

Portable Metal Hydride Canisters

Although you can run your fuel cell system directly from a compressed hydrogen cylinder, for many applications it is necessary to have a better storage solution with a higher energy density or as low pressure buffer for a hydrogen generator or to store excess hydrogen for later use in a fuel cell.

70 | 220 | 900 std. litres



Pressure Reducer for Metal Hydride Canisters



H₂-Refilling Kit for Metal Hydride Canisters



Ovonic® portable canisters utilise proprietary metal hydride technology to safely store hydrogen in a compact manner at low pressure.

When hydrogen bonds to the metal alloy powder contained in the canisters, it is stored in a solid state at densities many times greater than traditional compressed gas storage.

Easy to use and refill from different hydrogen sources, the canisters are suitable for a wide range of applications.

- Available at hydrogen capacities of 70, 220, 900 standard litres
- Equipped with manual shut-off and quick coupler
- Equipped with thermal + pressure relief certified to CGA S-1.1

Available accessories:

- Refilling kit for compressed hydrogen cylinders
- Connecting kit for Hydrogen Generator HG 30
- Canister pressure reducer for low delivery pressure



Technical Data

		HS 70	HS 220	HS 900	
Hydrogen capacity *	Rated (@ 17 bar refilling pressure)	6.5 70	20 220	80 900	g std. litres
	@ 10 bar refilling pressure	~ 50	~ 150	~ 600	std. litres
Discharge performance **	Rated discharge rate	1.4	3.5	7	std.litres/min
	Equivalent fuel cell power	100	250	500	W _{el}
Physical	Diameter	51	64	90	mm
	Length (incl. Quick coupler)	205	305	425	mm
	Weight	0.8	2.2	7	kg
Refilling	Hydrogen quality	≥ 5.0 (99.999 %)			
	Refilling pressure	10...17 (150...250)			bar g (psi g)
	Refilling time	~ 1 hour in flowing ambient air			
Thermal	Operating temperature	0...+75			°C
	Storage temperature	-29...+54			°C
Safety	Connector Safety device	Stainless steel quick coupler, Parker type Q4CY Manual shut-off Thermal / pressure relief certified to CGA S-1.1			

*) The actual hydrogen capacity realised from metal hydride canisters depends on a number of factors: desorption rate, charge conditions and ambient conditions.

**) Since the metal alloy absorbs heat as hydrogen is released, heat must be added to sustain a high flow rate associated with high power discharge.

Specifications and descriptions in this document were in effect at the time of publication (04/2007).
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