Schüco PV Modules MPE in the PG 04 Series

Technical information on the output categories 235 to 245 W_p

The ideal PV module for large installations
The Schüco MPE modules in the PG 04 series with polycrystalline solar cells are distinguished by high cell efficiency and a positive output tolerance of +5/-0 %. Therefore, these PV modules are perfectly suited for use in large installations aimed at achieving high returns.

Comprehensive guarantee*
The modules have an extended 10-year product guarantee. In fact, the guarantee on performance values is even more comprehensive – Schüco guarantees that the MPE PV modules in the PG 04 series will deliver at least 90 % of their rated output over a 12 year period, and at least 80 % of their rated output over a 25 year period under standard test conditions. Every module is manufactured according to current quality standards.

Optimum labelling
Prior to delivery, every module is subject to an electrical quality test. The output data measured is indicated on the back of the module and on the packaging.

High level of operational reliability
Schüco PV MPE modules in the PG 04 series have a connecting box on the reverse of the module that is fitted with 3 bypass diode bridges. These prevent 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.

Sustainable and robust
A tested snow and wind load guarantees an increased load-bearing capacity of 5400 Pa for the module frame.

* In accordance with the Schüco International KG conditions of warranty

Green Technology for the Blue Planet
Clean Energy from Solar and Windows

SCHÜCO

Schüco PV Modules MPE in the PG 04 Series*

PV modules				
Product name	MPE 235 PG 04	MPE 240 PG 04	MPE 245 PG 04	
Schüco Art. No.	273 776	273 777	273 778	
Cell type [1]	Polycrystalline, 3 busbars			
Number of cells / cell arrangement	60 / 6 × 10			
Cell dimensions	156 × 156 mm			
Module efficiency	14.6 %	14.9 %	15.2 %	

[1] The colour of cells may vary between a module and between the modules.

| Key electrical data				
Rated output (P_{mpp})	235	240	245	W_p
Output tolerance (Δ P_{mpp})	+5 / -0			%
Minimum output ($P_{mpp\ min}$)	235	240	245	W_p
Rated voltage (U_{mpp})*	29.8	29.9	30.0	V
Rated current (I_{mpp})*	7.90	8.03	8.17	A
Open-circuit voltage (U_{oc})*	36.9	37.0	37.1	V
Short circuit current (I_{sc})*	8.46	8.59	8.79	A
Temperature coefficient α (P_{mpp}) [2]	-0.43			
Temperature coefficient β (I_{sc}) [2]	+0.07			% / °C
Temperature coefficient χ (U_{oc}) [2]	-0.34			
Temperature coefficient ε (U_{mpp}) [2]	-0.34			
Normal Operating Cell Temperature (NOCT) [3]	45 ± 2			°C
Max. permissible system voltage	1000			V
Reverse current stability	15			A

[2] 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.

[3] 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	
Design of aluminium frame	Anodised, silver (similar to RAL 7035)
Front glass	Coated toughened safety glass (TSG) 3.2 mm
Module weight	20 kg
External dimensions (L × W × H)	1638 × 982 × 40 mm
Cable length	1100 mm
Connection system	MC-T4 compatible
Connecting box	IP65, 3 diodes
Packing unit	24 modules
Weight of packing unit	485 kg
Schüco retaining clamp	Type 44

Qualification and guarantees	
Product standard	IEC 61215, EN 61730
Extended product guarantee	10 years
Output guarantee to 90 % $P_{mpp\ min}$	12 years
Output guarantee to 80% $P_{mpp\ min}$	25 years

982 mm

1638 mm

932 mm

500 mm

1400 mm

1155 mm

Ground holes (2×) Ø 5 mm

Mounting holes (12×) 7 × 11 mm

cable −

cable +

1100 mm
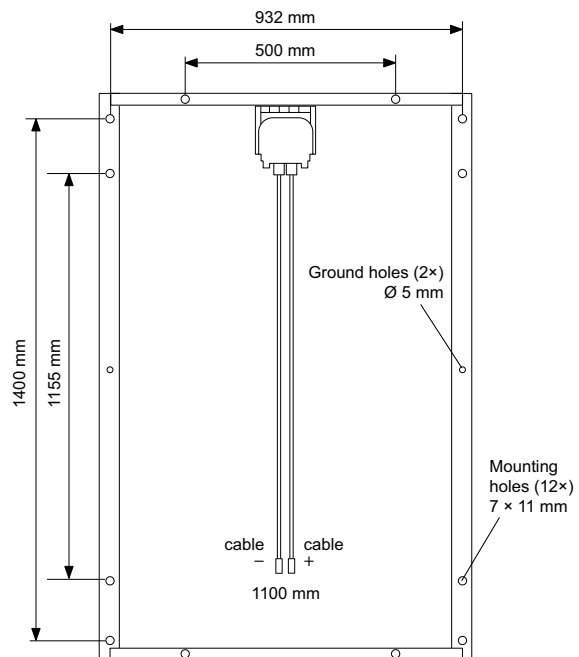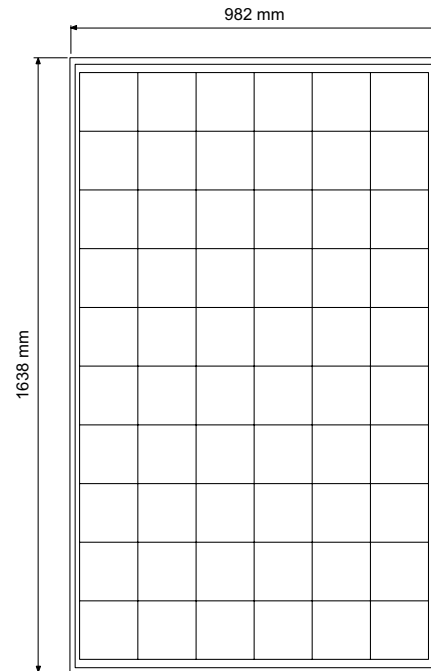
* Availability of the output category will be checked on request.