

Insulation Monitoring Relay

- Monitors insulation resistance of unearthed IT Systems in compliance with IEC 61557-8, EN 50155, IEC 61373 and EN 45545 HL-2/3
- Wide auxiliary supply voltage range 24V – 240V AC/DC
- Monitor system voltage from 0 - 520V AC
- Adjustable trip resistance value from 1K to 100Kohm
- 2 Relay outputs (1C/O + 1NO) for fail safe and non fail safe operation
- Test / Reset function with Manual and remote facility
- Configurable Auto / Manual Reset
- LED indication for insulation fault , Power and Relay output
- DIN Rail / Base Mounting
- CE and RoHS complied



Ordering Information

Cat. No.	Description
IMR122	Insulation Control, Rated Voltage 0-520 VAC System with 2 output (1C/O + 1NO), Control Voltage 24-240VAC/DC

Voltage Monitoring Relay SM 800

- LCD Display with Green backlight
- Multi-Voltage: Three Phase 4 Wire & Three Phase 3 Wire @ 145-500 VAC
- Protection against Phase loss, Phase Sequence, Phase Asymmetry, Under Voltage, Over Voltage, Neutral Open, Over Frequency and Under Frequency
- Can be configured for 3 Phase 3 Wire or 3 Phase 4 Wire system
- Selectable Over Voltage/ Under Voltage, Asymmetry, Phase Loss, Phase Sequence, Over Frequency/ Under Frequency
- Adjustable ON/OFF Time Delay in seconds/ minutes
- 5A Single and Dual relay outputs
- Two Separate Relay outputs with independent Programming
- Password protection
- Log of 5 previous faults for better monitoring
- Fail safe/ Non-Fail safe relay output
- Latch (Manual) and Non-Latch (Auto) Modes
- CE and RoHS complied



Ordering Information

Cat. No.	Description
DMS110	145-500 VAC, Digital Voltage Monitoring Relay, 1C/O
DMS120	145-500 VAC, Digital Voltage Monitoring Relay, 1C/O + 1C/O
DMA220	85- 300 VAC/DC, Digital Voltage Monitoring Relay with Auxiliary supply, 1C/O + 1C/O

Voltage Monitoring Relay SM 175

- Compact 17.5 mm Wide
- Multi-Voltage: Three Phase 3 Wire @ 208-480 VAC or Three Phase 4 Wire @ 120-277 VAC
- Can be configured for 3 Phase 3 Wire or 3 Phase 4 Wire system
- Protection against Phase loss, Phase Sequence, Phase Asymmetry, Under Voltage & Over Voltage
- CE and RoHS complied
- Selectable Under Voltage / Over Voltage, Asymmetry and Phase Sequence
- LED Indication for all Faults & for change in dip switch settings during runtime for better security
- Adjustable ON/OFF Time Delay in seconds / minutes
- 1 C/O Configuration



Ordering Information

Cat. No.	Description
MAG03D0424	208-480 VAC, UV/OV, Phase Loss, Phase Sequence, Phase Asymmetry Monitoring, 1 C/O
MAG03D0425	415 VAC (3P, 3W) / 240 VAC (3P, 4W), UV/OV, Phase Loss, Selectable Phase Sequence, Phase Asymmetry, 1C/O
MAG03D0426	415 VAC (3P, 3W) / 240 VAC (3P, 4W), UV/OV, Selectable Phase Sequence & Phase Asymmetry, ON Delay and OFF Delay (in sec/min), 1C/O
MAG03D0427	208-480 VAC (3P, 3W), Phase loss Monitoring, 1 C/O
MAG03D0428	208-480 VAC (3P, 3W), Phase Loss, Phase Sequence, 1C/O

Voltage Monitoring Relay SM 175

- Compact 17.5 mm Wide
- Protects against Phase Loss, Phase Reversal & Phase Asymmetry
- Multi-Voltage: Three Phase Three Wire @ 208 - 480 VAC
- Selectable Under Voltage / Over Voltage & Asymmetry
- LED Indication for all Faults & for change in settings during run time for better security
- Adjustable Time Delay
- 1 C/O Configuration
- CE and RoHS complied



Voltage Monitoring Relay SM 301

- Protects against Phase Loss, Phase Reversal & Phase Asymmetry
- No Auxiliary Supply needed
- Voltage Sensing principle
- 1 C/O & 2 C/O Configurations
- Designed to meet Industrial and Agricultural segment applications
- CE and RoHS complied



Ordering Information

Cat. No.	Description
MA51BC	415 VAC, Single Phasing Preventor with 65 VAC Asymmetry, 1 C/O
MA51BK	415 VAC, Single Phasing Preventor with 40 VAC Asymmetry, 1 C/O
MC21B5	415 VAC, Single Phasing Preventor with 65 VAC Asymmetry, 2 C/O
MA59B5	415 VAC, Phase Loss Monitoring with Non Fail Safe Type, 1 C/O

Voltage Monitoring Relay SM 500

- True RMS Measurement
- Can be configured for 3 Phase 4 Wire or 1 Phase system
- Selectable Over Voltage / Under Voltage Trip level
- Selectable Time Delay
- LED Indications for Power and Fault conditions
- Protects against UV/OV, Phase Loss, Phase Reversal, Phase Asymmetry & Neutral Loss
- 1 C/O or 2 C/O Configuration
- CE and RoHS complied



Phase Monitoring Relay



Neutral Monitoring Relay

Ordering Information

Cat. No.	Description
MD71BH	240 VAC, UV / OV with Selectable ON Delay (0.5 to 15 sec), 1 C/O
MD71BF	240 VAC, UV / OV with Selectable OFF Delay (0.5 to 15 sec), 1 C/O
MD71B9	240 VAC, UV / OV with Selectable ON Delay (0.5 s to 15 min), 1 C/O
MG73B9	240 VAC, UV / OV & Single Phasing Preventor (SPP) with Selectable ON Delay (0.5 s to 15 min), 2 C/O
MG73BH	240 VAC, UV / OV & SPP with Selectable ON Delay (0.5 to 15 sec), 2 C/O
MG73BF	240 VAC, UV / OV & SPP with Selectable OFF Delay (0.5 to 15 sec), 2 C/O
MG73BQ	120 - 240 VAC Selectable, UV / Selectable OV & SPP with Selectable OFF Delay(0.5 to 15 sec), 2 C/O
MG73BR	240 VAC, Fixed UV / OV & SPP, 20% Asymmetry with Fixed ON (10 sec) & OFF (5 sec) Delay, 2 C/O
MGH3BH	220 VAC, UV / OV & SPP with Selectable ON Delay (0.5 to 15 sec), 2 C/O
MGH3BF	220 VAC, UV / OV & SPP with Selectable OFF Delay (0.5 to 15 sec), 2 C/O
MG13BF	230 VAC, UV / OV & SPP with Selectable OFF Delay (0.5 to 15 sec), 2 C/O

Neutral Monitoring Relay

Cat. No.	Description
MAC04D0100	415 VAC, Neutral Loss Protection with Phase and Voltage Control, 2 C/O
MAC04D0119	380 VAC, Neutral Loss Protection with Phase and Voltage Control, 2 C/O
MAC04D0121	415 VAC, Neutral Loss Protection with Phase & Voltage Control, Phase reverse disable, 2C/O
MAC04D0123	Selectable reference voltage (220-480VAC), Neutral Loss Protection with Phase & Voltage Control, 2C/O



Voltage Monitoring Relay SM 501

- Protects against Phase Loss, Phase Reversal & Phase Asymmetry
- Suitable for 3 Phase 3 Wire system
- Selectable Under Voltage / Over Voltage Trip level
- Selectable Time Delay
- LED Indications for Power and Fault conditions
- Voltage Sensing Principle
- 2 C/O Configuration
- Models for Selectable Phase Asymmetry
- CE and RoHS complied



Ordering Information

Cat. No.	Description
MG53BH	415 VAC, UV / OV & SPP with Selectable ON Delay (0.5 to 15 sec), 2 C/O
MG53BF	415 VAC, UV / OV & SPP with Selectable OFF Delay (0.5 to 15 sec), 2 C/O
MG53BI	415 VAC, UV / OV & SPP with 65 V Asymmetry, 2 C/O
MG53BO	415 VAC, UV / OV & SPP with 3 min ON Delay & 5s OFF Delay, 2 C/O
MB53BM	415 VAC, UV / OV (110% Fixed) & SPP with Selectable Asymmetry (5% to 17%), 2 C/O
MG53BQ	415 VAC, UV / OV & SPP with 30 V Asymmetry, 3 Sec ON Delay, 2 C/O
MG63BH	220 VAC, UV / OV & SPP with Selectable ON Delay (0.5 to 15 sec), 2 C/O
MG63BF	220 VAC, UV / OV & SPP with Selectable OFF Delay (0.5 to 15 sec), 2 C/O

Voltage Monitoring Relay SM 600

- True RMS Measurement
- Wide supply monitoring range from 500V - 1000V AC
- Monitors own supply & detects fault conditions on one or more phases
- Protection against phase loss, phase sequence, phase asymmetry, under voltage (UV), over voltage (OV) & 3 phase interruption
- Adjustable UV, OV & Phase asymmetry trip settings through potentiometer
- LED indication for supply & fault status
- Selectable ON or OFF delay through DIP switch & adjustable delay time settings through potentiometer
- Two SPDT relay outputs which can be configured separately for UV & OV fault through DIP switch
- CE and RoHS complied



Ordering Information

Cat. No.	Description
SMB110	500-1000V AC, Measuring and Monitoring Relay, 1C/O + 1C/O

Current Monitoring Relay

- Protects against Overload, Phase Reverse, Phase Loss and Phase Unbalance faults
- Wide Range of Sensing Current : 1A-45A
- Models for 1 Phase and 3 Phase systems
- Auto/Manual Reset selection
- Fail-Safe Protection
- Inverse Time model with Underload, Locked Rotor Protection and Selectable Trip Class
- Definite Time model with Underload and selectable Start and Trip time
- CE and RoHS complied



Ordering Information

Cat. No.	Trip Type	Current	Auto Reset Time
17C112EB0	Inverse	3 A - 9 A	As per trip class
17C212EB0	Inverse	8 A - 24 A	As per trip class
17C312EB0	Inverse	15 A - 45 A	As per trip class
17C412EB0	Inverse	2 A - 5 A	As per trip class
17B822MM0	Definite	0.5 - 3 A	As per trip class
17B922MM0	Definite	0.2 - 1.4 A	As per trip class
17D112DA0	Definite	3 A - 9 A	6 min
17D212DA0	Definite	8 A - 24 A	6 min
17D312DA0	Definite	15 A - 45 A	6 min
17D412DA0	Definite	2 A - 5 A	6 min

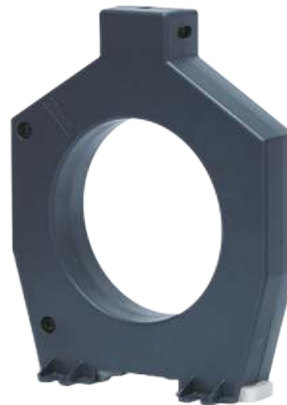
Cat. No.	Trip Type	Current	Auto Reset Time
17A122CB0	Inverse	3 A - 9 A	As per trip class
17A222CB0	Inverse	8 A - 24 A	As per trip class
17A322CB0	Inverse	15 A - 45 A	As per trip class
17A422CB0	Inverse	2 A - 5 A	As per trip class
17B122AA0	Definite	3 A - 9 A	6 min
17B222AA0	Definite	8 A - 24 A	6 min
17B322AA0	Definite	15 A - 45 A	6 min
17B422AA0	Definite	2 A - 5 A	6 min
17B122PA0	Definite	3 A - 9 A	Instant (< 500 msec)
17B222PA0	Definite	8 A - 24 A	Instant (< 500 msec)
17B322PA0	Definite	15 A - 45 A	Instant (< 500 msec)
17B422PA0	Definite	2 A - 5 A	Instant (< 500 msec)

Earth Leakage Relay

- Flush Mounting Version 96x96 mm with Digital Seven Segment Display
- Monitors, Detects and Protects Power systems from Earth Leakage Fault (Type 'A' & 'AC')
- Wide range of selectable Earth Leakage Current: 30 mA - 30 A
- Configurable Earth Leakage Trip time: 0 - 10 s
- Wide Auxiliary Supply Range: 110 - 240 VAC / DC
- Nano Crystalline CBCT measures the leakage current to the highest accuracy
- Instantaneous Trip for 5 times of set value of Leakage current
- Test feature to check complete product functionality
- LED Indication for Relay Status, Earth Leakage Fault & Alarm Condition
- Manual / Remote Reset feature
- Continuous Scrolling display for Set Current and Set time
- 1 C/O (Alarm Relay) + 1 C/O (Fault Relay)
- RS 485 Communication
- CE and RoHS complied



Earth Leakage Relay



CBCT

Ordering Information

Cat. No.	Description
17K716QF4N	110-240V AC / DC, Current Range 30 mA - 30 A, 2 C/O
17K716QF4M	110-240V AC / DC, Current Range 30 mA - 30 A, 2 C/O with RS 485
17K726QF4N	220-415V AC / 220 V DC, Current Range 30 mA - 30 A, 2 C/O
17K726QF4M	220-415V AC / 220 V DC, Current Range 30 mA - 30 A, 2 C/O with RS 485
17H7NNHN3	CBCT 38 mm, Type A & AC Current
17H7NNIN3	CBCT 57 mm, Type A & AC Current
17H7NNQN3	CBCT 70 mm, Type A & AC Current
17H7NNJN3	CBCT 92 mm, Type A & AC Current
17H7NNLN3	CBCT 120 mm, Type A & AC Current
17H7NNKN3	CBCT 210 mm, Type A & AC Current
17H7NNRN3	CBCT 38 mm, Type AC Current
17H7NNVN3	CBCT 57 mm, Type AC Current
17H7NNSN3	CBCT 70 mm, Type AC Current
17H7NNTN3	CBCT 92 mm, Type AC Current
17H7NNUN3	CBCT 120 mm, Type AC Current

Earth Leakage Relay

- Monitors, Detects and Protects Power systems from Earth Leakage Faults
- Wide range of selectable Earth Leakage Current: 30 mA - 30 A
- Configurable Earth Leakage Trip time: 0 - 10 s
- 2 C/O Configuration
- CE and RoHS complied
- Available in DIN mount/ Base mount
- Available in external & integral CBCT
- LED Bar graph for Leakage Current indication
- Wide Auxiliary Supply Range:
110 - 240 V AC / DC,
220 - 415 V AC / 220 V DC



Earth Leakage Relay



Integral Earth Leakage Relay

Ordering Information

Cat. No.	Description
17G715GF2	110-240V AC / DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Manual Reset
17G715KF2	10-240V AC / DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Auto Reset
17G745GF2	220-415V AC / 220 V DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Manual Reset
17G745KF2	220-415V AC / 220 V DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Auto Reset
17G755GF2	15V DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Manual Reset
17G755KF2	15V DC, Current Range 30 mA - 30 A, 1 C/O + 1 NO, Auto Reset
17G815GF2	110-240V AC / DC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Manual Reset
17G815KF2	110-240V AC / DC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Auto Reset
17G845GF2	220-415V AC / 220 V DC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Manual Reset
17G845KF2	220-415V AC / 220 V DC, Current Range 30 mA - 10 A, 1 C/O + 1 NO, Auto Reset

Integral Earth Leakage Relay

Cat. No.	Description
ELR3A2030	Integral Earth Leakage Relay, 34mm CBCT, 240VAC(±15%), 50/60Hz, 30mA
ELR3A2100	Integral Earth Leakage Relay, 34mm CBCT, 240VAC(±15%), 50/60Hz, 100mA
ELR3A2300	Integral Earth Leakage Relay, 34mm CBCT, 240VAC(±15%), 50/60Hz, 300mA

Liquid Level Monitoring Relay

- Fully Automatic operation enabling both draining and filling simultaneously with a single device
- Adjustable sensitivity level from 1k to 200k Ohm
- Includes provision for Manual start
- Protects submersible pumps against dry running and prevents overfilling
- Enables maximum utilization of incoming liquid (eg. water) supply
- Specially designed corrosion and shock resistant sensors to ensure trouble free operation.
- CE and RoHS complied



Ordering Information

Cat. No.	Description
4411AD1	110VAC, 1 C/O, 1K to 200K Sensitivity, Draining & Filling
4421AD1	240VAC, 1 C/O, 1K to 200K Sensitivity, Draining & Filling
4431AD1	400VAC, 1 C/O, 1K to 200K Sensitivity, Draining & Filling
44S0003	Accessories, Set of 3 Stainless Steel Sensors, -10°C to +65°C
44S0006	Accessories, Set of 6 Stainless Steel Sensors, -10°C to +65°C
44S0013	Accessories, Set of 3 Stainless Steel Sensors, -20°C to +165°C
44S0016	Accessories, Set of 6 Stainless Steel Sensors, -20°C to +165°C

PTC Thermistor Relay

- Monitors and Protects Motors with Integrated PTC Resistor sensors
- Protection against Over heating for Heavy Duty Load, High Switching Frequency, High operating temperature & Insufficient cooling conditions
- Wide Auxiliary Supply Voltage: 24 VAC/DC, 110 - 240 VAC & 220 - 415 VAC
- LED Indications for Healthy, Unhealthy, Sensor Open/Short conditions
- 1 C/O & 2 C/O Configuration
- Reset Options: Auto, Manual and Remote
- Protection against phase loss, phase sequence & phase asymmetry in selected model
- CE and RoHS complied



PTC Thermistor Relay



PTC Thermistor Relay with SPP

Ordering Information

PTC Thermistor Relay

Cat. No.	Description
MJ83BK	110 - 240 VAC, PTC Thermistor Relay, 2 C/O
MJ93BK	220 - 440 VAC, PTC Thermistor Relay, 2 C/O
MJA3BK	24 VAC/DC, PTC Thermistor Relay, 2 C/O
MJ81BK	110 - 240 VAC, PTC Thermistor Relay, 1 C/O
MJ91BK	220 - 440 VAC, PTC Thermistor Relay, 1 C/O

PTC Thermistor Relay with SPP

Cat. No.	Description
ML64BS	230 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NO
ML67BS	230 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NC
MLD4BS	400 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NO
MLD7BS	400 VAC, Three Phase Three Wire PTC Thermistor & SPP, 1 NO + 1 NC

Frequency Monitoring Relay

- Wide Auxiliary Supply voltage Range: 110 - 240 VAC, 220 - 440 VAC
- Models for Over Frequency and Under/Over Frequency Monitoring
- Monitors Frequency of Three signals - Sine, Square & Triangular
- Model for Frequency Limit Control: 5 Hz to 135 Hz
- Wide Signal Input Voltage: 15 to 500 VAC
- Adjustable Relay status in Healthy or Unhealthy condition using DIP switch "ET" (Energize to Trip) or "DT" (De-energize to trip)
- Ease of Frequency setting with simple Addition & Subtraction
- LED Indications for Healthy, Unhealthy & No signal conditions
- CE and RoHS complied



Ordering Information

Cat. No.	Description
MI81BJ	110 - 240 VAC, Over Frequency Relay, 1 C/O
MI91BJ	220 - 440 VAC, Over Frequency Relay, 1 C/O
MI81BL	110 - 240 VAC, Over Frequency & Under Frequency Relay, 1 C/O
MI91BL	220 - 440 VAC, Over Frequency & Under Frequency Relay, 1 C/O

NOTE: UL Approval for Cat Nos. MI81BL & MI91BL only.