



The EFOY H₂Cabinet N-Series

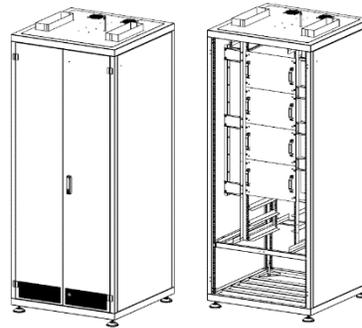
Our EFOY Hydrogen Energy Solutions for indoor installation come as a fully integrated cabinet solution. Depending on the customer's needs they can be configured to up to 10 kW output power. The cabinet comes with connectors for guided supply and exhaust air as well as a pipe connector for your hydrogen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

Made for your indoor application: the N-Series.

| Configuration | EFOY H ₂ Cabinet N2.5 | EFOY H ₂ Cabinet N5.0 | EFOY H ₂ Cabinet N7.5 | EFOY H ₂ Cabinet N10.0 |
|----------------------------------|--|---|---|---|
| Nominal 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 | External hydrogen pipe connection, 14 bar, hydrogen 3.0 or higher | | | |
| Battery installation | 48 V / 30 Ah 4 batteries of 12 V and 30 Ah in series | 48 V / 60 Ah 4 batteries of 12 V and 60 Ah in series | 48 V / 90 Ah 4 batteries of 12 V and 90 Ah in series | 48 V / 120 Ah 4 batteries of 12 V and 120 Ah in series |
| Housing | EFOY H ₂ Cabinet N2.5 1FC-P14-50U | EFOY H ₂ Cabinet N5.0 2FC-P14-50U | EFOY H ₂ Cabinet N7.5 3FC-P14-50U | EFOY H ₂ Cabinet N10.0 4FC-P14-50U |
| 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

The housing of your indoor energy solution is available in different variants, according to the number of EFOY Hydrogen Fuel Cells you need. All components inside can be easily installed in the built-in 19" rack.



| EFOY H ₂ Cabinet variants | H ₂ Cabinet N2.5 1FC-P14-50U | H ₂ Cabinet N5.0 2FC-P14-50U | H ₂ Cabinet N7.5 3FC-P14-50U | H ₂ Cabinet N10.0 4FC-P14-50U |
|---|---|--|--|---|
| Coupling for fuel cell(s) | 1 | 2 | 3 | 4 |
| Coupling for H ₂ pipe connection | 1x on top of the cabinet 14 bar, Thread: ¼ NPT | | | |
| Dimensions (H x W x D) | approx. 2500 x 1000 x 1000 mm | | | |
| Weight | 300 kg (empty cabinet) Up to 500 kg (fully equipped) | | | |
| Housing | Single wall aluminium cabinet, powder coated | | | |
| Temperature range | -20 °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 | 27.0 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

| | |
|----------------------------------|--|
| Dimensions (L x W x H) | 446 x 483 x 133 mm |
| Weight | 7.6 kg |
| Supply voltage | 36 – 72 V DC |
| Current consumption | Max. 2 A @ 48 V basic structure |
| 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 |
| 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 01.07.2021