

IMD-2R



Monitoring relay for offline insulation

Description

It is an IMD (insulation monitoring device), ohmic insulation relay, which is used to protect and monitor the insulation ($k\Omega$, $M\Omega$) between the phase/s of the receiver and the protection cable reference. It is not a permanent monitor (at rated voltage of the electrical installation). It is only used for loads disconnected from the voltage system. If it detects an installation fault, it prevents the connection of the network, anticipating a trip of the other protections through a circuit breaker with control coil.

Applications

Ideal for critical continuous service electrical installations:

- Tunnels
- Street lights
- Pumping systems
- Generators
- Hospitals
- etc.

Technical features

AC Power supply	Rated voltage	90 ... 276 Vac	
	Frequency	50...60 Hz	
	Consumption	2.2 ... 7 VA	
	Accepted earthing systems	VT - TN - IT	
	Installation category	CAT III 300 V	
DC Power supply	Rated voltage	90 ... 276 Vdc	
	Consumption	1.3 ... 1.9. W	
	Installation category	CAT III 300 V	
Default measurement of the PE connection	Fault detection	Open circuit ($> 100 k\Omega$)	
Insulation monitor	Monitored system	Disconnected	
	Response values (R_{an})	100 $k\Omega$... 100 $M\Omega \pm 15\%$	
	Hysteresis	+ 25 %	
	Response time (T_{an}) ($0.5 \times R_{an}$; $C_e: 1\mu F$)	1s	
	Peak measured voltage value (U_m)	10 Vdc	
	Max. value of measured current (I_m) ($R_f: 0\Omega$)	10 μA	
	Internal DC resistance (R_i)	4.9 $M\Omega$	
	Internal impedance DC (Z_i) (50 Hz)	2.9 $M\Omega$	
	External DC voltage allowable (U_{fg})	300 V	
	Relay outputs	Quantity	2
		Maximum voltage, open contacts	440 Vac
Maximum current		5 A	
Maximum switching power		1250 VA	
Electrical working life (250 Vac, 5A)		1×10^5 cycles	
Mechanical working life		15×10^6 cycles	
Test / Reset input	Type	Voltage-free	
	V input	3 Vdc	
	I input	0.03 mA	
Environmental features	Operating temperature	-10 °C ... +55 °C	
	Storage temperature	-30 °C ... +80 °C	
	Relative humidity (with no condensation)	5 ... 95%	
	Maximum altitude	2000 m	
	Pollution degree	Category 2	
User interface	Protection degree	IP20	
	Display	LCD (Two-coloured backlight)	
	Keypad	3 keys	
Mechanical features	LED	ON, AL1 (LED bar), AL2	
	Dimensions	35 x112 x 84 mm	
	Weight	145 g	
Standards	material	V0 polycarbonate	
	Standards	UNE-EN 61557-1:2007, UNE-EN 61557-8:2008, UNE-EN 61326-1:2013, IEC 61010-1:2011	

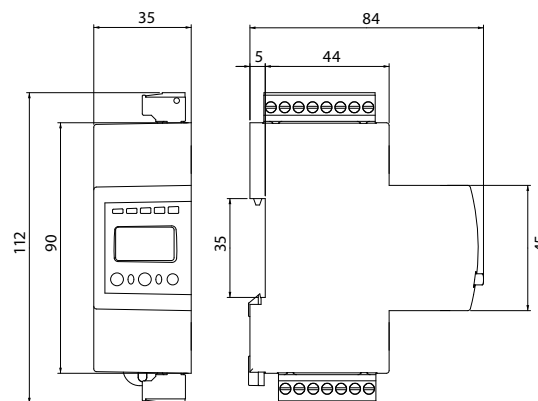
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References

Type	Code	Description
IMD-2R	P33020	Monitoring relay for offline insulation. It controls and monitors the insulation resistance of the receivers that are occasionally disconnected from the electrical network.

Dimensions



Connections

