

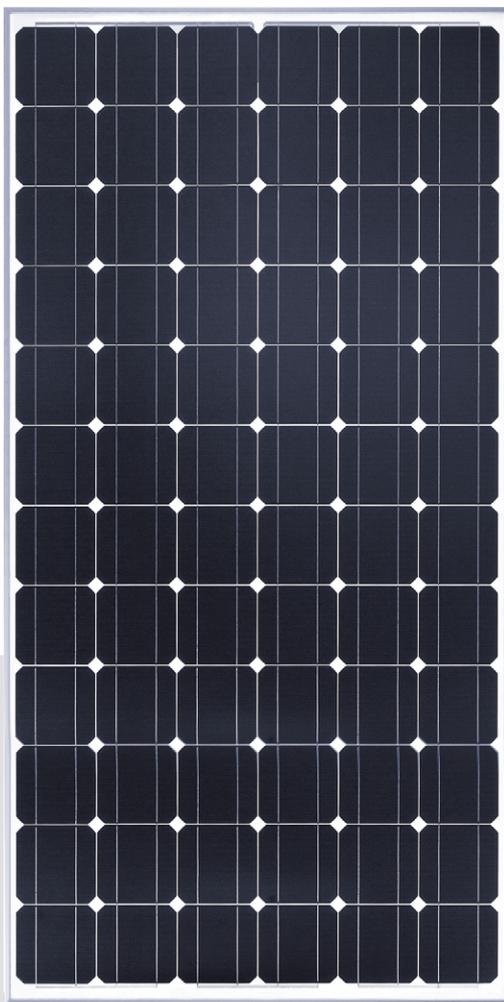


CONERGY

Conergy PH 190M–200M

The Conergy PH 190M-200M solar modules offer a multitude of possible uses at an attractive price/performance ratio. They are equipped with 72 efficient monocrystalline cells and have proven their worth in practical applications over the years. They are characterised by high yields and a long service life. The production process is certified according to the ISO 9001 international quality standard and also meets the high quality standards of Conergy. Thanks to the high-quality manufacturing and the small module width, the Conergy PH 190M–200M can be used for a variety of applications.

Solar modules in the Conergy P-series are also available with polycrystalline cells in other power classes and different module dimensions.



Benefits for the system operator

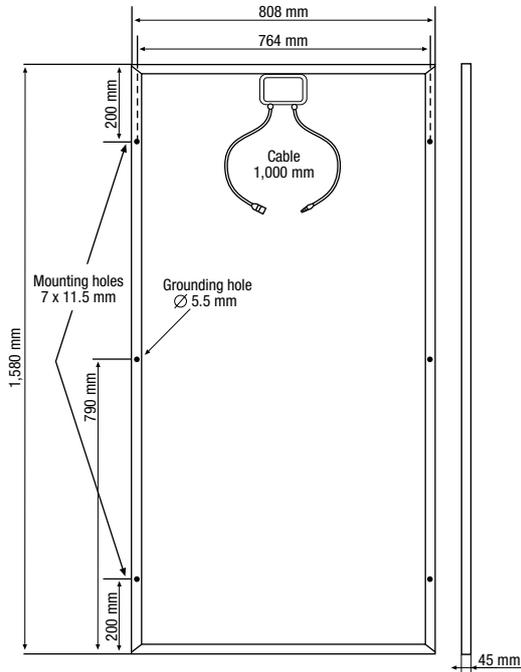
- | Attractive price/performance ratio
- | Certification in accordance with IEC/EN 61215 Ed. 2 and IEC/EN 61730
- | Performance tolerance of $\pm 2.5\%$
- | Secure investment decision thanks to a 10 year product warranty

Benefits for the installer

- | Simple installation thanks to functional connection technology
- | Option to combine with Conergy inverters and mounting systems



Conergy PH 190M–200M



Module dimensions (L × W × H): ¹	1,580 × 808 × 45 mm
Cell dimensions:	125 × 125 mm
Number of cells:	72
Cell type:	monocrystalline
NOCT: ²	48 ± 2 °C
Maximum permissible load:	5,400 Pa ³
Front cover type:	patterned solar glass
Cable:	Xinhongye PV1-F
Plug type:	PV-CY01L
Module weight: ⁴	15.0 kg
Certification in accordance with:	IEC/EN 61215 Ed. 2 IEC/EN 61730 ISO 9001:2008 ISO 14001:2004, MCS
Product warranty: ⁵	10 years
Performance guarantee 1: ⁵	10 years, 90 % of nominal output
Performance guarantee 2: ⁵	25 years, 80 % of nominal output
Maximum permissible system voltage:	1,000 V
Reverse current loadability (IR):	14 A
Frame material:	anodised aluminium

Conergy PH	190M	195M	200M
Electrical ratings under			
Nominal output (P _{nom})	190 W	195 W	200 W
Performance tolerance	± 2.5 %	± 2.5 %	± 2.5 %
Module efficiency (P _{nom})	14.88 %	15.27 %	15.67 %
MPP voltage (V _{mpp}) ⁷	36.74 V	37.10 V	37.64 V
MPP current (I _{mpp}) ⁷	5.17 A	5.25 A	5.34 A
Off-load voltage (V _{oc}) ⁷	45.37 V	45.62 V	45.87 V
Short-circuit current (I _{sc}) ⁷	5.47 A	5.55 A	5.63 A
Temperature coefficient (P _{mpp})	-0.48 %/°C	-0.48 %/°C	-0.48 %/°C
Temperature coefficient (V _{oc}), absolute	-0.161 V/°C	-0.162 V/°C	-0.163 V/°C
Temperature coefficient (V _{oc}), in per cent	-0.36 %/°C	-0.36 %/°C	-0.36 %/°C
Temperature coefficient (I _{sc}), absolute	3.4 mA/°C	3.4 mA/°C	3.5 mA/°C
Temperature coefficient (I _{sc}), in per cent	0.06 %/°C	0.06 %/°C	0.06 %/°C
Electrical rating at 800 W/			
Power (P _{mpp})	126 Wp	129 Wp	133 Wp
Off-load voltage (V _{oc})	40.68 V	40.91 V	41.13 V
Short-circuit current (I _{sc})	4.15 A	4.22 A	4.28 A
Voltage (V _{mpp})	32.79 V	33.15 V	33.44 V
Current (I _{mpp})	3.85 A	3.91 A	3.98 A

¹ Dimensional tolerance: +/- 1 mm.
² Nominal operating temperature of the cell at 800 W/m² irradiation, 20 °C ambient temperature, wind speed of 1 m/s.
³ In accordance with IEC 61215 Ed. 2.
⁴ Weight tolerance: +/- 0.5 kg.
⁵ According to Conergy AG's current warranty conditions.
⁶ Standard Test Conditions defined as follows: 1,000 W/m² radiant power at a spectral density of AM 1.5 and a cell temperature of 25 °C.
⁷ Typical production values.

This data sheet complies with the specifications of DIN EN 50380.

Available from: