



## Exact time server STV-01

The STV-01 exact time server is designed to measure (maintain) current values of time and date with synchronization by signals of global navigation satellite systems and output current date/time values via network interfaces.

The server is designed to function as part of automated information and measurement systems of commercial electricity metering for synchronization of current time and date values, as well as for synchronization of time scales of communication base stations and various automated systems at industrial and security facilities.

Exact time server STV-01 structurally consists of the following blocks connected by cables:

- Control unit, made in a metal case, placed in a telecommunication cabinet and labeled "Exact time server STV-01";
- GNSS signal receiver in a protected all-weather case.
- GNSS antenna.

#### Features:

- Built-in HTTP Web server for customization;
- LCD/LED display for server status and instrument setup;
- Configuration buttons on the front panel;
- Lightning arrester and connection cables are included in the package.

# Technical specifications

Name of characteristic	Value
Constructional design	For mounting in 19" racks and cabinets, height - 1U
Power supply voltage	100 to 264 V AC
Power consumption, max.	20 W
Operating system	Linux
Network interfaces	ETHERNET 1×NTP (10/100 Mbps)
Supported transport protocols	TCP, UDP
Supported network protocols	IPv4, IPv6
Supported network protocols	NTP, DHCP, NBNS
Supported Time Synchronization Protocols (ETHERNET)	NTP v2 (RFC 1119), NTP v3 (RFC 1305), NTP v4 (RFC 5905), SNTP v3 (RFC 1769), SNTP v2c (RFC 1158), SNTP v4 (RFC 2030)
Output signal	1×PPS - second marker
Support generator (generator type is determined when ordering)	1) TCXO (error ±1 ms/day) 2) OCXO-HQ (error ±5 μs/day) 3) Rubidium (error ±0.2 μs/day)
STV-01 server time	UTC+0(GMT)
Built-in HTTPS Web server for customization	+
RS232 interface	1 pc.
LCD/LED display to show server status	+
Setting buttons on the front panel	+
Operating conditions of the control unit: - ambient air temperature, °C - relative humidity at temperature +25 °C, %, not more than - atmospheric pressure, kPa	0 to +60 80 84 to 106.7
Operating conditions of the receiver: - ambient air temperature, °C - relative humidity at +25 °C, %, not more than - atmospheric pressure, kPa	-40 to +60 98 84 to 106.7
MTBF of STV-01	100,000 hours
Average service life	at least 20 years
GNSS signal receiver (type of receiver is determined when ordering)	1) GLONASS/GPS 2) GLONASS/GPS/BeiDou/Galileo
Overall dimensions of GNSS receiver without antenna and elements	150x90x70mm
Communication interface between the control unit and the receiver GNSS	RS-422 (with galvanic isolation)
Protection degree of the GNSS receiver housing	IP65
GNSS antenna for outdoor installation (with mounting kit) (antenna type is determined when ordering)	1) ICB ANT GNSS (-40 to +85 °C) 2) GPS-P (-70 to +90 °C)
Interface cable (to be determined when ordering)	1) 20 meters 2) Up to 500 meters
Antenna cable (to be determined when ordering)	1) 0,6 meter 2) Up to 100 meters
Overall dimensions of STV unit (W×D×H), mm, not more than	500×300×50
Weight, kg, not more	5