MIS-K

Motor Insulation Protection Relay

IGEL Electric's MIS-K is an advanced offline motor insulation measurement and protection system, available in separate models for low voltage and medium voltage motors.

For low voltage motors, the MIS-K functions as a standalone device, while for medium voltage motors, it operates with external RU7 (up to 7200V) or RU13 (up to 13800V) units.

The MIS-K is fully digital and compatible with all types of AC motors.

Key Functions

Measures actual, hourly, daily, monthly, and yearly insulation resistance.

- Displays and reads parameters via optional RS485 communication.
- Protects system from low insulation resistance, alarms, trips, or prohibits motor start.
- Uses adjustable DC voltage (up to 50V) for safe, accurate measurement.
- Insulation range: 0 – 64MΩ.
- Measures only when the motor is offline.
  Line Test feature for MV units ensures proper connection.
- Includes internal and manual self-tests.
- Programmable with eight protection functions.
- Two-line LCD display and six-button keyboard for programming and data reading.

Up to 8 programmable protection functions

- Insulation Trip
- Insulation Alarm
- Line Test fail
- Communication Port failure
- Internal Fault
- Extrnal Fault 1
- Extrnal Fault 2
- Extrnal Fault 3

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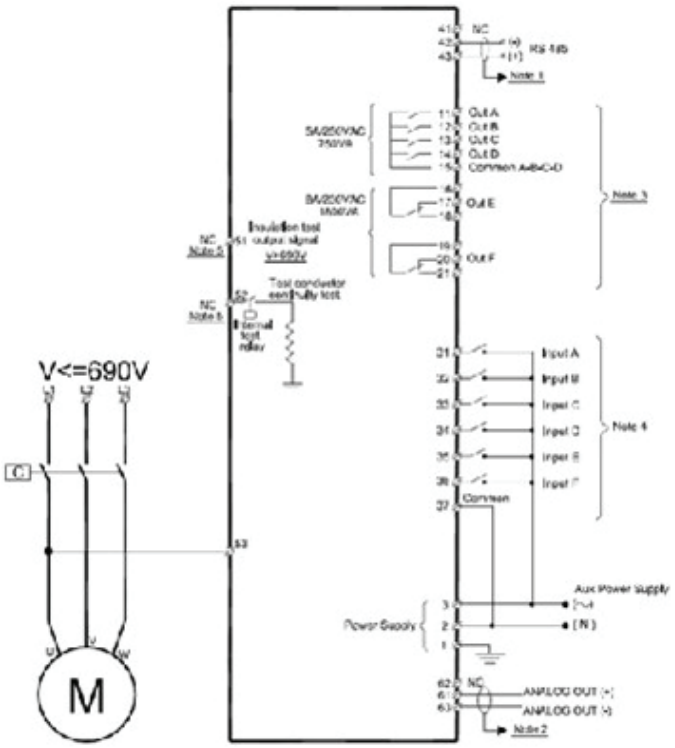
Advanced Features

- Displays the present and average insulation resistance on LCD
- Monitoring while motors are de-energized
- Microprocessor based technology
- Alarm / Trip Setpoint in the range of 0.1 to 60 Mega Ohms
- Utilizes up to 48 VDC test voltage to increase personnel safety
- Illuminated LCD display with 2 lines of 16 characters each
- Six keys for easy programming
- Three LEDs for easy status indication
- Deterioration monitoring by storing history with time stamp
- Unauthorized parameter modification prevention
- Four C/O 8 Amp., 250V programmable signaling relays
- Analog 0/4-20mA output for remote reading
- Modbus communication
- Control Voltage: 85-230VDC/AC (50/60Hz)
- Operating Temperature Range 0°C to +50°C (default - all units) -10°C to +60°C (optional)

Applications

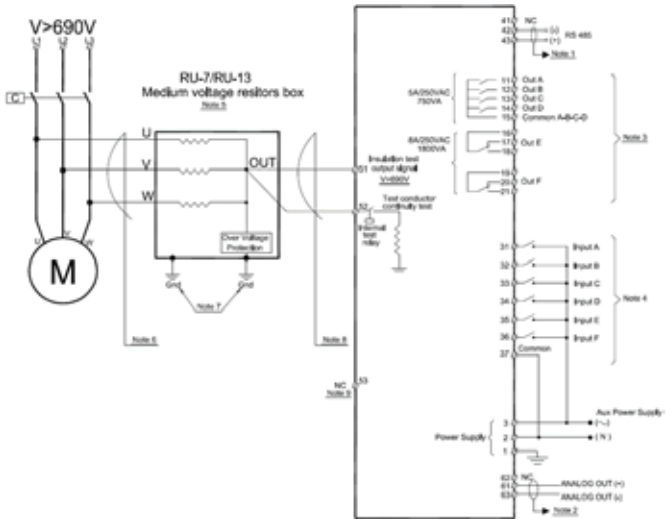
- Pumps
- Thrusters
- Mixers
- Crushers
- Conveyors
- Chillers
- Fans
- Compressors
- Power Packs
- Debarkers
- Ball Mills

Low voltage wiring diagram



*For illustration purposes only

Medium voltage wiring diagram



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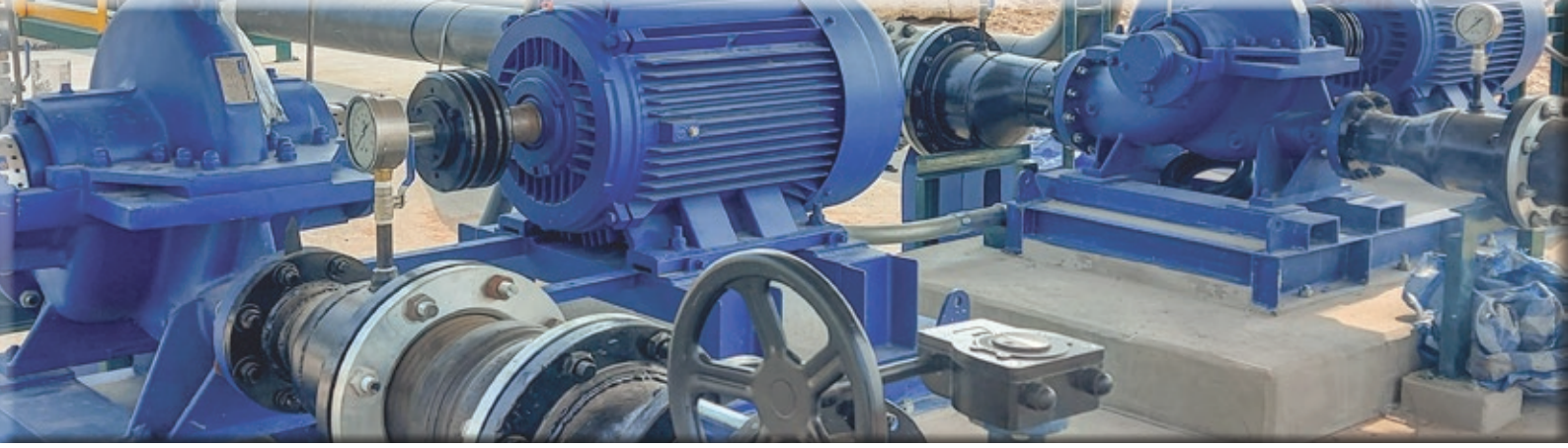

Ordering Information

MIS-K	LV	0	S
	Mains Voltage	Options	Front Panel

Mains Voltage	
Specify	Description
LV	230 ≤Vn ≤ 690 VAC, 50/60Hz
MV1[1]	690<Vn ≤ 7200 VAC, 50/60Hz
MV2[2]	7200 <Vn ≤ 13800 VAC, 50/60Hz
Notes	[1] MIP MV1 is supplied with a resistor unit RU-7. [2] MIP MV2 is supplied with a resistor unit RU-13.

Options	
Specify	Description
0	No options
M	Communication RS-485 (MODBUS) Rear connection
5	Analog out.
8	Harsh environment treatment
Notes	For more than one option indicate, for example RM+5+8 (Rear Modbus communication, analogue output and Harsh environment). * All options must be ordered in factory – options can't be installed on site.

Front Panel Standard

IGEL ELECTRIC GMBH

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