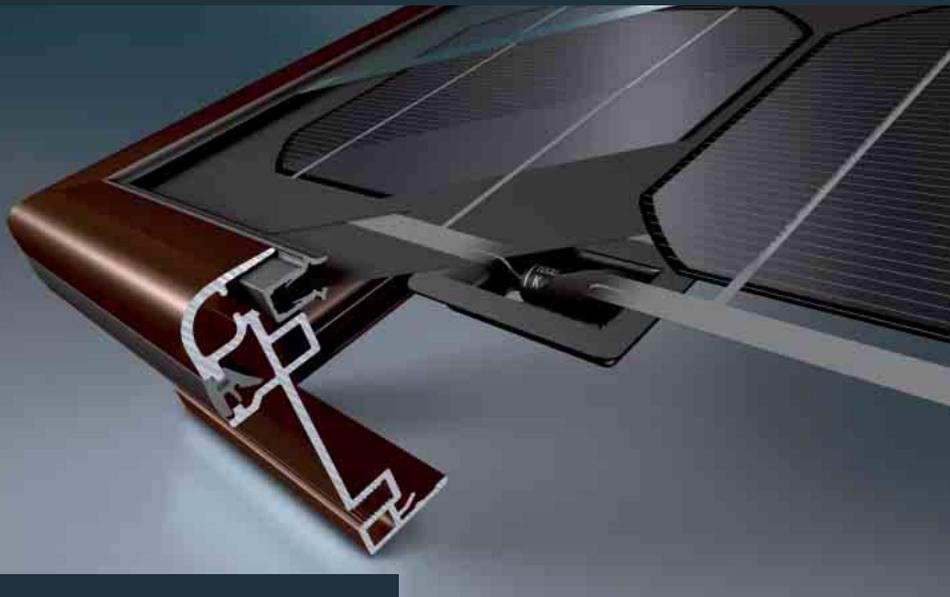


Schüco MPE modules in the MP series

Monocrystalline Photovoltaic Modules



Schüco Premium Line: designed to perfection

The Schüco Premium Line denotes uncompromising quality, individual installation options and innovative and elegant design. Photovoltaic modules in the MP module series supplement the Schüco Premium Line with high-performance photovoltaic components.

Perfect integration and a variety of installation options

Schüco MP module series have an anodized aluminum frame that is available in any RAL color on request. The modules are suitable for on-roof, flat-roof, in-roof, and whole roof installation without visible retaining clips and can be installed on the façade or as a canopy.

They can be combined with Schüco solar thermal collectors and roof windows in the same module size – combined in a seamless roof-integration system called Synergy-Roof.

PV module of the highest quality

Schüco PV modules in the MP module series have monocrystalline solar cells with a dark Tedlar foil backing. The modules have a rated output up to 320 Wp thanks to their unusually large surface area. The performance tolerance is $\pm 3\%$; only modules of the highest quality provide this level of reliability.

Comprehensive warranty

Schüco MP module series have a 5-year product guarantee. In fact, the warranty on output values is considerably longer – after 25 years, the Schüco module will still provide at least 80% of its rated output. Every Premium module is manufactured according to current quality standards.

High level of operational reliability

Schüco MP modules series have eight connecting buttons on the back that are each fitted with a bypass diode bridge. This prevents individual solar cells from overheating (hot-spot effect). This ensures the reliable operation of the whole system from module fields to inverters.

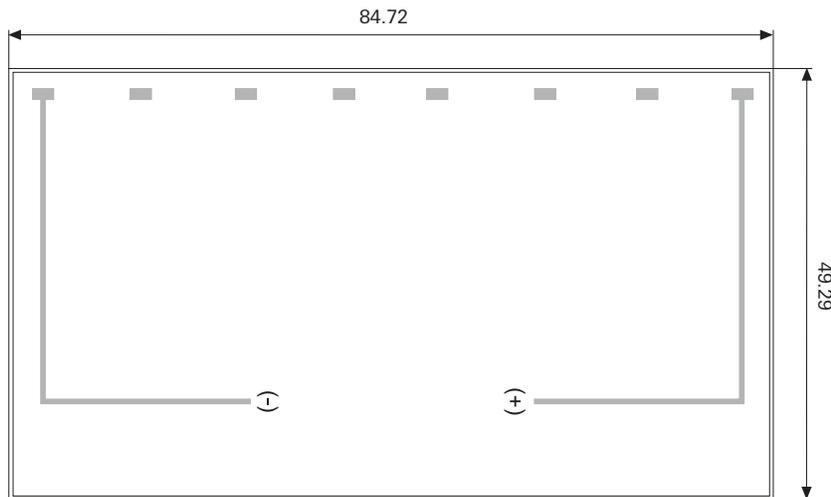
SCHÜCO

Technical Data

Electrical specifications		
Product name	MPE 310 MP 02	MPE 320 MP 02
Rated output STC (P_{mpp})*	310 W _p	320 W _p
Effective output tolerance (ΔP_{mpp})	+3 % / -3 %	+3 % / -3 %
Warrantied minimum output STC (P_{mpp})*	310 W _p	320 W _p
Rated voltage (V_{mpp})*	72.3 V	72.3 V
Rated current (I_{mpp})*	4.3 A	4.4 A
Open circuit voltage (V_{oc})*	88.1 V	88.1 V
Short circuit current (I_{sc})*	4.65 A	4.75 A
Module efficiency	11.5 %	11.9 %
Number of cells	144 (9x16)	144 (9x16)
Temperature coefficient α (P_{mpp})	-0.37 % / °C	-0.37 % / °C
Temperature coefficient β (I_{sc})	+0.09 % / °C	+0.09 % / °C
Temperature coefficient χ (V_{oc})	-0.34 % / °C	-0.34 % / °C
Temperature coefficient δ (I_{mpp})	+0.09 % / °C	+0.09 % / °C
Temperature coefficient ϵ (V_{mpp})	-0.34 % / °C	-0.34 % / °C
Normal operating cell temperature (NOCT**)	114.8 °F (46°C)	114.8 °F (46°C)
Maximum system voltage permitted	600 V	600 V
Max. series fuse rating	10 A	10 A

* Irradiance 1,000 W/m², air mass index 1.5, cell temperature 25°C

** Irradiance 800 W/m², air mass index 1.5, ambient temperature 20°C, wind speed 1 m/s



Schüco USA L.P.
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Mechanical specifications	
Outer dimensions	84.72 x 49.29 x 3.66 in. (2,152 x 1,252 x 93 mm)
Aluminum frame	Anodized, bronze (appr. RAL 8019)
Front glass	Solar glass
Weight	108.03 lbs. (49 kg)
Connection system / diameter of cable	Schüco MC-T4 compatible / 4 mm ² / 12 AWG
Lengths: plus / minus cable	63 in. + 2 in. / 63 in. (160 cm + 5 cm)

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

Miscellaneous	
Weight of packing unit	110.23 lbs. (50 kg)
Schüco Art.-No. MPE 310 MP 02	232 960
Schüco Art.-No. MPE 320 MP 02	232 961
Packing unit	1 module
Mounting system	Solar Premium