



Roof-mounted solar power plant

Features of the plant:

The power plant is built of 80 modules Kaneka K60 and one inverter MASTERVOLT XS 6500. The organization is 16 strings of 5 modules, and the modules are sorted by power and in each string there are modules with approximately equal power and current. This leads to increased production of electricity by 2-3%. The modules are located in two structures one behind another, each of which has two rows of modules and own junction box, combining the strings of its own structure. Both junction boxes are connected to both inputs of the multistring inverter MASTERVOLT XS 6500.

The roof has larger area and it is not envisaged to build new facilities in the future. This allows the positioning of both rows of modules to be carried out at a long distance from each other, thereby avoiding overshadowing.

Due to the fact that the thickness of the roof is only 4 cm, the structure's legs are set only on the beams, which are at a distance of 1.50 m. from one another. To provide counteraction to the power of lifting in case of wind from behind, a component is installed, by which the steel bar covers the beams not only from the sides, but also from the bottom.

The inverter switchboard, together with the inverters are located on the north facade of site building 1. The power plant main switchboard is located in a separate room on the ground floor in building 2 together with main switchboard of building 2. From building 1 to building 2 is constructed piping channel network of PVC pipes in a trench. For connection of the inverter switchboard and the power plant main switchboard a CBT 3x25+16 mm² cable is pulled. Both power plant switchboard and the inverter switchboard are grounded with a separate earthing system

Power Plant Specification

Size:	5 DC
Commissioned:	June 2009
Type:	Roof mounted
Site Area:	576 m ²
Output:	4.8 kW
CO ₂ Displacement:	~ metric tons per year
Module Surface Area:	76 m ²
Modules Used:	Type: Kaneka K60
	Quantity: 80
Angles:	Mounting Tilt: 32°
	Azimuth: -2°



Supported by:



5300 Gabrovo, Bulgaria,
Stacionna 14 St.
Phone: +359 (66) 817 404
Fax: +359 (66) 817 407
Email: solar@sts.bg
www.solar.sts.bg

