

Breve-Tufvassons PFS 250 heat development



The Breve-Tufvassons PFS 250 is an isolation transformer I bought on ebay. It is a small unit that can be easily carried. Whenever I repair things on the go, I take that little unit with me. Just the extra bit of security so that I feel comfortable when working on mains powered devices.

During one of the last RepairCafes I recognized that the transformer gets quite hot although nothing was plugged in. So I decided to do some further investigation.

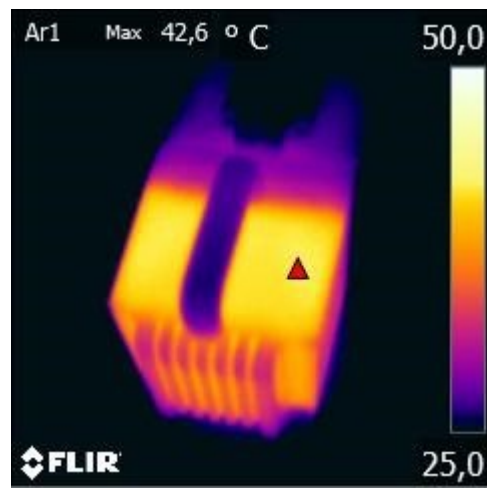
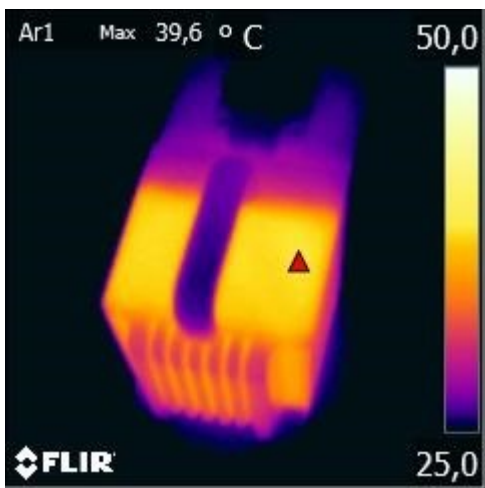
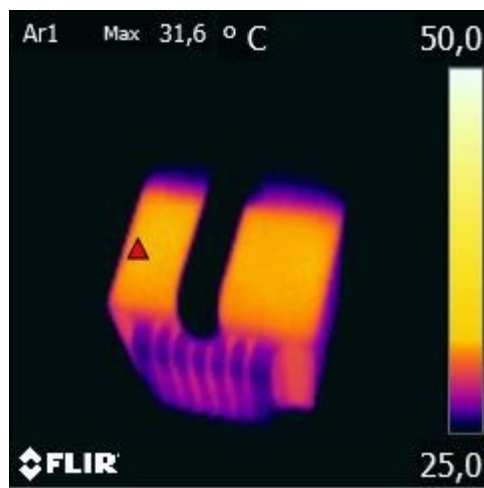
At home I plugged the unit into my Gossen Metrawatt Secutest SII+ and left it on for tree hours. In the picture below you can see a measurement of the power consumption. The power consumption was constant at 10W.

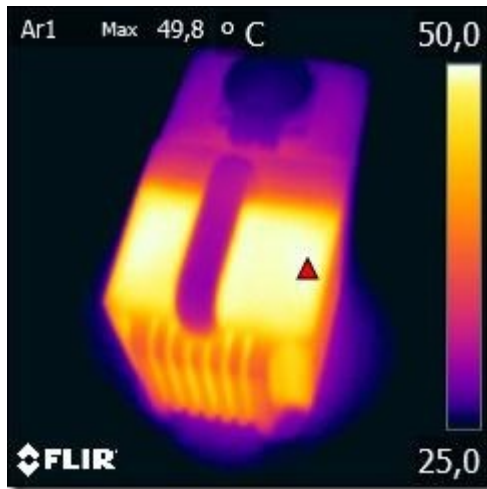
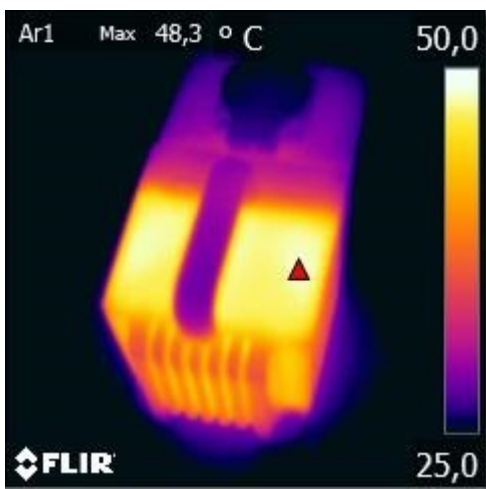
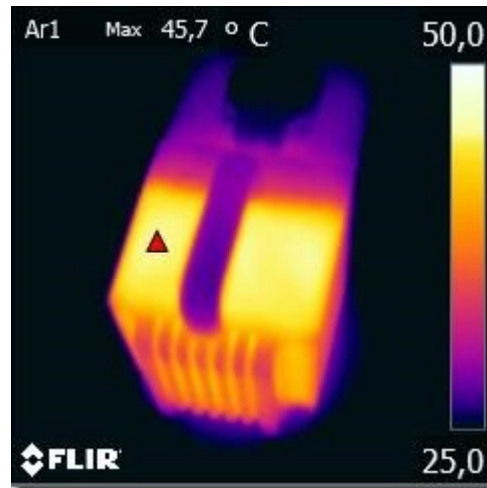
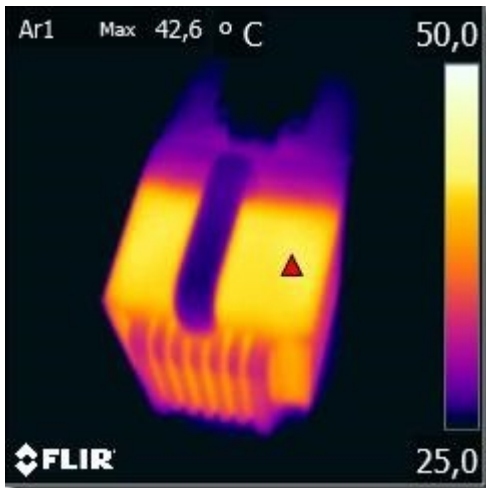
Alle Messwerte am Netz L/N

| | |
|-----------------|-----------|
| U _{LN} | 229,8 V |
| ΔI | 0,001 mA |
| I _V | 0,17 A |
| P | 10 W |
| S | 39 VA |
| LF | 0,25 |
| W | 0,000 kWh |
| t | 00:00:12 |

▲ Messwerte neu bestimmen
▼ Funktionstest
← Netzmessungen beenden

I also took infrared pictures every half hour to see how the temperature rises and what the maximum temperature is.





After tree hours the temperature was steady and didn't increase any more. The room temperature was at about 24°C.

The Breve-Tufvassons PFS 250 doesn't come with a power switch so you ether have to leave it on all the time or always pull the plug. Because I didn't like neither I just installed a little switch in front of the unit. Now I can turn the transformer on when I have a device plugged in and the other time the transformer is switched off and doesn't get that hot.