

## FCSU-33



## PRODUCT DESCRIPTION

EDUSTAK PRO demonstrates the fuel stack technology that is powering cutting-edge transport solutions and generators. Assemble your own fuel cell stack of individually connected cells and then power up with the refillable HYDROSTIK PRO metal hydride cartridges. EDUSTAK comes in 5-cell and 10-cell stacks depending on your hydrogen power requirements. No tools necessary to assemble the cell stacks so you can concentrate on creating your very own hydrogen powered applications. This ease of use makes it simple to scale the stacks to different power levels and integrate equipment such as sensors. Whether it's advanced research on MEAs, creating your own fuel cell lab or conducting professional training EDUSTAK PRO also has a host of practical applications.

## FEATURES

- ✓ Easy-assembly – no tooling required
- ✓ The stack power is readily scalable and it's straightforward to integrate sensors
- ✓ Rated output power up to 20W
- ✓ Optimal thermal management with air cooling circulation in each plate
- ✓ Includes HYDROSTIK PRO with tubing and adapted pressure regulator
- ✓ Comes with a complete instruction guide



## LANGUAGE PACK

- ✓ Assembly Guide CD:
- ✓ Technical Support Guide CD:

## ADD-ON

Create your own hydrogen powered devices that can be completely self-sufficient, with the optional addition of the HYDRO-FILL PRO hydrogen station.





## CONTENT

- ✓ EDUSTAK PRO
- ✓ HYDROSTIK PRO
- ✓ Manometer
- ✓ EDUSTAK PRO blower
- ✓ Wires
- ✓ Air pressure bulb
- ✓ HYDROSTIK PRO base
- ✓ Purging valve with tube
- ✓ Screws
- ✓ Three port connector
- ✓ 3 Silicon tubes
- ✓ Clamp with tube
- ✓ Pressure regulator
- ✓ HYDROSTIK PRO support

## SPECIFICATIONS

<b>Type of fuel cell</b>	PEM
<b>Number of cells</b>	10.0
<b>Rated power</b>	20W
<b>Performance</b>	6V at 3.4A
<b>Reactants</b>	hydrogen and air
<b>External temperature</b>	5 to 40°C
<b>Max stack temperature</b>	60°C
<b>H<sub>2</sub> pressure</b>	0.45-0.55bar
<b>Hydrogen purity</b>	≥99.995% dry H <sub>2</sub>
<b>Humidification</b>	self-humidified
<b>Cooling</b>	air (integ. cooling fan)
<b>Dimension</b>	105 X 90 X 130mm
<b>Weight</b>	1000 g
<b>Flow rate at max output<sup>[1]</sup></b>	0.25 L/min
<b>Start up time</b>	≤30s at room temp.
<b>Efficiency of stack</b>	40% at full power
<b>Low voltage shut down</b>	5V
<b>Over current shut down</b>	10A
<b>Over temp. shut down</b>	60°C

<sup>[1]</sup> The flow rate may change with the power output. The specifications are subject to change without notice.  
 \*All the information in this datasheet is subject to change without notice. In case of doubt please contact the Horizon sales team.

## PACKING INFORMATION

<b>Case Pack Quantity</b> (units):	1
<b>Master Pack Quantity</b> (units):	1
<b>Packaging Type:</b>	cardboard
<b>20' Container</b> (units):	790
<b>40' Container</b> (units):	1615
<b>Unit Box Length</b> (cm/in):	44 / 17.32
<b>Unit Box Width</b> (cm/in):	33 / 12.99
<b>Unit Box Height</b> (cm/in):	23 / 9.06
<b>Unit Volume</b> (Litres/Cubic Meters):	33.4 / 0.033
<b>Unit Box Weight</b> (kg/lbs):	2.8 / 6.17
<b>Case Pack Length</b> (cm/in):	44 / 17.32
<b>Case Pack Width</b> (cm/in):	33 / 12.99
<b>Case Pack Height</b> (cm/in):	23 / 9.06
<b>Case Pack Volume</b> (Litres/Cubic Meters):	33.4 / 0.033
<b>Case Pack Weight</b> (kg/lbs):	2.8 / 6.17

\*The cartons' size may vary between ±1-2 cm.

## LOGISTICS INFORMATION

<b>Item UPC-Code:</b>	6942503405187
<b>Item HS-Code:</b>	-
<b>Manufactured in:</b>	Shanghai, China
<b>Local Warehouse</b>	Prague, Czech Republic
<b>FOB Harbor:</b>	Los Angeles, USA
<b>First Ship Date:</b>	available now
<b>Minimum Order:</b>	1