

ES 1000A Insulation monitor in IT systems

GENERAL INFORMATION

The main purpose of the **ES 1000A Insulation Monitor** is to provide clinical and/or maintenance personnel with an insulation monitoring system in AC electrical installations with equipment with connected DC components, for medical locations with an IT system.

The Insulation Monitor also oversees the load current, and the temperature of the transformer for medical use, of a distribution board for IT system in medical locations.

It has a real-time clock through which the date and time of the equipment is set, allowing to store in the alarm memory, the date and time at which a particular alarm has occurred.



ALARM MONITORING

- 1 | Ground wire connection failure
- 2 | Insulation leak
- 3 | Temperature in the isolation transformer
- 4 | Isolation transformer overcurrent
- 5 | Network communication failure
- 6 | Failure locator per output line

TECHNICAL DATA

Supply voltage	AC 84...264V~
Nominal frequency	47-63 Hz
Consumption	≤5W

INSULATION MEASUREMENT

Insulation failure detector	AC/DC
Response Value (Ran)	50K-500K (adjustable)
Relative error percentage	≤5%
Response time <i>Rf = 25K, Ce = 0.5uF</i>	≤5 Seg
Measurement voltage (Um)	±12Vdc
Measurement Current (Im)	≤45uA
Internal resistance	≥250KΩ
50Hz impedance	≥200KΩ
Continuous voltage allowed (Ufg)	±300Vdc
Network capacity allowed	≤4uF

CURRENT MONITORING

Response Value (10A default)	1-50A (adjustable)
Relative error percentage	≤3%
Response time	≤5 Seg

TEMPERATURE MONITORING

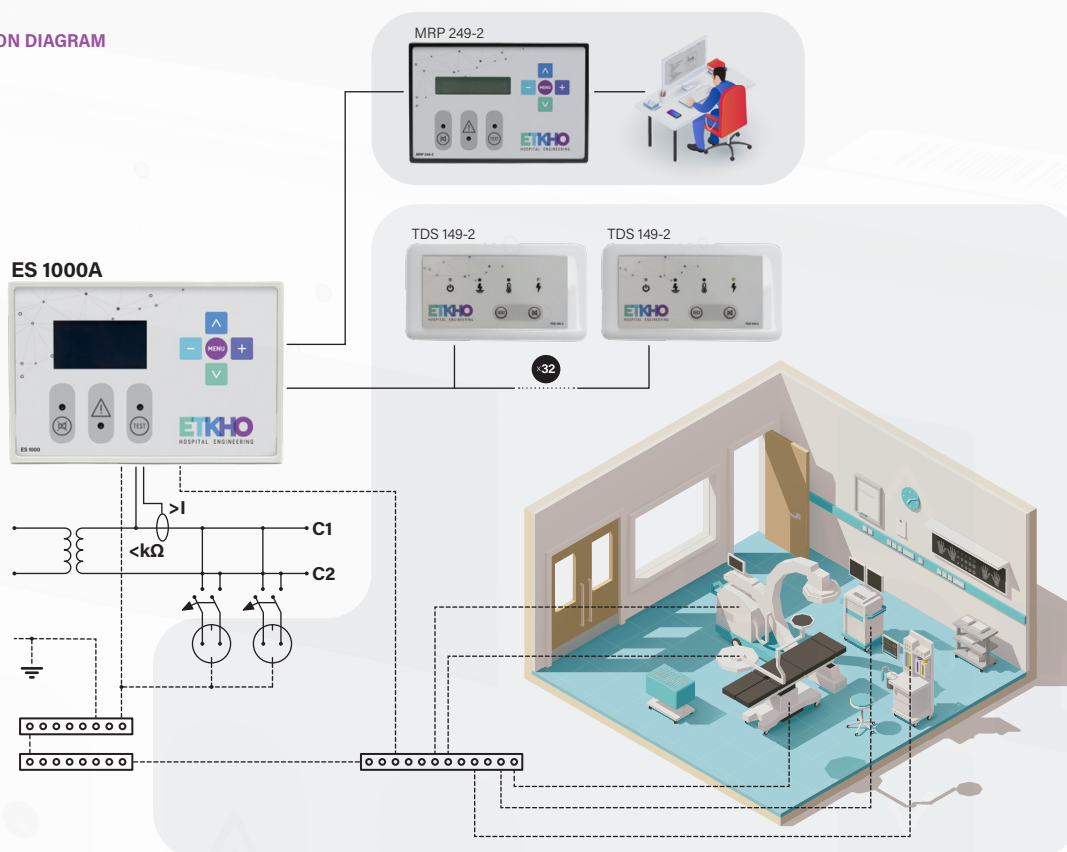
Response Value	1-150°C
Relative error percentage	≤5%
Response time	≤2 Seg

COMMUNICATION

Communication with multi-repeater TDS 149-2	1 RS485 output
Communication with multi-repeater/gateway MRP 249-2	1 RS485 output
General Alarm	1 switched relay output

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CONNECTION DIAGRAM



ACCESSORIES

Temperature sensor

PT 340

COMPATIBLE EQUIPMENT

Alarm repeater	TDS 149-2
Multi-repeater/Gateway	MRP 249-2
Line insulation failure locator	TDS 448
Current injector	TDS 449

COMMUNICATION

It has an RS485 port, for communication with up to 32 monitors, with a multi-repeater. Communicable with BMS system with Modbus RTU communication protocol.

REGULATIONS

EN 61557-8: 2015
EN 61557-1: 2007
EN 61557-9: 2015
EN 61558-2-15:2012
EN 61326-1: 2013
EN 61326-2-4: 2013
IEC 60364-7-710: 2002

