

CONVENTIONAL 3.4kW NIGHT STORAGE HEATER TEST

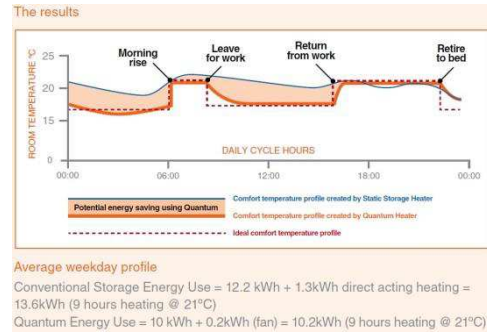
(Tested by Dimplex using their own test facilities and product, see these results at www.dimplex.co.uk/assets/kb/brochure/0/Heat_Book.pdf)

THE TEST

A climate room was built to accurately replicate a room from typical UK housing stock. It has two external walls and the temperatures outside all walls, ceiling and floor are accurately controlled by controls on the storage heater. A Daily Temperature profile was set up outside to simulate an average heating day in a property based in Sheffield, England.

The Minimum Outside Temperature was + 4 Degrees
The Maximum Outside Temperature was + 11 Degrees

The heater tested was a 3.4kW (input) static storage heater with manual charge control supplemented with a direct acting heater.



The Test Results showed the Conventional Night Storage Energy Use – 12.2kWh + 1.3kWh direct acting heating = 13.6kWh (9 hours heating at 21 Degrees)

OTHER GERMAN STORAGE HEATER TEST

Tested by BSRIA see the full report at

www.southwestheatingsolutions.co.uk/images/BSRIA%20Final%20Report%2056161-1.pdf

THE TEST

The item supplied consisted of a Cornwall Heating Solutions heater, part reference S201 (16/131-12) with a nominal stated output of 2000W at 230V. A thermostat dial positioned on one edge of the radiator had a switch below to turn the item on and off and an indicator light above to show when the radiator was opening. The thermostat had indications on it for a range of 1 to 6.

The stability of the room temperature was determined for the test. The globe temperature was measured at 1.1m from the floor and was used to determine the stability of room temperature during each test.

The Results:

Heater Consumption – 1026W per hour (16.41kWh over 16 hours) – With a cooling load balance of 99.7%

Example : A 2000W heater in a detached house, in a room with better than average U-Value, using 1026W per hour to maintain a consistent temperature of 21°C Degrees with an outside temperature of 3.9°C.

FISCHER HEATER TEST

(Tested by Building Services Research & Information Association)

Introduction:

This report details a test carried out on a Fischer storage heater, of nominal 2.2kW capacity. The test was requested by Keith Bastian of Fischer Future Heat UK and was conducted during July 2013. The wireless receiver was replaced with an updated version on the radiator body by a representative of Fischer Future Heat UK before the tests were conducted.

Objectives:

The objective of the test was to determine the total heat input over a 24 hour period into the Fischer Storage Heater while measuring the room temperature at various heights in the centre of the room while providing cooling loads to simulate outside temperature of 10 degrees with an indoor temperature of 21°C for 16 hours and a night set back simulation of outside temperature -1°C with an indoor temperature 16°C for 8 hours.

Item supplied for Testing:

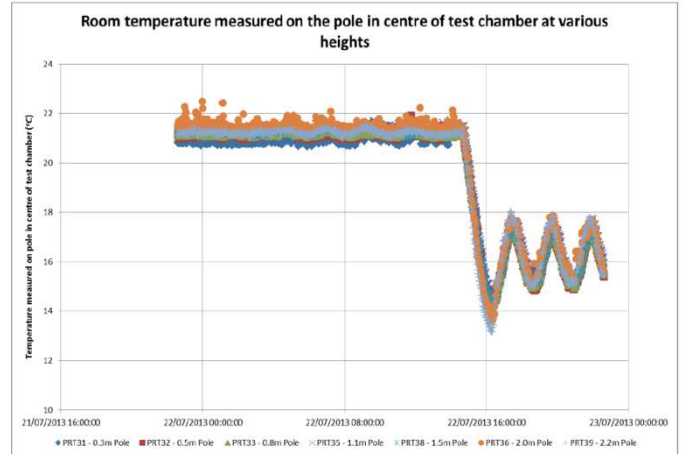
The appliance sent for testing was a Fischer Storage Heater. The heater had a nominal output of 2.2kW when on. The heater tested had a wireless receiver on the side at low level and a thermostat transmitter/sensor on the opposite wall. It consisted of an electrical heater within a fireclay structure encased in a steel fluted (finned) case. Nominal dimensions were 1300mm x 610mm x 110mm

**FISCHER HEATER
TEST RESULTS**

The total power input to the Fischer Storage Heater during the 16 hour test period was 14.05kWh;

Therefore the Fischer Heater uses 14.05kWh over 16 hours
= 0.87 kW per hour

Graph showing temperature against time for various temperature probes in centre of test chamber



Conclusion

3.4kW conventional night storage heater uses:

13.6 kWh over 9 hours = 1.51 kW per hour

2kW Other Branded German Storage heater uses:

16.4 kWh over 16 hours = 1.02 kW per hour

2.8kW Quantum Night Storage Heater uses :

10.2 kWh over 9 hours = 1.13 kW per hour

A Fischer Heater uses 14.05kw over 16 hours = 0.87 kW per hour (As per the BSRIA test with conditions of -1 Degrees outside)

Fischer Heaters can save of 0.64kW per hour; equating to savings of 42.4% per hour in comparison with a conventional night storage heater

A FISCHER HEATER CAN PROVIDE A

42% REDUCTION IN ENERGY PER HOUR*

*IN COMPARISON WITH A CONVENTIONAL 3.4kW NIGHT STORAGE HEATER