

Schüco MPE Modules in the SMAU-1 Series

Technical Information for Performance Class 200 - 220 W_p



Highly Efficient Monocrystalline Technology

Schüco MPE Modules in the SMAU-1 Series are distinguished by their exceptionally efficient monocrystalline cells. By producing more electricity per square foot installed, Schüco's SMAU-1 line is a perfect fit for urban settings or projects where space is limited.

Monocrystalline cell technology delivers unquestionably high performance and reliable longevity. A reduction in the use of fossil fuels and greenhouse gases is a given, but increased revenues can be realized by reductions in electric bills or the sale of electricity. The proven, well-established performance of monocrystalline cells ensures investment security and peace of mind.

Each SMAU-1 module is designed to withstand a wide variety of weather extremes and manufactured to Schüco's stringent 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

- Higher efficiencies mean more power produced per square foot installed
- Proven monocrystalline technology translates into longevity and bankability
- Manufactured with high quality, robust materials
- Comprehensive warranty ensures investment security and reliable system operation*
- Schüco racking systems are specially designed for Schüco modules, resulting in optimized PV package solutions

* In accordance with the warranty conditions of Schüco USA L.P. and Schüco Canada, Inc.



Green Technology for the Blue Planet
Clean energy from solar and windows

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Schüco MPE Modules in the SMAU-1 Series

Technical Data

Photovoltaic modules				
Product name	SPV 200 SMAU-1	SPV 210 SMAU-1	SPV 215 SMAU-1	SPV 220 SMAU-1
Schüco article number	232 935	232 936	272 548	272 549
Cell type	mono			
Number of cells / cell arrangement	54 / 6 × 9			
Cell dimension	6" (152.4 mm)			
Module efficiency	13.7 %	14.3 %	14.7 %	15.0 %

Electrical specifications					
STC rated output (P_{mpp})	200	210	215	220	W_p
PTC rated output (P_{mpt})	179.0	188.2	192.9	197.5	
Output tolerance STC (ΔP_{mpp})	+5 / -0				%
Warranted power output STC ($P_{mpp, min}$)	200	210	215	220	W_p
Rated voltage (U_{mpp}^*)	25.38	26.33	26.58	26.67	V
Rated current (I_{mpp}^*)	7.89	7.98	8.09	8.25	A
Open circuit voltage (U_{oc}^*)	33.53	33.68	33.77	33.86	V
Short circuit current (I_{sc}^*)	8.24	8.35	8.47	8.61	A

Electrical specification parameters		
Temperature coefficient α (P_{mpp}) ¹⁾	-0.50	% / °C
Temperature coefficient β (I_{sc}) ¹⁾	+0.03	
Temperature coefficient χ (U_{oc}) ¹⁾	-0.33	
Temperature coefficient δ (I_{mpp}) ¹⁾	+0.03	
Temperature coefficient ϵ (U_{mpp}) ¹⁾	-0.33	
Normal Operating Cell Temperature (NOCT) ²⁾	45 ± 2	°C
Maximum system voltage USA NEC	600	V
Max. series fuse rating	15	A

Mechanical specification	
Frame technology	Aluminum frame, black
Compound	Glass / EVA / backsheet
Weight (module only)	37.9 lbs (17.2 kg)
Junction box IP rating	IP 65
Cable length / diameter	39.37 in ± 1.97 in 1000 mm ± 50 mm
Connector type	Tyco SOLARLOK Connectors / 4mm ²

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

1) Irradiance 1,000 W/m², air mass index 1.5, cell temperature 25°C (77°F)

2) Irradiance 800 W/m², wind speed 1 m/s, ambient temp. 20°C (68°F)

3) In accordance with the warranty conditions of Schüco USA L.P.

and Schüco Canada, Inc.

Miscellaneous	
Packing unit	2 modules
Weight of packing unit	80 lbs (36 kg)

