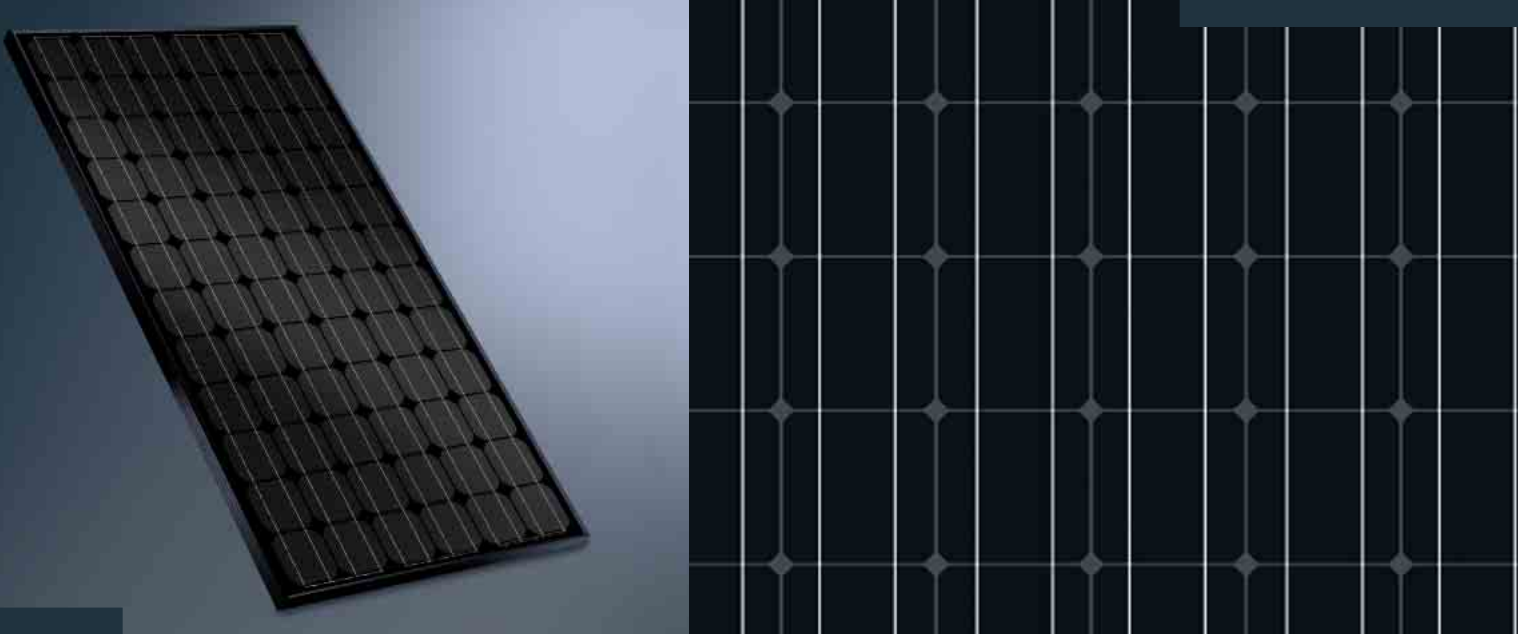


# Schüco MPE modules in the MS 05 series

Technical information on performance classes 170 to 185 W<sub>p</sub>



Schüco MPE modules in the MS 05 Series assure high-powered, reliable performance for solar projects both on- and off-grid.

Each PV cell features anti-reflective coatings, state-of-the-art silver front contacts, and full-coverage aluminum back contacts with a back surface field. Our PV cells are meticulously manufactured in accordance with the highest technical standards, ensuring excellence at every stage of the production process and resulting in highly efficient, long-life cells.

The frames are constructed of aluminum alloy for maximum endurance in rugged weather conditions. They are also given a double oxidation coating for added protection against the elements, assuring impressive longevity even under adverse conditions. The load bearing capacity for snow and wind loads is 50 lbs/sq ft (2.394 kN / sqm).

The modules fully adhere to Germany's stringent ISO 9001 and ISO 14001 quality and environmental standards. The modules are fully UL certified and UL listed based on UL 1703.

Every cell is individually inspected and power-matched to ensure consistent performance between the cells in the module array. Moreover, each PV cell is individually inspected and checked for current reversion, micro cracks, chipping and warping.

# Schüco MPE modules in the MS 05 series

Photovoltaic Modules				
Product name	MPE 170 MS 05	MPE 175 MS 05	MPE 180 MS 05	MPE 185 MS 05
Schüco article number	232 558	232 559	232 560	232 561
Electrical specifications				
STC Rated output (P <sub>mpp</sub> )*	170 Wp	175 Wp	180 Wp	185 Wp
PTC Rated output (P <sub>mpp</sub> )	153.3 Wp	158.0 Wp	162.6 Wp	167.1 Wp
Output tolerance STC (Δ P <sub>mpp</sub> )	-0/+5 %	-0/+5 %	-0/+5 %	-0/+5 %
Warranted power output STC (P <sub>mpp</sub> min)	170 Wp	175 Wp	180 Wp	185 Wp
Rated voltage (V <sub>mpp</sub> )*	35.9 V	36.1 V	36.3 V	36.5 V
Rated current (I <sub>mpp</sub> )*	4.76 A	4.85 A	4.96 A	5.09 A
Open circuit voltage (V <sub>oc</sub> )*	44.2 V	44.4 V	44.6 V	44.8 V
Short circuit current (I <sub>sc</sub> )*	5.18 A	5.26 A	5.35 A	5.47 A
Module efficiency	13.3 %	13.7 %	14.1 %	14.5 %
Temperature coefficient α (P <sub>mpp</sub> )*	-0.44 %/C	-0.44 %/C	-0.44 %/C	-0.44 %/C
Temperature coefficient β (I <sub>sc</sub> )*	+0.030 %/C	+0.030 %/C	+0.030 %/C	+0.030 %/C
Temperature coefficient γ (V <sub>oc</sub> )*	-0.33 %/C	-0.33 %/C	-0.33 %/C	-0.33 %/C
Temperature coefficient δ (I <sub>mpp</sub> )*	+0.030 %/C	+0.030 %/C	+0.030 %/C	+0.030 %/C
Temperature coefficient ε (V <sub>mpp</sub> )*	-0.33 %/C	-0.33 %/C	-0.33 %/C	-0.33 %/C
Normal Operating Cell Temperature (NOCT) **	113° F (45° C)	113° F (45° C)	113° F (45° C)	113° F (45° C)
Maximum system voltage USA NEC	600 V	600 V	600 V	600 V
Maximum system voltage SCII	600 V	600 V	600 V	600 V
Max. series fuse rating	10 A	10 A	10 A	10 A
Cell Technology				
Cell type	monocrystalline	monocrystalline	monocrystalline	monocrystalline
Number of cells / cell arrangement	72 / 6 × 12	72 / 6 × 12	72 / 6 × 12	72 / 6 × 12
Cell dimension	5" (127 mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)
Mechanical specifications				
Outer dimensions	62.20 × 31.81 × 1.57 in (1580 x 808 x 40 mm)	62.20 × 31.81 × 1.57 in (1580 x 808 x 40 mm)	62.20 × 31.81 × 1.57 in (1580 x 808 x 40 mm)	62.20 × 31.81 × 1.57 in (1580 x 808 x 40 mm)
Frame technology (if applicable)	Aluminum frame, Black	Aluminum frame, Black	Aluminum frame, Black	Aluminum frame, Black
Compound	Glass / EVA / Backsheet	Glass / EVA / Backsheet	Glass / EVA / Backsheet	Glass / EVA / Backsheet
Weight (module only)	33.1 lbs (15 kg)	33.1 lbs (15 kg)	33.1 lbs (15 kg)	33.1 lbs (15 kg)
Junction Box IP rating	IP 65	IP 65	IP 65	IP 65
Cable length / diameter (if applicable)	40 in ± 2 in (1016 mm ± 50.8 mm)	40 in ± 2 in (1016 mm ± 50.8 mm)	40 in ± 2 in (1016 mm ± 50.8 mm)	40 in ± 2 in (1016 mm ± 50.8 mm)
Connector type	Schüco MC-T4 compatible	Schüco MC-T4 compatible	Schüco MC-T4 compatible	Schüco MC-T4 compatible
Qualification and warranties				
Product standard	UL 1703	UL 1703	UL 1703	UL 1703
Extended product warranty	5 years	5 years	5 years	5 years
Output warranty of 90% performance P <sub>mpp</sub> (STC)	12 years	12 years	12 years	12 years
Output warranty of 80% performance P <sub>mpp</sub> (STC)	25 years	25 years	25 years	25 years
Miscellaneous				
Packing unit	2 modules	2 modules	2 modules	2 modules
Weight of packing unit	68.4 lbs (33 kg)	68.4 lbs (33 kg)	68.4 lbs (33 kg)	68.4 lbs (33 kg)

\* Irradiance 1,000 W / m<sup>2</sup>, air mass index 1.5, cell temperature 25° C

\*\* Irradiance 800 W / m<sup>2</sup>, ambient temperature 20° C, wind speed 1 m/s, air mass index 1.5

Schüco USA L.P.  
www.schuco-usa.com

Schüco Canada Inc.  
www.schuco.ca