

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.



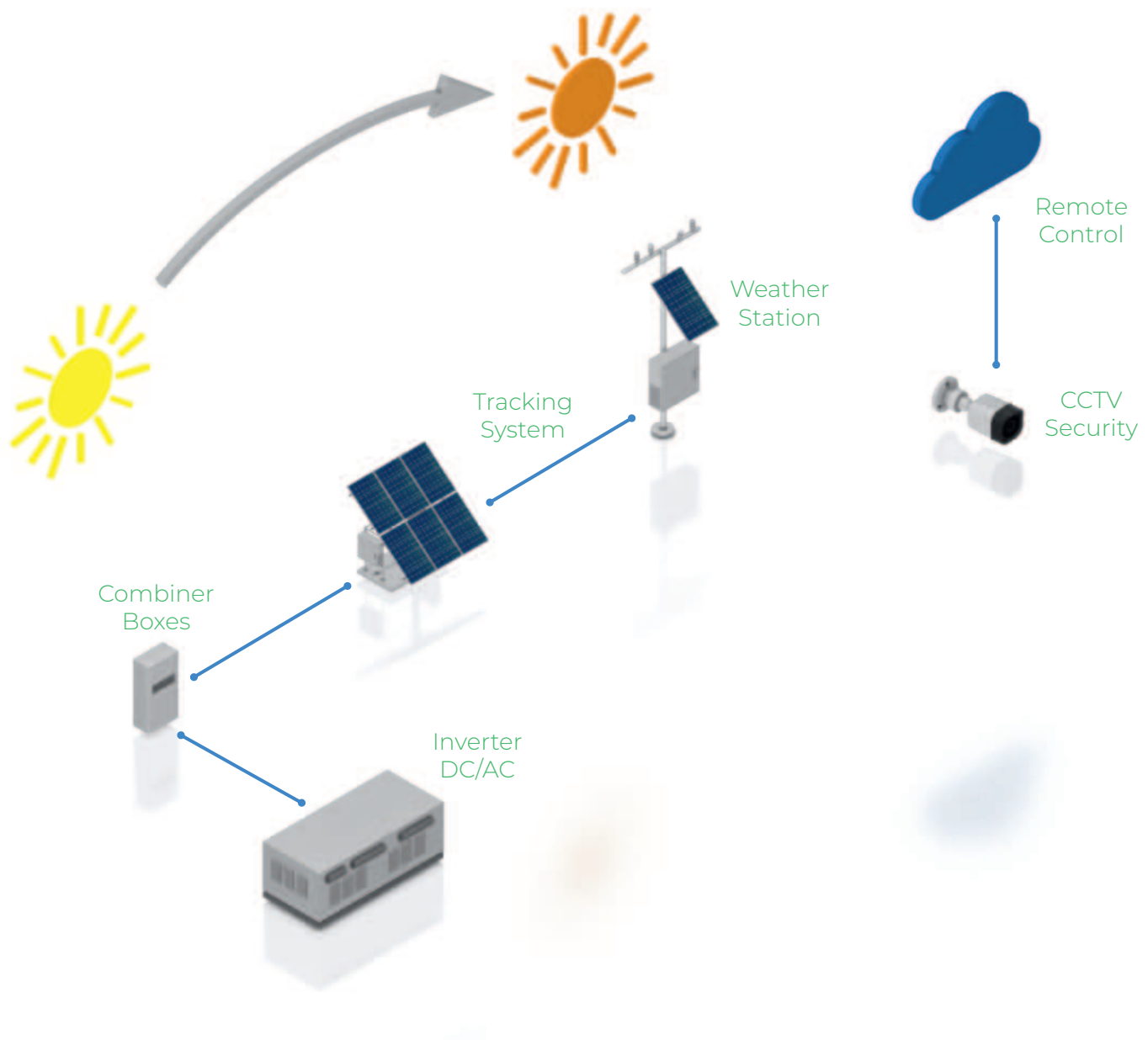
Communicating under the Sun

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
- Weather 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:

No	Basic	Good	Super
Not protected and will deteriorate quickly	Can stay for short time, but not recommended	Suitable for most cases, good lifespan	Excellent protection and great lifespan, support severe cases



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

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.



Water Contact

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



Mechanical Strength

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).



Mechanical Strength

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).

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.

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



SuperCAT 5E, 6 U/UTP



Feature	Description
Conductor	Solid AWG24/1 resp. AWG23/1
Insulation	PE, Ø 1.0mm resp. Ø 1.1mm
Layup	4 pairs + separator
Outer Jacket	PUR Ø 5.9mm resp. Ø 7.2mm
Part no.	SuperCAT 5E: 60015393 SuperCAT 6: 60016055



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



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 C6A PE S/FTP



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



GreenConnect C7 PE S/FTP



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



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



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



Basic



Good



Super



60332-3

UC LR22 10G S/FTP



Feature	Description
Conductor	Solid AWG22
Insulation	Foam Skin PE, Ø 1.6mm
Layup	4 shielded pairs + Braid
Screen	Individual + Overall (S/FTP)
Jacket	PE, Ø 9.2mm
Part no.	60039922



Good



No



No



Good



Good



No

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 1 quad
Layout	Foil + drain wire + braid
ATAR layer	WB tape + PE, Ø6.9mm
Outer Jacket	PE
Part no.	47945574 47945570



RS485 AWG16/7 1P SWB MUD F/UTP



Feature	Description
Conductor	Bare copper, 1.5mm ²
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



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



Feature	Description
Conductor	Stranded AWG24/7
Insulation	Solid PE, Ø 1.75mm
Layout	1 or 2 pairs grouped + screen
Screen	Overall foil + drain 0.4mm
ATAR layer	PA12 Jacket
Outer Jacket	PE
Part no.	47945571 47945567



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



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
Part no.	60018747



CT PE (E08a/E09a)



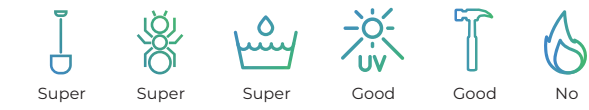
Feature	Description
Buffer	Central Loose Tube, up to 24 OF
Strength Member	Waterblock Glass yarn
Jacket	PE, Ø6.7 (E08), Ø9.0mm (E09a)
Tension	3000N (E08a), 4000N (E09a)
Crush	2000N (E08a)/3000N (E09a)
Part no.	60011378



CT PEPA E13a



Feature	Description
Buffer	Central Loose Tube
Strength Member	Waterblock Glass yarns
Reinforcement	PA jacket
Jacket	PE inner, PA outer jacket
Tension	3000N (short), 1000N (long)
Crush	3000N/10cm
Part no.	60102437



CT I/O E28/E29



Feature	Description
Buffer	Central Loose Tube
Strength Member	Glass yarns
Jacket	LSHF-FR, Ø 6.5mm
Tension	2000N
Crush	1500N
CPR	D _{ca} (E28) or C _{ca} (E29)
Part no.	60104169



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


Super


Super


Super


Super


Super


No

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


Super


No


Super


Super


Good


No



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