

## SI99S SISTEM OF INVERTERS UP TO 9 kW



The system SI99S of inverters or DC/AC converters is designed for use in the telephone exchanges or remote places with the accumulator batteries of nominal voltage - 48V.

The system is used in case of big commercial power fluctuations, short interruptions (near big consumers switching on) and in case of long commercial power interruptions. In all above-mentioned cases the output inverter's voltage changes remain within 2%, the value that is acceptable to supply even most sensitive equipment.

The system SI99S operates in two ways in systems of uninterruptible power supply:

- The equipment is always supplied from the inverter ("on-line") and battery is charged through the rectifiers if there is commercial power.
- The equipment is supplied from the existing commercial power (rectifiers charge the batteries), and when the voltage is out of defined limit or the commercial power brake out the equipment is supplied from the inverter ("off-line").

The system consists of 1 to 9 inverter units TI1250 connected in parallel to increase the power. The inverters are placed on the rack along with the control unit TIC. The control unit supervises inverters and enables "on-line" and synchronized "off-line" mode with transition time less than 2 ms.

The SI99S system is robust solution for uninterruptible power supply for telecommunication equipment with high accuracy of output voltage (tolerance < 2%) and frequency (up to  $10^{-5}$ ). Microprocessor based control enables high flexibility in use of the system. Due to the fully automatic work and fault self-diagnostics the system is very simple to handle. SI99S provides high level of availability because of simple inverter's work (automatic switch off fault inverter). It is possible to have remote control using PC with standard RS485 (RS232) communication, GSM network (option) or Ethernet (option). Putting 9 inverters in parallel operation, load of up to 9 kW can be supplied.

## SI99S TECHNICAL CHARACTERISTICS

Input voltage .....	from 40VDC to 60VDC
Psophometric voltage on the input side .....	<2mV
Ripple voltage on the input side .....	Max.50mV in range up to 20MHz
Input fuse .....	32A
Output voltage .....	230VAC±2%
Output voltage frequency stability .....	50Hz±50ppm
Mode of synchronization .....	PLL
Speed of synchronization .....	1s
Distortion factor (linear load) .....	<1%
Nominal load per unit (TI1250AS) .....	1000W/1250VA
Maximum 1 hour overload .....	10%
Maximum number of parallel units .....	9
Current sharing in parallel operation .....	5%
Transition time of static switch .....	<2ms
EMC.....	According to CISPR14-1
Efficiency at nominal load .....	>92%
Insulation input-output .....	2.5kV
Earthing of metallic parts .....	Yes
Input voltage signalization .....	LED
Output voltage signalization .....	LED
Signalization of output voltage frequency .....	display
Fuse breakout signalization .....	LED
Output voltage measurement ... display with accuracy	1.5%
Output current measurement ... display with accuracy	1.5%
Frequency measurement .....	display with accuracy 0.1%



Remote signalization .....	RS485 communication, relay (GSM modem option)
Protection against revers input voltage.....	diode and fuse
Working temperature .....	from 0°C to +45°C
Storage temperature .....	from -30°C to 60°C
Altitude .....	up to 1000m (for higher places in options)
Dimensions with 19' mounting rack .....	540mm x 2000mm x 570mm

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