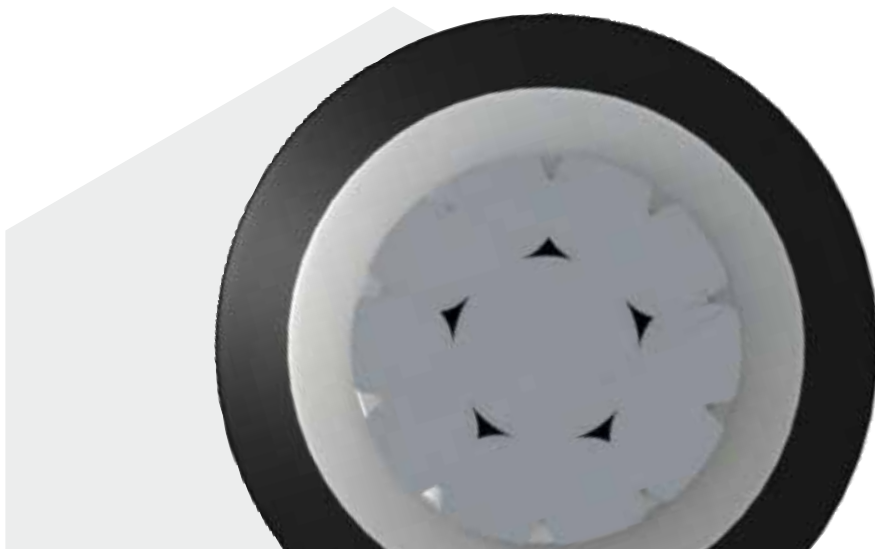
APPLICATIONS

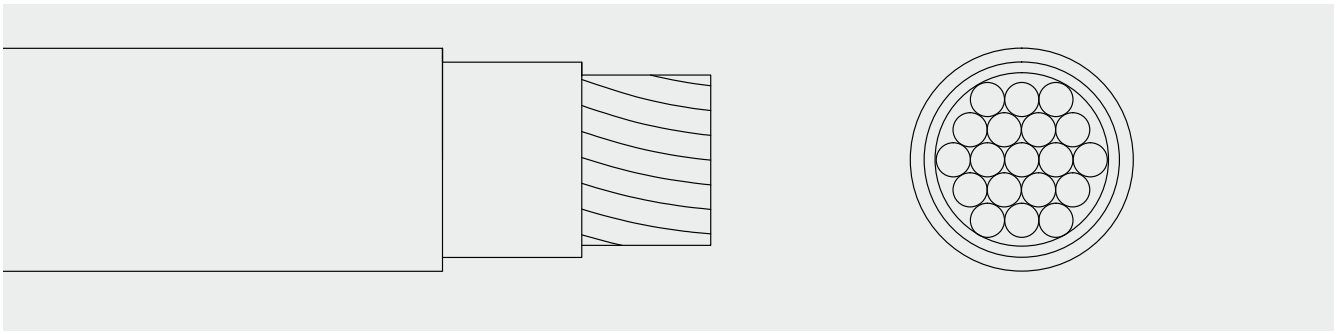
Topsolar PV AL is UL certified cable suitable for all types of uderground and open air installations. This cable is designed for connections between string boxes and photo-voltaic inverters in large scale rooftops and ground farms.

1

2

3





CHARACTERISTICS



Electrical performance

UL 600 V



Standard

UL PV WIRE



Approvals

UL LISTED
RoHS



Thermal performance

Maximum service temperature: 120°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C.



Fire performance

Flame resistance UL VW-1.
Zero halogen.
Low smoke emission, Light transmittance > 60%.
Low corrosive gases emission.



Mechanical performance

Minimum bending radius: x5 cable diameter.
Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Excellent.
Grease & mineral oils resistance: Excellent.



UV Resistant

UV Resistant based on UL 2556.



Water performance

Dry and wet.
Water resistance: AD8 submerged..



Estimated Lifetime

Estimated lifetime 30 years.



Other

Meter by meter marking.



Installation conditions

Open Air.
Buried.



Applications

Solar PV installations - DC feeders cable.



See more technical data on the particular cable specification.
For more information: sales@topcable.com



TOPSOLAR PV AL 2kV PV WIRE

UL PV cable.

UL PV WIRE

DESIGN

1. Conductor

Compact aluminum (8.000 series).

2. Insulation

Low smoke zero halogen (LSZH) rubber (XLEVA type according to UL).

3. Outer sheath

Low smoke zero halogen (LSZH) rubber (XLEVA type according to UL). Black colour.

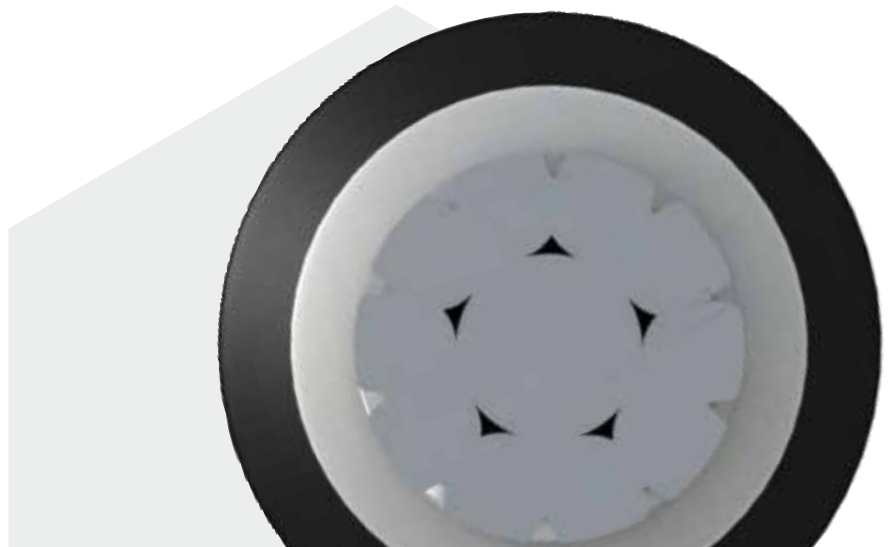
APPLICATIONS

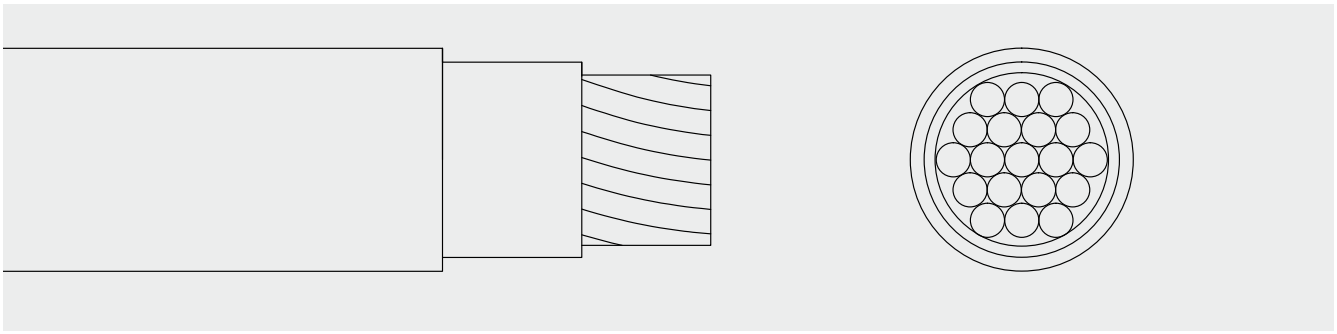
Topsolar PV AL is UL certified cable suitable for all types of uderground and open air installations. This cable is designed for connections between string boxes and photo-voltaic inverters in large scale rooftops and ground farms.

1 ————

2 ————

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CHARACTERISTICS



Electrical performance

UL 2000 V



Standard

UL PV WIRE



Approvals

UL LISTED
RoHS



Thermal performance

Maximum service temperature: 120°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C.



Fire performance

Flame resistance UL VW-1.
Zero halogen.
Low smoke emission, Light transmittance > 60%.
Low corrosive gases emission.



Mechanical performance

Minimum bending radius: x5 cable diameter.
Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Excellent.
Grease & mineral oils resistance: Excellent.



UV Resistant

UV Resistant based on UL 2556.



Water performance

Dry and wet.
Water resistance: AD8 submerged..



Estimated Lifetime

Estimated lifetime 30 years.



Other

Meter by meter marking.



Installation conditions

Open Air.
Buried.



Applications

Solar PV installations - DC feeders cable.



See more technical data on the particular cable specification.
For more information: sales@topcable.com

X-VOLT RHZ1 OL/2OL

Medium Voltage aluminium or copper cable, XLPE insulation, halogen free.

UNE-HD 620-10E (type 10E-1) / IEC 60502-2.

DESIGN

1. Conductor

Aluminium or copper conductor, class 2, based on EN 60228 and IEC 60228. Optionally, with longitudinal sealing (cable type -2OL).

2. Internal semiconductor

Screen over the conductor, made of thermosetting semiconductor material.

3. Insulation

Cross-linked polyethylene (XLPE), in dry atmosphere catenary tube, through a triple layer extrusion process.

4. External semiconductor

Screen over the insulation, made of thermosetting and strippable semiconductor material.

4. Metallic screen

Screen of copper wires and copper tape, with a minimum cross-section of 16m².

5. Longitudinal sealing

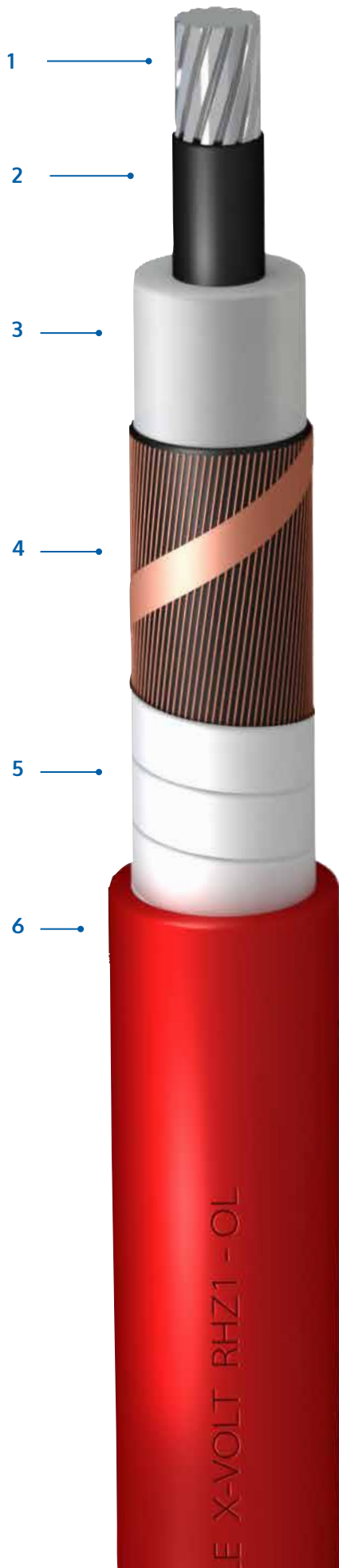
Hygroscopic tape completely covering the screen (cable type -OL and -2OL).

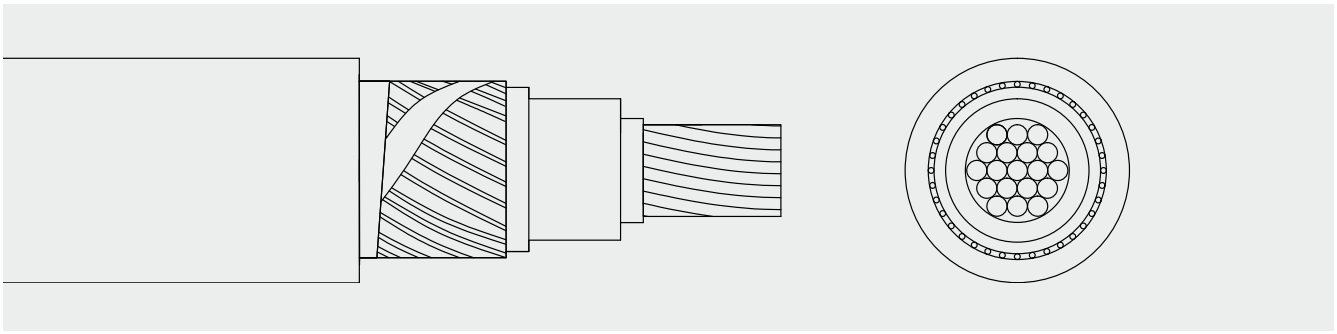
6. External sheath

External sheath of halogen-free polyolefin, red colour.

APPLICATIONS

Medium Voltage aluminium or copper cable for the transmission and distribution of electricity. Halogen free.





CHARACTERISTICS



Electrical performance

MEDIUM VOLTAGE
6/10 kV, 8,7/15 kV, 12/20 kV, 15/25 kV, 18/30 kV, 19/33 kV,
20/35 kV and 26/45 kV.



Standard

UNE-HD 620-10E (type 10E-1) / IEC 60502-2.

Approvals
AENOR



Thermal performance

Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -15°C



Fire performance

Halogen free: based on UNE-EN 50267.



Mechanical performance

Minimum bending radius: x15 cable diameter.
Abrasion resistant.
Tear resistant.



Chemical performance

UV Resistant: UNE 211605.



Installation conditions

Open Air.
Buried.
In conduit.



Applications

Distribution networks.



Other

Meter by meter marking.



X-VOLT HEPRZ1

Medium Voltage aluminium or copper cable, HEPR insulation, halogen free.

UNE-HD 620-9E (type 9E-1)

DESIGN

1. Conductor

Aluminium or copper conductor, class 2, based on EN 60228 and IEC 60228.

2. Internal semiconductor

Screen over the conductor, made of thermosetting semiconductor material.

3. Insulation

High module ethylene propylene rubber (HEPR), in dry atmosphere catenary tube, through a triple layer extrusion process. Lead-Free version available on request.

4. External semiconductor

Screen over the insulation, made of thermosetting and strippable semiconductor material.

4. Metallic screen

Screen of copper wires and copper tape, with a minimum cross-section of 16m².

5. Separator

Polyester tape completely covering the screen to facilitate the stripping of the outer sheath. Optionally, substituted by hygroscopic tape (cables with longitudinal sealing, type -OL and -2OL)

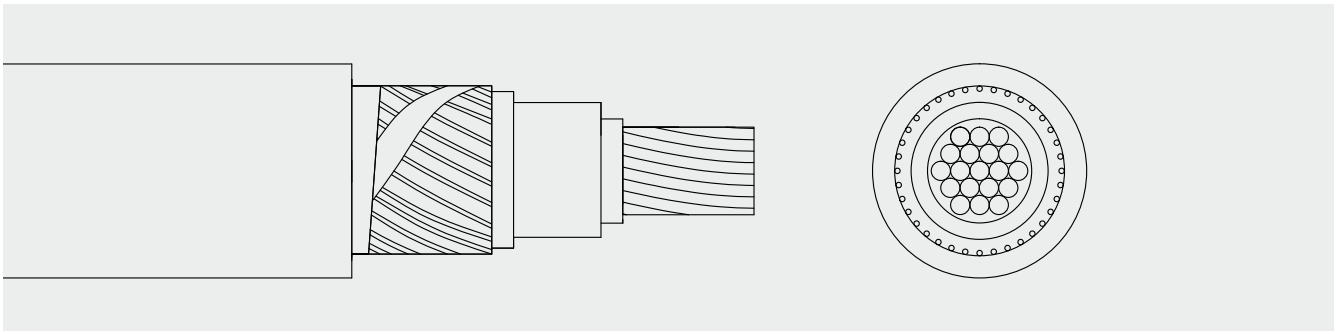
6. External sheath

External sheath of halogen-free polyolefin, red colour.

APPLICATIONS

Medium Voltage aluminium or copper cable for the transmission and distribution of electricity. Halogen free.





CHARACTERISTICS



Electrical performance

MEDIUM VOLTAGE
6/10 kV, 8,7/15 kV, 12/20 kV, 15/25 kV, 18/30 kV, 19/33 kV,
20/35 kV and 26/45 kV.



Standard

UNE-HD 620-9E (type 9E-1).

Approvals
AENOR



Thermal performance

Maximum service temperature: 105°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -15°C



Fire performance

Halogen free: based on UNE-EN 50267.



Mechanical performance

Minimum bending radius: x15 cable diameter.
Abrasion resistant.
Tear resistant.



Chemical performance

UV Resistant: UNE 211605.



Installation conditions

Open Air.
Buried.
In conduit.



Applications

Distribution networks.



Other

Meter by meter marking.



POWERFLEX RV-K

Industrial flexible cable for power transmission.

IEC 60502-1 - UNE 21123-2

DESIGN

1. Conductor

Electrolytic copper, class 5 (flexible), based on EN 60228 and IEC 60228.

2. Insulation

Cross-linked polyethylene (XLPE)

The standard identification of insulated conductors is the following:

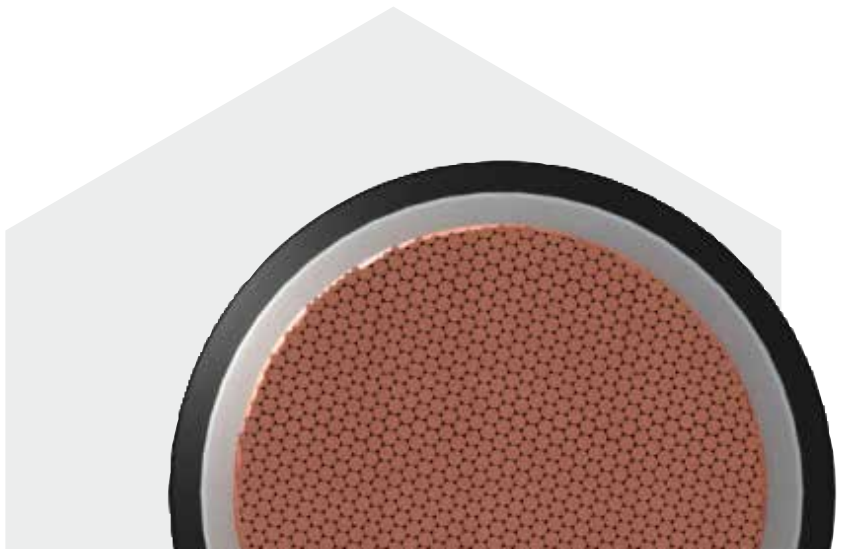
1 x	Natural
2 x	Blue + Brown
3 G	Blue + Brown + Green/yellow
3 x	Brown + Black + Grey
3 x + 1 x	Brown + Black + Grey + Blue (reduced cross-section)
4 G	Brown + Black + Grey + Green/yellow
4 x	Brown + Black + Grey + Blue
5 G	Brown + Black + Grey + Blue + Green/yellow

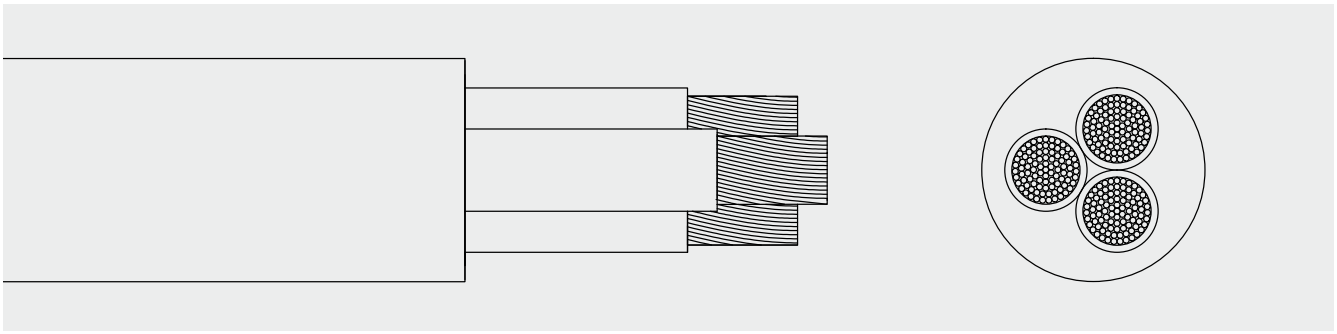
3. Outer sheath

Flexible PVC, black colour.

APPLICATIONS

Powerflex RV-K cable is suitable for all types of low voltage industrial-type connections. Its high flexibility makes the installation process substantially easier and, as a result, is particularly suitable for use in difficult layouts. It can be buried or installed in a tube as well as outdoors without requiring additional protection. This cable can withstand damp conditions including total immersion in water (AD7). This cable is used for auxiliary services as for example security system, monitoring system, tracking system power supply.





CHARACTERISTICS



Electrical performance

LOW VOLTAGE 0,6/1kV



Standard

IEC 60502-1 - UNE 21123-2



Approvals

CE
SEC
BUREAU VERITAS
AENOR
SASO
RoHS



Thermal performance

Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations).



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.
Reduced emission of halogens. Chlorine <15%.



Mechanical performance

Minimum bending radius: x5 cable diameter.
Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Good.
UV Resistant: UNE 211605.



Water performance

Water resistance: AD7 Immersion



Other

Meter by meter marking.



Installation conditions

Open Air.
Buried.
In conduit.



Applications

Solar PV installations - Auxiliary services.



Packaging

Available in rolls (lengths of 100 m) and drums.



See more technical data on the particular cable specification.
For more information: sales@topcable.com

TOXFREE ZH RZ1-K (AS)

Flexible and halogen free (LSZH) power cable for public places.

IEC 60502-1 / UNE 21123-4

DESIGN

1. Conductor

Electrolytic copper, class 5 (flexible), based on EN 60228 and IEC 60228.

2. Insulation

Cross-linked polyethylene (XLPE)

The standard identification of insulated conductors is the following:

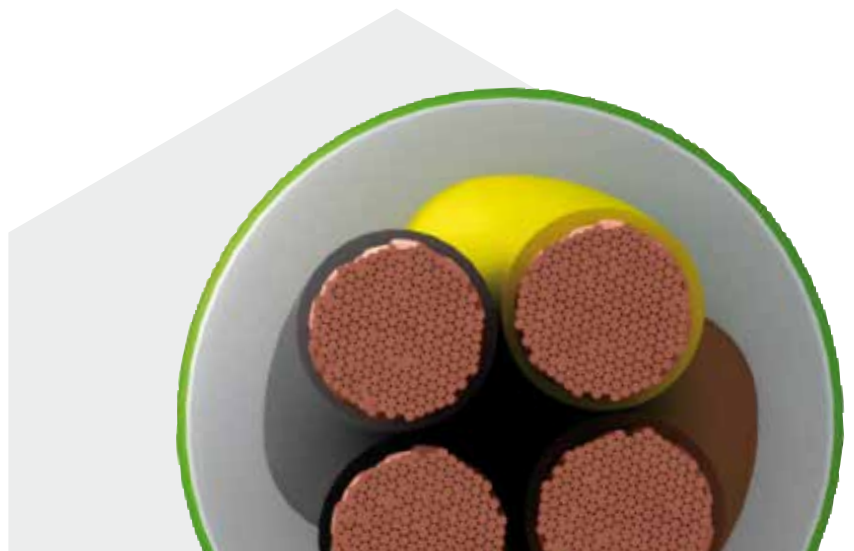
1 x	Natural
2 x	Blue + Brown
3 G	Blue + Brown + Yellow/green
3 x	Brown + Black + Grey
3 x + 1 x	Brown + Black + Grey + Blue (reduced cross section)
4 G	Brown + Black + Grey + Green/yellow
4 x	Brown + Black + Grey + Blue
5 G	Brown + Black + Grey + Blue + Green/yellow
6 G or more conductors:	Black numbered + Green/yellow

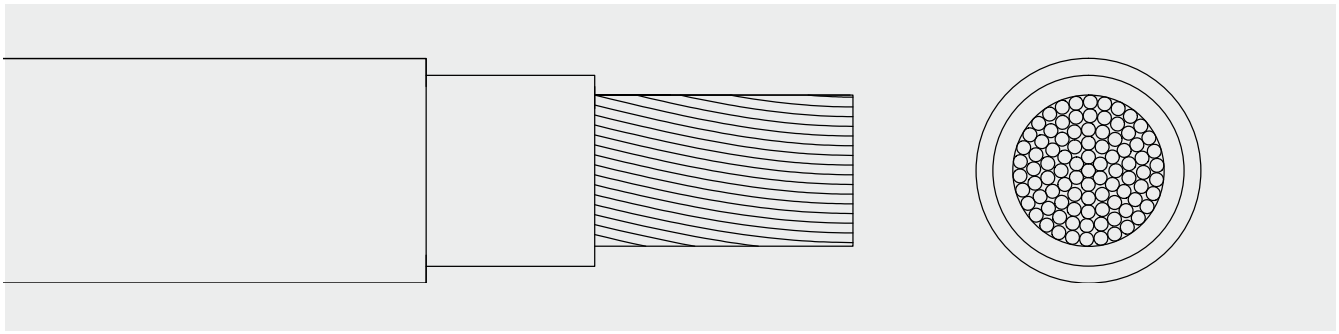
3. Outer sheath

Low Smoke Zero Halogen (LSZH) polyolefin. Green colour, non-toxic and fire retardant.

APPLICATIONS

Toxfree RZ1-K is a LSZH safety cable. In the event of fire, it does not emit toxic gases, nor does it give off corrosive gases, avoiding any possible damage to people or electronic equipment. This cable is used for auxiliary services as for example security system, monitoring system, tracking system power supply.





CHARACTERISTICS



Electrical performance

LOW VOLTAGE 0,6/1kV



Standard

IEC 60502-1 / UNE 21123-4



Approvals

CE
SEC
AENOR
SASO
RoHS



Thermal performance

Maximum service temperature: 90°C.
Maximum short-circuit temperature: 250°C (max. 5 s).
Minimum service temperature: -40°C (fixed and protected installations).



Fire performance

Flame non-propagation based on UNE-EN 60332-1 and IEC 60332-1.
Fire non-propagation based on UNE-EN 60332-3 and IEC 60332-3.
LSZH (Low Smoke Zero Halogen) based on UNE-EN 60754-1 and IEC 60754-1.
Low smoke emission based on UNE-EN 61034 and IEC 61034: Light transmittance > 60%
Low corrosive gases emission based on UNE-EN 60754-2 and IEC 60754-2.



Mechanical performance

Minimum bending radius: x5 cable diameter.
Impact resistance: AG2 Medium severity.



Chemical performance

Chemical & Oil resistance: Acceptable.
UV Resistant: UNE 211605.



Water performance

Water resistance: AD5 Jets.



Other

Meter by meter marking.



Installation conditions

Open Air.
Buried.
In conduit.



Applications

Solar PV installations - Auxiliary services.



Packaging

Available in rolls (lengths of 100 m) and drums.



See more technical data on the particular cable specification.
For more information: sales@topcable.com



TOPFLEX MS TRI-RATED

Internal wiring of electrical cabinets. (UL, CSA, BS, UNE...)

EN 50525-2-31 / UL 758 / CSA C22.2 / BS 6231

DESIGN

1. Conductor

Electrolytic copper, class 5 (flexible), based on EN60228 / IEC 60228 and BS 6360.

2. Insulation

Flexible PVC, extra sliding, high service temperature type T13 according to UNE 21031/ HD 21 and Class 43 UL 1581.

The standard identification of insulated conductors is the following:

Blue	RAL 5012
Brown	RAL 8003
Black	RAL 9005
Red	RAL 3000
Green/yellow	RAL 1021 / RAL 6018
Grey	RAL 7000
Dark Blue	RAL 5003
White	RAL 9010
Orange	RAL 2003
Violet	RAL 4005
Pink	RAL 3015

Other colours available on request



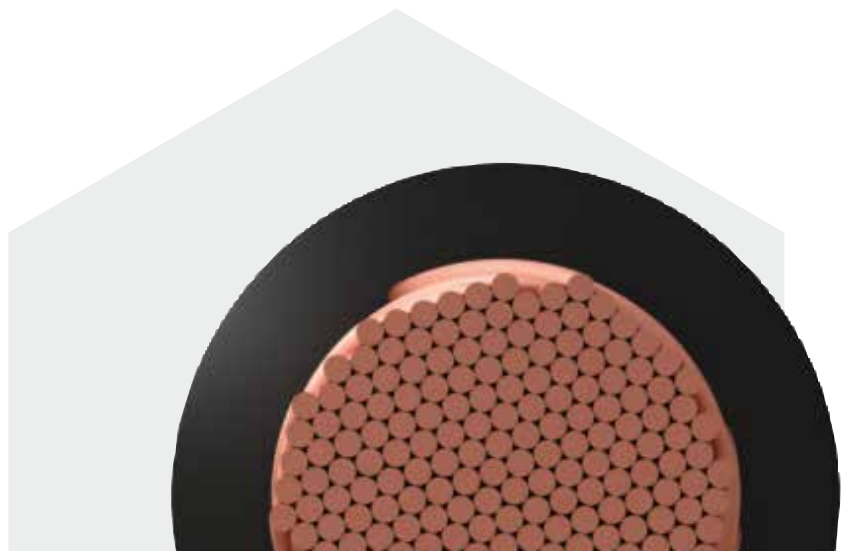
APPLICATIONS

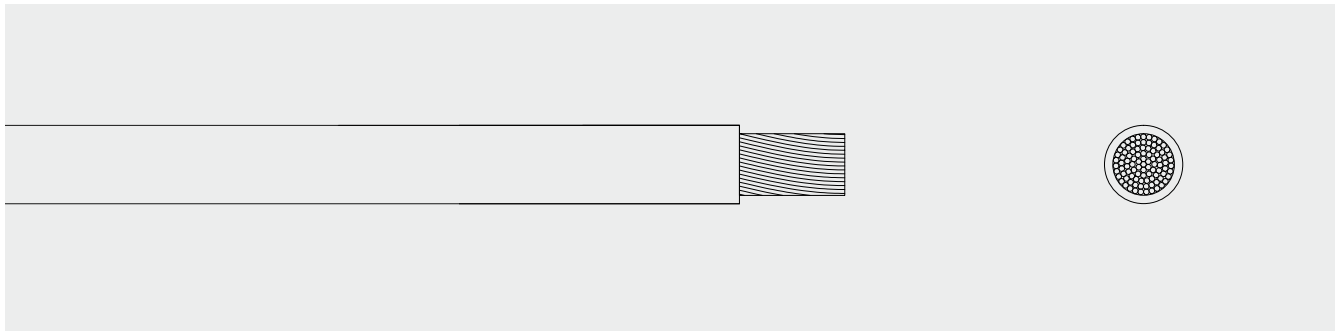
Topflex Tri-rated cable has been designed for the internal wiring of electrical cabinets, switch boards and small electrical devices. Due to its manufacturing characteristics, it can be used in conduit or in flexible motor ducts, transformers and other machinery in general.

TOP CABLE TOPFLEX MS TRIRATED H07V2-K

1

2





CHARACTERISTICS



Electrical performance

LOW VOLTAGE
 H05V2-K 300/500 V · H07V2-K 450/750 V ·
 CK 600/1000 V · UL 600V"



Standard

EN 50525-2-31 / UL 758 / CSA C22.2 / BS 6231



Approvals

CE
 CSA
 UL LISTED
 RoHS



Thermal performance

Maximum service temperature: 90°C s/HD and BS,
 105°C s/UL and CSA.
 Maximum short-circuit temperature: 160°C (max. 5 s).
 Minimum service temperature: -40°C (fixed and
 protected installations)



Fire performance

Flame non-propagation based on UNE-EN 60332-1
 and IEC 60332-1.



Mechanical performance

Minimum bending radius: x5 cable diameter.



Chemical performance

Chemical & Oil resistance: Acceptable.



Water performance

Water resistance: AD3 Sprays



Other

Meter by meter marking (from 10 mm² onwards).



Installation conditions

In conduit.



Applications

Electrical panel wiring.
 Industrial use.



Packaging

These cables are supplied in 100 m reels, barrels or
 bulk drums (see table below).

CROSS SECTION PACKAGING

0,50-6 mm² 100 m reels (or barrels upon request)
 10-16 mm² 100 m reels or bulk drums
 25 mm² onwards bulk drums



See more technical data on the particular cable specification.
 For more information: sales@topcable.com

TOP CABLE

One of the leading brands in the
manufacture of electric cables.



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