

ABSTRACTCHOPPER-AMPLIFIER FOR THE VOLTAGE OF A PHOTOVOLTAIC
POWER SOURCE, IN PARTICULAR FOR A TIMEPIECE

In this booster, the voltage across the terminals of the photovoltaic power source (1) is regulated as a function of a reference voltage (V_{ref}) which is chosen to be substantially equal to the voltage corresponding to the maximum value of the voltage-power curve of this source. The reference voltage generated in the reference generator (9) is compared to the voltage (V_{sc}) of the source (1), the result is sampled and influences the duty cycle of a control signal (F_c) applied to the switching transistor (7). The latter is responsible for chopping the current flowing from the source to the load (accumulator 6) through an inductor coil (4) and a diode (5).

Figure 2