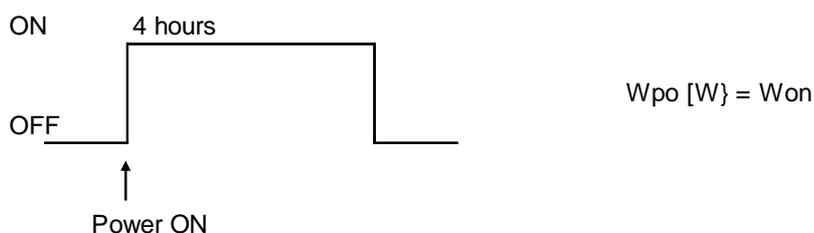


Standby Power Consumption

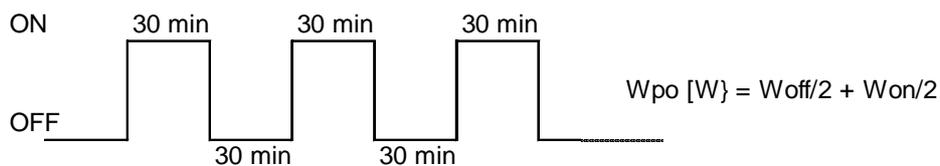
Power consumption in standby mode should only be measured by use of a Watt hour meter to give a true figure this is due to the nature of an inverter driven unit. Measuring current with a clamp meter and then calculating using $P = V I \text{ pF}$ will give higher readings than the system is actually consuming. The table below shows the factory figures for consumption with both the compressor energised and de energised. Due to the omission of a crankcase heater on all Ecodan models the compressor is warmed by electrical resistance method. Also below is the stated operation method for this procedure to occur in terms of frequency, this can be substantiated by data recorded from several of our monitored sites and further proved by the calculated example in the following paragraphs.

1. Pattern of heating compressor at first powered on

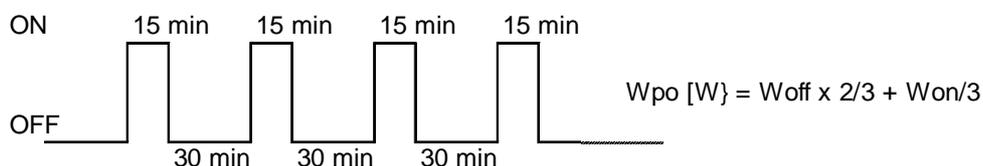


2. Pattern of heating compressor after the unit stops operation

a) In case ambient temperature $T_a \leq 21$ [degC]



b) In case ambient temperature $T_a > 21$ [degC]



	Comp heat OFF Woff [W]	Comp heat ON Won [W]	Average Wpo [W]	
			Ta <=21 [degC]	21 [degC] < Ta
PUHZ-W50VHA	14	45	30	24
PUHZ-W85VHA	15	54	35	28
PUHZ-HW112YHA	27	228	128	94
PUHZ-HW140VHA	20	70	45	37
PUHZ-HW140YHA	27	228	128	94

If you look at the below graph from our own monitoring you will see that standby power is a lot lower than the clamp meter measured amount, at about 0.06kW for an 8.5kW unit, this follows the strategy as shown above.

Over the course of the hour the energy consumed is 0.027kWh which over the course of a day would work out to be 0.648kWh which will equate to about 7.3 pence per day (11.364p/kWh) to maintain the unit in standby mode.

Going by the clamp meter measurement we would be looking at 6kWh per day or about 68 pence using the same electricity tariff. All units we are monitoring are consuming energy at the same rate of about 60 Watts at the current time of year, but with interrupted operation so a good analogy would be turning a 60 Watt light bulb on for about 20 minutes each hour.

