

PowerCell S3

Fuel Cell Stack (20-100 kW) *Prototype*

PowerCell, together with partners in the Auto Stack Core project, is developing a high quality fuel cell stack primarily for powering vehicles.

The aim is superior performance while meeting the automotive industry's commercial cost requirements for volume production. The PowerCell S3 fuel cell stack is designed for efficient power

generation in the range 20-100 kW. The choice of industrial components that are suitable for volume production has proved particularly successful. Projected weight, volume, cost and performance for the current generation are definitely world class. The validation of the stack will be concluded at the end of 2016.

PowerCell S3 main advantages:

- Available in power range up to 100 kW
- PEM technology, fast start up and shut down
- Rugged design
- Extremely compact and light weight
- Integrated CVM Monitoring



PowerCell S3

Physical Data: S3-335C

Length (mm)	149
Height (mm)	444
Width (mm)	419
Weight (kg)	32.3
Nominal power output (kW)	100 kW

Physical Data:

Maximum current output	570 A
$\Delta P_{\text{cathode}}$ @ nominal power	< 200 mBar
ΔP_{anode} @ nominal power	< 120 mBar
Maximum operating temperature	95 °C
Humidity	Non-condensing at inlet
Gas pressure	< 3.0 bar(abs)
Ambient temperature	-30 - 70 °C

Properties in both table and graph may be subject to change during the final qualification of the stack platform. This table is representative of a late prototype stack.

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