



CONERGY



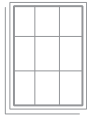
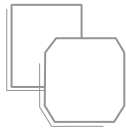

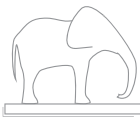

Conergy PE 290P – 310P



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

	Module type
	framed
	Nominal output (P_{nom})
	290 W – 310 W
	No. of cells
	72
	Cell type
	polycrystalline
	Module weight
	22.5 kg / 49.6 lb
	Maximum permissible load ¹
	5,400 Pa
	Warranty ²
	10 years



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

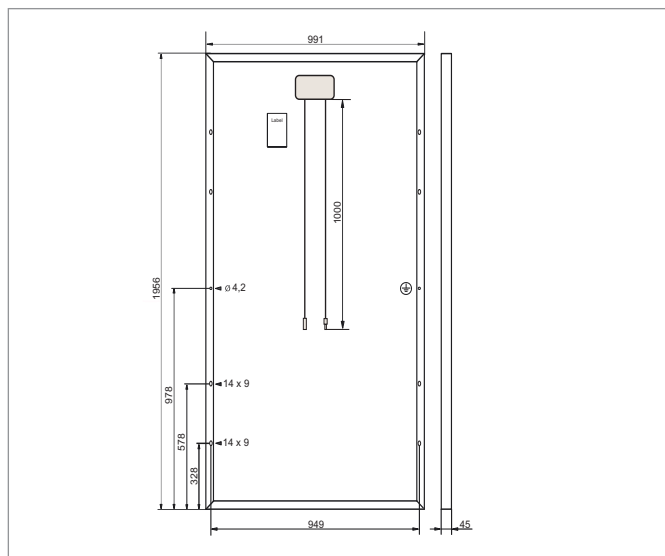
² According to Conergy AG's current warranty conditions.



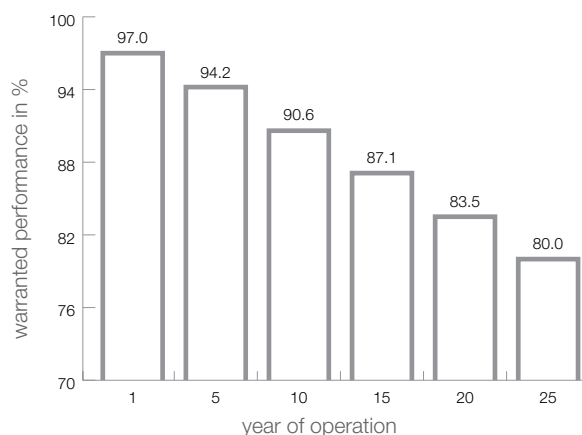
Conergy PE 290P – 310P

Mechanical specification

Module dimensions (L x W x H)	1,956 x 991 x 45 mm / 77.01 x 39.01 x 1.77 in
Cell dimensions	156 x 156 mm / 6.14 x 6.14 in
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	Zhonghuan Sunter PV-ZH011-1, Protection class IP67; 103 x 69 x 15mm
Cable	2 x 1,000 mm length, 4 mm ² cross-section
Plug type	Amphenol Helios H4 / PV-ZH202-ZBY
Frame material	Anodised aluminium
Module weight	22.50 kg / 49.60 lb
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: ≥ 97% of nominal power output year 25: ≥ 80% of nominal power output
Maximum permissible system voltage	1000vdc
Maximum Series Fuse Rating	15 A
Fire Resistance Rating	Class C



Linear performance warranty for Conergy's P-series modules



³ Nominal operating temperature of the cell at 800W/m² irradiation, 20° C ambient temperature, wind speed of 1 m/s

⁴ In accordance with IEC 61215 Ed.2 and according to Conergy AG's current installation manual.

⁵ 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	≥310W
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_{mpp}) ⁷	36.39V	36.60V	36.82V	36.97V	37.04V
Current at maximum performance (I_{mpp}) ⁷	7.97A	8.06A	8.15A	8.25A	8.37A
Open Circuit Voltage (V_{oc}) ⁷	45.72V	45.90V	46.08V	46.20V	46.30V
Short-circuit current (I_{sc}) ⁷	8.42A	8.48A	8.53A	8.60A	8.69A
Temperature coefficient (P_{mpp})	-0.45%/°C	-0.45%/°C	-0.45%/°C	-0.45%/°C	-0.45%/°C
Temperature coefficient (V_{oc}), absolute	-0.151V/°C	-0.152V/°C	-0.152V/°C	-0.153V/°C	-0.153V/°C
Temperature coefficient (V_{oc}), in percent	-0.33%/°C	-0.33%/°C	-0.33%/°C	-0.33%/°C	-0.33%/°C
Temperature coefficient (I_{sc}), absolute	5.22mA/°C	5.26mA/°C	5.29mA/°C	5.33mA/°C	5.39mA/°C
Temperature coefficient (I_{sc}), in percent	0.062%/°C	0.062%/°C	0.062%/°C	0.062%/°C	0.062%/°C

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

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

⁷ Measuring tolerance STC: +/-3%.



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