# MULTI MEDIA SOLAR



## About Prysmian

Prysmian is a global cabling solutions provider leading the energy transition and digital transformation. By leveraging its wide geographical footprint and extensive product range, its track record of technological leadership and innovation, and a strong customer base, the company is well-positioned to capitalize on its leading positions and succeed in new, growing markets. Prysmian's business strategy aligns perfectly with key market drivers by developing resilient, high-performing, sustainable and innovative cable solutions in the segments of Transmission, Power Grid, Electrification and Digital Solutions segments. Listed on the Italian Stock Exchange, Prysmian is a public company with nearly 150 years of experience, approximately 30,000 employees, 108 plants, and 26 R&D centers in over 50 countries, with sales exceeding €15 billion in 2023.



## World-Leading Cable Solutions

The widest range of products, services, technologies and know-how.

The Group's activities are divided into four business divisions:



#### Transmission

Includes the Submarine Power and Land HVDC



#### **Power Grid**

Encompasses the HVAC business unit, Power Distribution and Overhead Lines



#### Electrification

Covers Industrial & Construction and Specialties



#### **Digital Solutions**

Includes the following business units: Fiber and Optical Cables, Connectivity, Multimedia & Inside Plant cables (MMS)

## **Digital Solutions**

Bridge The Digital Divide With Premium Data Solutions

#### Connecting Communities To A New World

The world is in the midst of a data explosion. Across the globe, people are sharing, purchasing, downloading, streaming, connecting and communicating in the digital sphere. Living and working digitally has become the new normal. For network operators, this means managing an exponential increase in bandwidth to meet the world's rising demand. At Prysmian, our Digital Solutions business unit is building modern networks that provide robust physical infrastructure, trusted IT security and long-term reliability.

#### Our commitment to the digital transformation

At Prysmian, our Digital Solutions are realizing the infrastructure of today and tomorrow, helping the world to meet its most pressing challenges. By pushing the boundaries of digitalization, we will seize the opportunities offered by this new market trend and lead the global digital transformation.

#### Digitalisation

Data networks must support the exponential demands of IoT, 5G, connected buildings, Industry 4.0 and more. Ensuring high-speed connectivity in the core network, within data centres or at the network edge.

#### Network congestion

As global demand for speed increases, our networks are becoming increasingly congested.

#### Fast-paced, competitive markets

Our customers often work in markets that shift rapidly, and need to set themselves apart from the competition.

#### **Energy transition**

The demand for cleaner, more sustainable energy sources and telecom networks is growing. Fiber networks stand out as one of the most environmentally friendly technologies.

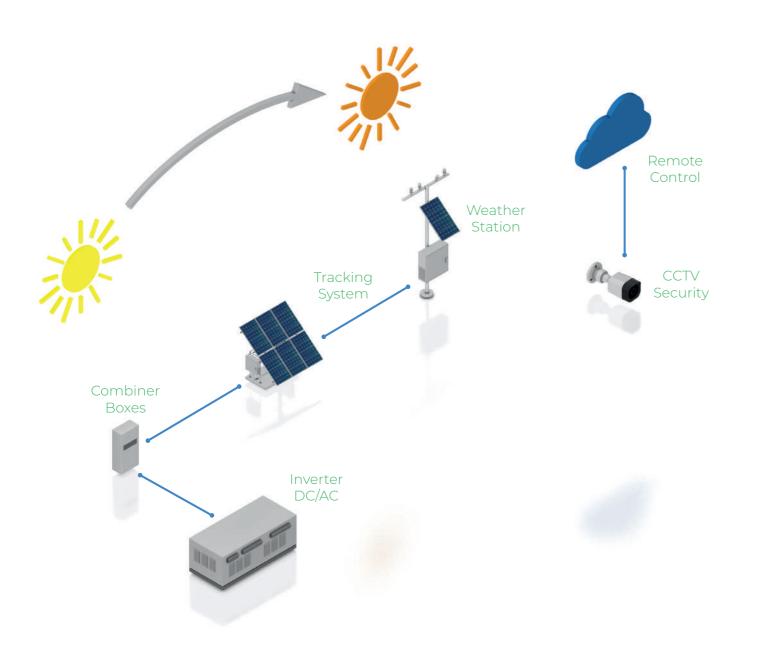
## Communicating under the Sun

Our medium and low voltage cables are already present in numerous projects and photovoltaic (PV) solar power parks (SPP) with Voltenax, Prysun and PrySolar cables. In addition to energy transmission, PV parks require efficient communication between strings of panels and connections to their equipment for effective automation and monitoring.

#### That 's where Multimedia Solutions (MMS) enters to complete a full Prysmian package to you!

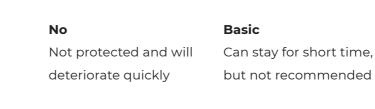
There are many applications where we communicate on PV parks:

- Tracking systems, increasing the efficiency of panels that can follow the sun position
- Wheather stations, bringing info about rain, wind, and commanding panels to safe position
- Combiner boxes, sending alarms, voltage and current levels, etc
- CCTV, credential reading, access control and other security systems



## Symbols in this catalog

Here you will find some symbols to help identifying the suitability of cable models to environment stresses. They are ranked in 4 categories, from less to most suitable as below:



Fire Protection

Most solar models are suitable for outdoor use with some models featuring flame-retardant compounds compliant with IEC 60332-1 and optionally 60332-3-24.

Sunlight



Water Contact

Mechanical Strength

Mechanical Strength

Cables with PE jackets are excellent for sunlight exposure, as they contain an appropriate amount of carbon black to prevent aging. Some flame-retardant models offer a certain level of UV protection, ranging from 168 hours to 4000 hours in accelerated aging tests. For higher exposure, we recommend using black sheaths to ensure maximum durability.

Radial or longitudinal water protection can be provided to prevent moisture ingress in case the jacket is damaged during installation.

Our PE-jacketed cables offer excellent resistance to abrasion, torsion, and extreme temperatures (both negative and positive). For higher mechanical stress, we recommend using SWB versions of the cable and super flexible conductors, such as Class 5. While our models are not gas/vapor tight, they can be used with proper sealing elements and connectors according to IEC 60079-14 standards (continuous jacket per UL1277).

We offer models that can be directly buried in the ground and trenches, providing strong protection against moisture. Additionally, we have models designed to resist biological attacks, such as termites and rodents, featuring a PA protection layer or corrugated steel tape (CST).

**Good** Suitable for most cases, good lifespan Super Excellent protection and great lifespan, support severe cases

## Copper Cables

Our Supercat portfolio includes cables with a special cream compound to prevent water ingress, combined with a PE outer jacket that offers excellent resistance for outdoor applications, including direct sunlight, rain, and abrasion.

Good

No

Supe

Supe

Good

No

#### Supercat ALPE F/UTP



Feature	Description			
Conductor	Solid AWG23/1			
Insulation	PE, Ø 1.1mm			
Layup	4 pairs + separator + waterblock cream			
Protection	AL tape min 0.15mm thick + drain wire			
Jacket	PE Ø 10.5mm			
Part no.	60016065			
Super Basic	c Super Super Super No			





#### SuperCAT 7 S/FTP



Feature	Description
Conductor	Solid AWG23/1
Insulation	Foam Skin PE, Ø 1.45mm
Screen	Individual + Overall (braid)
Layup	4 pairs+ waterblock cream filling
Jacket	LSHF, Ø 8.5mm
Part no.	60014810
Basic No	Super Super Good 60332-1

For a lighter outdoor alternative to the Supercat range, we offer the UC line with a PE (polyethylene) outer jacket. While these cables don't provide water-blocking features, the jacket is resistant to direct rain exposure (but not suitable for flooding). The GreenConnect portfolio is designed with sustainability in mind, utilizing recycled materials and a reduced carbon footprint.

#### UC900 C7 PE S/FTP



Feature	Description
Conductor	Solid AWG23/1
Insulation	PE, Ø 1.4mm
Layup	4 screened pairs + braid
Jacket	PE Ø 8.5mm
Part no.	60011278



#### GreenConnect C7 PE S/FTP

Ċ

Basic

No



Feature	Description
Conductor	Solid AWG23/1, recycled copper
Insulation	Foam Skin PE
Screen	Individual + Overall (braid)
Jacket	Recycled + Virgin PE, Ø 8.4mm
Part no.	60111920

Good

UV

Supe

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No

Good

## Copper Cables

GreenConnect C6A PE S/FTP				
1				
Feature	Description			
Conductor	Solid AWG23/1, recycled copper			
Insulation	PE, Ø 1.35mm			
Protection	Screened pairs (2+2) + drain wire			
Layup 4 pairs + waterblock cream filling				
Jacket	Recycled + Virgin PE, Ø 7.0mm			
Part no.	60111891			
Basic No	Good Super Basic No			

## Copper Cables

Our Toughcat line is designed for harsh environments. The versions with braid armoring (SWB) offer strong protection against rodents, while the MUD version is specially designed to resist chemical substances. Additionally, these cables are DNV-certified for marine and offshore applications.

#### ToughCAT 7 MUD S/FTP

UC LR22 10G S/FTP

Feature

Conductor

Insulation

Layup

Screen

Jacket

Part no.

**'** Good Description

Solid AWG22

PE, Ø 9.2mm

60039922

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No

Ю́ Ю́

No

Foam Skin PE, Ø 1.6mm

4 shielded pairs + Braid

Individual + Overall (S/FTP)

Good

 $(\mathfrak{G})$ 

No

Good



Feature	Description			
Conductor	Stranded AWG23/7			
Insulation	Foam Skin PE, Ø 1.6mm			
Layup	4 shielded pairs + Braid			
Screen	Individual + Overall (S/FTP)			
Jacket	LSHF Ø8.0mm+ MUD jacket, Ø10.1mm			
Part no.	60015692			
Basic No	Basic Super Good 60332-1			

#### ToughCAT 7S SWB S/FTP



Feature	Description
Conductor	Solid AWG23/1
Insulation	Foam Skin PE, Ø 1.6mm
Layup	4 shielded pairs + Braid
Screen	Individual + Overall (S/FTP)
Jacket	LSHF Ø8.0mm+ MUD jacket, Ø10.1mm
Part no.	60087027
Basic No	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}\\ \end{array}\\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\$

#### RS485 WB F/UTP



Feature	Description
Conductor	Stranded AWG24
Insulation	Solid PE, Ø 1.75mm
Layup	2 pairs grouped as 1 quad
Screen	Foil + drain wire + braid
Jacket	WB tape + PE, Ø6.9mm
Part no.	60104289
Good No	Basic Super Good No

#### Gigabit ATAR-F F/UTP



Feature	Description
Conductor	Stranded AWG24/7
Insulation	Solid PE, Ø 1.75mm
Screen	2 pairs grouped as I quad
Layout	Foil + drain wire + braid
ATAR layer	WB tape + PE, Ø6.9mm
Outer Jacket	PE
Part no.	47945574 47945570
I W	
Super Supe	r Basic Super Super No

#### RS485 ATAR F/UTP (Anti-Termite-Anti-Rodent)



F	eature		Descriptio	n		
C	Conducto	or	Stranded A	WG24/7		
I	nsulatior	١	Solid PE, Ø	1.75mm		
L	ayout		1 or 2 pairs	grouped +	screen	
S	creen		Overall foil	+ drain 0.4	mm	
A	TAR laye	er	PA12 Jacke	t		
C	Outer Jac	ket	PE			
F	Part no.		47945571 47945567			
	Super	Super	Radial	Super	Super	No

## **Copper Cables**

#### RS485 AWG16/7 1P SWB MUD F/UTP



Feature	Description
Conductor	Bare copper, 1.5mm <sup>2</sup>
Insulation	Solid PP, Ø 4.4mm
Layout	1 twisted pair + fillers
Screen	Overall Foil+Braid + drain wire (SF/UTP)
Jacket	Inner: LSHF, Ø 11.0mm Armor: galvanized steel wire braid Outer: MUD Ø 16.0mm
Part no.	90150811.04









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Some regions face challenges with biological attacks, such as those from rodents and termites.

An example of PA12's effectiveness is its ability to resist termite attacks that start on the PE outer jacket.





## Optical Cables

#### CT CST E06a

CT PEPA E13a

Strength Member

Reinforcement

Ю́

Super

Feature

Buffer

Jacket

Tension

Crush

Part no.

Ъ.

Super



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Good

Good

No

Super

#### CT PE (E08a/E09a)



Feature	Description		
Buffer	Central Loose Tube, up to 24 OF		
Strength Member	Waterblock Glass yarn		
Jacket	PE, Ø6.7 (E08), Ø9.0mm (E09a		
Tension	3000N (E08a), 4000N (E09a)		
Crush	2000N (E08a)/3000N (E09a)		
Part no.	60011378		
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Super

Good

No

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60332-3

Basic

Basic

#### CT I/O E28/E29

Super

No



Good

Super

Description	Feature	Description
Central Loose Tube	Buffer	Central Loose Tube
Waterblock Glass yarns	Strength Member	Glass yarns
PA jacket	Jacket	LSHF-FR, Ø 6.5mm
PE inner, PA outer jacket	Tension	2000N
3000N (short), 1000N (long)	Crush	1500N
3000N/10cm	CPR	D <sub>ca</sub> (E28) or C <sub>ca</sub> (E29)
60102437	Part no.	60104169
	j y	₩ × T

No

No

#### GreenConnect CT CST E6GX



Feature	Description
Buffer	Central Loose Tube, up to 24 OF
Strength Member	Glass yarns
Reinforcement	Corrugated Steel Tape
Jacket	PE, Ø8.5mm
Tension	3000N (short), 1000N (long)
Crush	2200N/10cm
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## **Optical Cables**

#### GreenConnect CT PE E8GX

Feature	Description		
Buffer	Central Loose Tube, up to 24 OF		
Strength Member	Waterblock Glass yarn		
Jacket	PE, Ø7.0		
Tension	3000N (short)		
Crush	2000N/10cm		

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Super











