

PHOTOVOLTAIC STATION IN THE SOUTHERN UKRAINE

Type: Free-field Solar Station for industrial energy generation with silicon photovoltaic modules with further transformation into off-site grids.

GENERAL DATA

Installed capacity:	4,03 MWh
Location:	South of Ukraine
Ownership status:	lease for 49 years
Launched into operation:	December 2016
Total area of the land plot	10 Ha
Number of inventory stations	3 units
Capacity of each of the inventory stations	1,25 MWh
Annual production	5,136 MW*h
Life cycle of the solar station	30 years
Number of employees	18
Revenues in 2017	UAH 25 mio

EQUIPMENT DETAILS

Country of origin	China
Manufacturer	China Sungergy (Nanjing) Co., Ltd.
Max output	230-270 kW peak
No of cells	60
Voltage at maximum capacity	25-35 V
Current at maximum capacity	6-10 A
Voltage at opened circuit	35-40 V
Short circuit current	7-9 A
Max voltage in the system	1000 V
Maximum rating of safety fuses	20A
Capacity tolerance	+ -3%
Temperature coefficient of the maximum capacity	0,423+ -0,05% /K
Temperature coefficient of the voltage at opened circuit	0,307+ -0,05% /K
Temperature coefficient of the SC current	0,039+ -0,05% /K
Nominal temperature at the cell operation	45+ -2DC
Lifetime	20-25

COP of the modules	>14,5%
Manufacturer's guarantee	10 years

All necessary licenses are available:

- License by the NKREKP (National Commission for state regulation in the energy and utilities)
- Agreement with the state company "Energorynok" for the generated output sales.
- Green Feed-in Tariff license

In the period of December 2016 – October 2017, the station produced 5 017,8 MWh