



AMTest

Monitoring and diagnostic system of LV and HV electric motors

«AMTest» is the cheap and effective device for condition monitoring system, diagnostics, control and protection of asynchronous electric motors with rated voltage 0,4 kV.

The “AMTest” device solves 4 types of problems:

1. Control of electric motor:

Motor remote control;

Switching-off electric motor due to protection is operated.

2. Protection functions:

- Protection of the electric motor from an overload;
- Low voltage protection;
- Time monitoring of running-out of the rotor after power switching-off;
- Protection against excessive vibration.

3. Diagnostics of the electric motor and the mechanism defects:

- Diagnostics of bearings condition, qualities of alignment and balancing;
- Diagnostics of rotor bar defects in the rotor of the asynchronous motor;
- Diagnostics of a foundation condition.

4. Integration with SCADA:

- Remote control of the electric motor;
- Monitoring of operating time and consumed power;
- Connection with SCADA over RS-485.

Specifications.

Measuring channels	
Measuring channels:	3 operating current channels, 3 operating voltage channels, 2 vibration channels, 2 temperature channels
Frequency range (vibration):	1000 Hz
Frequency of measure load current and voltage:	80,120,150,180,800, 1000,2000,3000 Hz
Number of ADC digits:	14 bits
Measurement range	
Operating current sensor (IFCT type), A:	0,1-5
Operating voltage, V:	5-250
Vibration (sensor VK-310A), m/sec ² :	1-100
Temperature (thermistor Pt-100), C°:	-50 to +150
Storage memory	
Memory fill:	dynamical
Total volume / Data area:	4 Mb / 3.5 Mb
Time of keeping:	unlimited
Measurement inaccuracy	
Limit of basic permissible relative inaccuracy by measuring one of any values:	< 5%
View data	
Display:	6 seven-segment display
SCADA connection	
RS-485 (57600 bauds, 37400 bauds, 9600 bauds)	MHY-I
Device parameters	
Dimensions, mm:	170x155x35
Weight, kg:	2
Operating parameters	
Temperature range:	-20° C to +50° C
Relative humidity range:	<98%, noncondensing
Software	
“AMTest monitor”	“AMTest monitor” software consists of: <ul style="list-style-type: none"> • database; • functions of view and data conversion; • motor diagnostic system; <p style="text-align: center;">communication and remote control functions</p>