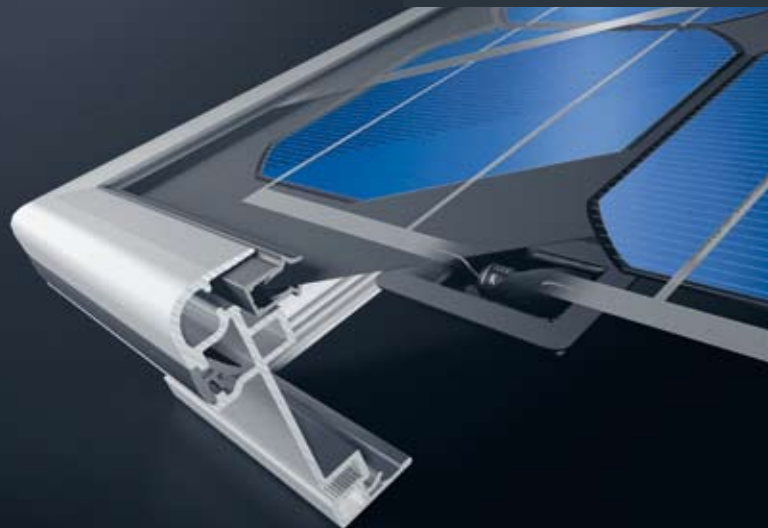
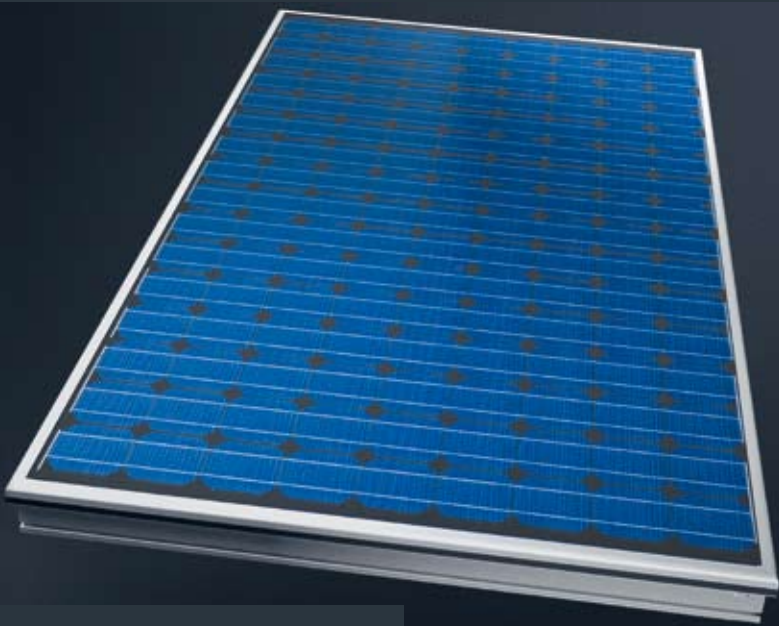


Schüco photovoltaic modules in PM-5/-6 series

Technical information



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 PM-5/-6 series supplement the Schüco Premium Line with high-performance photovoltaic components.

Perfect integration and a variety of installation options

Schüco PM-5/-6 modules have an anodised aluminium frame that is available in any RAL colour on request. The modules are suitable for on-roof, flat-roof, in-roof, and complete 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.

Highest quality PV module

Schüco PV modules in the PM-5/-6 series have monocrystalline solar cells with a dark Tedlar foil backing. The modules have a rated output of at least 310 Wp thanks to their unusually large surface area. The performance tolerance is +5/-0%; only modules of the highest quality provide this level of reliability. The rated output is always achieved or exceeded.

Comprehensive guarantee

Schüco PM-5/-6 modules have an extended 5-year product guarantee. In fact, the guarantee on performance values is considerably longer – after 25 years, the Schüco module will still provide at least 80 % of its rated output. Every PM-5/-6 module is manufactured according to current quality standards.

Optimised labelling

Prior to delivery, every PM-5/-6 module is subject to a visual and electrical quality test. The output data measured is indicated on the reverse of the module. Homogeneous module fields can be grouped together quickly and effectively during installation.

High level of operational reliability

Schüco PM-5/-6 modules have eight connecting buttons on the reverse that are each fitted with a bypass diode bridge. This prevents individual solar cells from overheating (hot-spot effect) and ensures the reliable operation of the overall system from module field and inverter.

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Key electrical data	Module output categories					
	S 310-PM-5/-6***	S 320-PM-5/-6***	S 330-PM-5/-6***	S 340-PM-5/-6***	S 350-PM-5/-6***	S 360-PM-5/-6***
Performance data (except NOCT) under Standard Test Conditions (STC)*:						
Rated output (P_{mpp})	310 W_p	320 W_p	330 W_p	340 W_p	350 W_p	360 W_p
Output tolerance (ΔP_{mpp})	+5% / -0%	+5% / -0%	+5% / -0%	+5% / -0%	+5% / -0%	+5% / -0%
Guaranteed minimum output: ($P_{mpp\ min}$)	310 W_p	320 W_p	330 W_p	340 W_p	350 W_p	360 W_p
Rated voltage (U_{mpp})	73,30 V	73,80 V	73,90 V	74,10 V	74,20 V	74,30 V
Rated current (I_{mpp})	4,25 A	4,35 A	4,50 A	4,60 A	4,75 A	4,90 A
Open circuit voltage (U_{oc})	87,50 V	87,80 V	88,40 V	89,30 V	89,40 V	89,40 V
Short circuit current (I_{sc})	5,00 A	5,10 A	5,20 A	5,30 A	5,40 A	5,50 A
Cell efficiency	15,2%	15,7%	16,2%	16,7%	17,2%	17,7%
Module efficiency	11,5%	11,9%	12,2%	12,6%	13,0%	13,4%
Temperature coefficient α (P_{mpp})	-0,45% / °C	-0,45% / °C	-0,45% / °C	-0,45% / °C	-0,45% / °C	-0,45% / °C
Temperature coefficient β (I_{sc})	+0,065% / °C	+0,065% / °C	+0,065% / °C	+0,065% / °C	+0,065% / °C	+0,065% / °C
Temperature coefficient χ (U_{oc})	-0,35% / °C	-0,35% / °C	-0,35% / °C	-0,35% / °C	-0,35% / °C	-0,35% / °C
Temperature coefficient δ (I_{mpp})	+0,065% / °C	+0,065% / °C	+0,065% / °C	+0,065% / °C	+0,065% / °C	+0,065% / °C
Temperature coefficient ϵ (U_{mpp})	-0,35% / °C	-0,35% / °C	-0,35% / °C	-0,35% / °C	-0,35% / °C	-0,35% / °C
Normal Operating Cell Temperature (NOCT)**	46 °C	46 °C	46 °C	46 °C	46 °C	46 °C
Max. permissible system voltage	1.000 V	1.000 V	1.000 V	1.000 V	1.000 V	1.000 V
Number of cells	144 (9 x 16)	144 (9 x 16)	144 (9 x 16)	144 (9 x 16)	144 (9 x 16)	144 (9 x 16)
Cell size	125 x 125 mm	125 x 125 mm	125 x 125 mm	125 x 125 mm	125 x 125 mm	125 x 125 mm

* Intensity of solar radiation 1000 W/m², air mass 1.5, cell temperature 25 °C

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

*** Radii of the monocrystalline cells differ between the PM-5 and PM-6 module series

Key mechanical data	
Outer dimensions (L x B x H)	2.152 x 1.252 x 93 mm
Anodised aluminium frame	silver (similar to RAL 7035)
Front glass	toughened safety glass (TSG)
Weight	49 kg
Connection system / cross-section solar cable	Schüco /4 mm ² (MC-T4 compatible)
Lengths: Positive lead / negative lead	160 cm ± 5 cm / 160 cm ± 5 cm

Qualification and guarantees	
Electrical classification for protection	class II
Product standard	IEC 61215, EN 61730
Extended product guarantee	5 years
Performance guarantee of 90% $P_{mpp\ min}$	12 years
Performance guarantee of 80% $P_{mpp\ min}$	25 years

Other	PM-5	PM-6
Weight of packing unit	50 kg	50 kg
Schüco installation system	Premium	Premium
Schüco Art.-Nr. S 310-PM-5/-6****	249955	256824
Schüco Art.-Nr. S 320-PM-5/-6****	259958	256827
Schüco Art.-Nr. S 330-PM-5/-6****	259961	256830
Schüco Art.-Nr. S 340-PM-5/-6****	259964	256833
Schüco Art.-Nr. S 350-PM-5/-6****	256563	256836
Schüco Art.-Nr. S 360-PM-5/-6****	256566	256839
Packing unit	1 module	1 module

**** Anodised silver design. For all other designs, also with rear panel for canopy installation, see current price list. In addition, frame designs are available in all RAL / anodised colours.

Subject to change

Output	
310 to 360 W_p	▶ Highest outputs with compact module surfaces
Positive output tolerance	▶ Rated output is achieved or exceeded
Design and production	
Optimised labelling	▶ Individual output data on the reverse of the module
Anodised aluminium frame	▶ Fulfils the highest quality requirements
Bypass diodes	▶ Reliably prevents "hot spot effect"
Highest Schüco quality	
Manufactured in accordance with current quality standards	▶ Tests to determine performance data; data listed for each module
Extended product guarantee and output guarantee	▶ Investment security and reliable system operation
Schüco Premium line design benefits	
Unique system with a particularly elegant appearance	▶ Optimum integration of the modules into the overall look of the building. 6 installation types. Can be combined with Schüco roof windows and thermal collectors in the same module size. Elegant frame design allows installation without visible retaining clips.