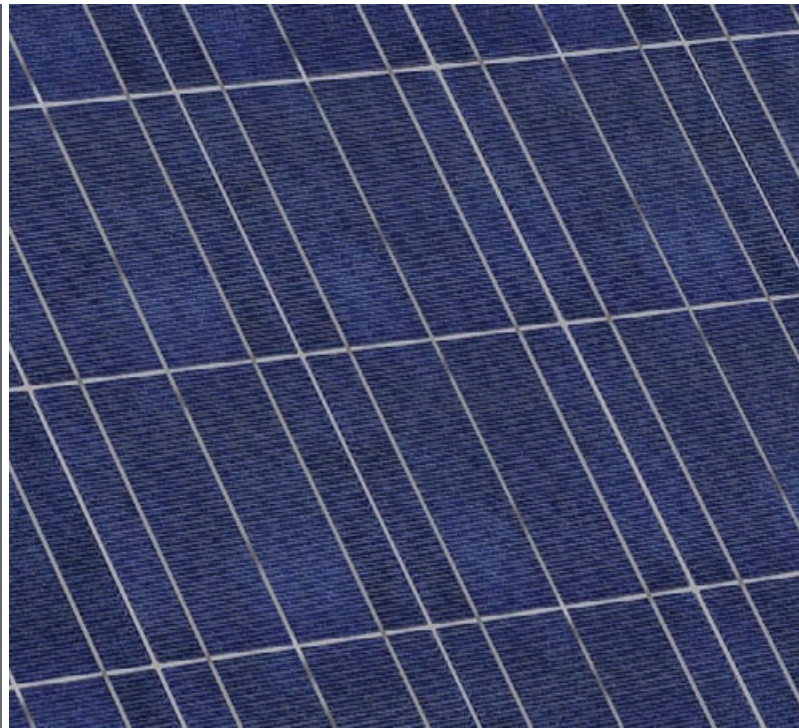
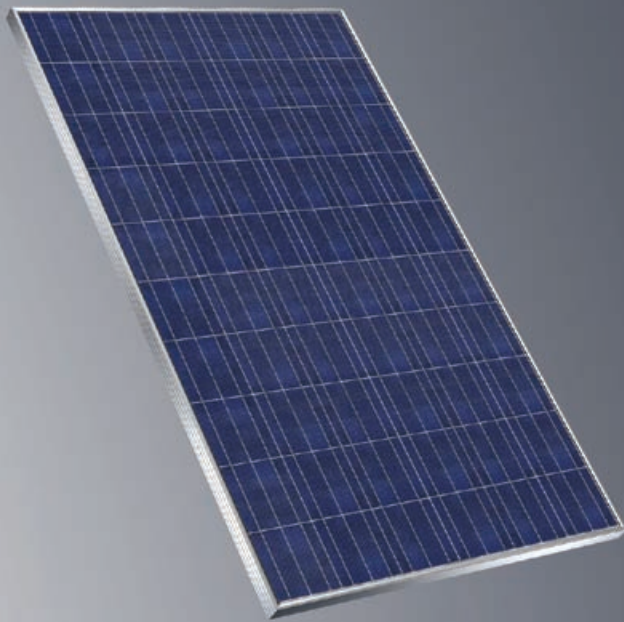


# Schüco MPE Modules in the PS 09 Series

Technical Information for Performance Classes 220 - 240 W<sub>p</sub>



## Durable and Economical Polycrystalline Modules

Schüco MPE Modules in the PS 09 Series are known for their rugged design and outstanding performance, making them a popular choice for both commercial and residential installations.

The production process for Schüco polycrystalline cells is more energy efficient than that of some other photovoltaic technologies, helping the earth and the bottom line. Starting with high quality materials, these modules are manufactured to a stringent specification, resulting in a sturdy product with optimized yields.

Schüco modules are designed to withstand a wide variety of weather extremes and manufactured to a strict set of quality standards. Performance data is measured prior to the module leaving the factory and labeled both on the backsheet and the module packaging, for a more convenient installation experience.

## Key Features

- High-efficiency polycrystalline cells provide advanced power output
- Comprehensive warranty ensures investment security and reliable system operation\*
- Perfect for both commercial and residential applications
- Manufactured with high quality, robust materials
- Schüco racking systems are specially designed for Schüco modules, resulting in optimized PV package solutions

\* In accordance with the warranty conditions of Schüco USA LLLP and Schüco Canada, Inc.



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# Schüco MPE Modules in the PS 09 Series

## Technical Data

Photovoltaic modules					
Product name	MPE 220 PS 09	MPE 225 PS 09	MPE 230 PS 09	MPE 235 PS 09	MPE 240 PS 09
Schüco article number	232 615	232 616	232 617	232 618	232 619
Cell type	Poly				
Number of cells / cell arrangement	60 / 6 x 10				
Cell dimension	6" (156 mm)				
Module efficiency	13.4 %	13.7 %	14.0 %	14.3 %	14.6 %

Electrical specifications						
STC rated output ( $P_{mpp}$ )	220	225	230	235	240	$W_p$
PTC rated output ( $P_{mpp}$ )	199.5	204.1	208.8	213.4	218.1	
Output tolerance STC ( $\Delta P_{mpp}$ )	+5 / -0					%
Warranted power output STC ( $P_{mpp, min}$ )	220	225	230	235	240	$W_p$
Rated voltage ( $V_{mpp}$ )	28.02	28.40	28.78	29.16	29.54	V
Rated current ( $I_{mpp}$ )	7.86	7.92	7.99	8.06	8.13	A
Open circuit voltage ( $V_{oc}$ )	36.92	37.14	37.35	37.56	37.77	V
Short circuit current ( $I_{sc}$ )	8.46	8.49	8.53	8.56	8.59	A

Electrical specification parameters		
Temperature coefficient $\alpha$ ( $P_{mpp}$ ) <sup>1)</sup>	-0.469	% / °C
Temperature coefficient $\beta$ ( $I_{sc}$ ) <sup>1)</sup>	+0.052	
Temperature coefficient $\chi$ ( $U_{oc}$ ) <sup>1)</sup>	-0.344	
Normal Operating Cell Temperature (NOCT) <sup>2)</sup>	109.4 ± 3.6 (43.4 ± 2)	°F (°C)
Maximum system voltage USA NEC	600	V
Max. series fuse rating	15	A

Mechanical specifications	
Frame technology	Aluminum frame, silver
Compound	Glass / EVA / backsheet
Weight (module only)	44.1 lbs (20 kg)
Junction box IP rating	IP 65
Cable type / diameter	USE-2 / 4 mm <sup>2</sup>
Cable length	39.37" ± 1.97" (1000 mm ± 50 mm)
Connector type	Schüco MC-T4 compatible

Qualification and warranties	
Product standard	UL 1703
Extended product warranty <sup>3)</sup>	5 years
Output warranty of 90% performance $P_{mpp}$ (STC) <sup>3)</sup>	12 years
Output warranty of 80% performance $P_{mpp}$ (STC) <sup>3)</sup>	25 years

<sup>1)</sup> Irradiance 1,000 W/m<sup>2</sup>, air mass index 1.5, cell temperature 77°F (25°C)

<sup>2)</sup> Irradiance 800 W/m<sup>2</sup>, wind speed 1 m/s, ambient temp. 68°F (20°C)

<sup>3)</sup> In accordance with the warranty conditions of Schüco USA LLLP and Schüco Canada, Inc.

Miscellaneous	
Packing unit	2 modules
Weight of packing unit	90.4 lbs (41 kg)

