

# Conergy PM 220P-240P

The Conergy PM 220P–240P solar modules offer a high level of module output at an attractive price/performance ratio. They are equipped with 60 efficient, polycrystalline cells and come with a positive performance tolerance. They are characterised by high yields and a long service life. Their production is approved by the high quality standards of Conergy. Thanks to the high quality of manufacture and standardised dimensions, the Conergy PM 220P–240P can be used for nearly all applications.



### Benefits for the system operator

- Attractive price/performance ratio
- | High module output
- Certification in accordance with IEC/EN 61215 Ed. 2 and IEC/EN 61730
- | Positive performance tolerance of +3 %
- Secure investment decision thanks to a 5-year product warranty

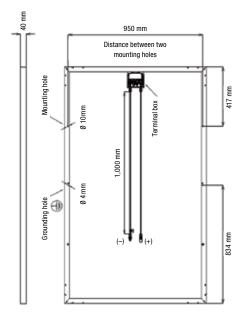
### Benefits for the installer

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



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## Conergy PM 220P-240P



Module dimensions (L  $\times$  W  $\times$  H): <sup>1</sup>  $1,668 \times 1,000 \times 40 \text{ mm}$ Cell dimensions: 156 × 156 mm

Number of cells:

Polycrystalline Cell type: 44.4±2°C NOCT: 2 Maximum permissible load: 5,400 Pa 3

Patterned solar glass Front cover type: Cable: Leoni Yukita

YJB-16 (MC4 compatible) Plug type:

Module weight: 4

Certification: In accordance with IEC/EN 61215 Ed. 2

and IEC/EN 61730, ISO 9001:2008,

ISO 14001:2004

Product warranty: 5 5 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: 1,000V Reverse current loadability (IR): 15A

Frame material: Anodised aluminium

Conergy PM	220P	225P	230P	235P	240P
Electrical ratings under standard test conditions <sup>6</sup>					
Nominal output (P <sub>nom</sub> )	220 W	225 W	230W	235 W	240 W
Performance tolerance	+3%	+3%	+3%	+3%	+3%
Module efficiency (P <sub>nom</sub> )	13.20%	13.50%	13.80%	14.10 %	14.39%
MPP voltage ( $V_{mpp}$ ) <sup>7</sup>	30.20V	30.50V	30.84V	31.14V	30.68V
MPP current (I <sub>mpp</sub> ) <sup>7</sup>	7.28 A	7.37 A	7.48 A	7.55 A	7.90 A
Off-load voltage ( $V_{oc}$ ) $^7$	36.90V	37.00 V	37.32 V	37.50 V	37.32 V
Short-circuit current (I <sub>sc</sub> ) <sup>7</sup>	7.85 A	7.89 A	8.00A	8.02A	8.50A
Temperature coefficient ( $P_{mpp}$ )	−0.44 %/° C				
Temperature coefficient ( $V_{oc}$ ), absolute	−0.118 V/° C	−0.119 V/° C	−0.119 V/° C	−0.119 V/° C	−0.119 V/° C
Temperature coefficient ( $V_{oc}$ ), in per cent	−0.32 %/° C				
Temperature coefficient ( $I_{sc}$ ), absolute	3.2 mA/° C				
Temperature coefficient ( $I_{sc}$ ), in per cent	0.04 %/° C				
Electrical rating at 800 W/m², NOCT and AM 1.5					
Power (P <sub>mpp</sub> )	168.16 Wp	171.98 Wp	175.80 Wp	179.62 Wp	183.44 Wp
Off-load voltage (V <sub>oc</sub> )	34.39V	34.48V	34.78V	34.95 V	34.78 V
Short-circuit current (I <sub>sc</sub> )	6.79A	6.82 A	6.92A	6.94A	7.35 A
Voltage (V <sub>mpp</sub> )	26.77 V	27.04 V	27.34 V	27.61 V	27.20 V
Current (I <sub>mpp</sub> )	6.26A	6.34A	6.43A	6.49A	6.79A

<sup>&</sup>lt;sup>1</sup> Dimensional tolerance: ±3 mm

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

Available at:

 $<sup>^2</sup>$  Nominal operating temperature of the cell at 800 W/m $^2$  irradiation, 20 $^{\circ}$  C ambient temperature, wind speed of 1 m/s

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