

# H2Station® CAR-100

Hydrogen refueling for passenger vehicles

70MPa Fast-fill | 50-100kg/day



The H2Station® CAR-100 is designed to enable a cost-effective deployment of hydrogen refueling station networks intended for the market introduction of fuel cell electric passenger vehicles.

All equipment necessary for the refueling is integrated into a compact station module allowing for easy transport and installation in only two days. Further local works are limited to securing a proper foundation and power supply. This significantly reduces both the investment cost and time from contract to start of operation, which is important when deploying station networks.

The CAR-100 can be configured to provide between 50 to 100 kg of hydrogen per day at various inlet pressures, enabling additional cost optimization to fit the exact needs and available hydrogen supply. At full utilization the CAR-100 is capable of providing hydrogen for almost 200 vehicles, which is sufficient for several years to come. As fuel sales in a network grows and reach a level feasible for larger stations the CAR-100 can easily be relocated to outskirts of the network.

The CAR-100 is based on 70MPa H2Station® technology from H2 Logic that is being used on a daily basis by fuel cell vehicles from several international car manufacturers. Extensive operation results from H2Station® have shown consistent refueling times of less than four minutes in accordance with the SAE J2601 standard and reliable operation with an availability of up to 100%.



# Product specifications | H2Station® CAR-100

## CAPACITY

Average daily capacity* - base configurations <i>Rated capacity at stated hydrogen supply pressure</i>	50 kg/day <i>@2MPa inlet</i>	75 kg/day <i>@10MPa inlet</i>	75 kg/day <i>@2MPa inlet</i>	100 kg/day <i>@10MPa inlet</i>
1 <sup>st</sup> hour instant capacity* <i>5.6 kg tank size example</i>	No. of refuelings	Standard: 2.5   Optional: up to 4		
	Hereof back-to-back	Standard: 0   Optional: 1		
<i>*Daily and instant capacity can be configured according to customer's need and available hydrogen supply</i>				

## REFUELING

Nominal refueling pressure	70MPa (15°C)
Quantity range	1-7 kg per refueling
Refueling time & protocol	Less than 4 minutes in accordance with SAE J2601
Refueling principle & pre-cooling	Automatic cascade pressure equalization Active pre-cooling down to -40°C
Refueling communication (optional)	SAE J2799
Dispenser placement	Integrated
Nozzle	WEH TK17 - Optional IR Optional heating & N2 venting to prevent nozzle icing
Activation & Measurement (optional)	Key-card activation with Coriolis mass flow meter
Hydrogen purity	SAE J2719

## DESIGN & OPERATIONS

Packaging	40 foot base container, insulated 50mm. Surface treatment corrosion class 4CM.
Exterior graphics & lightning (optional)	Applied graphical canvas on front and side surfaces Dispenser EX lightning &/or lightning of graphics
Dimensions & weight	L:12.2m W:2.5m H:3.9m   Approximate 30 Tons
Power supply	400VAC, 50Hz, 125Amp
Local site works	Flat foundation for station & vehicle grounding
Hydrogen supply	External hydrogen source 0.5-20MPa inlet pressure Optional external flushing panel for back-up supply
Operation environment	-20°C to 35°C Optional cold climate package down to -40°
Monitoring & Control system (optional)	HMI/Remote Online Control & Monitoring System
Service & maintenance	Mandatory periodic & warranty service package Optional Instant Service Response package

**CE** CE MARKED IN ACCORDANCE WITH EU DIRECTIVES & APPLICABLE STANDARDS

COMPLIANT WITH APPLICABLE SAE INTERNATIONAL HYDROGEN REFUELING STANDARDS [WWW.SAE.ORG](http://WWW.SAE.ORG)

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