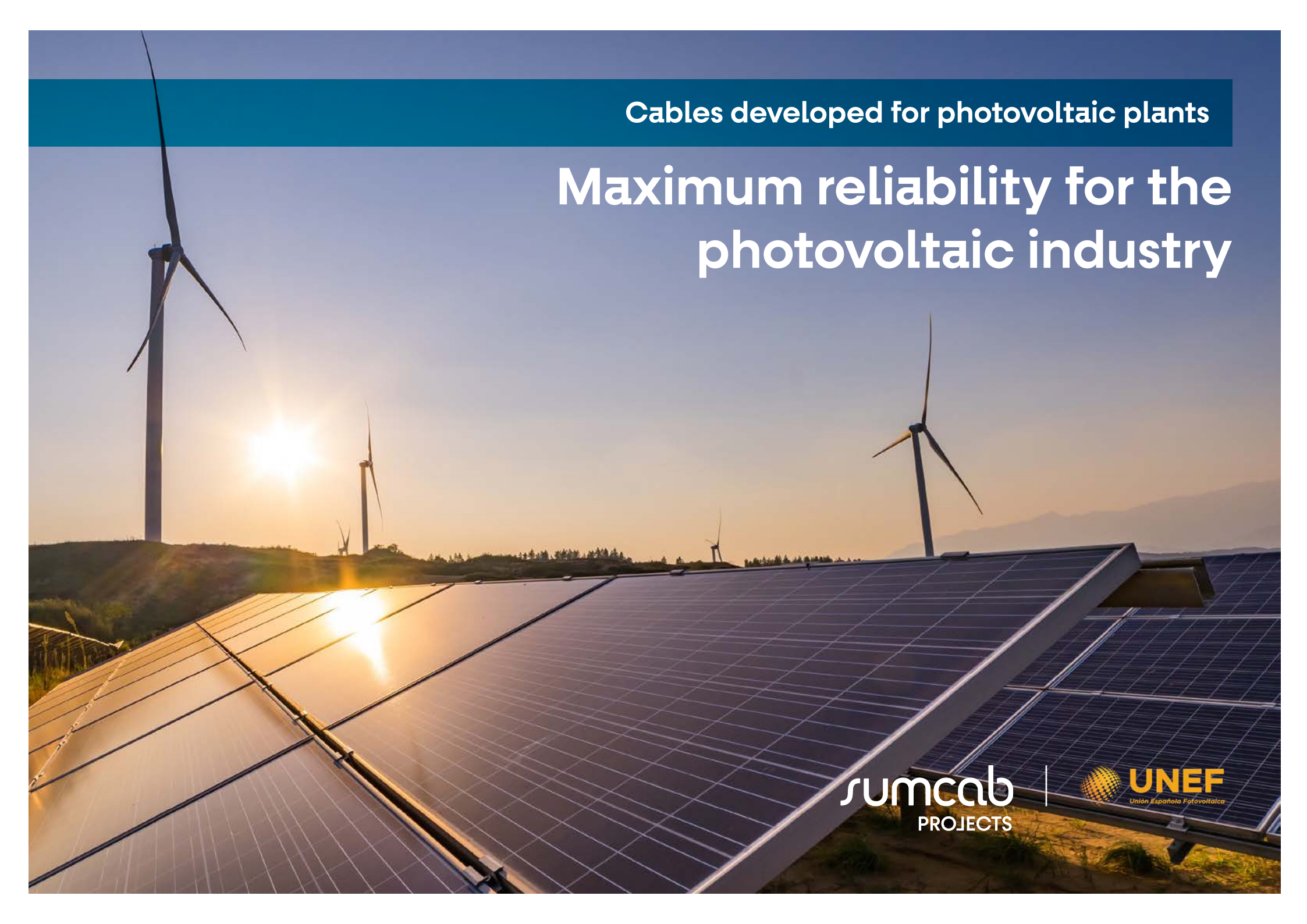




Cables developed for photovoltaic plants

# Maximum reliability for the photovoltaic industry

sumcab  
PROJECTS

 **UNEFA**  
Unión Española Fotovoltaica

# sumcab

## Expect High Performance

**Sumcab Specialcable Group**, is a global group that designs, manufactures and supplies the highest quality specialty cables. We offer solutions for the most diverse national and international markets. **We accompany our clients from project engineering to project execution.**

The company is recognized as a **world leader in cable manufacturing** in a **global environment** that demands a **quality product at a competitive price.**

sumcab  
INDUSTRY



### Iberian Market Solutions

Personalized attention with the main objective of finding **the most complete solution and the one that meets the most rigorous requirements.**

**230**  
Employees

**+7.000**  
Tailor-made  
Solutions

sumcab  
PROJECTS



### Project & Export Management Center

Working together with client to develop the **complete solution for your project or export.**

**+25**  
Years of History

**+50**  
Countries with  
projects realized

sumcab  
ROBOTICS



### Robotics

Solutions oriented to satisfy the demand of the demanding Robotics Industry. **From the analysis and development of the product to its implementation.**

**120M€**  
Turnover

**+100**  
Product  
Certifications



## Production centers

Sumcab cables reduce costs throughout the entire life cycle of the installation because they are tailored to customer requirements and application demands.

Research and development is one of the pillars of our growth. Our technological innovation guarantees the development of new materials, manufacturing processes and products, providing us with differential value in the market.

The result is a high increase in durability and a decrease in incidents.



## Reasons that support us

We always put our client at the center of our activity to offer the best service.



### QUALITY

Experience in **international markets**

Great knowledge of **construction regulations**



### EXPERIENCE

Technical team **specialized in projects**

Great flexibility and **adaptability** to your project

Global list of **references by markets**



### COMMITMENT

High **quality standards**

**Manufacturing adapted** to your needs

**Global project support**



### WARRANTY

Packaging, marking and personalized labeling

## PMC Center of excellence



### ENGINEERING

Product and project engineering, technical advice and quality.



### DOCUMENTATION AND LOGISTICS

Administrative support, planning and coordination.



### EXPORT

Advice on trade and support to delegations.



### MANAGEMENT CONTROL

Information gathering, analysis and decision-making. Development and training.

# We have the cable that best suits your needs



**Low Voltaje  
Cables**



**Instrumentation & Control  
Cables**



**Medium and High Voltage  
Cables**



**Communication Cables**



**Thermocouple  
Cables**



**Industrial Automation  
Cables**



**Flexible application  
Cables**



**Special applications  
Cables**



**Hybrid  
Cables**



**Custom designs  
Cables**



# Icons

---



Oil & hidrocarbon  
resistant



Ozone resistant



High durability



Flame retardant



Halogen free



Low smoke



Chemical agents  
resistance



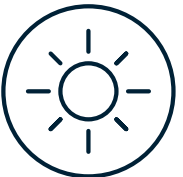
Water resistant



AD8  
Water resistant



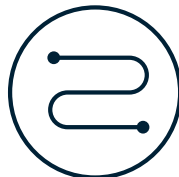
Low temperature  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



Euroclass CPR



Euroclass CPR



Fire retardant

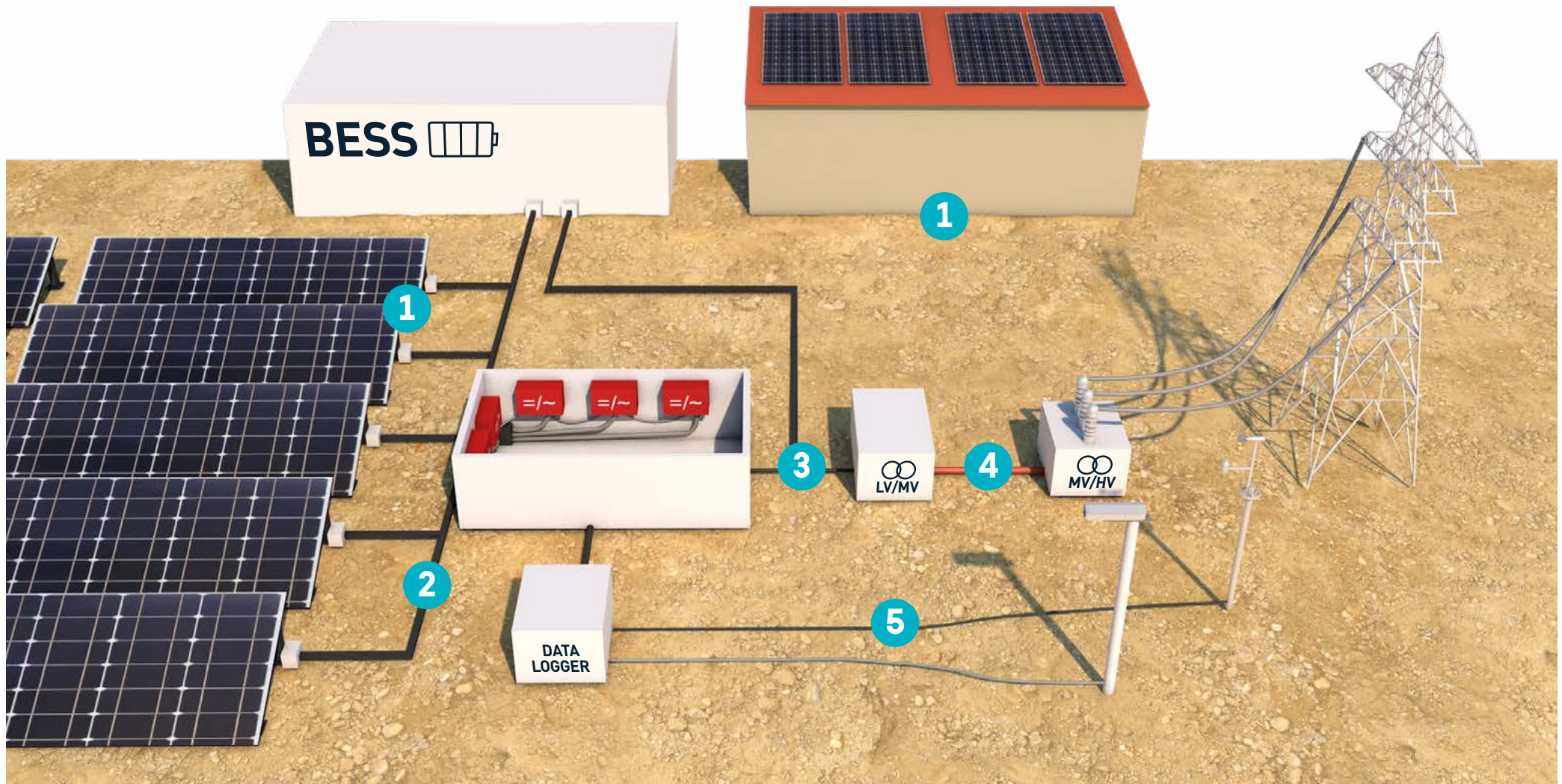


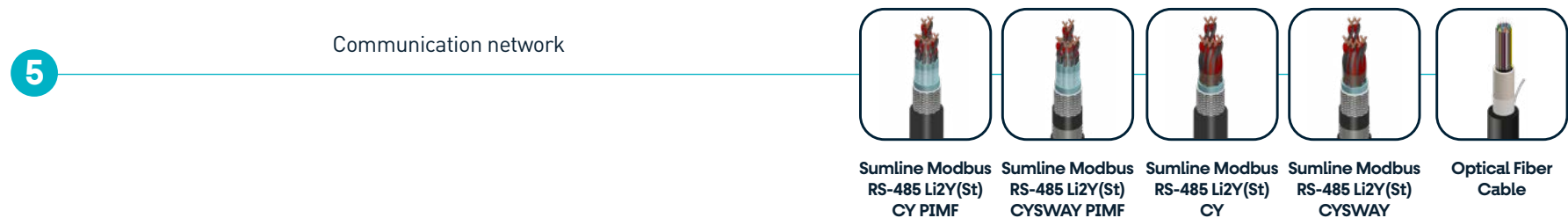
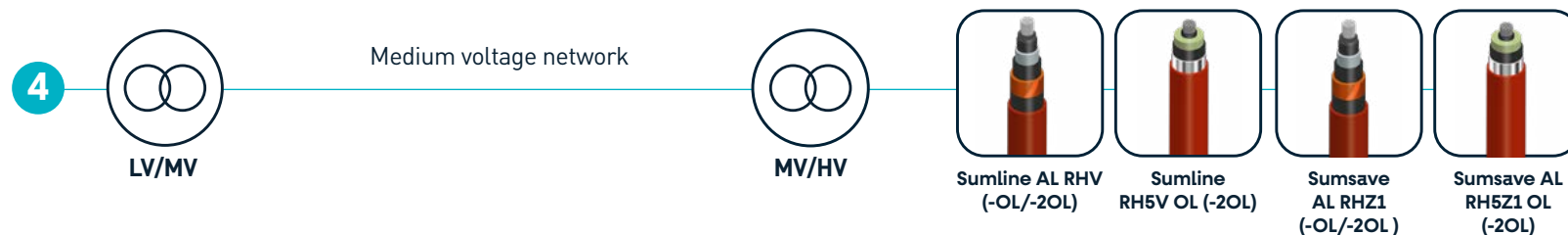
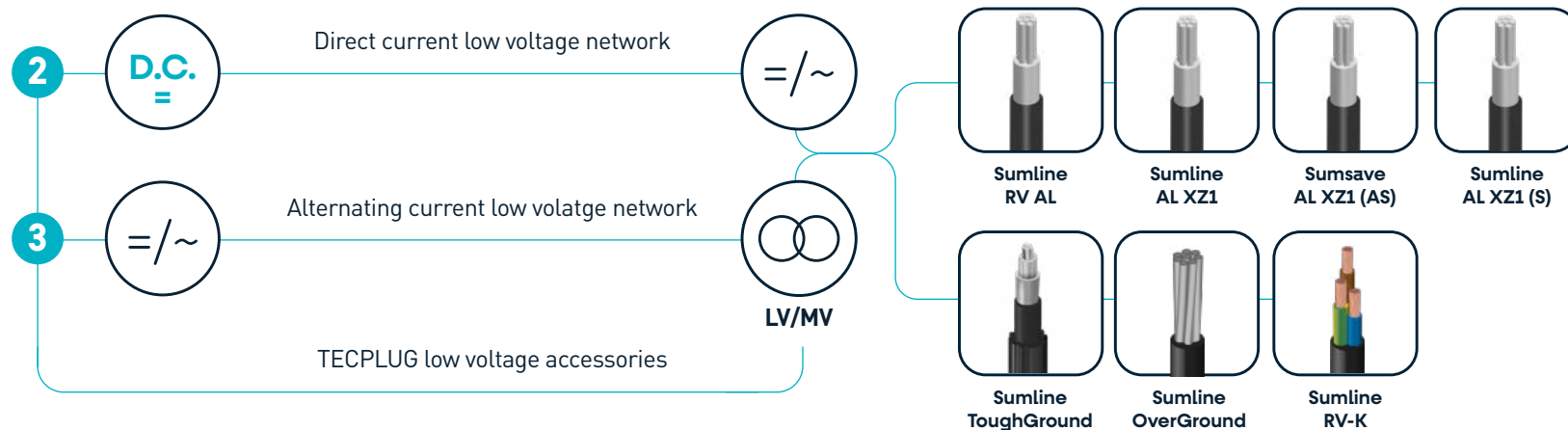
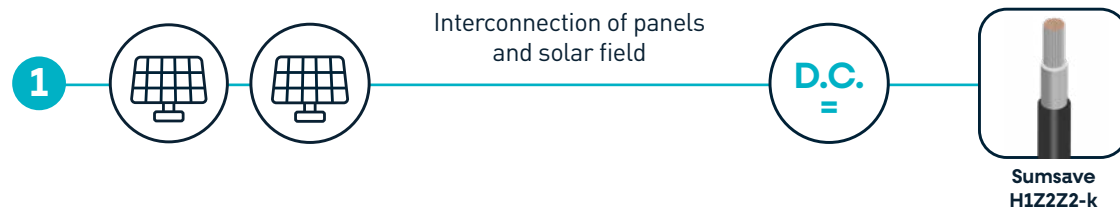
Communication



# Photovoltaic solar plants

SUMCAB cables for the photovoltaic market have been developed and manufactured, complying with the most rigorous quality standards, in order to withstand the most demanding environmental conditions.





# Sumsave® H1Z2Z2-K

(DC)1,5/1,5kV (1,8 kV)



## Special properties

Construction EN 50618 standard

TÜV approved and certified

Water Resistant AD8 acc. EN 50525 annex D & E

Range: 4 – 25 mm<sup>2</sup>

## Technical data

**Operating voltages U<sub>0</sub>/U(U<sub>max</sub>):**

1/1 kV (AC), 1,5/1,5 kV (DC)

1,2 kV (AC), 1,8 kV (DC)



Oil & hydrocarbon resistant



Ozone resistant



High durability



Flame retardant



Halogen free



Low smoke



Chemical agents resistance



Water resistant



AD8 Water Resistant



Low temperature resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite protection



Euroclass CPR



Euroclass CPR

Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.



# Sumline® RV AL

**1.8/3 (3,6) kV A.C.**

## Special properties

Construction IEC 60502-1

Range: Up to 1000 mm<sup>2</sup>



Fire retardant



Flame retardant



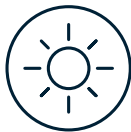
Water resistant



AD8  
Water Resistant



Low temperature  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



Euroclass CPR



## Technical data

**Operating voltages U<sub>0</sub>/U(U<sub>max</sub>):**

1,8/3 (3,6) kV (AC)

1,5/1,5 (1,8) kV (DC)

Easy to install with a very low weight.

Easy removal of the outer sheath.

Excellent for outdoor installation.

Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.

# Sumline® AL XZ1

**1,8/3 (3,6) kV A.C.**

## Special properties

Construction IEC 60502-1  
UNE HD 603-5x (0,6/1kV)  
Range up to 1000 mm<sup>2</sup>



Halogen free



Chemical agents  
resistance



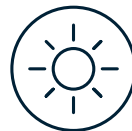
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



## Technical data

**Operating voltages U<sub>0</sub>/U(U<sub>MAX</sub>):**

1.8/3 (3.6) kV (AC)

1.5/1.5 (1.8) (DC)

Easy to install with a very low weight.

Easy removal of the outer sheath.

Low smoke and halogen free for  
outdoor installation

Image shown is not to scale and may not necessarily  
be an accurate reproduction of the cable design.

# Sumline® AL XZ1 (S)

**1.8/3 (3,6) A.C.**

## Special properties

Construction IEC 60502-1  
UNE-HD-6032-5x (0.6/1 kV)  
Range: Up to 1000 mm<sup>2</sup>



Flame retardant



Halogen free



Low smoke



Chemical agents  
resistance



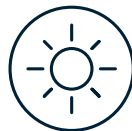
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



Euroclass CPR



## Technical data

### Operating voltages U<sub>0</sub>/U(U<sub>MAX</sub>):

1.8/3 (3.6) kV (AC)

1.5/1.5 (1.8) (DC)

Easy to install with a very low weight.

Easy removal of the outer sheath.

Low smoke and halogen free for  
outdoor installation.

Image shown is not to scale and may not necessarily  
be an accurate reproduction of the cable design.

# Sumsave<sup>®</sup> AL XZ1 (AS)

**1.8/3 (3,6) A.C.**

## Special properties

Construction IEC 60502-1  
UNE HD 603-5x (0,6/1kV)  
Range up to 1000 mm<sup>2</sup>

## Technical data

**Operating voltages U<sub>0</sub>/U(U<sub>MAX</sub>):**

1.8/3 (3.6) kV (AC)

1.5/1.5 (1.8) (DC)



Fire retardant



Flame retardant



Halogen free



Low smoke



Chemical agents  
resistance



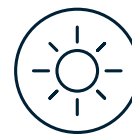
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



Euroclass CPR

Easy to install with a very low weight.

Easy removal of the outer sheath.

Low smoke and halogen free for  
indoor installation.

Image shown is not to scale and may not necessarily  
be an accurate reproduction of the cable design.



# Sumline® ToughGround

1,8/3 kV A.C.

## Special properties

Construction IEC 60502-1

Up to 1000 mm²



Flame retardant



Halogen free



Low smoke



Chemical agents  
resistance



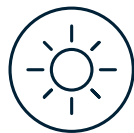
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



Euroclass CPR



## Technical data

Operating voltages  $U_0/U(U_{MAX})$ :

1,8/3 (3,6) kV (AC)

1,5/1,5 (1,8) kV (DC)

Easy to install with a very low weight.

Easy removal of the outer sheath.

Low smoke and halogen free for  
indoor installation.

Excellent Impact Protection. Impact  
test according to UNE 211620: annex  
3 with impact energy of 35 joules.

Possibility of installation, without  
preparation or treatment of the land.

Direct Buired.

Maxiunun Warranty.



Maximum  
Protection

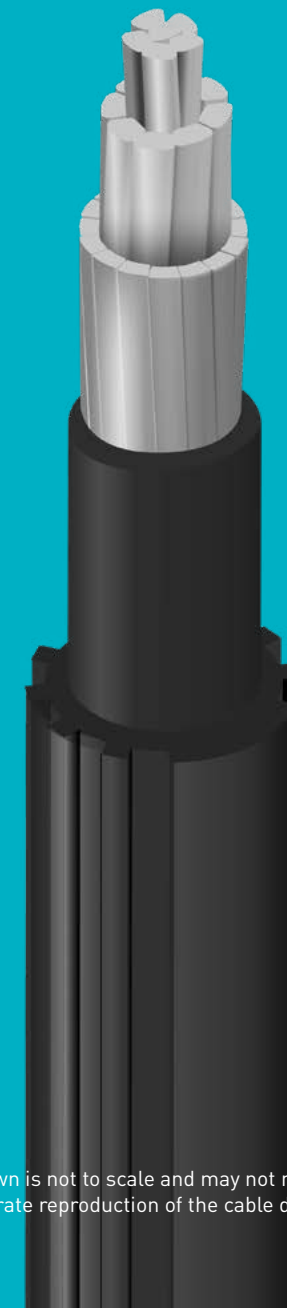


Image shown is not to scale and may not necessarily  
be an accurate reproduction of the cable design.

 Maximum  
UV Protection

 New UV+  
System

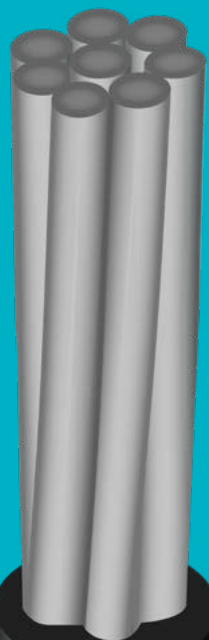


Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.

# Sumline® OverGround

**1,8/3 (3,6) kV A.C.**

## Special properties

Construction IEC 60502-1

Range Up to 1000 mm<sup>2</sup>



Flame retardant



Halogen free



Chemical agents  
resistance



Water resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



Euroclass CPR



## Technical data

**Operating voltages U<sub>0</sub>/U(U<sub>MAX</sub>):**

1,8/3 (3,6) kV (AC)

1,5/1,5 (1,8) kV (DC)

Easy to install with a very low weight.

Easy removal of the outer sheath.

UV+

Aerial installation.

# Sumflex<sup>®</sup> RV-K

**0,6/1 (1,2) kV A.C.**

## Special properties

Construction IEC 60502-1

Auxiliary Services BESS applications



Fire retardant



Flame retardant



Water resistant



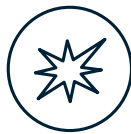
AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



High flexibility



Rodent & termite  
protection



Euroclass CPR



## Technical data

**Operating voltages  $U_0/U(U_{MAX})$ :**

0,6/1 (1,2) kV (AC)

Easy removal of the outer sheath.

Excellent for outdoor installation.



Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.

Sumsave®

# AL RHV (-OL /-2OL)



18/30 (36)kV

## Special properties

Construction acc. IEC 60502-2/ BS6622/HD 620

Range: Cross-sections up to 1000 mm<sup>2</sup>



Fire retardant



Flame retardant



Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



Rodent & termite  
protection



Euroclass CPR

## Technical data

**Operating voltages  $U_0/U(U_{MAX})$ :**

6/10 (12)kV, 8,7/15 (17,5)kV

12/20 (24)kV, 18/30 (36)kV

19/33 (36)kV, 20,8/36 (42)kV

Cable for Medium Voltage outdoor installations.

Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.

# Sumline® RH5V OL (-2OL)



**18/30 (36)kV**

## Special properties

Construction acc. IEC 60502-2/ BS6622/HD 620

Range: Cross-sections up to 1000 mm<sup>2</sup>



Fire retardant



Flame retardant



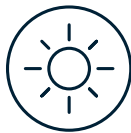
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



Rodent & termite  
protection



Euroclass CPR

## Technical data

### Operating voltages U<sub>0</sub>/U(U<sub>MAX</sub>):

6/10 (12)kV, 8,7/15 (17,5)kV

12/20 (24)kV, 18/30 (36)kV

19/33 (36)kV, 20,8/36 (42)kV

Cable for Medium Voltage outdoor  
installations.



Image shown is not to scale and may not necessarily  
be an accurate reproduction of the cable design.

# Sumsave® AL RHZ1 (-OL/-2OL)



18/30 (36)kV

## Special properties

Construction acc. IEC 60502-2/ BS6622/HD 620

Range: Cross-sections up to 1000 mm²

## Technical data

**Operating voltages  $U_0/U(U_{MAX})$ :**

6/10 (12)kV, 8,7/15 (17,5)kV,  
12/20 (24)kV, 18/30 (36)kV,  
19/33 (36)kV, 20,8/36 (42)kV



Fire retardant



Flame retardant



Halogen free



Low smoke



Chemical agents  
resistance



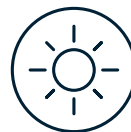
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



Rodent & termite  
protection



Euroclass CPR

Cable for Medium Voltage outdoor installations.

Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.



# Sumsave® AL RH5Z1 OL (-2OL)

18/30 (36)kV



## Special properties

Construction acc. IEC 60502-2/ BS6622/HD 620  
Range: Cross-sections up to 1000 mm²



## Technical data

### Operating voltages $U_0/U(U_{MAX})$ :

6/10 (12)kV, 8,7/15 (17,5)kV  
12/20 (24)kV, 18/30 (36)kV  
19/33 (36)kV, 20,8/36 (42)kV

Cable for Medium Voltage indoor installations



Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.



# Sumline® Modbus RS-485 Li2Y(St)CY

PIMF 300V/500V

## Special properties

Construction EN 50288-7

## Technical data

Operating voltages  $U_0/U(U_{MAX})$ :

300 V/500 V



Communication



Fire retardant



Flame retardant



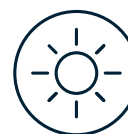
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



Rodent & termite  
protection



Euroclass CPR

Recommended cable for solar installations, in outdoor areas where you have to work with the RS-485 communication protocol, protecting the cable from electromagnetic interference.

Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.

# Sumline® Modbus RS-485 Li2Y(St)CYSWAY



**PIMF 300V/500V**

## Special properties

Construction EN 50288-7



Communication



Fire retardant



Flame retardant



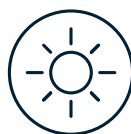
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



Rodent & termite  
protection



Euroclass CPR

## Technical data

**Operating voltages  $U_0/U_{MAX}$ :**

300 V/500 V

Armoured cable recommended for solar installations, in outdoor areas where it is necessary to work with the RS-485 communication protocol, protecting the cable from electromagnetic interference and mechanical.

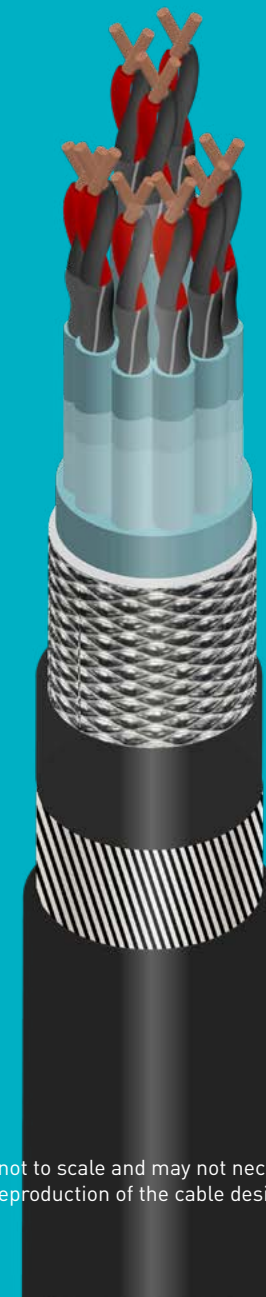


Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.



# Sumline® Modbus RS-485 Li2Y(St)CY

300V/500V

## Special properties

Construction EN 50288-7

## Technical data

Operating voltages  $U_0/U(U_{MAX})$ :

300 V/500 V



Fire retardant



Flame retardant



Halogen free



Low smoke



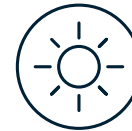
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



Rodent & termite  
protection



Euroclass CPR

Recommended cable for solar installations, in outdoor areas where you have to work with the RS-485 communication protocol, protecting the cable from electromagnetic interference.

Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.

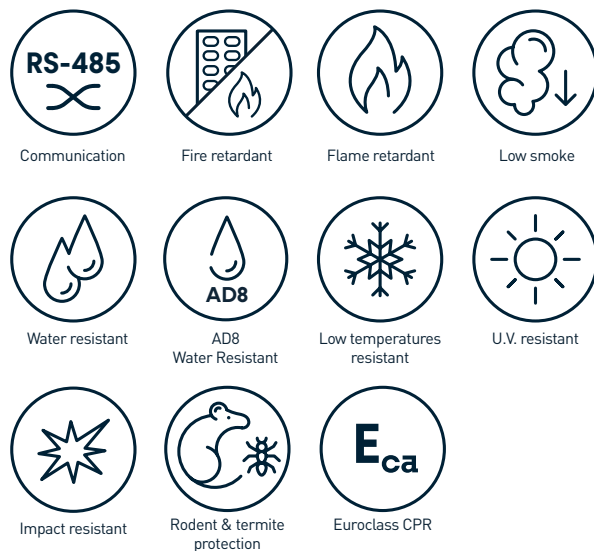
# Sumline® Modbus RS-485 Li2Y(St)CYSWAY



**300V/500V**

## Special properties

Construction EN 50288-7



## Technical data

**Operating voltages  $U_0/U(U_{MAX})$ :**

300 V/500 V

Armoured cable recommended for solar installations, in outdoor areas where it is necessary to work with the RS-485 communication protocol, protecting the cable from electromagnetic interference and mechanical.

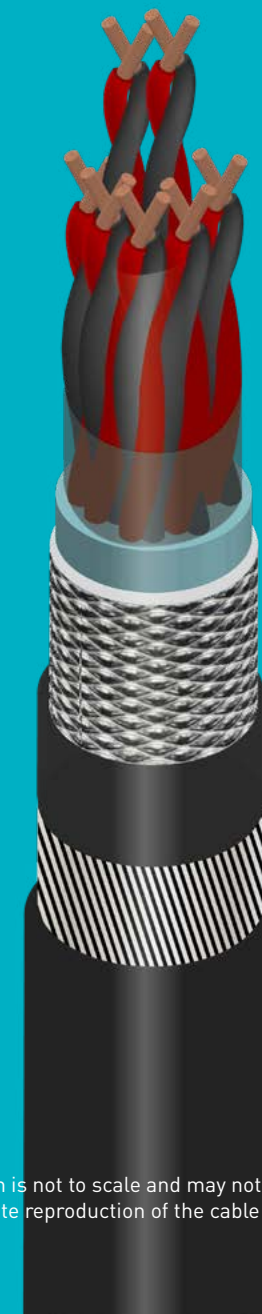


Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.



# Fibra Optica

## Sumfiber SM-SLT-NMA -SJ-(GY12) – 12 FO 24 FO

### Special properties

Construction IEC 60794



Fire retardant



Flame retardant



Low smoke



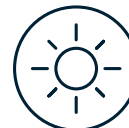
Water resistant



AD8  
Water Resistant



Low temperatures  
resistant



U.V. resistant



Impact resistant



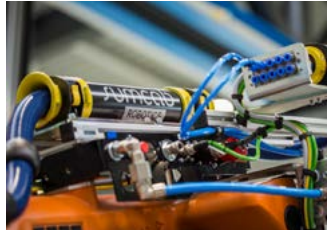
Rodent & termite  
protection

### Technical data

Recommended cable for solar installations, inner or outdoor networking applications. Provide superior speed and bandwidth in data transmission.

Fast and easy application.

Image shown is not to scale and may not necessarily be an accurate reproduction of the cable design.



## Industrial Plants

Petrochemicals, refineries, steel mills, cement plants etc.

## Industrial Automation

Automation plants, Pharma, Packaging, Food & Beverage.

## Energy Generation

Hydraulic Power Plants, Thermal industries, Combined Cycle, Substations, etc.

## Green Energy

Photovoltaic plants, Wind, Thermal Solar, Hybrid, Biomass, Hydrogen stations, etc.

### Refinery Ojsc Naftan

Republic Belarus  
(Oil & Gas)

### Desalation Plant

"Al Zawrah" UAE

### Mineral Plant

"Cerro Negro Norte" Chile

### Logistic center Automation Inditex

Spain

### Daimler

Sumoflex® & MtpreelTM  
Sistems Implementation  
Germany

### Ford

New Production Lines CMH  
Kempster Ford Pretoria

### Nuclear Fusion Project

ITER France (Energy)

### Hydraulic Power Plant Tamega

Portugal (Energy)

### Combined Cycle Power Gas

Plant "Cctg Parnaiba"  
Brasil

### Mohammed Bin Rashid

Al Maktoum Solar Park  
UAE (Solar)

### Biomasa Plant - Curtis

Spain (Renewable)

### Thermosolar Plant Noor

Morocco (Renewable)

# Markets in the World

During all these years of experience, at **SUMCAB Projects (PMC)** we have manufactured and supplied cables for a wide variety of projects in industrial markets, which has given us the recognition and trust of important international clients. Collaboration in situations of maximum demand has positioned us as a benchmark brand in guarantee and quality. At **PMC** we accompany you to find the right product, at the right time and in the right place

**Our goal:**  
**design, manufacture and**  
**supply the specific cable**  
**solutions for your project.**

sumcab | sumcab  
PROJECTS



# sumcab | sumcab PROJECTS

Expect High Performance

HEADQUARTER  
P.I. Pla de Llerona  
C/ Gran Bretanya, 29  
08520 Les Franqueses del Vallès,  
Barcelona

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F.: (+34) 93 462 79 80

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[pmc@sumcab.com](mailto:pmc@sumcab.com)

