

Comune  
di Crotona



Regione Calabria



Comune  
di Scandale



Committente:

 **Mezzaricotta Energia S.r.l.**

Mezzaricotta Energia S.r.l.

Largo Michele Novaro 1,A - PARMA

P.IVA: 02982410348

Titolo del Progetto:

**PROGETTO PER LA REALIZZAZIONE E L'ESERCIZIO DI UN IMPIANTO AGROVOLTAICO E DELLE OPERE STRETTAMENTE NECESSARIE DENOMINATO "MEZZARICOTTA"**

Documento:

**PROGETTO DEFINITIVO**

N° Tavola:

**40**

Elaborato:

**SCHEMI FUNZIONALI DEI SINGOLI PANNELLI**

SCALA:

-

FOGLIO:

1 di 1

FORMATO:

A4

Progettazione:

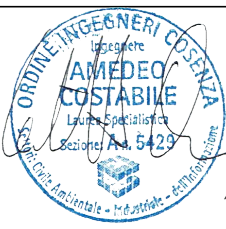
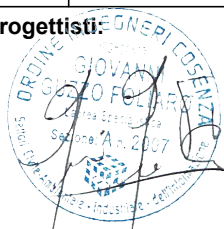


NEW DEVELOPMENTS S.r.l.

Piazza Europa, 14 - 87100 Cosenza (CS)

Nome file: **40\_Schemi\_Funzionali\_pannelli.pdf**

Progettisti:



dott. ing. Giovanni Guzzo Foliaro

dott. ing. Amedeo Costabile

dott. ing. Francesco Meringolo

Rev:	Data Revisione	Descrizione Revisione	Redatto	Controllato	Approvato
00	15/11/2021	PRIMA EMISSIONE	New Dev.	Stern Energy S.P.A.	Mezzaricotta Energia S.R.L.



# 182 Monocrystalline Half-cut 156 cells

Power Output: **590 - 610 Watt**  
Max. Efficiency: **21.8%**



### High Mechanical Load

Certified to withstand high wind and snow loads up to 5400Pa



### Enhanced Performance

Half cut cell feature allows a power increase of at least 5Wp vs. standard modules



### Anti-reflective Surface

Increases the panel's exposure and efficiency of converting sunlight into energy



### Lower Hot Spots

Half cut design reduces energy loss caused by shading between modules



### Ideal for Large Scale Installations

Lower installations time and BOS (Balance of Systems) costs



### Salt Mist and Ammonia Resistant

Certified by Bureau Veritas to withstand usage near coastal environments



### PID free

Designed to minimise cell degradation in extreme environments

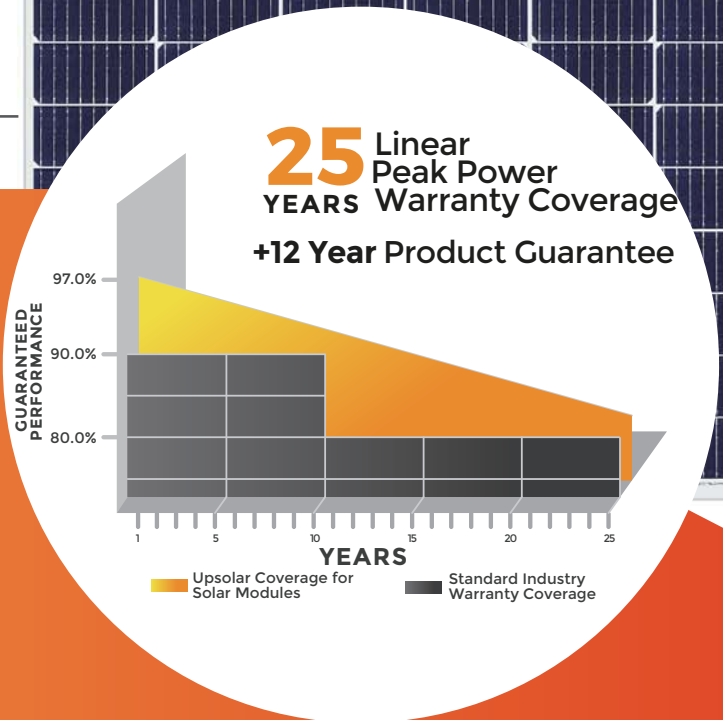


## Secure Investment

Upsolar provides exceptional product coverage for all modules to ensure our customers achieve superior long-term value from their solar installations. To further improve our product warranty, which covers unanticipated module damage, we've recently expanded our terms from a 10-year period to a 12-year period.

In addition, Upsolar offers a 25-year performance guarantee known as the Linear Module Warranty. Whereas traditional policies feature a single trigger point leading to drastic coverage reductions after just 10 years, Upsolar's coverage more accurately corresponds to system performance, providing coverage for over 25 years.

Overall, our goal is to deliver not only top-notch modules, but also peace of mind, for decades to come.



\*Upsolar has expanded its manufacturing operations in Asia, Europe and North America, keeping its modules duty-free in the event of new CVD or AD policies. Please ask about pricing, payment terms and conditions to meet your needs.

# Mono182 | Half-cut 156 cells

## Electrical Characteristics

MODEL	UP-M590MH	UP-M595MH	UP-M600MH	UP-M605MH	UP-M610MH
Max Power Pm (Wp)	590	595	600	605	610
Max Power Voltage Vm (V)	44.80	44.90	45.00	45.10	45.20
Max Power Current Im (A)	13.17	13.25	13.33	13.41	13.50
Open-Circuit Voltage Voc (V)	53.50	53.60	53.70	53.80	53.90
Short-Circuit Current Isc (A)	14.18	14.26	14.34	14.42	14.50
Module Efficiency	21.08%	21.26%	21.44%	21.62%	21.80%
Maximum System Voltage (V)	1000(IEC)/1000(UL) or 1500(IEC)/1500(UL)				
Power Tolerance	0/+3%				
Series Fuse Rating (A)	20A				

STC: Irradiance 1000 W/m<sup>2</sup>, Module temperature 25°C, AM=1.5

## Components & Mechanical Data

Front Glass	High Transparency Tempered Glass 0.125" // 3.2 mm
Junction Box	IP 68
Bypass Diode	3 diodes
Output Cables	IEC, UL approved (4 mm <sup>2</sup> , 12AWG) (PV Wire Type)
Connectors	MC4 compatible (IP67, IEC and UL approved)
Frame	Anodized aluminium alloy type 6063-T5
Encapsulation Material	EVA
Back Sheet	White multilayer polymer film
Temperature Range	-40°F to +194°F // -40°C to +90°C
Max Load	75 lbs / ft <sup>2</sup> (UL Standard) // 5400 Pa (IEC Standards)
Impact Resistance	Steel ball - 1.18 lbs // 535 g dropped from 51" // 1.3 m high

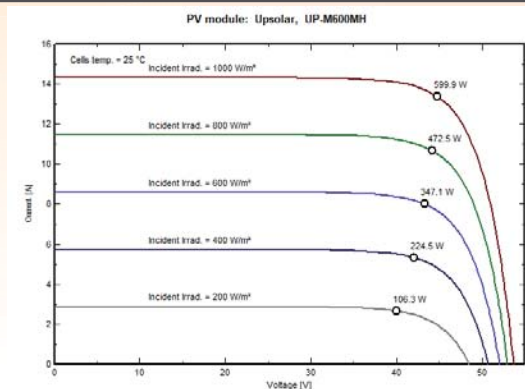
## Specifications

Cells	Mono PERC 182 x 91
Number of Cells	156 (6 x 26)
Dimensions (in // mm)	97.24 x 44.60x1.38// 2470 x 1133 x 35
Weight (lb // kg)	68.3//31.0

## Temperature Coefficients

NOCT (°C)	43 ± 2
Temperature Coefficients of Isc (% / °C)	0.048 ± 0.01
Temperature Coefficients of Voc (% / °C)	-0.27 ± 0.02
Temperature Coefficients of Im (% / °C)	-0.02 ± 0.02
Temperature Coefficients of Vm (% / °C)	-0.40 ± 0.03
Temperature Coefficients of Pm (% / °C)	-0.35 ± 0.05

## IV Curves



## Options Available

- Black or transparent backsheet
- Customized cable length

