



D.P Electronics.e.K
(Deutsche Power)

PV SOLAR PANEL

MONO & POLY Crystalline Cells

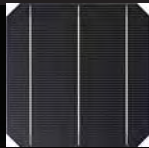
Deutsche Power

**High Efficiency
Crystalline Solar Cells**

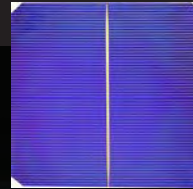
SOLAR PANEL

Crystalline Solar Cells

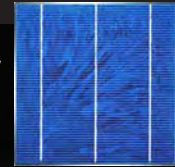
XM-125 (R165)
125 x 125 mm Mono
Crystalline Solar Cell



XM-156 (R200)
156 x 156 mm Mono
Crystalline Solar Cell



XP-156
156 x 156 mm Poly/
Quasi Mono
Crystalline Solar Cell



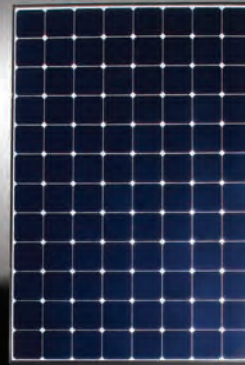
TPSM5U
185W-200W



TPSM6U
240W-255W



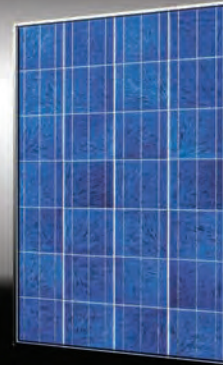
TPSM6U
285W-300W



TPSP6U
235W-250W



TPSP6U
280W-295W



Mono Crystalline Modules

Introduction

Topray Solar from "Deutsche Power" provides a complete product portfolio (mono & poly) with various power outputs.

Its modules are covered by special PV (PHOTOVOLTAIC) module insurances from Zurich Insurance and other international insurance company to guarantee the benefit of PV investors and PV module users.

All Deutsche Power (Topray) modules are plus power tolerance only to ensure the high reliability of power output.

Deutsche Power (Topray) proprietary PV glass design improves module's oblique irradiance performance and enhances module yield in low-light and medium-angle-light condition.

All Deutsche Power (Topray) modules can withstand high level of wind loads (2400 Pa) and snow loads (5400 Pa) certified by TÜV Rheinland.

Key features:

- Plus power tolerance (0-3%) to ensure the high reliability of power output.
- Modules certified by TÜV to withstand high level of wind loads (2400 Pa) and snow loads (5400 Pa)*.
- Anti-reflective, hydrophobic layer of module surface (proprietary 800°C online coating technology) improves light absorption and reduces surface dust.
- Easy installation and minimal maintenance with compatibility to industry standard inverters and mounting systems.
- Junction box and bypass diodes guarantee the modules free of overheating and "hot spot effect" Large LCD Display.
- Modules' excellent performance under low light environments (mornings, evenings, and cloudy days) create better kWh/kW ratio and produce average 2-3% more electricity in the field.

SOLAR PANEL

TECHNICAL SPECIFICATION

Cell Type	Number of cells	Dimensions (A-B-C)	Weights	Front Glass	Frame	Junction Box	Connector	Output Cables
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185W/190W/195W/200W Mono Crystalline Photovoltaic Module

Mono crystalline 125×125 mm (5 inches)	72 (6×12)	1581×809×35 mm	13kg	3.2 mm Low iron tempered glass	Anodized aluminum	IP 65, with bypass diodes	MC4 compatible	TÜV, length 900mm, 4.0mm ²
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230W/235W/240W/245W/250W Poly Crystalline Photovoltaic Module

Poly crystalline 156×156 mm (6 inches)	60 (6×10)	1640×992×40 mm	18.6kg	3.2 mm Low iron tempered glass	Anodized aluminum	IP 65, with bypass diodes	MC4 compatible	TÜV, length 900mm, 4.0mm ²
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285W/290W/295W/300W Mono Crystalline Photovoltaic Module

Poly crystalline 156×156 mm (6 inches)	72 (6×12)	1956×992×50 mm	23kg	3.2 mm Low iron tempered glass	Anodized aluminum	IP 65, with bypass diodes	MC4 compatible	TÜV, length 900mm, 4.0mm ²
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Module

P/N																Maximum Power at STC (Pmax)															
100W	120W	185W	190W	195W	200W	230W	235W	240W	245W	250W	285W	290W	295W	300W	100W	120W	185W	190W	195W	200W	230W	235W	240W	245W	250W	285W	290W	295W	300W		
Short Circuit Current (Isc)																6.45	7.58	5.77A	5.71A	5.65A	5.61A	8.69A	8.62A	8.52A	8.39A	8.80A	285W	290W	295W	300W	
Open Circuit Voltage (Voc)																22.30	21.60	45.40V	45.20V	44.90V	44.60V	36.60V	36.80V	36.90V	37.10V	37.20V	8.57A	8.61A	8.68A	8.71A	
Maximum Power Current (Impp)																5.81A	6.82A	5.41A	5.36A	5.28A	5.20A	7.80A	7.92A	8.06A	8.14A	8.6A	44.60V	44.70V	45.00V	45.20V	
Maximum Power Voltage (Vmpp)																17.2V	17.6V	37.00V	36.40V	36.00V	35.60V	29.50V	29.70V	29.80V	30.10V	30.30V	8.05A	8.15A	8.24A	8.30A	
Encapsulated Cell Efficiency																18.90%	18.62%	18.10%	17.60%	17.20%	16.70%	15.75%	16.09%	16.44%	16.78%	17.12%	16.35%	16.64%	16.93%	17.21%	
Module Efficiency																16.08%	15.80%	15.60%	15.20%	14.90%	14.50%	14.14%	14.44%	14.75%	15.06%	15.37%	14.66%	14.92%	15.17%	15.43%	
Power Tolerance																0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%	0/+3%