3.13. NETWORK INVERTER FOR RENEWABLE ENERGY SOURCES VOKHI-1000 (BOXI-1000)

The inverter is intended to convert the energy of direct voltage from renewable energy sources into the network energy of alternating voltage (220V, 50Hz) with connection to the appropriate utility network. It is located at a distance of no more than 10 meters from RES (photovoltaic panels or wind generators). It has IP20 performance and does not require additional installation space.

Competitive advantages:

- Robust and reliable design, electronic components from the world's leading manufacturers, high efficiency, stable performance.
- New MPPT technology, efficiency of over 85%, faster and more sensitive response to the parameters' changes, high reliability.
- Galvanic isolation between the network and RES by means of a high-frequency transformer, low DC voltage at the input (24-42V) and thereby ensuring the electrical safety against human injury by high DC voltage.
- Anti-corrosion heat-resistant aluminum alloy housing.

Inverter technical parameters VOKHI-1000

Compatible photovoltaic panels	60 cells/24B Vmp=26-30B Voc=34-38B	72 cells/36B Vmp=35-39B Voc=42-46B
Rated power	1000 Вт	1000 Вт
Input voltage (DC)	20…45 В	24…45 В
MPPT voltage	24…34 В	26…36 В
Maximum input DC current	60 А	50 А
AC output voltage	190…260 В	190…260 В
Frequency	50 (60) Гц	50 (60) Гц
Power factor	>97.5%	>97.5%
THD	<5%	<5%
Phase shift	<2%	<2%
Maximum efficiency	87%	87%
Nominal efficiency	84%	85%

Emergency protection: short circuit, low voltage, high voltage, overheating
Ambient temperature: -25…+50°C
Humidity: 0… 90% without condensate
Protection degree: IP20 (indoor installation)
Indication: LED (red - emergency, green - start)
Cooling: forced (fan), turns on automatically
Stand-by power <1 V
EMC: compliant with EN61000-6-3:2007 EN61000-6-1:2007