

WMS-30kW SOLAR PANEL

Water device designed for sunny areas

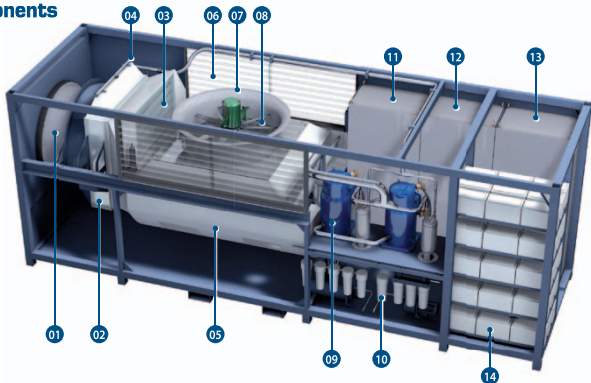
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WMS-30kW Solar Panel: Water device designed for sunny areas

Always at the forefront of innovation, Eole Water has developed a reliable and efficient solution to a growing demand: a water production device operating with solar energy. The **WMS-30kW Solar Panel** has been designed with this ambition: to produce water just from the sun. No electrical grid is needed: it is the most suitable technology for areas whose main resource is the natural and constant exposure to the sun but that are suffering of water scarcity. Operating with a clean energy source, the **WMS-30kW Solar Panel** is fully self-sufficient. It can be installed anywhere, thanks to its 20' container size, and its components have been selected to ease its maintenance.

General components

- 01 • Heat exchanger air extractor
- 02 • Heat exchanger
- 03 • Air flow regulator
- 04 • Heat exchanger self-cleaning system
- 05 • Water collector
- 06 • Sandstorms shutters
- 07 • Humidity condenser air blower
- 08 • Humidity condenser
- 09 • Cooling compressors
- 10 • Water filters
- 11 • Control unit
- 12 • Inverters
- 13 • Power unit
- 14 • Batteries



Technical Specifications

GENERAL

Rated power	35 kWp at 1000 W/m ²
Dimensions	6 m (L) x 2 m (W) x 2 m (H)
Weight	6 000 kg
Solar MPPT	P&O technology implemented
Input current range	0 - 80 A
Input voltage range	50 - 700 VDC
Battery pack	620 V / 100 Ah
Backup generator	60 kVA (option)
Sound level	65 dB(A) at 5 m

CONTROL & MONITORING

Monitoring	Programmable Logic Controller
Communication	GSM data transmission or 3G broadband
Human/Machine Interface	Touch screen - data archiving

WATER PRODUCTION IN VARIOUS CONDITIONS

Zones	Conditions	Production*
Tempered zone	25°C - 60% HR	393 l/day
Costal zone	30°C - 70% HR	500 l/day
Arid mountain zone	25°C - 40% HR	257 l/day
Desert zone	35°C - 30% HR	250 l/day

* Based on 185 kWh of average daily electricity production and 35 kWp of nominal power for the PV system.

SYSTEM DESCRIPTION

Compressor unit	2 x 15 kW SCROLL
Refrigerant gas	R410A (CFC FREE)
Air flow generator	2 x 15000 m ³ /h
Humidity condenser	Food safe stainless steel
Heat exchanger	Anti corrosion treated aluminum and copper
Regulation	Programmable Logic Controller Electronically driven expansion
Water treatment	Filtration 10 µ Carbon block filtration 1 µ Ultra filtration 0.005 µ Ultraviolet treatment Mineralization cartridge Water pressure booster unit