

# Memo

**To:** Nova Kool Customers  
**From:** Nova Kool Service Department  
**CC:**  
**Date:** 4/28/2008  
**Re:** Run time versus efficiency

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## **Run time versus efficiency**

Nova Kool units are designed to run in the most efficient manner.

The compressor size and speed is matched against the evaporator and condenser to minimize the overall power consumption.

We purposely design our units to run longer, but at a lower amperage draw. We do this for two reasons.

First reason, every time a compressor starts up it momentarily draws 4-5 times the running amperage.

Second reason, every time the compressor starts up it is pumping vapor. It takes 15-30 seconds for the compressor to pump the refrigerant through the condenser which in turn changes the vapor to liquid which then feeds the evaporator. (cold plate)

So for the first 15-30 seconds of every run cycle the refrigerator is setting up to cool but is not effectively producing cooling at the plates.

Since batteries are rated in amp hours it is important to do the job with the least amount of amperage as possible.

Run time does not equate directly to more consumption. To compare power usage you need to take the run time and multiply it by the amperage that the fridge is drawing when it is running.

An example is our Danfoss BD35f can draw 2.2 – 6.5 amps by changing the speed. It is best to set it the amperage at the lowest value and let the unit run with the minimal cycles to produce the best efficiency.

For more information call

Nova Kool Mfg. Inc. at 604-523-6515 pacific standard time