

Catch the sun.

Our new space hero – a smaller yet more powerful solar cable.



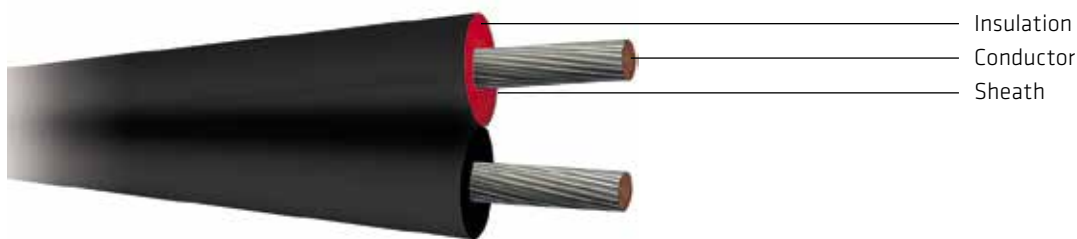
**Compliant
to the
PV1 - F**

A brand of the

Prysmian
Group

Application

The cable is designed and manufactured according to standard 2 Pfg 1169/08.2007 for use in solar plant distribution systems.



The PV standard AS/NZS 5033 was implemented June 2012. This Standard requires cables used on PV Installations to be:

- LV string cables in all systems and all LV DC cables installed in domestic systems comply with requirements including PV1 – F certifications.
- Have a temperature rating according to the application.
- If exposed to the environment, be UV – resistant, or be protected from UV light by appropriate protection, or be installed in UV – resistant conduit.
- Be flexible (multistranded) to allow for thermal/wind movement of arrays / PV modules.

TPS cables complying with AS/NZ 5000 series are not suitable for this application.

PRYSMIAN PV1-F SLIM LINE TWIN FLEXIBLE PV CABLES have it covered

- ✓ **Conductor** – Electrolytic tinned copper class 5 in accordance with IEC 60228 for better durability and better conductivity over the life of the PV unit
- ✓ **Electron-Beam Cross-Linked Material (Two-layer-Insulation)** – makes it both flexible and resistant to UV, no safety risk when needing to remove the PV panels for maintenance, due to old brittle cables. (Cables installed at rear of panels are still deemed to be exposed to UV due to reflection).
- ✓ **Fire Retardant, Halogen-free per IEC 60754-1 & Low Smoke Emission per IEC 61034** – safety first, no toxic PVC gases in the event of a fire.
- ✓ **Environmentally Friendly** – complies with RoHS directives 2002/95/EG.
- ✓ **Ambient Temperature from -40°C to +120°C for fixed flexible installation** – can be used in Australia and New Zealand’s harshest environments.
- ✓ **Ozone Resistant** per DIN EN 50396.
- ✓ **UV-Resistant to ISO 4892-2 Standard** – will last the life of the UV panel. Note even where the cable is not directly exposed to Sunlight is still must comply with AS/NZS 5033:2012 if connected to the PV panel.
- ✓ **Acid and Alkaline Resistant** (N-Oxalic Acid, N-Sodium Hydroxide) per EN 60811-2-1.
- ✓ **Abrasion Resistant** – Meets DIN EN 53516 – it’s tough and unlikely to be damaged during installation or during maintenance of the panel.
- ✓ **Easier installation** due to extraordinary flexibility and smaller outer diameter.
- ✓ **Easy Strip** – Prysmian Cable Engineers have specially designed the solar cable to strip easily. Easy stripping improves speed of insulation and safety.

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group; any modification or alteration afterwards of product may give different result. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.

Construction

4 mm ² Twin Solar Cable		
	Item	Specification
Conductor	Cross-section area (mm ²)	4 mm ²
	Material	Stranded tinned copper
	Size (mm)	52/(0.30±0.008)
	Strand OD (mm)	2.45±0.05
Insulation	Material	Electron-beam cross-linked materials
	Nominal OD (mm)	3.65±0.15
	Colour	Red, Black
Sheath	Material	Electron-beam cross-linked materials
	Nominal OD (mm)	4.85±0.20 x 10.0±0.40
	Colour	Black
6 mm ² Twin Solar Cable		
	Item	Specification
Conductor	Cross-section area (mm ²)	6 mm ²
	Material	Stranded tinned copper
	Size (mm)	78/(0.30±0.008)
	Strand OD (mm)	3.0±0.05
Insulation	Material	Electron-beam cross-linked materials
	Nominal OD (mm)	4.30±0.15
	Colour	Red, Black
Sheath	Material	Electron-beam cross-linked materials
	Nominal OD (mm)	5.55±0.20 x 11.6±0.50
	Colour	Black

Technical data

	Nominal voltage	Test voltage	Temperature rating	Ambient temperature	
4 mm² Twin Solar Cable	U ^o /U=600/1000V AC, 900/1800V DC	6500 V, 50 Hz, 5 min	-40°C up to +125°C	(-40°C up to +120°C): >25 years	
6 mm² Twin Solar Cable	U ^o /U=600/1000V AC, 900/1800V DC	6500 V, 50 Hz, 5 min	-40°C up to +125°C	(-40°C up to +120°C): >25 years	
	Max. conductor temperature	Bending radius	Conductor resistance	Insulation resistance	UV resistant
4 mm² Twin Solar Cable	+120°C	≥ 6 x cable OD	≤ 5.09 Ω /km at 20°C	≥ 10 ¹⁴ Ω .cm at 20°C	>720h
6 mm² Twin Solar Cable	+120°C	≥ 4 x cable OD	≤ 3.39 Ω /km at 20°C	≥ 10 ¹⁴ Ω .cm at 20°C	>720h

Fire performance: IEC60332-1

Smoke density: IEC61034, EN50268-2

Halogen acid gas emission: IEC60754-1, EN50267-2-1

Certificate: TUV

Linking the future

Prysmian Australia Pty Ltd

1 Heathcote Road, Liverpool 2170 NSW, Australia
Ph: 1300 300 304 Fx: 1300 300 307
E-mail: sales.au@prysmiangroup.com
www.prysmiancable.com.au

Prysmian New Zealand Ltd

30 Binsted Road, New Lynn 0600 Auckland, New Zealand
Ph: (09) 827 3109 Toll Free: 0800 492 225
E-mail: sales.nz@prysmiangroup.com
www.prysmiancable.co.nz

Connect with us



Prysmian Australia and New Zealand



A brand of the

Prysmian
Group