Ex Solar Panel SPA-280

The SPA-280 Photo Voltaic Solar Panel is an ATEX & IECEx Ex ec mc certified product for Zone 2 gas hazardous area applications. The cells of the panel are encapsulated between a tempered glass cover and an EVA pottant, to provide maximum protection in the most extreme environmental conditions.

Typical applications for this new energy & cost saving concept are; to monitor remote pipelines and unmanned offshore oil & gas installations where the location and the proximity of a hazardous area, deems conventional power sources and mains power to be less economical.

Complimented by other JCE Group products such as: Ex e hazardous area batteries and Ex d control enclosures, the SPA-280 can be supplied as part of a complete control and monitoring system.

Combined with a compatible inverter housed in our Ex ec enclosures, it is suitable for AC applications.

Materials and Finish

Anodised aluminium mounting frame.
Terminal enclosure made of GRP
with 2 Ex e ATEX M25 glands.

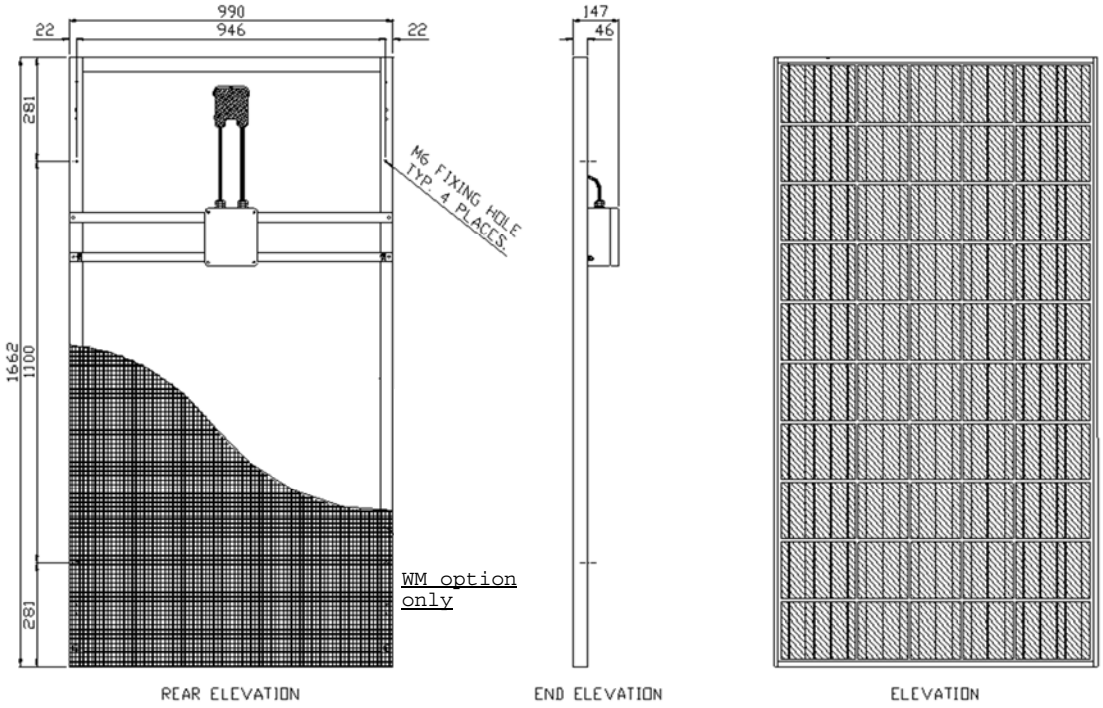
Earthing

All panels are supplied with 6mm stainless steel earth studs.

Ratings and Approvals

Categories -	II 3 G
Codes -	Ex ec mc IIC T4 Gc
Protection Grade -	IP66
Certificate Nos -	ITS 18 ATEX 4030 28X IECEx ITS 18.0001 X
Temperature -	-20°C to +50°C

Dimensions



Technical Data

ELECTRICAL PERFORMANCE		
At 1000 W/m²(STC)*		
Maximum Power	[W]	265
Maximum System Voltage	[V]	1000
Maximum Power Voltage	[V]	31
Maximum Power Current	[A]	8.55
Open Circuit Voltage (Voc)	[V]	38.3
Short Circuit Current (Isc)	[A]	9.26
At 800 W/m²(NOCT)**		
Maximum Power	[W]	191
Maximum Power Voltage	[V]	27.9
Maximum Power Current	[A]	6.85
Open Circuit Voltage (Voc)	[V]	35.1
Short Circuit Current (Isc)	[A]	7.49
NOCT	[°C]	45

Power Tolerance	[%]	+5/-3
Maximum Reverse Current IR	[A]	15
Series Fuse Rating	[A]	15
Temperature Coefficient of Voc	[V/°C]	-0.36
Temperature Coefficient of Isc	[A/°C]	-0.06
Temperature Coefficient of Max. Power	[W/°C]	-0.45
Reduction Of Efficiency (from 1000W/m² to 200 W/m²)	[%]	3.3

DIMENSIONS		
Length	[mm]	1662 (+/-2.5)
Width	[mm]	990 (+/-2.5)
Depth/ incl. Junction Box	[mm]	146
Weight	[kg]	23
Junction Box	[mm]	160 x 160 x 92
IP Code		IP66

CELLS		
Number per Module		60
Cell Technology		Polycrystalline
Cell Shape (Square)	[mm]	156 x 156
Cell Bonding		3 busbar
Bypass Diodes		3

ORDER CODE	
SPA-280	This option can be adopted if the panel is installed in areas at low risk of mechanical damage.
SPA-280WM	This option must be adopted if the panel, after installation, does not have adequate physical or mechanical protection from risk of impact to the rear of the panel.

* Electrical values under standard test conditions(STC): irrediation of 1000 W/m², airmass AM 1.5 and all temperature of 25 °C

** Electrical values under normal operating all temperature (NOCT):irrediation of 800 W/m², airmass AM 1.5 wind speed os 1m/s and ambient temperature of 20 °C

*** 10 year or 90% of the minimally specified power P under standard test conditions (STC)

**** 20 years on 80% of the minimally specified power P under standard test conditions (STC)

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