

Concept and Development of Sun Tracking Floating Solar Unit for Small Water Bodies

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Abstract: *The analysis of the performance of photovoltaic (PV) installations mounted on a floating platform is to be performed. Different design solutions for increasing the efficiency and cost effectiveness of floating photovoltaic (FPV) plants are been discussed. Specifically, FPV solutions that exploit the advantages of additional features such as tracking, cooling and concentration will be presented. The results of experimental tests to be conducted and they will show considerable increase in efficiency due to the positive tracking and cooling effects. Deployment of photovoltaic systems on water bodies unlocks enormous areas in populated regions. Also, their utilization will create the possibility to increase the share of photovoltaics systems related to the energy transition. There is little information regarding the available data for floating photovoltaic systems (FPVS). The positive effect of water on cooling the photovoltaic modules shall be considered, also. This study will be performed by utilizing experimental data from a field test located in a region having hot semi-arid climate*

Keywords: Solar Unit

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