

**MD.15.**

**Title**

**Photovoltaic installation „SUNFLOWER”**

**Authors**

*Bostan Ion, Bostan Viorel, Dulgheru Valeriu, Guțu Marin, Ciobanu Radu, Ciobanu Oleg (MD).*

**Institution**

**Technical University of Moldova**

**Patent no.**

*Patent application, nr.2010. 06.03.2020*

**Description  
EN**

The „Sunflower” type photovoltaic installation refers to the photovoltaic solar energy conversion plants, is, to the photovoltaic installations with self-orientation in the southern and azimuthal plane.

The photovoltaic installation „Sunflower” includes the fixed tower (1) with the vertical openings 2, in which elements of concentration of the solar rays (3) are rigidly installed. Inside the tower 1 is installed the embossed tube (4) filled with gas with a high coefficient of expansion upon heating, the upper end of which is rigidly connected with the shaft (6). On the free cylindrical surface of the shaft (6) the inclined channel (8) is executed, in which the balls (9) are placed. On the inner cylindrical surface of the bush (10) are made spherical seats, in which the balls (9) are located and is connected to the rotary cylinder (13) with the unisense coupling (14). The rotating cylinder (13) is periodically connected by the arched ball (18) with the fixed tower (1). In the upper part the rotary cylinder (13) is rigidly connected to the support shaft (24), on which is installed the hinged photovoltaic panel (25). The bottom end of the photovoltaic panel (25) in the middle is connected by the bar (26) with the lid (27) rigidly connected to the fixed tower 1.

2. Energy and sustainable development.