



PV module - AE 730CME-132BDS

Manufacturer	AE Solar	Commercial data	
Model	AE 730CME-132BDS	Availability :	Prod. Since 2024
		Data source :	Manufacturer 2025
Pnom STC power (manufacturer)	730 Wp	Technology	Si-mono
Module size (W x L)	1.302 x 2.383 m ²	Rough module area (Amodule)	3.10 m ²
Number of cells	2 x 66	Sensitive area (cells) (Acells)	2.91 m ²

Specifications for the model (manufacturer or measurement data)

Reference temperature (TRef)	25 °C	Reference irradiance (GRef)	1000 W/m ²
Open circuit voltage (Voc)	49.5 V	Short-circuit current (Isc)	18.49 A
Max. power point voltage (Vmpp)	41.7 V	Max. power point current (Impp)	17.51 A
=> maximum power (Pmpp)	730.2 W	Isc temperature coefficient (mulsc)	7.4 mA/°C

One-diode model parameters

Shunt resistance (Rshunt)	600 Ω	Diode saturation current (IoRef)	0.026 nA
Serie resistance (Rserie)	0.13 Ω	Voc temp. coefficient (MuVoc)	-117 mV/°C
Specified Pmax temper. coeff. (muPMaxR)	-0.29 %/°C	Diode quality factor (Gamma)	1.07
		Diode factor temper. coeff. (muGamma)	0.000 1/°C

Reverse Bias Parameters, for use in behaviour of PV arrays under partial shadings or mismatch

Reverse characteristics (dark) (BRev)	3.20 mA/V ²	(quadratic factor (per cell))	
Number of by-pass diodes per module	3	Direct voltage of by-pass diodes	-0.7 V

Model results for standard conditions (STC: T=25 °C, G=1000 W/m², AM=1.5)

Max. power point voltage (Vmpp)	41.4 V	Max. power point current (Impp)	17.69 A
Maximum power (Pmpp)	730.3 Wp	Power temper. coefficient (muPmpp)	-0.29 %/°C
Efficiency(/ Module area) (Eff_mod)	23.5 %	Fill factor (FF)	0.798
Efficiency(/ Cells area) (Eff_cells)	25.1 %		

