Ovonic® Solid Hydrogen Storage
Model 1191
Prototype Specifications

Description	Prototype metal hydride hydrogen storage vessels for motive or stationary applications. Low carbon steel cylindrical vessel with two screw-in steel flanges, integrated internal heat exchanger, and solenoid valve.
Usage and Features	•Low-pressure hydrogen storage for use in material handling equipment or stationary power applications; either fuel cell or H_2 ICE •Can be integrated with engine or fuel cell cooling loop to utilize waste heat for high hydrogen release rates •Can utilize on- or off-board liquid cooling to minimize refilling time •Optional Ovonic hydrogen refueling system available

Operating Parameters	
Hydrogen capacity	3.0 kg nom.
Diameter	16 in. / 406 mm
Vessel length	36.6 in. / 930 mm
Overall length	41 in. / 1041 mm
Weight	1,410 lbs. / 640 kg
Deliverable hydrogen pressure	30 psig min.
Deliverable hydrogen flow rate	30g (336L) /min minimum
Refueling hydrogen pressure	1000 psig
Allowable working pressure	2800 psig max.
Operating Temperature	-40°C to +90°C
Heating/Cooling liquid	water/propylene glycol mixture

Safety Features	
Shut-off Valve	5000 psig rated Teleflex/GFI solenoid (requires 12V / 0.1A)
Pressure Relief Device	3000-3100 psig
Temperature Relief Device	228°F / 109°C

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