

AEROSTAK

ULTRA-LIGHT PEM AIR-COOLED FUEL CELLS



Full line up of high-performance PEM fuel cells

Easy plug and play integration

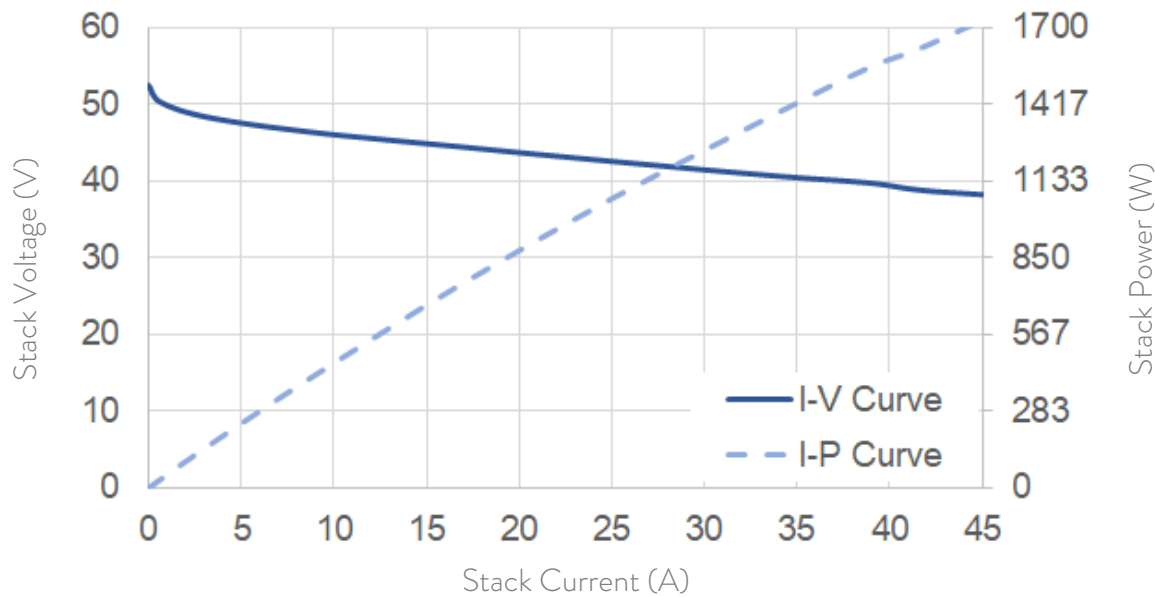
System accessories and components



AEROSTAK 1500

SPECIFICATIONS

Stack Design	54 cells
Stack Rated Power	1500 W
Stack Peak Power	1700 W
Stack Voltage Range	32.0 V - 51.3 V
Stack Current Range	0 - 45 A
Air Input Temperature	0 - 35 °C
Cooling	Air (Integrated fan)
Total FC System Weight	3000 g
FC System Dimensions (With Casing)	339 mm x 143 mm x 172 mm
Hydrogen Input Pressure	0.7 - 0.85 bar
Hydrogen Purity Required	99.999 %
Hydrogen Max. Consumption	< 26.0 L/min
Start Up Time	< 30 s
Suggested Hybrid LiPo	9 or 10S (>100C discharge rated)

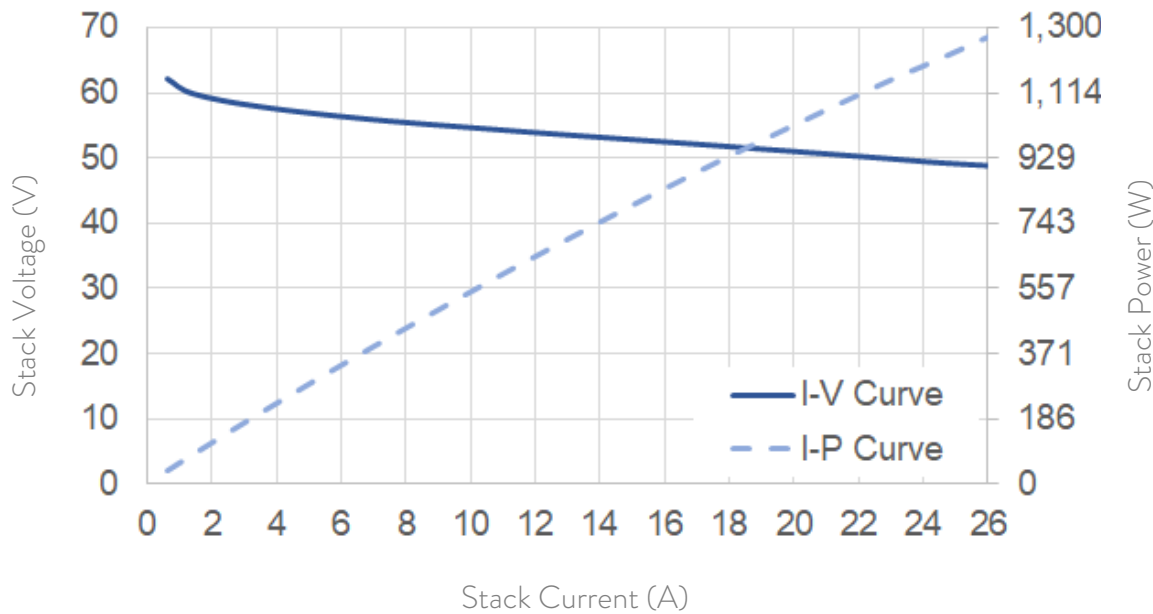




AEROSTAK 1000-HV

SPECIFICATIONS

Stack Design	65 cells
Stack Rated Power	1000 W
Stack Peak Power	1300 W
Stack Voltage Range	39.0 V - 61.8 V
Stack Current Range	0 - 35 A
Air Input Temperature	0 - 35 °C
Cooling	Air (Integrated fan)
Total FC System Weight	1800 g
FC System Dimensions (With Casing)	194 mm x 127 mm x 193 mm
Hydrogen Input Pressure	0.6 - 0.8 bar
Hydrogen Purity Required	99.999 %
Hydrogen Max. Consumption	< 16.5 L/min
Start Up Time	< 30 s
Suggested Hybrid LiPo	10S (>100C discharge rated)

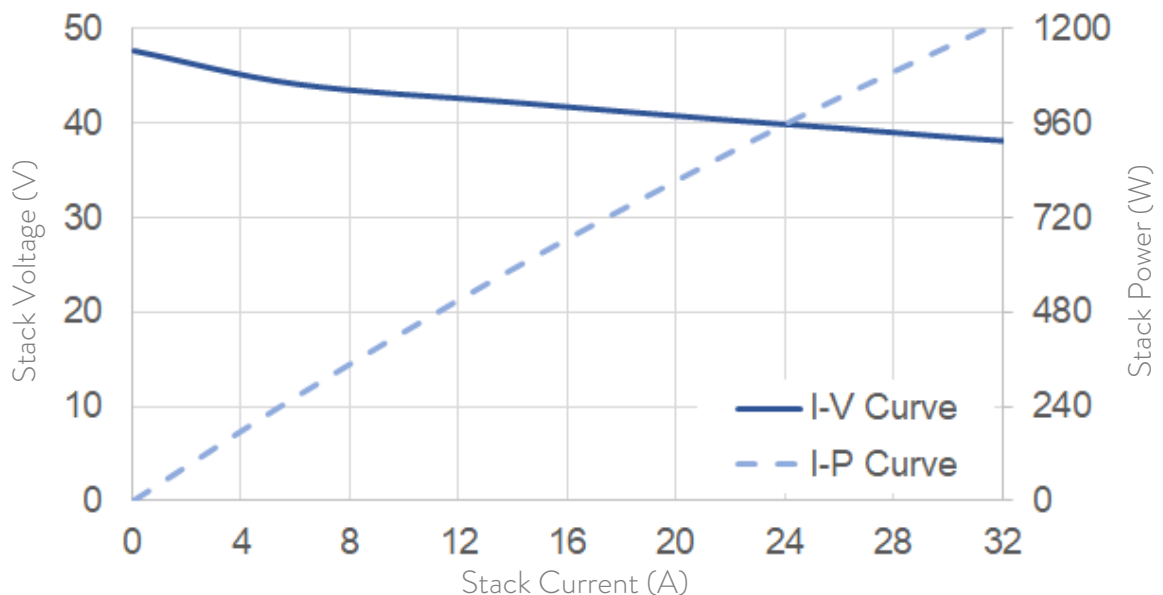




AEROSTAK 1000-LV

SPECIFICATIONS

Stack Design	50 cells
Stack Rated Power	1000 W
Stack Peak Power	1200 W
Stack Voltage Range	30.0 V - 47.5 V
Stack Current Range	0 - 40 A
Air Input Temperature	0 - 35 °C
Cooling	Air (Integrated fan)
Total FC System Weight	2036 g
FC System Dimensions (With Casing)	254 mm x 170 mm x 130 mm
Hydrogen Input Pressure	0.6 - 0.8 bar
Hydrogen Purity Required	99.999 %
Hydrogen Max. Consumption	< 16.5 L / min
Start Up Time	< 30 s
Suggested Hybrid LiPo	9S (>100C discharge rated)

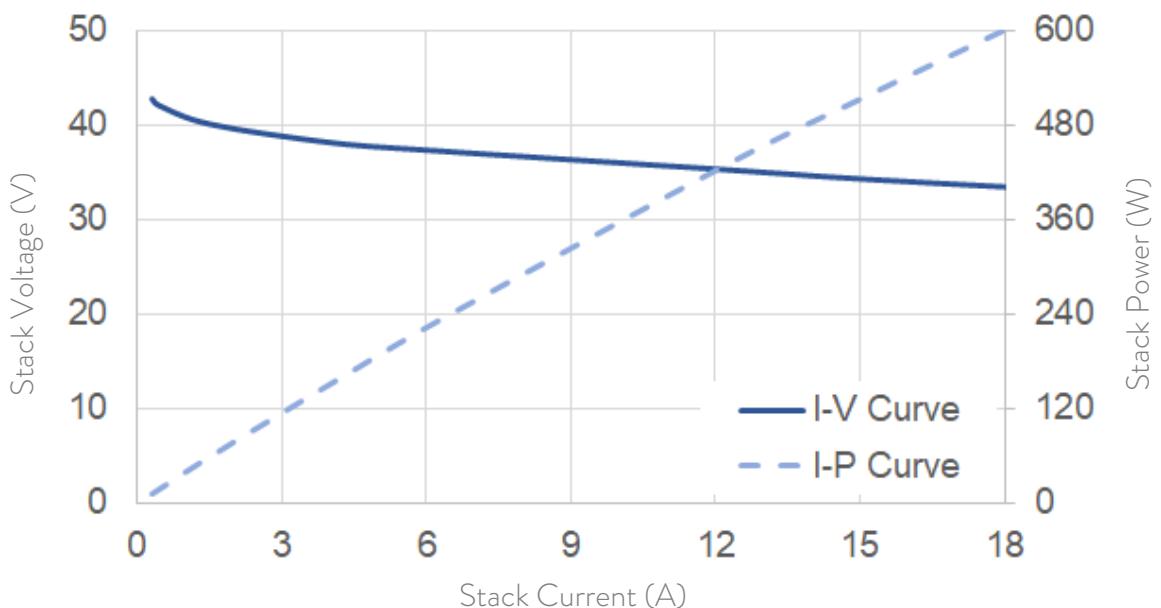




AEROSTAK 500

SPECIFICATIONS

Stack Design	45 cells
Stack Rated Power	500 W
Stack Peak Power	600 W
Stack Voltage Range	27.0 V - 42.8 V
Stack Current Range	0 - 25 A
Air Input Temperature	0 - 35°C
Cooling	Air (Integrated fan)
Total FC System Weight	1300 g
FC System Dimensions (With Casing)	194 mm x 105 mm x 166 mm
Hydrogen Input Pressure	0.6 - 0.8 bar
Hydrogen Purity Required	99.999 %
Hydrogen Max. Consumption	< 7.6 L/min
Start Up Time	< 30 s
Suggested Hybrid LiPo	8S (>100C discharge rated)

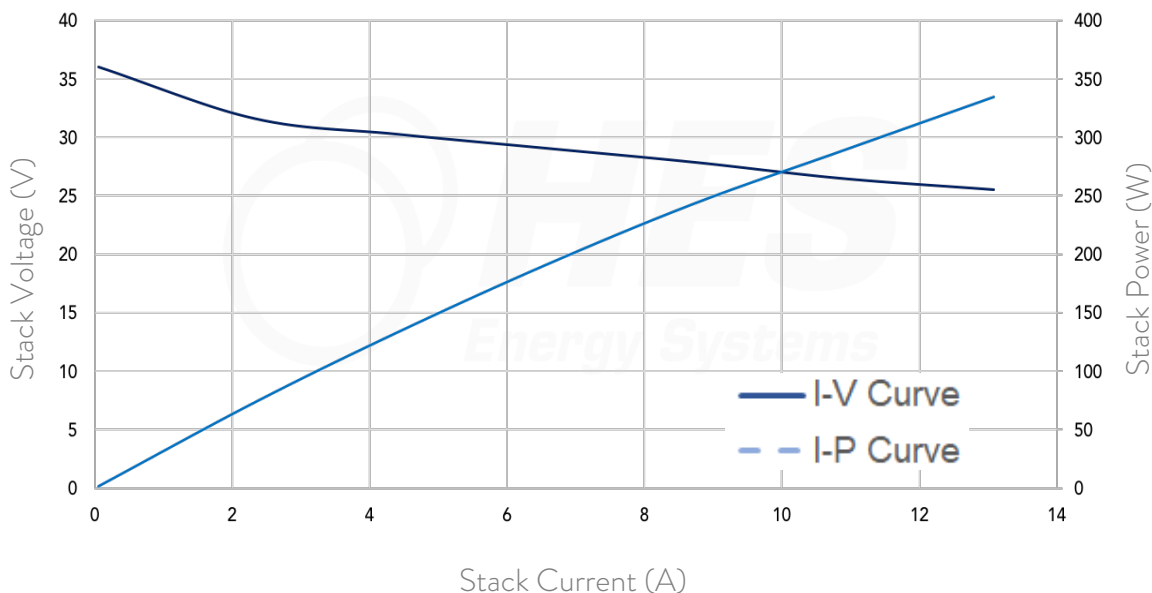




AEROSTAK 250

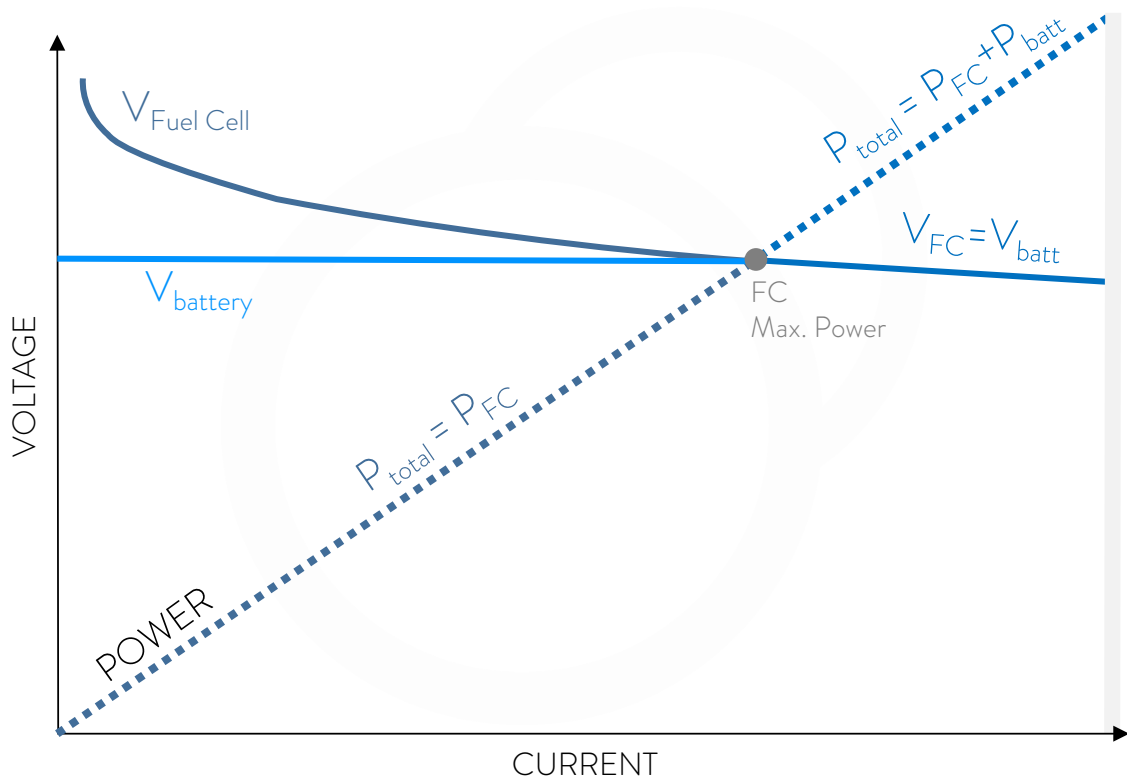
SPECIFICATIONS

Stack Design	37 cells
Stack Rated Power	250 W
Stack Peak Power	300 W
Stack Voltage Range	22.2 V - 35.2 V
Stack Current Range	0 - 13.5 A
Air Input Temperature	0 - 35 °C
Cooling	Air (Integrated fan)
Total FC System Weight	720 g
FC System Dimensions (With Casing)	110 mm x 120 mm x 123 mm
Hydrogen Input Pressure	0.6 - 0.8 bar
Hydrogen Purity Required	99.999 %
Hydrogen Max. Consumption	<3.8 L/min
Start Up Time	<30 s
Suggested Hybrid LiPo	7S (>100C discharge rated)



AEROSTAK HYBRIDIZATION

The AEROSTAK is a complete Fuel Cell system including proprietary electronics for hybridization with a Lithium Polymer battery. The LiPo provides additional electrical power when the load required exceeds the capacity of the Fuel Cell stack. The electronics module also provides up to 1.5A to recharge the LiPo when excess power is available.



HYDROGEN STORAGE ACCESSORIES



A-Series
CYLINDERS

Weight	Volume	Hydrogen	Dimensions	Energy
1.85 kg	5 L	157 g	Ø: 152mm L: 395 mm	1960 Wh
2.85 kg	9 L	283 g	Ø: 173mm L: 528 mm	3528 Wh
3. 50 kg	12 L	377 g	Ø: 196mm L: 532 mm	4704 Wh



EN CERTIFIED CYLINDERS

Weight	Volume	Hydrogen	Dimensions	Energy
1.5 kg	2.0 L	53 g	Ø: 113 mm L: 369 mm	640 Wh
1.9 kg	3.0 L	80 g	Ø: 115 mm L: 485 mm	960 Wh
2.9 kg	6.0 L	160 g	Ø: 161 mm L: 481 mm	1920 Wh
3.1 kg	6.8 L	182 g	Ø: 161 mm L: 520 mm	2170 Wh
3.3 kg	7.2 L	193 g	Ø: 161 mm L: 545 mm	2300 Wh



PRESSURE REGULATOR

Weight	270 g
Dimensions	approx. 110 mm x 70 mm x 35 mm
Output Pressure	0.55 bar to 0.7 bar
Input Pressure	350 bar max input pressure
Mechanism	2-stage regulating valve
Inlet connector	M18
Safety	Overpressure gauge
Option	Pressure Transducer

HYDROGEN REFUELING

ELECTRIC BOOST COMPRESSOR



34 - 100 bar pressure



up to 350 bar pressure

Compresses industrial hydrogen gas to up to 350 bar (5,075 PSI)

Dimensions

(L) 940mm x (H) 292mm x (D) 559 mm
(L) 37" x (H) 11.5" x (D) 22"

Weight

65.9 kg (145 lbs)

Voltage

120 or 240VAC single phase
(other voltages available as well as 3 phases)

Motor Frequency

60/50-Hz

Operational Speed

70 cycles/min (variable speed option)

Cooling

Air cooled

Noise

Low < 63 dB

Maximum Inlet and Outlet Pressure

414 bar

Minimum Input Pressure

34 bar

Maximum Flow Rate

617 SLPM (dependent on input pressure)

Automatic stop & restart high limit switch factory set at 300 bar (adjustable)

Automatic stop & restart low limit switch factory set at 35 bar (adjustable)

Manual start/stop switch

Safety relief valve set at 317 bar (adjustable)

Inlet/outlet gauges dual scale, inlet & outlet filters (5-Micron), outlet shutoff valve (needle type), bleed valve (needle type)

Hour meter with 6-digits

NPT or 37° Flare 1/4" - Male inlet/outlet ports

All items are mounted on a tubular frame and control panel with gauges and valves panel mounted.



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