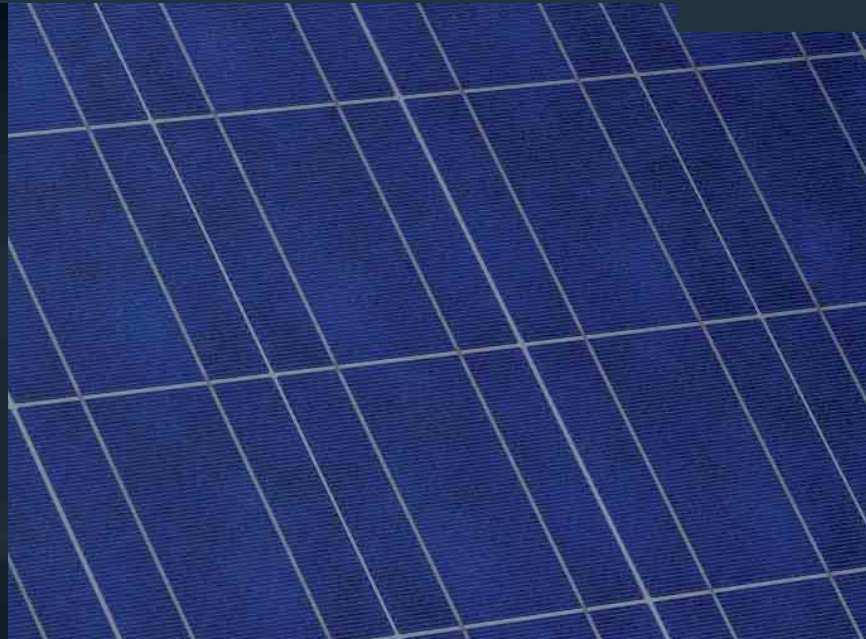


Schüco MPE modules in the PS 09 series

Technical information on performance classes 220 to 230 W_p



Highest quality PV modules

Schüco MPE modules in the PS 09 series are distinguished by polycrystalline solar cells with high cell efficiencies for the highest possible outputs per square meter of module area. The output tolerance of -0%/+5% ensures the highest quality and means increased outputs due to a guaranteed rated output for each module.

Comprehensive guarantee

Schüco MPE modules have a 5-year product guarantee. The guarantee on output values is considerably longer – after 25 years, the Schüco MPE module in the PS 09 series will still provide at least 80% of its rated output*. Every module is manufactured according to current quality standards.

Optimized labeling

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

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 modules fully adhere to Germany's stringent ISO 9001

and ISO 14001 quality and environmental standards. The modules are fully UL certified based on UL 1703. Every cell is individually inspected and power-matched to ensure consistent performance between the cells in the module array. More-over, each PV cell is individually inspected and checked for current reversion, micro cracks, chipping, warping.

*In accordance with the warranty conditions of Schüco USA L.P. and Schüco Canada Inc.

SCHÜCO

Schüco MPE modules in the PS 09 series

| Photovoltaic Modules | | | |
|-----------------------------------------------------------|---------------------------|---------------------------|---------------------------|
| Product name | MPE 220 PS 09 | MPE 225 PS 09 | MPE 230 PS 09 |
| Schüco article number | 232 537 | 232 538 | 232 539 |
| Electrical specifications | | | |
| STC Rated output (P _{mpp}) | 220 Wp | 225 Wp | 230 Wp |
| PTC Rated output (P _{mpp}) | 199.5 Wp | 204.1 Wp | 208.8 Wp |
| Output tolerance STC (Δ P _{mpp}) | -0 %/+5 % | -0 %/+5 % | -0 %/+5 % |
| Warranted power output STC (P _{mpp} min) | 220 Wp | 225 Wp | 230 Wp |
| Rated voltage (V _{mpp})* | 29.70 V | 29.76 V | 29.81 V |
| Rated current (I _{mpp})* | 7.38 A | 7.55 A | 7.69 A |
| Open circuit voltage (V _{oc})* | 36.77 V | 36.88 V | 37.00 V |
| Short circuit current (I _{sc})* | 8.12 A | 8.27 A | 8.43 A |
| Module efficiency | 13.40 % | 13.70 % | 14.01 % |
| Temperature coefficient α (P _{mpp})* | -0.46 %/C | -0.46 %/C | -0.46 %/C |
| Temperature coefficient β (I _{sc})* | +0.045 %/C | +0.045 %/C | +0.045 %/C |
| Temperature coefficient χ (V _{oc})* | -0.35 %/C | -0.35 %/C | -0.35 %/C |
| Temperature coefficient δ (I _{mpp})* | +0.045 %/C | +0.045 %/C | +0.045 %/C |
| Temperature coefficient ε (V _{mpp})* | -0.35 %/C | -0.35 %/C | -0.35 %/C |
| Normal Operating Cell Temperature (NOCT)** | 43.4 °C | 43.4 °C | 43.4 °C |
| Maximum system voltage USA NEC | 600 V | 600 V | 600 V |
| Max. series fuse rating | 15 A | 15 A | 15 A |
| Cell Technology | | | |
| Cell type | polycrystalline | polycrystalline | polycrystalline |
| Number of cells / cell arrangement | 60 / 6 × 10 | 60 / 6 × 10 | 60 / 6 × 10 |
| Cell dimension | 6" | 6" | 6" |
| Mechanical specifications | | | |
| Outer dimensions | 65.039 × 39.134 × 1.77 in | 65.039 × 39.134 × 1.77 in | 65.039 × 39.134 × 1.77 in |
| Frame technology (if applicable) | Aluminum frame, silver | Aluminum frame, silver | Aluminum frame, silver |
| Compound | Glass / EVA / Backsheet | Glass / EVA / Backsheet | Glass / EVA / Backsheet |
| Weight (module only) | 44.1 lbs | 44.1 lbs | 44.1 lbs |
| Junction Box IP rating | IP 65 | IP 65 | IP 65 |
| Cable length / diameter (if applicable) | 40 in ± 2 in | 40 in ± 2 in | 40 in ± 2 in |
| Connector type | Schüco MC-T4 compatible | Schüco MC-T4 compatible | Schüco MC-T4 compatible |
| Qualification and warranties | | | |
| Product standard | UL 1703 | UL 1703 | UL 1703 |
| Extended product warranty | 5 years | 5 years | 5 years |
| Output warranty of 90% performance P _{mpp} (STC) | 12 years | 12 years | 12 years |
| Output warranty of 80% performance P _{mpp} (STC) | 25 years | 25 years | 25 years |
| Miscellaneous | | | |
| Packing unit | 2 modules | 2 modules | 2 modules |
| Weight of packing unit | 90.4 lbs | 90.4 lbs | 90.4 lbs |

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

** Irradiance 800 W/m², Wind speed 1 m/s, ambient temp. 20 °C

Schüco USA L.P.
schuco-usa.com

