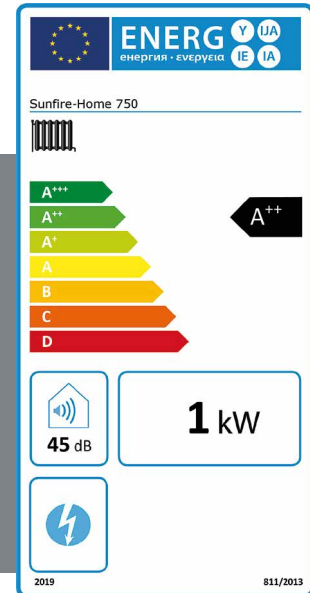


PROVIDING CLEAN POWER AND HEAT FOR RESIDENTIAL BUILDINGS

SUNFIRE-HOME



COMBINED
HEAT AND POWER
IN RESIDENTIAL
BUILDINGS
FOR MORE
INDEPENDENCE
AND LOWER
ELECTRICITY
COSTS



PRODUCT

Sunfire-Home is a combined heat and power appliance, providing energy where it is needed. Based on innovative solid oxide fuel cell (SOFC) technology, it reduces green house gas (CO₂), pollutant (NO_x and CO), particulate and noise emissions while reducing operational costs for customers by providing electricity and heat at high efficiencies.

APPLICATIONS

In existing buildings in particular, energy efficiency can be increased significantly with a Sunfire-Home device without major changes in the existing house infrastructure. In addition, the units are suitable for new buildings to meet energy efficiency requirements. Designed as add-on devices based on LPG/Propane or natural gas, they are easy to install and, due to their low height, fit in every boiler room.

EXPERIENCES

Sunfire fuel cells were installed in the field test programmes Callux and ene.field:

- + Installed systems based on Sunfire fuel cells: > 250
- + Total operation time experience: > 3 million hours
- + To date, about 50 systems have already reached operation times between 15,000 and 30,000 hours

FUNDING

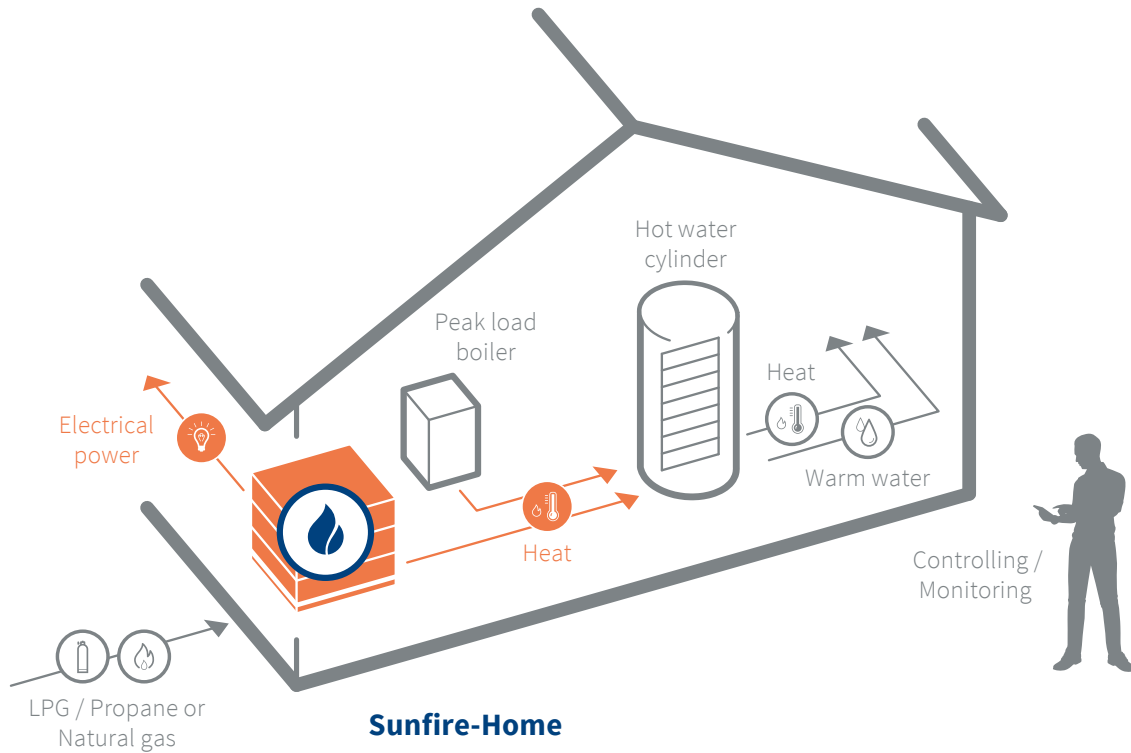
Sunfire is part of the PACE market launch programme. This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 700339. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme and Hydrogen Europe and N.ERGHY.

CORE ADVANTAGES

- + **Continuous power supply (24/7):** Annual capacity 6,570 kWh_{el} / year and 10,950 kWh_{th} / year
- + **High efficiency:** Seasonal heating efficiency 125 %
- + **Fuel:** LPG /Propane or natural gas
- + **Reliability:** Proven technology with low maintenance, no water, no lubricants
- + **Silent operation:** Lowest noise because of minimal use of moving parts
- + **Clean energy:** Very low emission of NO_x, CO₂ and particulates
- + **Easy installation:** Compact design and standard connections

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SUNFIRE-HOME – TECHNICAL DATA



SUNFIRE-HOME 750

Electrical power	max. 750 W / min. 375 W (230 V _{AC})
Daily electrical capacity	18 kWh / day
Annual electrical capacity	6,570 kWh / year
Seasonal heating efficiency according to ErP	125 % (A++)
Thermal power	max. 1,250 W / min. 650 W
Annual thermal capacity	10,950 kWh / year
Fuel	LPG / Propane or natural gas
Weight	150 kg
Dimensions	600 × 680 × 1,150 mm
Water / lubricant consumption	none
Noise emission	<45 dB(A) @ 1 m distance