

20130322 Microsolar Manifold used for Solar Hybrid Air Conditioning





20130313 Microsolar 10 tubes Manifold Model being installed for Solar Air conditioning at Solar Dingin's Showhouse in Ampang Jaya , Kuala Lumpur , Malaysia.





20130313 Installer Kevin Lim carrying the Microsolar Manifold model up onto the roof to be installed as a solar hybrid air conditioner at Ampang Jaya , Kuala Lumpur , Malaysia for our partners Solar Dingin Sdn Bhd.



20130313 Installing the frame of Microsolar Manifold for Solar Air conditioner on roof at Ampang Jaya , Kuala Lumpur, Malaysia.



20120107 The 1999 vintage Microsolar being hooked up to an air conditioning unit at Microsolar's showhouse in Subang Jaya Selangor Malaysia.

It runs a 1.5 hp 12000btu indoor air con unit .

Without the Microsolar, running as a normal split unit air conditioner the normal electricity consumption is $5.6 \text{ amps} \times 240 \text{ volts} = 1344 \text{ kw} = 1.8 \text{ hp}$.

With the Microsolar hooked up, the electricity consumption drops to $3.45 \text{ amps} \times 240 \text{ volts} = 0.828 \text{ kw} = 1.12 \text{ hp}$.

This is a savings of 38% of electricity with the Microsolar hooked up, it provides a free secondary heating or compression to the refrigerant by solar heating after the refrigerant exits the compressor and condenser.

However this 1999 era Microsolar (based on the Nepal Microsolar of 1982) is bulky and not as hot as the 2013 Microsolar Manifold with Vacuum glass tubes. We had to use this old Microsolar Nepal model as our research prototype in Jan 2013 as it was the only unit left with openable tank that we could access the inside of the tank to fit the Air Con Heat Exchanger Coil . All our current models do not have openable tank. We have now custom manufactured the Microsolar Manifold as seen in the above pictures of March 2013 for these Air Cond applications which is more sleek and of much higher temperatures.

The Microsolar manifold can also be used for hot air heating and solar water heating with a remote pump circulation tank or with a thermosyphon tank above. It is lightweight , and very suitable for roofs that cannot take the heavier loading of the normal Microsolar Water Heaters. .



20130107 The original 1999 vintage Microsolar Nepal Prototype Model being converted to be used as a solar air conditioner and connected to the air conditioning compressor at Microsolar's showhouse in Subang Jaya Selangor Malaysia. The current Microsolar Water Heater Vacuum Tube model can be seen on the car porch roof at top right. The Microsolar Hybrid Solar Air Conditioner provides a 38% savings on electricity usage when used as a solar air conditioner.