



DS10144-M Series (144 Cells) 520wp | 525wp | 530wp | 535wp | 540wp | 545wp | 550wp



General Description

As a solar specialist with more than 30 years of experience in photovoltaic (PV), DuSol makes significant contributions to groundbreaking progress in solar technology. Dusol photovoltaic modules in the DS series are designed for applications with high power requirements.

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

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



Future

High-performance photovoltaic modules made of Mono-PERC (182mm)²silicon. DuSol solar cells with module efficiencies of 20% or higher.

- 10 busbar technology for enhancing the power output..
- Anti-reflex coating to increase light absorption.
- Production controlled positive power tolerance from 0 to +5%.

Only modules will be delivered that have the specific power or more for high energy yield.

- Delivery of modules in 5 watt intervals.
- Improved temperature coefficient to reduce power losses at higher temperatures.
- High power performance even at lower irradianations.

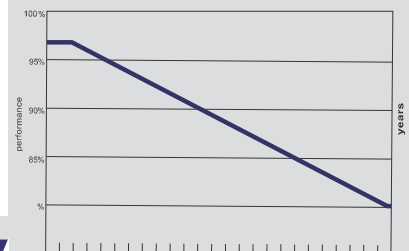


Quality PV Modules from DuSol

Continual checks guarantee a consistently high level of quality. Every modules undergoes visual, mechanical and electrical inspection.

This is recognisable by means of the original DuSol label, the serial number and the DuSol guarantee:

- 10 years product guarantee.
- 25 years linear performance guarantee.
- Minimum 96% of the specified minimum power output during the first year.
- Maximum 0.667% annual reduction of the power output for following 24 years.



Desert sand storm test passed
 (Albarubens Lab)



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)

Electrical Specifications (STC)

DS10144520M DS10144525M DS10144530M DS10144535M DS10144540M DS10144545M DS10144550M

Nominal Power	Pmax	520W	525W	530W	535W	540W	545W	550W
Open-circuit Voltage	Voc	48.99V	49.13V	49.26V	49.40V	49.53V	49.66V	49.79V
Short Circuit Current	Isc	13.53A	13.61A	13.69A	13.77A	13.85A	13.93A	14.00A
Voltage at Maximum Power	Vmpp	40.47V	40.61V	40.74V	40.88V	41.01V	41.14V	41.27V
Maximum Power Current	Impp	12.85A	12.93A	13.01A	13.09A	13.17A	13.25A	13.33A
Efficiency Module	m	20.12%	20.31%	20.51%	20.70%	20.89%	21.09%	21.28%

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)

DS10144520M DS10144525M DS10144530M DS10144535M DS10144540M DS10144545M DS10144550M

Nominal Power	Pmax	393W	397W	401W	405W	409W	413W	417W
Open-circuit Voltage	Voc	46.69V	46.93V	47.16V	47.40V	47.63V	47.87V	48.10V
Short Circuit Current	Isc	10.83A	10.87A	10.91A	10.95A	10.99A	11.03A	11.07A
Voltage at Maximum Power	Vmpp	38.51V	38.74V	38.97V	39.21V	39.44V	39.67V	39.90V
Maximum Power Current	Impp	10.21A	10.25A	10.29A	10.33A	10.37A	10.41A	10.45A
Cell Temp (°C)		47.5	47.5	47.5	47.5	47.5	47.5	47.5

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

Limits

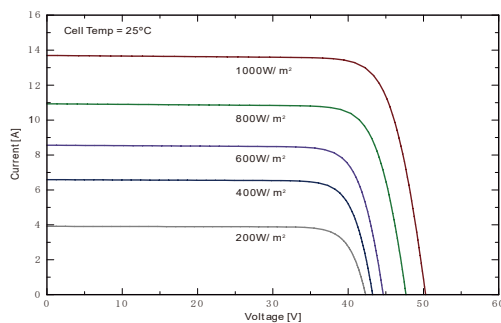
Max Permissible System Voltage	1500 VDC	Length	2279mm (+/-3.0mm)	Pmax	(-0.44) %/°C
Max Reverse Current	25A	Width	1134mm (+/-2.0mm)	Voc	(-0.329) %/°C
Operating Tem	(-40 to +85) deg C	Depth	35mm (+/-0.8mm)	Isc	(+0.038) %/°C
Max Mechanical Load	2400 N/m ²	Weight	28.50kg		

Mechanical Data

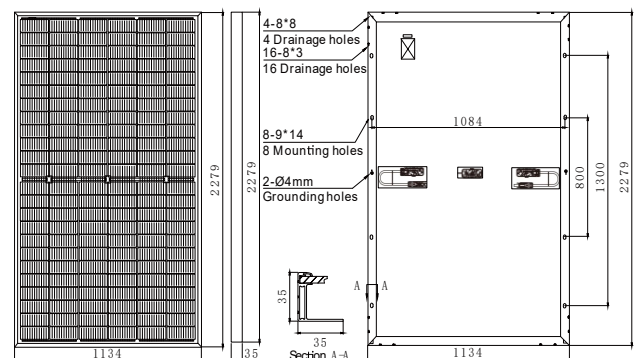
Temperature Co - efficient

Characteristics

Characteristics curves: Current / power against voltage (cell temperature: 25 °C)



Rear View



General Data

Cell Type	Mono-PERC 10BB Cells (182mm x 91mm) 72 cells in series and 72 cells in parallel
Front Glass	Tempered Low Iron Pattern Glass, 3.2mm
Module Frame	Anodized Aluminium, Silver
Connection Box	PPO Plastic, IP68, 3by pass diodes
Cable	4mm ² , length 300mm
Connector	SMK (MC4 Compatible), Typ CCT 9901-2361F/2451F (katalognr. P51-7H/R51-7), IP67

Please only use SMK connector of said series or MultiContact AG connector (PV KST04 / PV KBT04)

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

www.DuSol.ae
Superior Durability , High Efficiency

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