

## GRID BIDIRECTIONAL INVERTERS



500 kW inverter

### Areas of Application

The inverters are to be used for transmitting energy from solar photoelectric systems and electric energy storage systems to external power grids. They provide integrating with power-generating equipment of renewable power engineering facilities and interacting with end users; maintaining the power load curve and power supply in the case of interruptions; improving the reliability of electric power and energy system operation; accumulating electric power in the period of its low cost and supplying in the period of its high cost

### Advantages

As compared with European analogs, these inverters have considerably low dimensions and cost and produce much lower acoustic noises during operation. They provide almost sinusoidal output voltage. The modular configuration of inverters enables to easily control power in the power supply system

### Specification

|  |                                    |
|--|------------------------------------|
| Nominal output power, kW                                   | 500                                |
| AC output voltage  | 283/400 V + 10–15%<br>50 Hz + 3–5% |
| Operating frequency, kHz                                   | 20                                 |
| Total harmonic distortions (THD), %                        | ≤3                                 |
| Load – transmission grid (through step-up transformer), kV | 0.4/10                             |
| Range of input voltage, V                                  | 400–1000                           |
| Cooling  | Autonomous, water                  |

### Stage of Development. Suggestions for Commercialization

IRL7, TRL6  
Manufacture, delivery, maintenance within warranty period, and staff training, upon request

### IPR Protection

IPR1, IPR2

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