

# **About us**



Sheida Group of Companies, a visionary force in Oman's development, is more than just a leading venture. We are a dedicated team passionate about crafting solutions that empower a brighter tomorrow. Our diverse and customizable range of high-quality products and services is meticulously tailored to meet the evolving needs of the market. But our greatest pride lies in a pioneering spirit. We are the first to launch top-tier solar PV panels manufactured entirely within Oman, a testament to our commitment to innovation and sustainability. Under the brand name Sheida Solar, we harness the power of the Omani sun, transforming it into clean, reliable energy that fuels progress for generations to come.



# OUR PHILOSOPHY



# **VISION**

Empowering Our Planet with Clean, Renewable Energy



# **MISSION**

Empowering Our Clients with Innovative Solar Solutions



## **AIM**

Empowering All with Affordable Solar Energy Solutions

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# **WHY SHEIDA?**

 Where Italian Craftsmanship Meets Cutting-Edge Tech: Our state-of-the-art, fully automated production line, meticulously crafted in Italy, generates 80 MW of solar panels annually. With ambitious plans to scale up to 500 MW, we re committed to leading the charge in sustainable energy production.

- Experience Meets Innovation: Our team of experienced and qualified professionals combines World class workmanship with cutting-edge technology to ensure meticulous attention to detail at every stage.
- Unlocking a Spectrum of Possibilities: Discover our diverse solar
  panel lineup, featuring industry-leading technologies like Monocrystalline, PERC, Bi-facial, and TOPCon. Our high-efficiency Multi Busbar
  modules, powered by rigorous testing and a dedicated R&D team, are leading
  the way in sustainable energy solutions.
- Pioneering the Future of Solar in Oman: Our commitment to innovation
   extends beyond production. Our cutting-edge facility in Oman minimizes defects
   and maximizes efficiency, bringing you the future of solar technology today.





# **OUR FACTORY**

#### 80MW MODULE PRODUCTION LINE

80 MW/year **WORKING 24/7** 



25 modules/h



25 operators per shift



5625 sqm



#### **EQUIPMENT LIST**

- Stringer Machine ETS 2500
- **Eco-Weightless**
- Layup ECOLAYUP R
- In-line manual bussing station
- Foil cutter machine ECOCUT 10
- In-line EL tester before lamination
- Laminator ECOLAM Max
- **Trimming**
- Visual 90° Inline Inspection
- **Automatic Framing**
- J-box application station
- LED sun simulator + Hi-pot
- In-line EL tester after lamination



450wp 550wp Mono Perc



**144 Cut** cells per module



3 shift of 8 hours



300 days/year



115 kW/h



6 bar 815 nL/1'







# **OUR PRODUCTS** & SERVICES



#### **SOLAR PV PANNELS**

Top teir solar modules made in Oman



#### **PRODUCTS**

- Inverters Batteries
- Charge Controllers
- Connectors Mounts and Stands





#### **EPC**

Designing Procurement Commissioning



#### **MAITENANCE**

Large Scale Solar Plants Maitenance and other field services



### **SOLAR SYSTEMS**

On-Grid Off-Grid



#### CONSULTANCY

**Energy Saving Consultancy Engineering Services** Feasibility Studies









#### The Ideal Solution For

Rooftop arrays on commercia and industrial buildings

#### **Ground-mounted Solar power plants**

Sheida Solar is one of the leading solar solution experts. We are specialized in high efficiency solar module manufacturing. Our production and technology advantage, we provide our customers with comprehensive solution for the whole life cycle of solar project.

#### Busbar Cell Technology.

Shorter Distance Between Busbar Allows Better Flow of Electrons and reduce Power Loss.

#### **Cost Effective**

Offering high value at low cost, Makes it one of the popular choices. of installers and customers Shorter Distance Between Busbar Allows Better Flow of Electrons and reduce Power Loss.

#### **Lower BOS Costs**

Designed for high voltage Systems of up to 1500 VDC Saving balance of system costs

#### All- Weather Technology

Optimal yields, whatever the Weather with excellent low-light and temperature behavior

#### **Enduring high Performance**

Long-term yield security with Anti LID and Anti PID Technology, Hot-Spot protect and traceable Quality

#### **Load Capacity Enhancement**

High durability raw material helps to withstand high snow (5400 Pa) and wind loads (2400 Pa) and reduce Power Loss.

#### A Reliable Investment

15 Year Product Warranty and 30 Year linear power output warranty makes it a reliable investment

Note: Specification subject to technical changes and tests Sheida reserves the right of final interpretation

# M6 series

Caution: Please read safety and installation instructions before using the product. Warranty: Linear power warranty for 30 years, with degradation up to 2.0 % in 1st year and 0.6 % year from year 2 to 30. DISCLAIMER: Specification included in the datasheet are subject to change without prior notice owing to continuous innovation on the product Development and R&D Activities.

Sheida Solar reserves the right to make any adjustment to the information described here, dataset contained in this specification do not form a representative of a single module data @ T&C Apply.



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#### MECHANICAL SPECIFICATION

Dimensions (LxWxH in mm) 2098 x 1046 x 35

Weight (kg) 24

No. of cells 144 (12x6 / 12x6)

Aluminum Frame Sliver Anodized Aluminum Alloy

Front Cover Low Iron Tempered Glass (3.2 mm thick

Encapsulate Ethylene Vinyl Acetate

(EVA)Sheet free - Anti-PID

Backsheet Double layer with Fluorine Film -

PVDF Junction Box TUV Approved, SPLIT JB / IP 67 with 3 Bypass Diode & 0.40 Mtr Cable 1500 Vdc.

Application class rating Class A
Fire safety class rating Class II

Mechanical load test 5400pa - Front; 2400pa -

Back (as per IEC)

#### ELECTRICAL PARAMETERS (STC\*)

Model	Pmax (W)	Voc (V)	Vmp (V)	Imp (V)	Isc (V)	Eff. (%)
SHD-144H-420	420	48.76	42.15	9.97	11.07	19.14
SHD-144H-425	425	48.84	42.23	10.07	11.11	19.37
SHD-144H-430	430	48.92	42.31	10.17	11.20	19.60
SHD-144H-435	435	49.00	42.39	10.27	11.29	19.83
SHD-144H-440	440	49.08	42.47	10.36	11.38	20.06
SHD-144H-445	445	49.16	42.55	10.46	11.47	20.28
SHD-144H-450	450	49.24	42.62	10.56	11.56	20.51

#### ELECTRICAL PARAMETERS (NMOT\*)

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Model	Pmax (W)	Voc (V)	Vmp (V)	Imp (V)	Isc (V)
SHD-144H-420	309.3	45.58	39.40	7.85	8.86
SHD-144H-425	313.0	45.65	39.47	7.93	8.89
SHD-144H-430	316.8	45.73	39.55	8.01	8.96
SHD-144H-435	320.5	45.80	39.62	8.09	9.03
SHD-144H-440	324.0	45.87	39.70	8.16	9.10
SHD-144H-445	327.7	45.95	39.77	8.24	9.17
SHD-144H-450	331.5	46.02	39.84	8.32	9.25

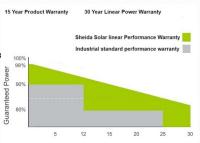
#### MAXIMUM OPERATING CONDITIONS

Operation Temperature -40°C to +85°C
Maximum System Voltage 1500V
Maximum Series Fuse Rating 30A

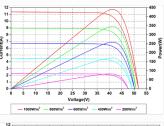
#### TEMPERATURE COEFFICIENTS

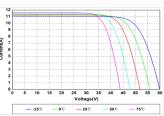
Temp. Coefficient of Pmax (%°C) -0.39
Temp. Coefficient of Voc (%°C) -0.31
Temp. Coefficient of Isc (%°C) 0.05

#### **LINEAR PERFORMANCE WARRANTY**

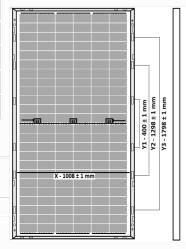


#### REFERENCE IV CURVE DETAIL





#### **REAR VIEW & MOUNTING DETAIL**



# M10 series



#### The Ideal Solution For

Rooftop arrays on commercia and industrial buildings

#### **Ground-mounted Solar power plants**

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#### Multi Busbar Cell Technology.

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#### **Cost Effective**

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#### **Lower BOS Costs**

Designed for high voltage Systems of up to 1500 VDC Saving balance of system costs

#### All- Weather Technology

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#### **Enduring high Performance**

Long-term yield security with Anti LID and Anti PID Technology, Hot-Spot protect and traceable Quality

#### **Load Capacity Enhancement**

High durability raw material helps to withstand high snow (5400 Pa) and wind loads (2400 Pa)

#### A Reliable Investment

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Note: Specification subject to technical changes and tests Sheida reserves the right of final interpretation

# M10 series



Caution: Please read safety and installation instructions before using the product. Warranty: Linear power warranty for 30 years, with degradation up to 2.0 % in 1st year and 0.6 % year from year 2 to 30. DISCLAIMER: Specification included in the datasheet are subject to change without prior notice owing to continuous innovation on the product Development and R&D Activities.

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#### MECHANICAL SPECIFICATION

#### **LINEAR PERFORMANCE WARRANTY**

Dimensions (LxWxH in mm) 2284 x 1134 x 35

Weight (kg) 26

No. of cells 144 (12x6 / 12x6)

Aluminum Frame Sliver Anodized Aluminum Alloy

Front Cover Low Iron Tempered Glass (3.2 mm thick)

Encapsulate Ethylene Vinyl Acetate (EVA)Sheet free - Anti-PID

Backsheet Double layer with Fluorine Film - PVDF

Junction Box TUV Approved, SPLIT JB / IP 68 with 3 Bypass

Diode & 0.40 Mtr Cable 1500 Vdc.

Application class rating Class A
Fire safety class rating Class II

Mechanical load test 5400pa - Front; 2400pa - Back

(as per IEC)

#### ELECTRICAL PARAMETERS (STC\*)

Model	Pmax (W)	Voc (V)	Vmp (V)	Imp (V)	Isc (V)	Eff. (%)
SHD-144H-520	520	48.57	41.67	12.49	13.53	20.08
SHD-144H-525	525	48.71	41.81	12.56	13.59	20.27
SHD-144H-530	530	48.85	41.95	12.64	13.65	20.46
SHD-144H-535	535	48.99	42.09	12.71	13.71	20.68
SHD-144H-540	540	49.13	42.23	12.79	13.77	20.88
SHD-144H-545	545	49.30	42.37	12.87	13.83	21.08
SHD-144H-550	550	49.47	42.51	12.95	13.89	21.28

- > STC: Irradiance of 1000 W/m2, Cell temperature of 25°C, Air mass 1.5g
- > Power measurement uncertainty is within ± 2%

#### ELECTRICAL PARAMETERS (NMOT\*)

Model	Pmax (W)	Voc (V)	Vmp (V)	Imp (V)	Isc (V)
SHD-144H-520	383.3	45.40	38.95	9.84	10.86
SHD-144H-525	386.5	45.53	39.08	9.89	10.90
SHD-144H-530	390.5	45.66	39.21	9.96	10.94
SHD-144H-535	393.8	45.79	39.34	10.01	10.98
SHD-144H-540	397.5	45.92	39.47	10.07	11.02
SHD-144H-545	401.5	46.08	39.60	10.14	11.06
SHD-144H-550	401.5	46.24	39.73	10.21	11.10

NOCT: Irradiation 800W/m2, ambient temperature of 20°C, Wind speed = 1 m/s.

#### MAXIMUM OPERATING CONDITIONS

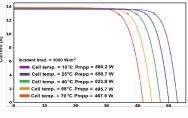
Operation Temperature	-40°C to +85°C	
Maximum System Voltage	1500V	
Maximum Series Fuse Rating	30A	

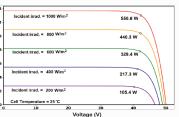
#### **TEMPERATURE COEFFICIENTS**

Temp. Coefficient of Pmax (%/°C)	-0.39
Temp. Coefficient of Voc (%/°C)	-0.31
Temp. Coefficient of Isc (%/°C)	0.05

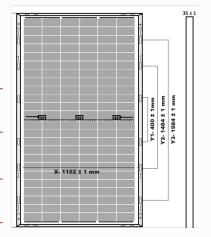


#### REFERENCE IV CURVE DETAIL





#### **REAR VIEW & MOUNTING DETAIL**









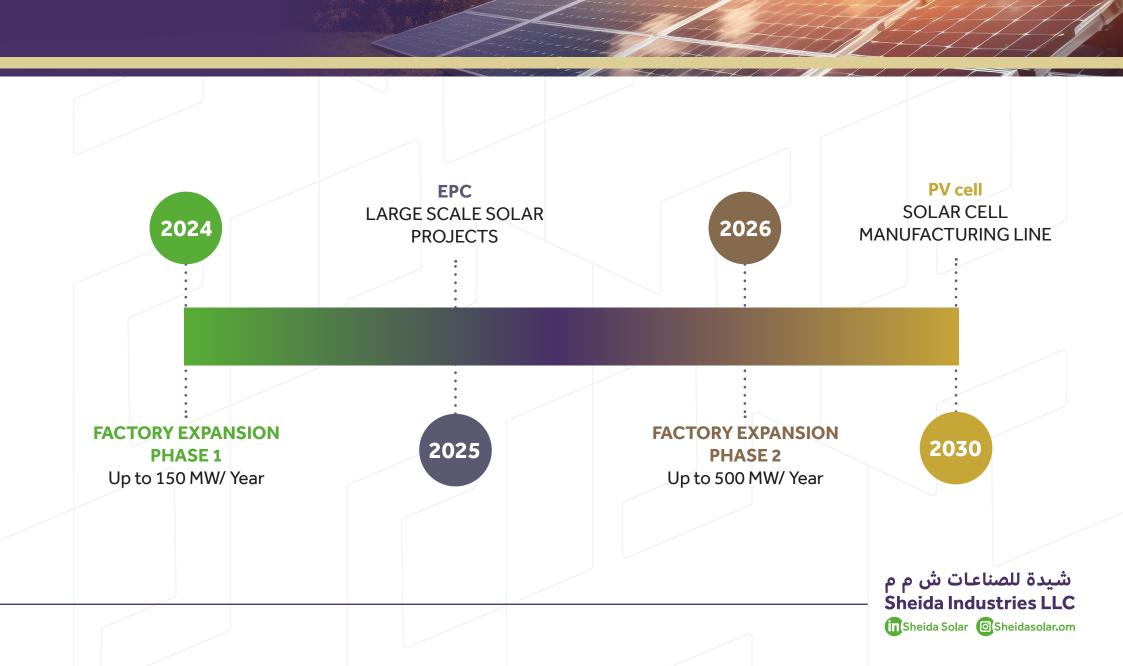






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# **FUTURE PROJECTS**



# **CONTACT US**



#### Collaborating for a Sustainable Tomorrow

**Phone:** (+968) 2202 7027 | (+968) 79600907

Email: info@sheidasolar.com

Plot 360, Road 74, Phase 7, Industrial Estate (Madayn),

Sohar, North Al Batinah, Sultanate of Oman.

Sheida Solar Sheidasolar.om









sheida Industries LLC

CR: 1054673

P.O. Box: 129 P.C: 322 Sultanate of Oman



شيدة للصناعات ش م م س ت : 1054673

س ب:١٢٩ الرمز البريدي ٣٢٢ سلطنة عُمان

Landline: +(968) 2202 7027 | GSM: +(968) 7960 0907 | info@sheidasolar.com | www.sheidasolar.com