CONERGY

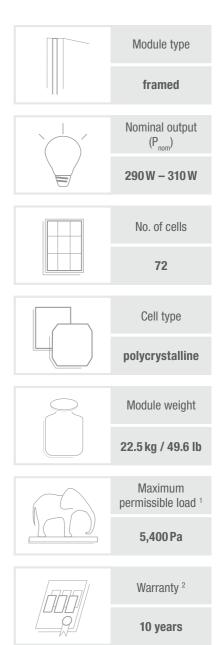
Conergy PE 290P — 310P



The Conergy P-series solar modules offer a high level of module output at an attractive price/performance ratio. They are equipped with efficient cells and have proven their worth in practical applications over the years. They are characterised by high yields and a long service life. Their production is certified in accordance with the ISO 9001, ISO 14001 and OHSAS 18001 international quality standards and meets the high quality standards of Conergy. Solar modules in the Conergy P-series are also available with monocrystalline and polycrystalline cells in other powerclasses and different module dimensions.

Benefits:

- High salt corrosion and humidity resistance complies with IEC 61701: Salt Mist Corrosion Testing
- Outstanding performance in low-light irradiance environments anti-reflective and self-cleaning surface reduces power loss from dirt and dust
- 100% EL double-inspection ensures modules are defects-free







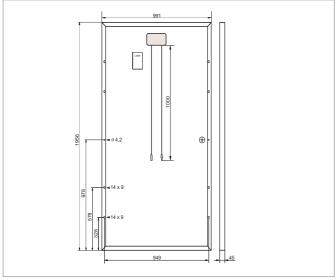
¹ In accordance with IEC 61215 Ed.2 and according to Conergy AG's current installation manual.

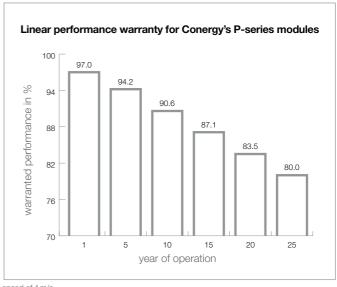
² According to Conergy AG's current warranty conditions.

Conergy PE 290P — 310P

Mechanical specification

Module dimensions (L \times W \times H)	77 x 39 x 1.77 in (1,956 × 991 × 45 mm)
Cell dimensions	156×156 mm
No. of cells	72
Cell type	Polycrystalline cell; 3-busbar technology
NOCT ³	47°C ± 2°C
Maximum permissible load ⁴	5400Pa/113psf - Front side (long side mount) 2400Pa/50psf – Front side (short side/corner mount)– Details in Install Manual 2400Pa/50psf – Back side – (negative load/wind)
Front cover type	Tempered solar glass with 4 mm thickness
Junction box	Tongling TL-Box026; Protection class IP67; 90 x 91 x 16mm
Cable	2×1,000 mm length, 4 mm ² cross-section
Plug type	Tongling TL-Cable01 (MC4 Compatible)
Frame material	Anodised aluminium
Module weight	49.6 lb (22.5 kg)
Certification:	IEC/EN 61215 Ed. 2, IEC/EN 61730, ISO 9001:2008, ISO 14001:2004, OHSAS 18001: 2007, MCS, UL1703 (US and Canada)
Product warranty ⁵	10 years
Power warranty ⁵	Linear performance warranty year 1: \geq 97 % of nominal power output year 25: \geq 80 % of nominal power output
Maximum permissible system voltage	1000vdc
Maximum Series Fuse Rating	15A





Nominal operating temperature of the cell at 800W/m² irradiation, 20° C ambient temperature, wind speed of 1 m/s In accordance with IEC 61215 Ed.2 and according to Conergy AG's current installation manual. According to Conergy AG's current warranty conditions.



Conergy PE 290P — 310P

Electrical ratings under standard test conditions ⁶

Conergy PE	290P	295P	300P	305P	310P
Nominal output (P _{nom})	≥290W	≥295W	≥300W	≥305W	≥310 W
Power class range	-0 %/+3 %	-0 %/+3 %	-0 %/+3 %	-0 %/+3 %	-0 %/+3 %
Module efficiency (P _{nom})	14.96 %	15.22%	15.48%	15.73%	15.99%
Voltage at maximum performance (V $_{\rm mpp}$) $^{\rm 7}$	36.39V	36.60 V	36.82 V	36.97 V	37.04 V
Current at maximum performance (I $_{\rm mpp}$) $^{\rm 7}$	7.97 A	8.06A	8.15 A	8.25 A	8.37A
Open Circuit Voltage ($\mathrm{V_{oc}}$) 7	45.72V	45.90 V	46.08 V	46.20 V	46.30 V
Short-circuit current (I $_{\rm sc})^{\ 7}$	8.42 A	8.48A	8.53A	8.60 A	8.69A
Temperature coefficient (P_{mpp})	-0.45 %/° C				
Temperature coefficient (V_{oc}), absolute	-0.151 V/° C	-0.152 V/° C	-0.152 V/° C	-0.153 V/° C	-0.153 V/° C
Temperature coefficient (V_{oc}), in percent	-0.33 %/° C				
Temperature coefficient (I_{sc}), absolute	5.22 mA/° C	5.26 mA/° C	5.29 mA/° C	5.33 mA/° C	5.39 mA/° C
Temperature coefficient (I_{sc}), in percent	0.062 %/° C				

Electrical rating at 800 W/m², NOCT and AM 1.5

Conergy PE	290P	295P	300P	305P	310P
Power (P _{mpp})	214.25 W	217.94W	221.72W	225.37 W	229.09W
Open Circuit Voltage ($V_{\rm oc}$)	41.80 V	41.97 V	42.14 V	42.25 V	42.34 V
Short-circuit current (I _{sc})	6.83 A	6.88A	6.92A	6.97 A	7.05 A
Voltage (V_{mpp})	33.15 V	33.34V	33.55 V	33.69 V	33.75 V
Current (I _{mpp})	6.46 A	6.54A	6.61 A	6.69 A	6.79A

⁶ Standard test conditions defined as follows: 1,000W/m² radiant power at a spectral density of AM 1.5 and a cell temperature of 25°C

Measuring tolerance STC: +/-3%.



Subject to technical modifications and errors without notice.

The datasheet complies with the specifications of DIN EN 50380.



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