Module for station batteries diagnostics MDB 201

Purpose of use

The MDB 201 monitor is designed for the protection, monitoring, measurement and signaling of the operational and failure states of station batteries. Battery protection is provided mainly due to this protection functions:

- Disconnection of the charger during an overvoltage on the battery
- Protection against overcharging the station batteries
- Protection against improper charging
- Protection against deep battery discharge
- Digital recorder of the battery operation
- Measuring battery current with both polarities, in both the charge and the discharge phases
- Performance of orientation capacity test

Construction

The MDB 201 circuits are designed with the ATMEL 89C52 microprocessor with the integrated 4.5 digit ICL 7135 A/D converter. The monitor is designed for an industrial environment; for this reason, it has high operational reliability and safety.

The MDB 201 monitor construction is modified for the built-in mount into the panel (switchgear doors, control panels, front face panels of the chargers, etc.). The front dimensions are standardized with the 144 x 144 mm European module; the dimensions of the cut into the panel are 139 x 139 mm, fastening in the panel with metal threaded clips. The built-in depth is 145 mm with the terminal boxes.

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The monitor has no outside power supply; it is supplied from the same potentials as the measured voltage.

The MDB 201 monitor involves a digital recorder into which the voltage of the station battery is recorded every hour – memory contents – 3 years. Furthermore, it has the so-called black box into which data are recorded that deviate from the standard operation (recharging battery OK).

The four-line display with the Czech diacritics is on the front panel. The access to the monitor values is split into a user and service access. The service access is protected by a password in order to reduce unprofessional manipulation.

Parameters

Basics types	
U_{in}	the same as measured
I_{in}	<50 mA
f_{in}	DC
$U_{nominal}$	24, 48, 60, 110, 220 V ±25%
Measurement input take-off	10 pA
Display	four-line alphanumeric
Interface	optional
Logical inputs	6
Logical outputs	8 (230 V AC/5 A)
Operating temperature	From 0 to +40 °C
Storage temperature	From -10 to +40 °C
Relative humidity	10 –75%
Dimensions	144 x 144 x 144 (155) mm
Weight	1 kg max
Protection	Front panel IP 40
	Rear panel IP 20
Options	
Interface	RS485

For detailed technical or commercial queries contact – PEG – s.r.o.

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