H2BASE

MOBILE ENERGY SOURCE

USING HYDROGEN FUEL CELL

MOBILE ENERGY SOURCE USING HYDROGEN FUEL CELL

- Hydrogen source of pure energy
- Zero emissions technology, the only waste is clean H_2O
- Mobile, silent and powerful energy source with large capacity
- Both the capacity and performance can be altered by adding modules M1 and M2
- Remote (wireless) supervision – monitoring of functions; performances, fuel amount etc.

Mobile independent source of electrical and thermal energy using hydrogen fuel cell and variable outputs (AC/DC, CCS, CHAdeMO) is universal in its use. May be applied for example:

OUTDOOR AND TOWN EVENTS

Sports, cultural or commercial events

BUILDING SECTOR

Construction of a transport infrastructure and utility constructions/ engineering networks, construction sites with limited electricity supply

AUXILIARY POWER SOURCE

For data centres, refuelling facilities and island applications

FAST AND MOBILE CHARGING OF ELECTROMOBILE

Fast charging DC stations, CHAdeMO/CCS everywhere where there is not a regular network of charging stations available

Use	Outdoors + indoors
Operating temp.	From -20 to +50 °C (storage from -40 to +50 °C)
IP protection	IP54

Output energy	Electrical + Thermal
Electrical output	AC + DC
Performance	Consistent and sustainable performance of 0 – 100 kW
Thermal output	65 °C thermal output of 25 kW
Outputs	El. energy source – 3 positions for optional output sub modules
	• Up to 3 times - 90 kW fast charging station CCS + CHAdeMO
	• Up to 3 times – 3 times 32 A AC output (a 3-phase socket and a 1-phase socket)
	• Up to 3 times - DC output 0 – 1000 V
	Thermal energy source
	Output for a hot water circuit of 25 kW with the temperature being 65°C (1 piece of M1)
Fuel cell	PEM liquid cooled
Fuel	Hydrogen SAE J2719 (for hydrogen-powered vehicles)
Fuel storage	Mass storage pressurized tanks (14, 1 kilograms of hydrogen), the pressure of 500 bar
Fuel refilling	Pressurized tank refuelling at the fuelling station
	Replacing the empty pressurized tank with a full one
	Can be attached to the hydrogen repository with an output pressure of 7 to 10 bar
Hydrogen consump.	1, 5 kg per hour with the performance being 25 kW
Interface	Touch screen, CAN communication
Norms	Low voltage 2014/35/EU
	EMC – 2014/30/EU
	Mobile contact systems for the fuel cells EN 62282-5-1
Module dimensions	M1: 120 cm x 80 cm x 240 cm
	M2: 120 cm x 80 cm x 150 cm
	M3: 120 cm x 80 cm x 150 cm
Emissions	0g CO2, 0g NOX, 0g of solid particles, the only output being clean water

M1 – HYDROGEN STORAGE MODULE

- Hydrogen pressure of 500 bars
- Single module stores 14, 1 kilograms of hydrogen (230 kWh for an electric output)
- It is possible to interlink a large number of storage modules in a parallel
- Module dimensions 80x120x240 cm, weight of 650 kg

M2 – MODULE WITH FUEL CELL

- Nominal electric power of 25 kW | 30 kW peak
- In parallel, up to four modules | a higher performance on demand
- Heat source of 65oC | thermal output of 25kW
- Module dimensions 80x120x150 cm, weight of 640 kg

M3 – OUTPUT MODULE

- Includes 8, 5 kWh auxiliary battery (starting up the system, covering for the peaks), performance of 100 kW
- Three positions for selectable output sub-modules, every one of them can be:
  - 90 kW fast charging stations CCS + CHAdeMO
  - 3 times 32 A AC output (standard 3-phase socket and a 1-phase socket)
  - 0 – 1000 V DC output
- Module dimensions 80x120x150 cm, weight of 323 kg

PRICE

The price of the device is dependent on a chosen set of parameters of the target application. The device consists of individual modules whose amount is dependent on the required performance and capacity. Contact us and we will come propose an optimal solution suitable directly for your application.

CONTACT DETAILS

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PRODUCER

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