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NEWTEK SM-250 60P

# Polycrystalline Photovoltaic Module

# **Premium Quality Solar Module** Data sheet

This high-performance NEWTEK SM solar module power from 250 W to 265 W is built using 60-and monocrystalline cells A-Grade with efficiency not less than 18.0%.

With a lifetime of at least 25 years, at reasonable cost, aesthetic design and ease of installation, our solar modules are high-quality product, both for the construction of large solar power plants as well as for autonomous power supply of a country house, multi-storey housing or villa.

**NEWTEK SM<sup>R</sup>** solar modules made by German technology using by German equipment from **SCHMID GROUP**<sup>R</sup> Company

#### HIGH EFFICIENCY CELLS

We use only A-grade silicon cells with efficiency not less of 18.0% enabled by advanced manufacturing technology

#### LOW LIGHT EFFICIENCY

NEWTEK SM<sup>R</sup> solar modules are effective at low light: in the morning, at night and cloudy weather.

#### **LOTUS EFFECT**

The latest glass processing technology enabled the Lotus Effect ensuring solar module surface self-cleaning properties, cleaning costs reduction and performance efficiency maintenance.

### **PANEL THICKNESS**

The latest technology and aluminum frame made our panels thin and light ensuring comfort at installation and transportation.

#### WIND AND SNOW RESISTANCE

NEWTEK SM<sup>R</sup> solar modules can withstand up to 550 kg per m2 of snow pressure and 160 km an hour of wind speed.















product warranty on materials and workmanship



linear power output warranty



#### **TEST PARAMETERS:**

Simulation of **temperature** cycles: 200 cycles ranging from -40°C to  $+85^{\circ}$ C

**Vapour heat test** in climatic chamber: 1 000 hours at 85°C and 85% relative humidity.

Front and back panel **load test**: simulated wind load of 5400 Pa, equivalent to 5400 N/m<sup>2</sup> or 550 kg/m<sup>2</sup>.

Simulated **impact of hailstones**: 25 mm diameter at 23 m/s from a distance of one meter

#### **TECHNICAL SPECIFICATIONS:**

Frame: Silver, anodized aluminium alloy

Cells: 60 polycrystalline cells, 156x156mm, 4BB

Connectors: Double isolated, UV-resistant 4mm 2 cable with

weatherproof solar plugs MC4

**Diodes:** 3x2 bypass diodes protect the module when in shade **Assembly:** Front: highly translucent, toughened glass 3,2 mm

Back: white TPT film. Embedding material: EVA

**Protection degree: IP65** 

#### **ELECTRICAL CHARACTERISTICS**

	<b>NEWTEK 250 60P</b>	NEWTEK 255 60P
STC Peak Power [Wp]	250	255
Cell Efficiency [%]	18.0	18.4
Module Efficiency [%]	15,7	16,0
Test conditions	STC	STC
Voltage at Pmax Vmpp [V]	30,50	30,70
Current at Pmax Imp [A]	8,20	8,30
Open-circuit voltage Voc [V]	37,80	38,10
Short-circuit current Isc [A]	8,70	8,80

	NEWTEK 260 60P	NEWTEK 265 60P
STC Peak Power [Wp]	260	265
Cell Efficiency [%]	18.7	19.1
Module Efficiency [%]	16,4	16,7
Test conditions	STC	STC
Voltage at Pmax Vmpp [V]	31,00	31,32
Current at Pmax Imp [A]	8,40	8,70
Open-circuit voltage Voc [V]	38,40	38,70
Short-circuit current Isc [A]	8,90	9,00

NOCT is measured at 800W/m², 20°C ambient and 1m/s wind Speed. Specifications are subject to change. Parameters are rated at Standard Test Conditions (irradiance of 1000W/m², AM 1.5, cell temp. 25°C).

#### **ELECTRICAL PERFORMANCE PARAMETERS**

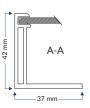
Max. system voltage U [V]	1000
Temperature coefficient of lsc %/K	+0,07 +/- 0,02
Temperature coefficient of Voc %/K	- 0,31 +/- 0,01
Temperature coefficient of Pmax %/K	- 0,46 +/- 0,02
NOCT	46 +/-2° C
Efficiency reduction at 200 W/m2, 25° C	<5 %

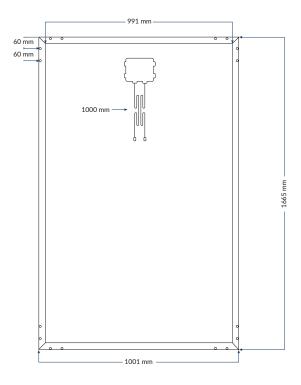
#### **DIMENSIONS AND WEIGHT:**

Length: 1665 mm

Width: 1001 mm Height: 42 mm

Weight: 18,5 kg





#### PERFORMANCE DATA:

Positive power output tolerance: +5/-0 %
12 year period predicted output : Min. 90%
25 year period predicted output : Min. 80%

Production warranty: 10 years

#### PACKAGING SPECIFICATIONS

Modules per pallet	45
Pallets in a truck	13
Packaging dimensions '	
(2 pallet tower L/W/H)	1760/1100/ 2440 mm
Pallet + modules weight	835 kg

## QUALIFICATIONS AND CERTIFICATIONS:





IEC 61215 IEC 61730



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