



PREFACE

The solar energy has become recognised as one of the most important source of energy. Since increasing the price of petrol, gas, diesel and etc. rapid reasearch has been done by most of the developed state in the world to used solar energy.

Method of collecting solar energy has been improved as to transfer all the energy gain to useful work. Several type of collector had been design. For the purpose of this project a concentrated solar collector is disscus (Parabolic shape collector).

In order to transfer the heat collected, a heat pipe is used. Heat pipe is a device of very high thermal conductance. Freon 12 is used as the working fluid in the heat pipe. The heat pipe is clamped horizontally on the focal point of the parabolic collector. Such that the sun radiation from infinite distance will reflect by the collector andafocus on the heat pipe. The focusing increase the intensity of radiation receive by the heat pipe if compare to other method. The heat cause under pressure working fluid to increase in temperature (boiling) and transfer the heat to the cooler section i.e. the hot plate. The wick inside the pipe transport back the cool fluid to the hot region. Hence cycle of heat transfer is produce.

For practical use the collector is place outside the belcony on hnd day and the hot plate is inside house or in shade. The collector may be adjust to track the sun inclination.

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