

Kajian Pindah Panas (*Heat Transfer*) Pada Pemanas Air Tenaga Surya Tipe Plat Datar (*Heat Transfer Resources in Solar Water Heater Flat Plate Type*)

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Solar energy is renewable energy resource, utilization of solar energy using two technologies are solar technology fotovoltaic and solar thermal. Which one the utilization of solar thermal is solar water heater (collector) flat plate type. Flat plate solar collector type is heat exchanger utilization solar radiation as a source of primary energy to produce thermal energy. This purpose of this research is to analysis of heat transfer on the flate plate solar collector type. The parameter testing using flowrate 25 g/s, 20 g/s and 15 g/s with each flowrate using 15° angel. Heat transfer in solar collector to get the best result on flowrate 15 g/s with heat transfer conduction total of 146,291 W, heat transfer convection total of 332,998 W, and heat transfer radiation total of 0,0453 W. The best of heat transfer process occurs on flowrate of 15 g/s with efficiency 83 %.

Keyword: Solar Energy, Collectors, Flate Plate Type, Heat Transfer, Flowrate