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# EnergyPal

## Solar Panel Guide Specification Data Sheet

**Dusol  
DS72  
DS72 320**

Also available on the web at  
[EnergyPal.com/dusol-solar-panels/ds72-320](http://EnergyPal.com/dusol-solar-panels/ds72-320)



# DS72 Series (72Cells) 290 Wp | 300 Wp | 310 Wp | 320 Wp

## General Description

As a solar specialist with more than 30 year 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 polycrystalline 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 polycrystalline (156.5 mm)<sup>2</sup> silicon Solar cells with module efficiencies of upto 15.2%.

- 3 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 specified power or more for high energy yield.

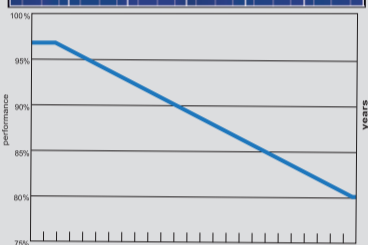
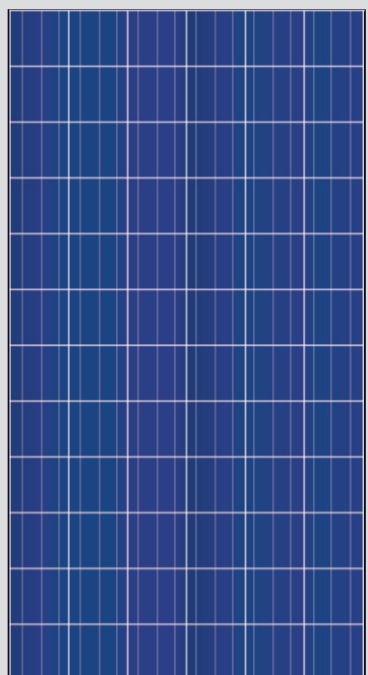
- Delivery of modules in 10-watt intervals.
- Improved temperature coefficient to reduce power losses at higher temperatures.
- High power performance even at lower irradianations.

## Quality PV module DuSol

Continual checks guarantee a consistently high level of quality. Every module 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 (IEC61701)



## Certificates and approvals

All modules are tested and certified according to:

- IEC/EN 61215 and IEC/EN 61730, Application class A
- Protection class / CE

## Electrical Specifications (STC)

		DS72290	DS72300	DS72310	DS72320	
Nominal power	P <sub>max</sub>	290	300	310	320	Wp
Open-circuit voltage	V <sub>oc</sub>	45	45.3	45.7	46.2	V
Short circuit current	I <sub>sc</sub>	8.57	8.94	8.79	8.9	A
Voltage at maximum power	V <sub>mpp</sub>	36.3	36.5	36.8	36.2	V
Maximum power current	I <sub>mpp</sub>	8.00	8.22	8.42	8.60	A
Efficiency module	η	14.68	15.19	15.70	16.20	%

STC = Standard Test Conditions: Irradiance 1,000/m<sup>2</sup>, AM 1.5, Cell Temperature 25 C Rated Electrical Characteristics are within + % of the Indicated Values of I<sub>sc</sub>, V<sub>oc</sub> and 0 to 5% of P<sub>max</sub> (power measurement tolerance + %3).

## Electrical Specifications (NOCT)

		DS72290	DS72300	DS72310	DS72320	
Nominal power	P <sub>max</sub>	222.53	230.2	237.87	245.55	Wp
Open-circuit voltage	V <sub>oc</sub>	44.90	45.2	45.70	46.20	V
Short circuit current	I <sub>sc</sub>	6.96	7.26	7.14	7.23	A
Voltage at maximum power	V <sub>mpp</sub>	34.97	35.2	35.51	35.90	V
Nominal Operating Cell Temperature	I <sub>mpp</sub>	47.50	47.50	47.50	47.50	C <sup>0</sup>

NOCT: Module operating temperature at 800 W / m<sup>2</sup> irradiance, air temperature of 20 C, wind speed of 1 m / s.

## Limits

Max Permissible System Voltage	1000VDC
Max Reverse Current	12A
Operating Tem	(-40 to 85) deg C
Max Mechanical Load	2400 N/m <sup>2</sup>

## Mechanical Data

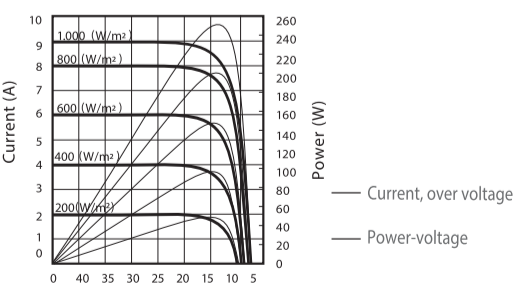
Length	1955(+/-3.0mm)
Width	990mm(+/-2.0mm)
Depth	42mm(+/-0.8mm)
Weight	26.7kg

## Temperature Co - efficient

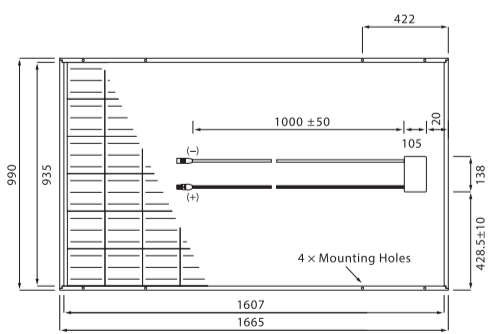
P <sub>max</sub>	(-0.44)%/degC
V <sub>oc</sub>	(-0.329)%/degC
I <sub>sc</sub>	(+0.038)%/degC

## Characteristics

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



## Rear View



## General Data

Cell Type	Polycrystalline 3BB cells , 156.5mmx156.5mm, 72 cells in series
Front Glass	Tempered Low Iron Pattern Glass, 4mm
Module Frame	Anodized Aluminium, Silver
Connection Box	PPO Plastic, IP65, 137x138x26mm, 6by pass diodes
Cable	4mm <sup>2</sup> , length 1000mm
Connector	SMK (MC4 kompatibel), 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 register your modules quickly and easily at [www.Dusol.ae](http://www.Dusol.ae)