

Schüco MPE modules in the MS 06 series

Technical information on the output categories 185 to 195 W_p



PV module of the highest quality

Schüco MPE modules in the MS 06 series are distinguished by monocrystalline solar cells with high cell efficiency for maximum outputs per square metre of module area. Due to the positive output tolerance of +5/-0 %, the rated output is achieved or exceeded.

Comprehensive guarantee*

The modules have an extended 10-year product guarantee. In fact, the guarantee on performance values is considerably longer – after 25 years, a Schüco MPE module in the MS 06 series will still provide at least 80 % of its rated output. Every module is manufactured according to current quality standards.

Optimum labelling

Prior to delivery, every module is subject to a visual and electrical quality test. The output data measured is indicated on the back of the module and on the packaging. Homogeneous module fields can be grouped together quickly and effectively during installation.

High level of operational reliability

Schüco MPE modules in the MS 06 series have a connecting box on the reverse of the module that is fitted with three bypass diode bridges. This prevents individual solar cells from overheating (hot-spot effect). This ensures the reliable operation of the whole system from module fields to inverters. The connecting box, solar cables and plug systems are of the highest quality and are also certified as individual components.

New retaining clamp concept

The innovative retaining clamp groove in the frame ensures an optimised interlock, thereby reducing the load on the retaining clamp.

Sustainable and robust

An increased resistance to corrosion and ammonia, tested in accordance with IEC 61701:1995 and IEC TC82/600E, allows the modules to be used in open countryside and in coastal regions.

Schüco MPE PV modules in the MS 06 series can be installed using components from the Schüco MSE 210 mounting system.

* In accordance with the Schüco International KG conditions of warranty



Schüco MPE modules in the MS 06 series*

Key electrical data	Module output categories		
Performance data (except NOCT) under Standard Test Conditions (STC) ¹⁾ :	MPE 185 MS 06	MPE 190 MS 06	MPE 195 MS 06
Rated output (P_{mpp})	185 Wp	190 Wp	195 Wp
Output tolerance (ΔP_{mpp})	+5%/-0%	+5%/-0%	+5%/-0%
Guaranteed minimum output ($P_{mpp, min}$)	185 Wp	190 Wp	195 Wp
Rated voltage (U_{mpp})	36.0 V	36.5 V	36.8 V
Rated current (I_{mpp})	5.15 A	5.20 A	5.31 A
Open-circuit voltage (U_{oc})	45.20 V	45.60 V	45.40 V
Short circuit current (I_{sc})	5.50 A	5.55 A	5.70 A
Cell efficiency	17.25 %	18.05 %	18.35 %
Module efficiency	14.46 %	14.86 %	15.25 %
Temperature coefficient α (P_{mpp})		-0.47 %/°C	
Temperature coefficient β (I_{sc})		+0.03 %/°C	
Temperature coefficient χ (U_{oc})		-0.35 %/°C	
Temperature coefficient δ (I_{mpp})		+0.03 %/°C	
Temperature coefficient ϵ (U_{mpp})		-0.35 %/°C	
Normal Operating Cell Temperature (NOCT) ²⁾		47 °C (± 2 °C)	
Max. permissible system voltage		1,000 V	
Number of cells		72 (6 x 12)	
Cell size		125 x 125 mm	

¹⁾ Intensity of solar radiation 1000 W/m², air mass 1.5, cell temperature 25 °C. PV modules show electrical performance degradation over time. This occurs after commissioning, initially on a decreasing scale, then later in a linear progression.

²⁾ Intensity of solar radiation 800 W/m², ambient temperature 20 °C, wind speed 1 m/s.

All key electrical data, with the exception of the rated output, is subject to a tolerance of +/-5 %. Key electrical data is typical values based on the measurement data from a produced module. No guarantee of the accuracy of the data is to be assumed for future production batches.

Key mechanical data	
Outer dimensions (L x W x H)	1,581 x 809 x 42 mm
Design of aluminium frame	Anodised, silver (similar to RAL 7035)
Front glass	Toughened safety glass (TSG)
Weight	16 kg
Connection system / cross section solar cable	Schüco / 4 mm ² (MC-T4 compatible)
Lengths: positive cable / negative cable	100 cm \pm 5 cm / 100 cm \pm 5 cm

Qualification and guarantees ³⁾	
Electrical classification	Safety class II
Product standard	IEC 61215, EN 61730
Tested snow and wind loads	Up to 7.5 kN/m ²
Extended product warranty	10 years
Output guarantee to 90 % $P_{mpp, min}$	12 years
Output guarantee to 80 % $P_{mpp, min}$	25 years

³⁾ In accordance with the Schüco International KG conditions of warranty

Miscellaneous	MS 06 1 series ⁴⁾	MS 06 2 series ⁴⁾
Weight of packing unit	33 kg	
Schüco mounting system	MSE 210	
Schüco retaining clamps	Type 43	
Art. No. Schüco MPE 185 MS 06	273 479	257 848
Art. No. Schüco MPE 190 MS 06	273 480	272 030
Art. No. Schüco MPE 195 MS 06	274 054	274 055
Packing unit	2 modules	

⁴⁾ The colour of cells may vary between the Schüco MPE modules in the 1 and 2 series.



Certified by Kiwa Quality

Output	
185 to 195 W _p	▶ Maximum outputs with a compact module surface area
Positive output tolerance	▶ Rated output is achieved or exceeded
Design and production	
Optimum labelling	▶ Individual output data on module and packaging
Innovative retaining clamp groove	▶ Streamlined look and optimised interlock
Anodised aluminium frame	▶ Meets highest standards in terms of stability and corrosion resistance
Bypass diodes	▶ Reliable prevention of "hot-spot effect"
Highest Schüco quality	
Manufactured to current quality standards	▶ Output data tested and results listed for each module
Extended product warranty and output guarantee	▶ Investment security and reliable system operation

Subject to change

* Availability of the performance class will be checked on request.