AirJoule PRIME

High Capacity Atmospheric
Water Harvesting System

Water Production	Up to 2000L/day (530 gal/day)
Operating Condition	5°C-50°C ambient temperature, as low as 30%RH
Water Quality	Distilled Water, Remineralized or Purified for a Purpose
Power Requirements	North America: 480 Vac 60Hz 3P+N+G 70A
	Rest of World: 400 Vac 50Hz 3P+N+G 100A
Thermal Requirements	Requires up to 100 kW_{th} of thermal energy delivered via hot-water heat exchange (closed loop). Water is used solely as a heat transfer medium and is not consumed.
Power Efficiency Target	With provided heat source: 0.15 kWh/L (0.6 kWh/gal)
Ave. Operating Power Consumption	12.5kW
Peak Power Requirement	60kW
Container Dimensions LxWxH	6.1m x 2.5m x 2.6m (20ft x 8ft x 8.5ft)
Est. Weight	10,000kg
Noise Level	< 60db at 10ft
Airflow	30k- 40K CFM

AirJoule PRIME

PERFORMANCE MODEL

AirJoule has developed performance guidance for water production, electrical energy demand, and thermal uptake for the AirJoule PRIME based on field campaigns.

AirJoule Prime Performance Model

AirJoule Prime Water Production (Liters per hour)

Temperature (°C) \ Relative Humidity (%RH)	30	35	40	45	50	55	60	65	70	75	80	85	90	95
10	16	24	31	39	45	52	58	63	68	72	76	79	82	84
15	18	26	33	40	47	53	59	65	70	74	78	81	83	85
20	20	28	36	43	49	56	62	67	72	76	80	83	86	88
25	20	28	35	42	49	55	61	67	72	76	80	83	86	88
30	13	21	28	35	42	49	54	60	65	69	73	76	79	81

AirJoule Prime Performance Model

AirJoule Prime Electrical Energy Demand (kW)

Temperature (°C) \ Relative Humidity (%RH)	30	35	40	45	50	55	60	65	70	75	80	85	90	95
10	9	10	11	11	11	11	11	11	11	12	12	12	12	12
15	9	11	12	12	11	11	11	11	11	11	12	12	12	11
20	10	11	12	11	11	10	10	10	10	10	10	11	10	10
25	10	11	11	11	10	10	9	9	9	9	10	10	10	9
30	7	9	10	10	10	10	10	10	11	11	11	12	11	11

AirJoule Prime Performance Model

AirJoule Prime Thermal Energy Demand (kW)

Temperature (°C) \ Relative Humidity (%RH)	30	35	40	45	50	55	60	65	70	75	80	85	90	95
10	19	29	38	46	54	62	69	76	81	87	91	95	98	101
15	21	31	40	48	56	64	71	78	83	89	93	97	100	103
20	24	34	43	51	59	67	74	81	86	92	96	100	103	106
25	24	33	42	51	59	67	74	80	86	91	96	100	103	105
30	16	25	34	43	51	58	65	72	78	83	88	91	95	97

Contact

If you are interested in learning more about how AirJoule's technology can help you solve your cooling or water challenges, please email us at contact@airjouletech.com or visit our website to contact us!

https://airjouletech.com