a 2018 0093

The invention relates to power engineering and solar engineering, in particular to photoelectric installations based on direct conversion of solar energy into electrical energy using photoelectric cells, in particular to liquid heating devices. The photoelectric installation comprises a photoelectric thermal panel (25), consisting of photoelectric cells (3), fixed on a transparent surface (2), electrically connected to each other in a box (4) and placed on a plastic sheet (5), under which is placed an oilcloth (6) with tubes of polymer material (7), a cold water dispenser (8) and with a hot water collector (9), all being fixed in a frame (1) with thermal insulation (18). The ends of the cold water dispenser (8) and of the hot water collector (9) are equipped with nozzles (10) and (11), respectively, and connected by means of cold (20) and hot water pipes (21) to a heated water reservoir (19). Between the plastic sheet (5) and the oilcloth (6) is placed a paste layer (12) with high thermal conductivity, under which is placed an elastic heat-insulating
layer (14), followed by a thermal insulation layer (13), fixed to the frame (1) with a protective sheet (17). On the cold water pipe (20) is installed a pump (22), connected to a motor (23), powered from the box (4).

Claims: 3
Fig.: 4