

## Bench-top devices

In the lab, we often keep our devices on “stand-by” (e.g. centrifuges, shakers, stirrers, cell counters, heaters... etc.). However, these devices do still consume energy because the display and set temperature are maintained.

These are some measures of devices in our lab:



In use: 6,4 W  
Idling: 5.0 W



In use: 37,4 W  
Idling: 5,7 W



In use = Idling =  
10,4 W



In use = Idling



In use: 919,5 W  
Idling: 7,9 W



In use: 423.4 W  
Idling: 6,7 W

W (“Watt”) is the measure of the “rate of energy consumed” = 1 Joule per second.  
Wh (“Watt-hour”) is an unit of energy = 1W over 1 hour = 3600 Joules.

Some devices consume as much energy as if they were in use, since the function is maintained when idling; for instance, the heater expends energy to keep the device at a set temperature whether the samples are in there or not. Please be aware of the time it takes for heaters to warm up to the set temperature and avoid keeping the heater on for long periods of time. An average heater takes approximately 5-10 minutes to reach 37°C and approximately 15-20 minutes to reach 95°C.

### What you can do:

1. Simply close the centrifuge lids between uses to keep the device at the set temperature and avoid additional cooling.
2. Don't forget to stop the stirrer when the buffers are well mixed.
3. If possible, please share the devices.
4. This also applies to the computers and the room lights. Please remember to turn off all devices and lights at the end of the day. During breaks, it is also possible to set it in “energy saving mode” or “hibernate”.

**Each individual device may not consume a lot of energy alone, but it adds up over time and in mass.**