



The EFOY H₂Cabinet N-Series

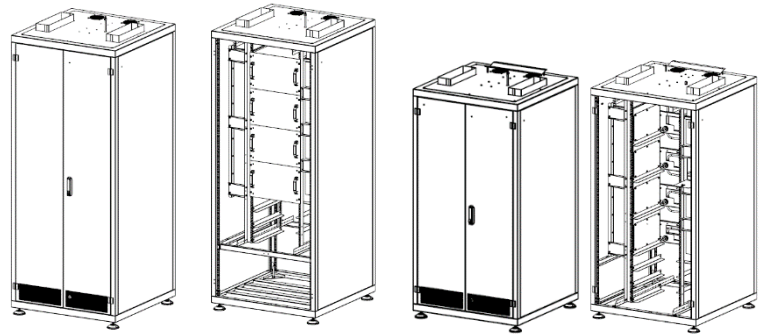
Our EFOY Hydrogen Energy Solutions for indoor installation come as a fully integrated cabinet solution. Depending on the customer's needs they can be configured to up to 10 kW output power. The cabinet comes with connectors for guided supply and exhaust air as well as a pipe connector for your hydrogen supply.

Made for your indoor application: The N-Series.

Configuration Possibilities	EFOY H ₂ Cabinet N2.5	EFOY H ₂ Cabinet N5.0	EFOY H ₂ Cabinet N7.5	EFOY H ₂ Cabinet N10.0
Fuel Cell Output Power	2.5 kW	5.0 kW	7.5 kW	10.0 kW
Fuel Cell(s)	EFOY Hydrogen Fuel Cell 2.5 (1 unit)	EFOY Hydrogen Fuel Cell 2.5 (2 units)	EFOY Hydrogen Fuel Cell 2.5 (3 units)	EFOY Hydrogen Fuel Cell 2.5 (4 units)
Controller	EFOY Hydrogen Controller Monitoring and control of EFOY Hydrogen Fuel Cell(s)			
Power Distribution	Power distribution and protection of all components inside the cabinet			
System voltage	48 V DC			
Output voltage	41 - 57 V DC			
Compatible H ₂ source	10 – 18 bar, hydrogen 3.0 or higher			
Battery installation	48 V / 30 Ah 4 batteries of 12 V and 30 Ah in series	48 V / 30 Ah 4 batteries of 12 V and 30 Ah in series	48 V / 100 Ah 4 batteries of 12 V and 100 Ah in series	48 V / 100 Ah 4 batteries of 12 V and 100 Ah in series
Housing	H ₂ Cabinet P14-50U or H ₂ Cabinet P14-40U			
Optional Configuration	<ul style="list-style-type: none"> - Remote Monitoring System - Rectifier and/or Inverter for AC power output - DC/DC module for constant DC power output - Charge controller for integration of PV-modules - Uninterruptible power supply module - Flexible hydrogen connection to various hydrogen storage solutions 			

The EFOY H₂Cabinet Housing

Depending on the number of EFOY Hydrogen fuel cells required, the housing of your energy solution is prepared for up to 4 fuel cell plug-in units. The control cabinet itself is available in two different heights (50U or 40U). All components inside can be easily installed in the integrated 19" rack.



H ₂ Cabinet variants	H ₂ Cabinet P14-50U	H ₂ Cabinet P14-40U
Max. number of installable fuel cells	4	4
Available rack height unit	50	40
Dimensions (H x W x D)	approx. 2600 x 1000 x 1000 mm	approx. 2000 x 1000 x 1000 mm
Weight	300 kg (empty cabinet) Up to 500 kg (fully equipped)	250 kg (empty cabinet) Up to 500 kg (fully equipped)
Housing	Single wall aluminium cabinet, powder coated	
H ₂ Pipe Connection	1 x on the roof of cabinet 10 – 18 bar, Thread: 3/8 NPT (female)	
Temperature range	+5 °C to +45°C	
IP class	IP20	
Features	<ul style="list-style-type: none"> - Active ventilation and heating of the cabinet - Air supply and waste heat duct - Pressure sensors and blowers - Pressure reducer with pressure sensors and solenoid valve - Documentation and maintenance plan - Built-in 19" rack: installation space for EFOY Hydrogen Fuel Cell(s), EFOY Hydrogen Controller, Power Distribution, Power Converting, batteries and further electronics 	



The EFOY Hydrogen Fuel Cell 2.5

The EFOY Hydrogen Fuel Cell is the centre of your energy solution: here the chemical reaction takes place and electrical energy is produced. You can equip your solution with up to four fuel cells, according to your power demand.

EFOY Hydrogen Fuel Cell 2.5

Power output ¹	2.500 W
Nominal voltage	48 V
Weight	28.5 kg
Nominal consumption	0.06 kg/kWh
Dimensions (L x W x H)	536 x 483 x 311 mm



The EFOY Hydrogen Controller

The EFOY Hydrogen Controller is the control centre of your energy solution: it controls up to four EFOY Hydrogen Fuel Cells and provides interfaces for external signal transmission.

EFOY Hydrogen Controller

Supply voltage	36 – 57 V DC
Current consumption	Max. 2 A @ 48 V basic structure
Weight	7.6 kg
Dimensions (L x W x H)	446 x 483 x 133 mm
Connectors / external Interfaces	<ul style="list-style-type: none"> - RS 485 Interface - Ethernet - Alarm contacts - Stop signal - Rectifier voltage reduction - Heating / cooling - 24 V power supply from external components
Communication / Protocols	<ul style="list-style-type: none"> - MODBUS RTU (RS 485) - Web Interface (Ethernet: Firefox 44.0 and Java SE 8)

¹ The output power decreases with the operating hours, depending on the installation situation and the operating conditions. Power reduction at temperatures above +35 °C.

All technical data at test conditions of 20 °C / 68 °F
Subject to modifications and errors
Valid from 01.06.2023