BALLARD™

FCvelocity®-9SSL

# FCvelocity®– 9SSL

Ballard Power Systems offers a proton exchange membrane (PEM) fuel cell stack based on our proven, fourth generation transportation stack technology.

Available now to customers with fuel cell stack integration capabilities, the FCvelocity–9SSL is designed to perform in rugged conditions and is scalable depending upon customer requirements. Stacks are available in power increments from approximately 4 to 21kilowatts.

The FCvelocity–9SSL provides stable electrical power to a system over a wide range of operating and environmental conditions. A liquid–cooled, hydrogenfueled product, the FCvelocity–9SSL uses Ballard's standard fuel cell components.

Suitable for motive applications, the FCvelocity– 9SSL features fast, dynamic response, robust and reliable operation and durable packaging.

The FCvelocity–9SSL establishes a new standard of performance by optimizing reliability, power density and compatibility with customer system requirements.

Please contact us for product availability and pricing.

## Product Specifications

| | | | | | | |
|---|---|---|---|---|---|---|
| Rated Power [kW] [1] | 3.8 | 4.8 | 10.6 | 14.4 | 17.3 | 21.2 |
| DC voltage (at 300A)[1] | 12.9 | 16.1 | 35.4 | 48.2 | 57.9 | 70.7 |
| Mass (with no coolant) [kg] | 6.2 | 6.8 | 10.2 | 12.1 | 14.3 | 16.6 |
| Stack core length [mm] | 92 | 104 | 174 | 220 | 255 | 302 |
| Stack core width [mm] | 760 | | | | | |
| Stack core height [mm] | 60 | | | | | |

| **Type** | **PEM (Proton Exchange Membrane) fuel cell stack** | |
|---|---|---|
| Performance | Maximum current | 300A |
| | Shock and vibration | Automotive[2] |
| Fuel Oxidant: Oxidant | Fuel composition (pre-humidification) | SAE J2719 |
| | Oxidant composition (prehumidification) | Compressed ambient (filtered to remove particulates) |
| Stack Temperatures | Storage temperature[3] | -40 to 60° C (-40 to 140° F) |
| | Start-up temperature | > 2° C (> 36° F) |
| | Fluid inlet temperature (operating) | 2 to 68° C (36 to 154° F)[1] |

**Additional information available upon request.**

[1] Values achieved at Ballard-specified conditions at the beginning of operational life.
[2] Vibration 5g, meets USABC/SNL CRADA No. SC961447 USABC 10. Shock: 5g sections of IEC 60068-2-27 Ea and IEC 60068-2-29 Eb.
[3] Allowable temperature following approved Ballard dry out procedure only, without dry out procedure +2 ~60° C.

*Here for life*™

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