



DS16 144MONOFACIAL Series(144 Cells) 585wp



General Description

As a solar specialist with more than 30 years of experience in photovoltaic (PV), DuSol has made and continues to make significant contribution to undertaking ground-breaking progress in solar technology. DuSol photovoltaic modules are designed for applications with high power requirements.

These quality MONO-monocrystalline modules produce a continuous, reliable yield, even under demanding operational conditions.

All DuSol DS series modules offer system integration configurations which are optimal both technically and economically and are suitable for installations in on and off-grid PV systems.



Future

High-performance photovoltaic modules made of N-Type TOPCon monocrystalline (182mm)² silicon DuSol solar cells with module efficiencies of 21.5% or higher.

- SMBB Technology: Better light trapping and current collection to improve module power output and reliability.
- Hot 2.0 Technology: The N-type module with Hot 2.0 technology has better reliability and lower LID/LETID.
- Excellent weak light performance: More power output in weak light condition, such as cloudy, morning and sunset.
- Higher Efficiency: Module efficiencies of 21.5% or higher indicate that more of the sunlight absorbed by the cells is converted into electricity, maximizing energy production per unit area.
- Extended wind and snow load tests: Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load.
- PID Resistance: Excellent Anti-PID performance guarantee via optimized mass-production process and materials control.

Only modules will be delivered that have high reliability and high energy yield.

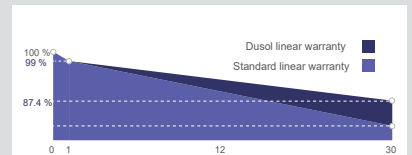
- Minimized micro-cracks with innovative non-destructive cutting technology.
- Ensured PID resistance through cell process and module material control.
- Excellent IAM (Incident Angle Modifier) and low irradiation performance.
- The unique design provides optimized energy production under inter-row shading conditions.
- Lower temperature coefficient (-0.30%) and operating temperature.



Quality PV Modules from DuSol

Continual checks guarantee a consistently high level of quality. Every module undergoes visual, mechanical, and electrical inspection. This is recognizable by means of the original DuSol label, the serial number, and the DuSol guarantee:

- 12 years product guarantee.
- 30 years linear performance guarantee.
- 0.4% Annual Degradation over 30 Years.
- Modular design gives the end customers the power of choice of capacity.
- Compatible with most of the available Hybrid inverters.



Desert sand storm test passed
(MTIC Inter Cert)



Salt spray test passed
(IEC 61701)



Certificates and approvals

All modules are tested and certified according to:

- IEC/EN 61215 and IEC/EN 61730, Application class A
- Protection class / CE
- ISO9001 (DAC)

DS16144585M

Nominal Power	Pmax	585W
Open-circuit Voltage	Voc	51.7V
Short Circuit Current	Isc	14.43A
Voltage at Maximum Power	Vmpp	42.8A
Maximum Power Current	Impp	13.67A
Efficiency Module	m	22.7%

STC = Standard Test Conditions: Irradiance 1000W/m² AM 1.5, Cell Temperature 25C Rated Electrical Characteristics are within + % of the indicated values of Isc, Voc,= and 0 to 5% of Pmax (power measurement tolerance + 3%).

Electrical Specifications (NOCT)

DS16144585M

Nominal Power	Pmax	440W
Open-circuit Voltage	Voc	49.1V
Short Circuit Current	Isc	11.65A
Voltage at Maximum Power	Vmpp	42.8V
Maximum Power Current	Impp	13.67A
Cell Temp (°C)		47.5°C

NOCT (47.5°C): Module operating temperature at 800 W/m² irradiance, air temperature of 20°C, wind speed of 1 m/s

Limits

Max Permissible System Voltage	1500 VDC
Max Reverse Current	25A
Operating Tem	(-40 to +85) deg C
Max Mechanical Load	2400 N/m ²

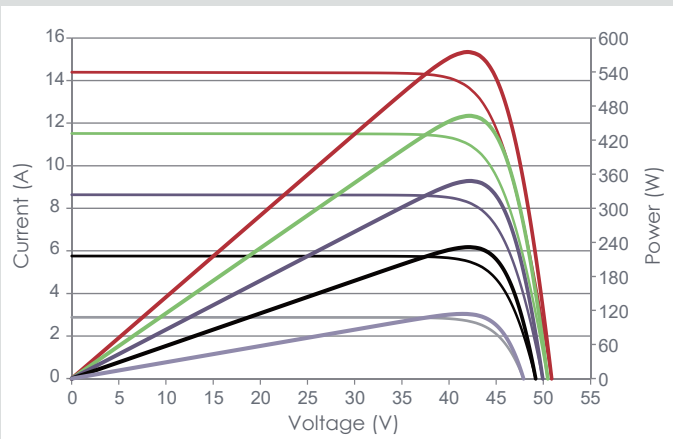
Mechanical Data

Length	2278mm (+/-3.0mm)
Width	1134mm (+/-2.0mm)
Depth	30mm (+/-0.8mm)
Weight	28kg

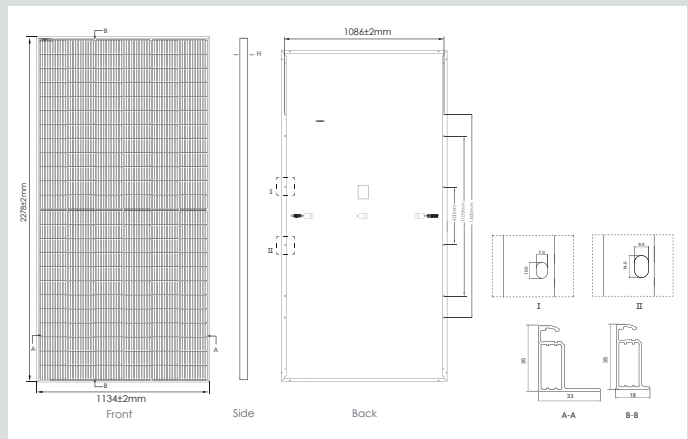
Temperature Co - efficient

Pmax	(-0.30)%/°C
Voc	(-0.25)%/°C
Isc	(0.046)%/°C

Characteristics



Rear View



General Data

Cell Type	N Type TOPCon Monocrystalline 16BB (182X91)mm ² 144 cells, 72 cells in series & 72 cells in parallel
Front Glass	3.2mm AR Coating Tempered Glass
Module Frame	Anodized Aluminium Alloy
Connection Box	PPO, Plastic IP68, 3by pass diodes
Cable	4mm ² , Lenght 300mm
Connector	SMK (MC4 Compatible), Typ CCT 9901-2361F/2451F (katalognr. P51-7H/R51-7), IP67

Registration

DuSol Solar guarantees the safety, quality and value of your product over many years the only thing we ask you to do is to register your modules with the serial number, so that we can send you the guarantee certificate to register your modules quickly and easily at www.DuSol.ae

