

Hydrogen Air Fuel Cells



Complete PEM Hydrogen Air Fuel Cells that are air fed / air cooled, and self-humidified. Due to these fuel cells being air cooled there is no need for large, complicated, and expensive water cooling systems. These PEM fuel cells are semi-integrated, efficient, reliable systems that minimize the use of peripherals. As such, they are the most compact and light-weight fuel cells around the world.

Products characteristics:

- Light weight and compact
- Low noise
- Simple system
- Quick startup (Less than 30 sec)
- Competitive cost

Model	H-12	H-20	H-30	H-100	H-200	H-300	H-500	H-1000	H-2000	H-3000	H-5000
Price (USD)	395	535	899	1,625	2,575	3,290	4,195	6,485	10,165	14,800	21,895
Number of Cells	13	13	14	20	40	60	24	48	48	72	120
Rated Power	12W	20W	30W	100W	200W	300W	500W	1000W (1kW)	2000W (2kW)	3000W (3kW)	5000W (5kW)
Rated Performance	7.8V @ 1.5A	7.8V @ 2.6A	8.4V @ 3.6A	12V @ 8.3A	24V @ 8.3A	36V @ 8.3A	14.4V @ 35A	28.8V @ 35A	28.8V @ 70A	43.2V @ 70A	72V @ 70A
Purging Valve Voltage	6V			12V							
Blower Voltage	5V			12V							
H2 Flow Rate at Max	0.18 L/min	0.28 L/min	0.42 L/min	1.3 L/min	2.6 L/min	3.9 L/min	6.5 L/min	13 L/min	26 L/min	39 L/min	65 L/min
Efficiency of System	40% at Full Load			40% at 12V	40% at 12V	40% at 36V	40% at 14.4V	40% at 28.8V	40% at 28.8V	40% at 43.2V	40% at 72V
Ambient Temp.	5 - 30 C; (41 - 86 F)										
Reactants	Hydrogen and Air										
H2 Purity	≥ 99.995% (dry H2)										
H2 Pressure	0.45 - 0.55 Bar										
Humidification	Self-humidified										
Cooling	Air (integrated cooling fan)										
Max Stack Temp.	55 C (131 F)			65 C (149 F)							
Stack Size (mm)	75 x 47 x 70	75 x 47 x 70	80 x 47 x 75	118 x 104 x 94	118 x 104 x 94	118 x 262 x 94	268 x 130 x 123	268 x 219 x 123	350 x 183 x 303	350 x 183 x 418	350 x 212 x 650
Controller Weight	N/A	90g	90g	400g	400g ± 30	400g ± 30	400g ± 30	400g ± 30	2500g ± 100	2500g ± 100	2500g ± 100
Stack Weight	275g ± 30g	275g ± 30g	280g ± 30g	1290g ± 30g	2230g ± 50g	2790g ± 50g	2520g ± 50g	4kg ± 100g	10kg ± 200g	15kg ± 200g	30kg ± 200g
H2 Supply Valve Voltage	12V										
Low Voltage Protection				20V	20V	30V	12V	24V	24V	36V	60V
Over Current Protection				12A	12A	12A	42A	42A	90A	90A	90A
Over Temp. Protection	65 C										
External Power Supply	13V (±1V), 5A						13V (±1V), 5-8A			24V (±1V), 8-12A	

*Prices are subject to change without prior notice.