

EFOY H₂ Cabinet N-Series

The EFOY H₂ Cabinet N-Series is purpose-built for indoor applications. It comes as a fully integrated hydrogen energy solution that can be configured to up to 10 kW output power per cabinet section and 50 kW total. The cabinet is equipped with connectors for guided supply and exhaust air as well as a pipe connector for your hydrogen supply.



Set

H₂Cabinet N2.5 - 48VDC-P14
H₂Cabinet N5.0 - 48VDC-P14
H₂Cabinet N7.5 - 48VDC-P14
H₂Cabinet N10.0 - 48VDC-P14

Nominal output power¹

H₂Cabinet N2.5 - 2.5 kW
H₂Cabinet N5.0 - 5.0 kW
H₂Cabinet N7.5 - 7.5 kW
H₂Cabinet N10.0 - 10.0 kW

Fuel cell(s)

H₂Cabinet N2.5 - 1x EFOY Hydrogen Fuel Cell 2.5
H₂Cabinet N5.0 - 2x EFOY Hydrogen Fuel Cell 2.5
H₂Cabinet N7.5 - 3x EFOY Hydrogen Fuel Cell 2.5
H₂Cabinet N10.0 - 4x EFOY Hydrogen Fuel Cell 2.5

Power distribution

Power distribution and protection of all components inside the cabinet

Controller

EFOY Hydrogen Controller
Monitoring and control of EFOY Hydrogen Fuel Cell(s)

Battery voltage

48 V DC (4 x 12 V)

Output voltage

41 - 57 V DC (12, 24, 120, 208, etc available with DCDC converter or inverter)

Compatible H₂ source

External hydrogen pipe connection, 14 bar, hydrogen 3.0 or higher





Battery installation

H₂Cabinet N2.5 - 48V / 30 Ah, 4x 12V batteries in series
H₂Cabinet N5.0 - 48 V / 60 Ah, 4x 12V batteries in series
H₂Cabinet N7.5 - 48 V / 90 Ah, 4x 12V batteries in series
H₂Cabinet N10.0 - 48 V / 120 Ah, 4x 12V batteries in series

Total set weight

H₂Cabinet N2.5 - 380 kg
H₂Cabinet N5.0 - 410 kg
H₂Cabinet N7.5 - 440 kg
H₂Cabinet N10.0 - 470 kg

Housing

EFOY H₂Cabinet N2.5 1FC-P14-40U
EFOY H₂Cabinet N5.0 2FC-P14-40U
EFOY H₂Cabinet N7.5 3FC-P14-40U
EFOY H₂Cabinet N10.0 4FC-P14-40U

Product number

H₂Cabinet N2.5 - 153 000 621
H₂Cabinet N5.0 - 153 000 622
H₂Cabinet N7.5 - 153 000 623
H₂Cabinet N10.0 - 153 000 624

Optional configuration

- Remote monitoring system
- Rectifier and/or inverter for AC power output
- DC/DC module for constant DC power output
- Charge controller for integration of solar or wind power
- Uninterruptable power supply module
- Flexible hydrogen connection to various hydrogen storage solutions

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
- Subject to modifications and errors

N-Series Cabinet Housing

The EFOY H₂Cabinet Housing can be customized to accommodate the number of EFOY Hydrogen Fuel Cells needed for your application. All components can be easily installed in the built-in 19" rack.

Coupling for fuel cell(s)

- H₂Cabinet N2.5 - 1FC-P14-40U: 1
- H₂Cabinet N5.0 - 2FC-P14-40U: 2
- H₂Cabinet N7.5 - 3FC-P14-40U: 3
- H₂Cabinet N10.0 - 4FC-P14-40U: 4

Coupling for H₂Pipe Connection

1x on top of the cabinet, 14 bar, Thread: 1/4 NPT (female)

Dimensions (H x W x D)

Approx. 2000 x 1000 x 1000 mm

Weight

250 kg (empty cabinet) up to 500 kg (fully equipped)

Temperature range

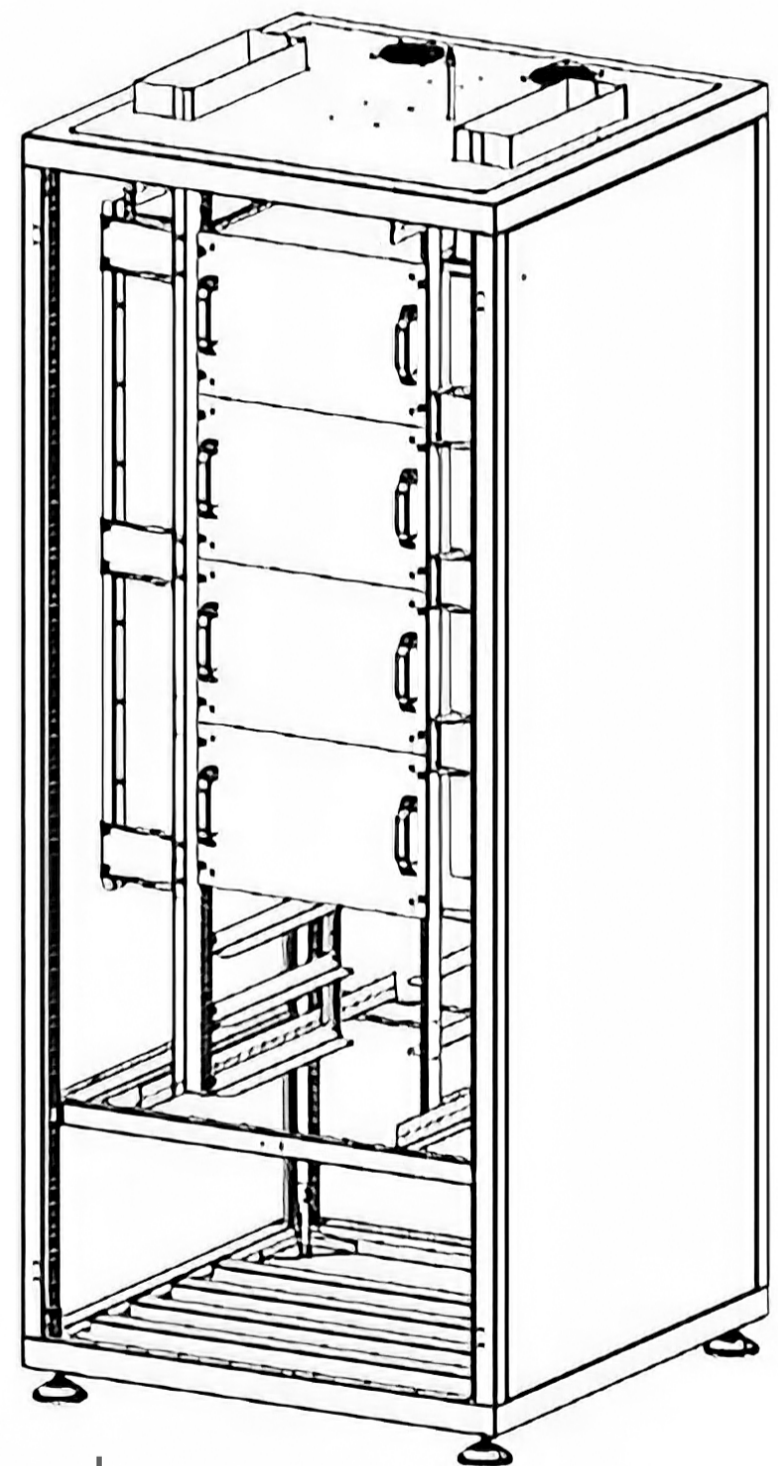
+5° C to +45° C

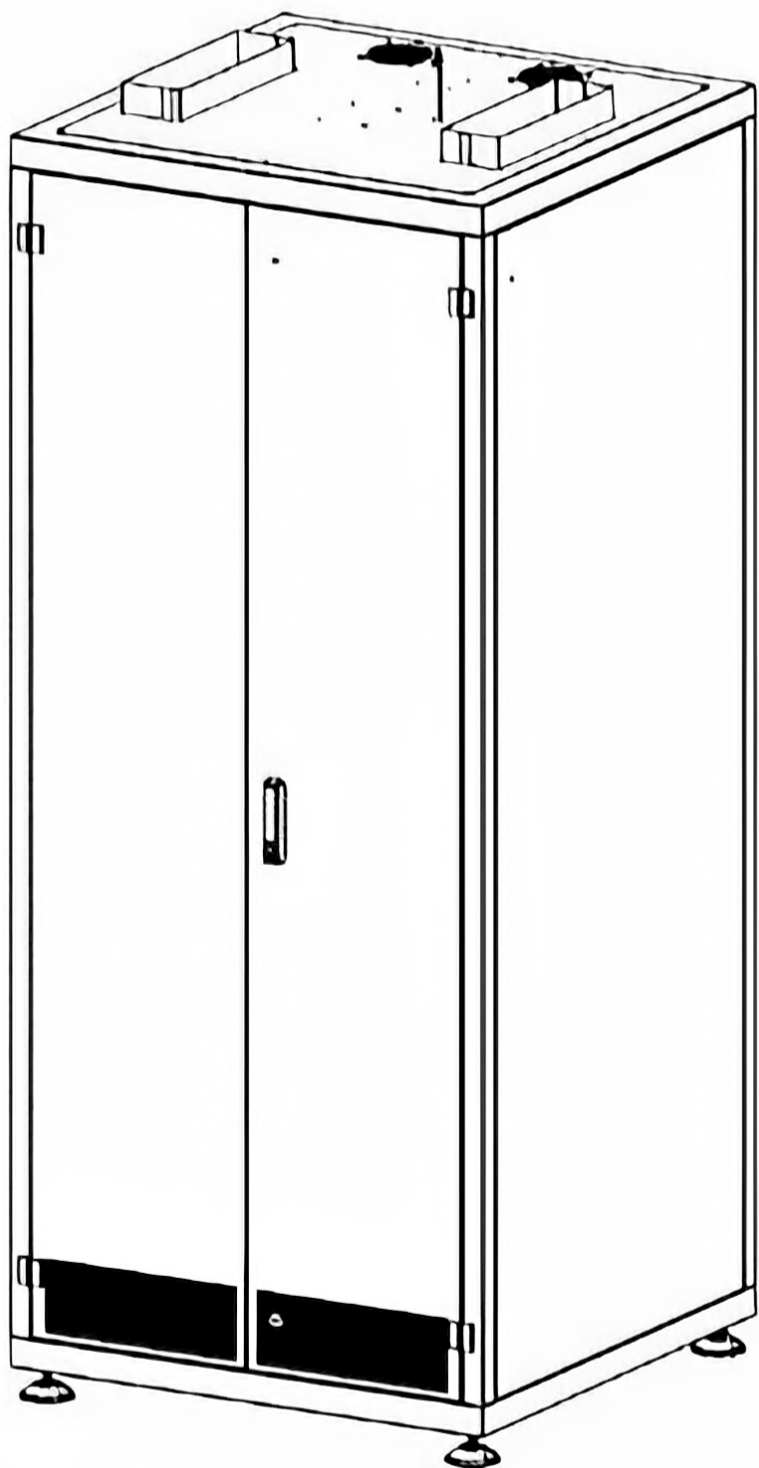
IP Class

IP20

Housing

Single wall aluminium cabinet, powder coated





Features

- Active ventilation 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, and further electronics

Naming convention

EFOY H₂Cabinet N7.5 Set 48VDC-P14

EFOY = EFOY Series from SFC Energy

H₂Cabinet = Stationary hydrogen cabinet solution

N = N-Series for indoor applications

7.5 = Cabinet is prepared for 7.5 kW fuel cell output power (3 fuel cells)

Note: every N-series cabinet can be upgraded to maximum 4 fuel cells

48VDC = Electrical connection is at 48 V DC (other voltages on request)

P14 = Hydrogen connection is at 14 bar