

ISO 9001

# **TESTER OF BATTERIES BT 100 - 400**

Tester of batteries of type BT is assigned for the execution of prophylactic capacity tests of batteries by discharging. It is possible to test any type of battery by the tester of battery of type BT. It is not important if it is a plumbeous battery (sealed or open), nickel cadmium or also another type. Battery is discharged by the constant current or constant power in order to be able to define the actual capacity of battery. During test, it is electronically adjusted required discharging current of the battery in ampere or it is set the nominal capacity of battery and it is selected a discharging current divided from the battery capacity, at which the manufacturer of the battery specifies her capacity.





### **Base characteristics of device:**

- Control unit with LCD display controlled with microprocessor
- Monitoring up to 128 battery cells (optional with module HBT)
- Programmable process of discharge
- Fully programmable process of measurement at discharge with the autonomous operation without PC
- Possibility of upgrade of firmware completing new characteristics
- Galvanic isolated user's interface control and also communication

### Monitoring:

- Possibility of monitoring of various cells 2, 4, 6, 8, 10 and 12V (optional with module HBT).
- Max 128 cells with voltage 2, 4, 6V or 64 cells with voltage 8, 10, 12V (optional with module HBT).
- Voltage of the monitored battery set.
- Voltage of single battery cells (optional with module HBT).
- Balance of voltage of the single cells of battery set (optional with module HBT).
- Check up of the discharge current of battery during back up.
- Monitoring of the ambient temperature of battery (optional with module HBT).
- Completion of the battery discharge according to time, battery voltage, number of cells with min. voltage, withdraw capacity or manual.
- Display of capacity of the battery after the completion of discharge of the battery and consecutive display of the withdraw capacity during discharge.

ISO 9001



- Record of the operational reports in memory 1000 records.
- Setting of an interval of measurement of cells voltage within 1 600 min.
- Possibility to connect USB Flash memory, by which is possible to evaluate recorded data on the computer afterwards.
- Storage of the discharging characteristics directly in the device also without connected computer with connected USB memory medium.
- Unlimited time of the autonomous measuring without connected PC. It is important only size of the memory media connected to the device. Already measured values all cells, current, temperature and time are saved on USB Flash memory connected to the device and consequently, it is possible to display them by software – it is no needed to have always connected computer – suitable for the mobile operation.
- Data is possible further to execute in program MS Excel or by other database programs. File is saved in format \*.DBF.
- Consecutive display of all measured and configured data on LCD display or in the application on the connected computer.
- Very low consumption of the measuring module (module HBT).
- Measuring modules for a measuring of voltage of the single cells are powered directly from the measured battery because of an undemanding connection (with module HBT).
- Wireless connection of the measuring modules it is no need of the complicated cabling to the single cells of battery.

### Communication with the user:

- Enlightened LCD display for a good readability of data.
- LED diodes and buzzer for the acoustic signalization.
- Control menu in Slovak, Russian or English.
- Communication via serial interface USB.
- Communication by the standard network protocols via SNMP adapter or with LAN adapter by the software package Globmon. Module is built-in directly in the device.



### Control:

- Directly by using keys on the control panel of the device.
- Remote operated via serial interface USB or LAN adapter by software application on PC, notebook.

### Software:

- Support for OS Windows NT 4.0, 2000, XP or latter.
- Graphic display of the discharging characteristics with the possibility of saving to the file.
- Comparison of the discharging characteristics of single battery.
- Print of the discharging characteristics and protocols with possibility of own heading.
- Possibility to compare characteristics from the previous measurements in order to find a tendency of capacity of the battery.

## Compatibility of software:

 Compatibility of the monitoring software of the tester of battery BT 100 – 400 with software Globmon



Device <b>BT 100-400</b>			1 pc.
Load BTZ14KVA	External	14kVA - passive	1-2 pc.
Battery:	It is not a part of BT.		-
Position of battery:	External		-

System BT 100-400				
System	Control and monitoring function			
<ul> <li>voltage of tested battery range of voltage 10 ÷ 400V DC</li> <li>discharge current 10 ÷ 260 VDC - 5 ÷ 100 A 260 ÷ 400 VDC - 5 ÷ 50 A</li> <li>range of battery current measurement 0 ÷ 150A</li> <li>current protection of BT module – electronically 100A</li> <li>input protection – internal fuse 125 A</li> <li>input disconnector</li> <li>power supply 90 ÷ 264 VAC or 40 ÷ 280 VDC</li> <li>connection of load BTZ: 100% of max. discharge current - 2xBTZ 14kVA 50% of max. discharge current - 1xBTZ 14kVA</li> </ul>	<ul> <li>microprocessor controlled control unit with LCD display</li> <li>programmable process of discharging</li> <li>fully programmable process of measuring during discharging with the possibility of autonomous operations without PC</li> <li>control menu in Slovak, Russian or English</li> <li>monitoring up to 128 battery cells (with module HBT)</li> <li>possibility of monitoring of battery cells - 2, 4, 6, 8, 10 and 12V (with module HBT)</li> <li>voltage of the monitored battery set</li> <li>voltage of a single battery cell (with module HBT)</li> <li>balance of voltage of single cells of battery set (with module HBT)</li> <li>check up of the discharge current of battery during back up</li> <li>monitoring of the ambient temperature of battery (with module HBT)</li> </ul>			
<ul> <li>Cable connection</li> <li>Supply of the input AC power supply via standard PC connector. Cable is a part of the delivery.</li> <li>Cables to loads via connector Anderson SB 120 – from the front. Cable is a part of load.</li> <li>Cables to batteries via connector Anderson SB 175 – from the front. Connector is a part of package.</li> </ul>	<ul> <li>completion of the battery discharge according to time, battery voltage, number of cells with min. voltage, withdraw capacity or manual</li> <li>display of capacity of the battery after the completion of discharge of the battery and consecutive display of the withdraw capacity during discharge</li> </ul>			



<ul> <li>Safety</li> <li>STN EN 60 950</li> <li>Insulating strength</li> <li>AC mains- input /output - 4kV</li> <li>EMC <ul> <li>immunity - STN EN 50 082 - 1</li> <li>emission - STN EN 50 081 - 1</li> <li>output - ETS EN 300 123 - 2</li> </ul> </li> <li>Protection <ul> <li>IP20</li> </ul> </li> <li>Measurements <ul> <li>Module BT 100-400</li> <li>(w x d x h) 300 x 540 x 570 mm</li> <li>Load BTZ14KVA (w x d x h) 300 x 480 x 710 mm</li> </ul> </li> <li>Weight <ul> <li>BT 100-400 - 48 kg</li> <li>Load BTZ14KVA - 20 kg</li> </ul> </li> <li>Cooling <ul> <li>Module BT 100-400 - cooling with forced air flow Load BTZ14KVA - natural cooling</li> </ul> </li> <li>Temperature range: <ul> <li>operation -10 ÷ 55 °C</li> <li>storage -35 ÷ 85 °C</li> </ul> </li> </ul>	<ul> <li>consecutive display of all measured and configured data on LCD display or in application on the connected computer</li> <li>very low consumption of the measuring module</li> <li>measuring modules for measuring of voltage of the single cells are powered directly from the measured battery (with module HBT)</li> <li>wireless connection of measuring modules (with module HBT)</li> <li>possibility of upgrade of firmware</li> <li>communication with an user – USB, Ethernet</li> <li>luminous signalization</li> <li>acoustic signalisation</li> </ul>
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