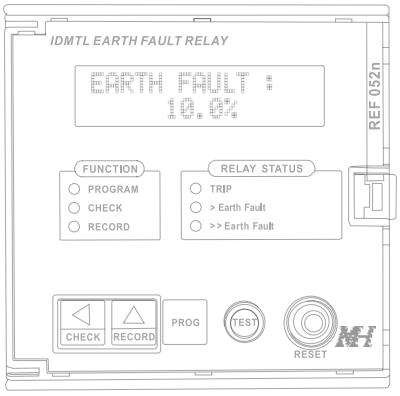
MH Protection Relays

A Protection Class of its Own

IDMTL Series: Earth Fault Relay . REF052n & Overcurrent Relay . ROA207n



MH Protection Relays

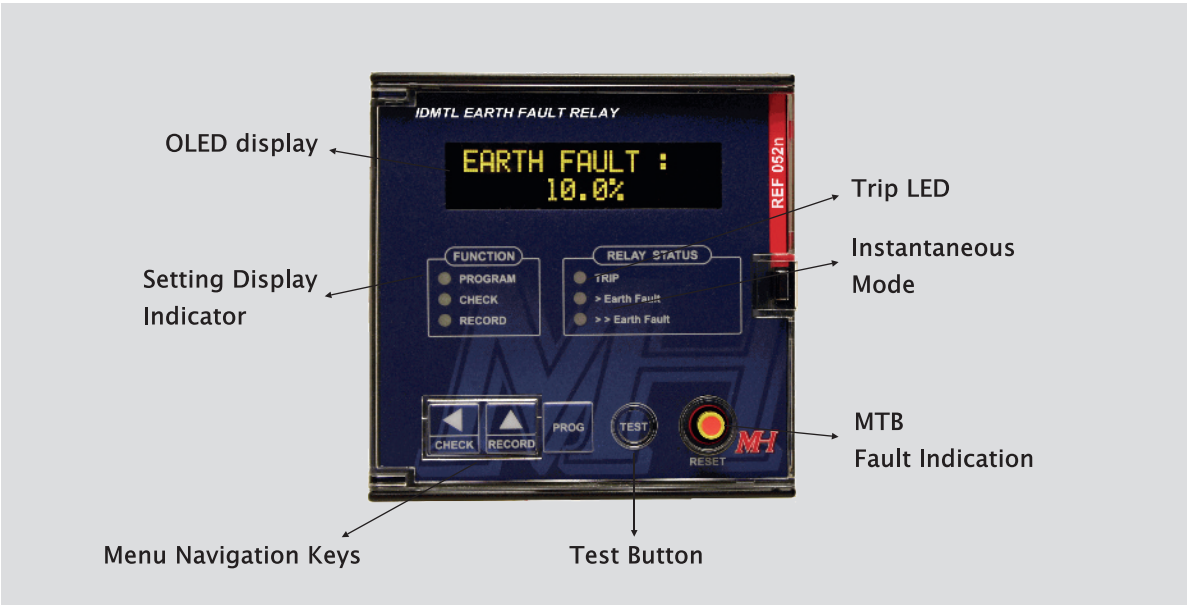
Represents a legacy of design and development, specializing in power management and power quality solutions and its core expertise, electrical protection relays. The MH Protection Relays has its heritage dated since 1981 where, designed by Mun Hean and OEM by Kasuga of Japan, developed a range of electronic relays that dominated the market for decades. The range of relays were marketed under the brand name "Kasuga-MH".

Today, with its own R&D wing, Mun Hean Technology Pte Ltd, MH continues this tradition. Anchored on the exclusive MTB fault indication system, we proudly bring to you this state-of-the-art protection relay series that is truly, A Protection Class of its Own.

Features

- Microprocessor-based with highest accuracy
- Mechanical Trip Button (MTB) fault indication system
- No requirement for auxiliary power supply for fault indication
- Safeguard against automatic reset before fault rectification
- Curve selection in accordance with ANSI, IAC, IEC, 1.3/10
  - Normally Inverse (NI)
  - Very Inverse (VI)
  - Extremely Inverse (EI)
  - Short Time Inverse (STI)
  - Moderate Inverse (MI)
- Trip value recording (4-memory) - Date & time stamping for tripping
- Integrated surge arrester against transient overvoltages
- High set mode is incorporated for instantaneous protection
- Tamper-proof design for settings protection
- Serial interface RS485 for Modbus RTU communication (optional)
- Type tested* for EMC compliance in acc. with IEC 61000
- High immunity to electrical interference (tested to 2.5GHz)
- Type tested in acc. with IEC 60255*

* Type test report issued by independent testing laboratory is available upon request.

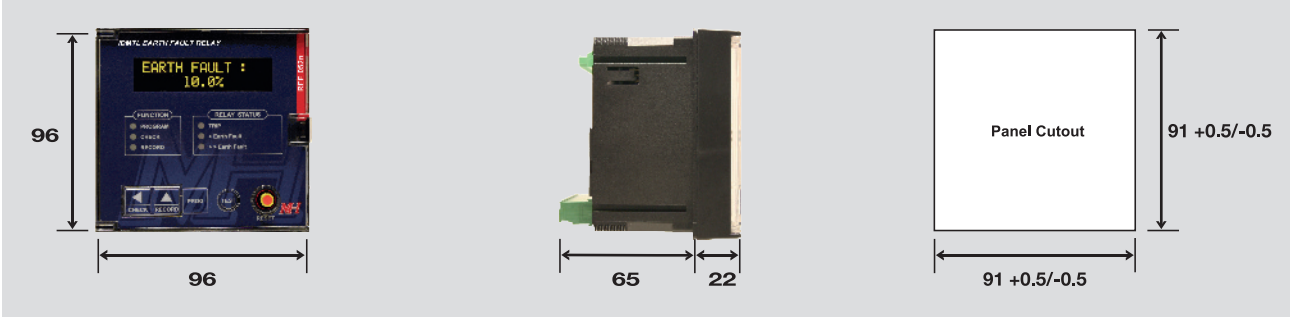


Technical Data

Characteristics	
Power supply	AC / DC 85 - 265V (other voltages available on request)
Operating frequency	50/60Hz
REF052n : Earth Fault setting	2-50% (0.1% per step)
ROA207n : Overcurrent setting	20 - 200% (1% per step)
Time Multiplier Overcurrent / Earth Fault IDMTL	 0.03 - 2.0 (IEC, 1.3), 0.3 - 20.0 (ANSI, IAC)
Time setting range (DTL)	0.03 - 2.0 sec (DTL)
Instantaneous Mode (High-set)	2 - 10 * setting current
Pick-up current	100 - 115% of the setting current
Reset current value	≤90% of the operating value
Operating and storage temperature range	Operating -10°C to 55°C Storage and transit -20°C to 65°C
Relative humidity (IEC 60068-2-30)	95% at +40°C
Degree of protection (IEC 60529)	IP52
Voltage withstand (IEC 60255-5)	2kVrms for 1 min between all case terminals connected together and the case earth terminal 2kVrms for 1 min between independent circuit including contact circuits
Overcurrent withstand	20 * I_{rated} for 3 sec (100A-O/C, 20A-E/F)
Power Consumption	Approximately 2VA
Operational life expectancy	Electrical: > 1 x 10^5 operations
Output contact	Mechanical: > 5 x 10^6 operations AC250V 5A
Optional output contact	Communication : RS485
LED status indication	(Normal operation) (Fault current detected)
Safety feature	Mechanical Trip Button (MTB)
Housing material	ABS resin complying with UL94VO
Unit weight	Approximately 600g

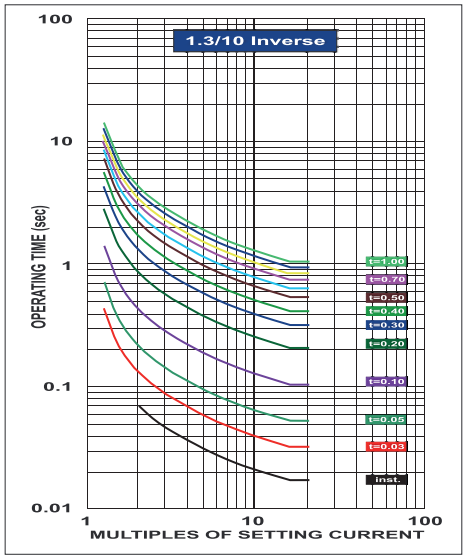
Compliance with standards	
IEC/EN 60755	General rules for residual-current protection devices
IEC/EN 61000-4-2	Electrostatic-discharge immunity test
IEC/EN 61000-4-3	Radiated, radio-frequency, electromagnetic-field immunity test *(type tested to 2.5GHz)*
IEC/EN 61000-4-4	Electrical fast transient/burst immunity test
IEC/EN 61000-4-5	Surge immunity test
IEC/EN 61000-4-6	Immunity to conducted disturbances, induced by radio-frequency fields
IEC/EN 60255-1	Measuring relay and protection equipment
IEC/EN 60255-5	Insulation coordination for measuring relays and protection equipment - Requirement and tests
IEC/EN 6472-2	Low voltage switchgear and control gear, Part 2: Circuit breakers, Annex M and J

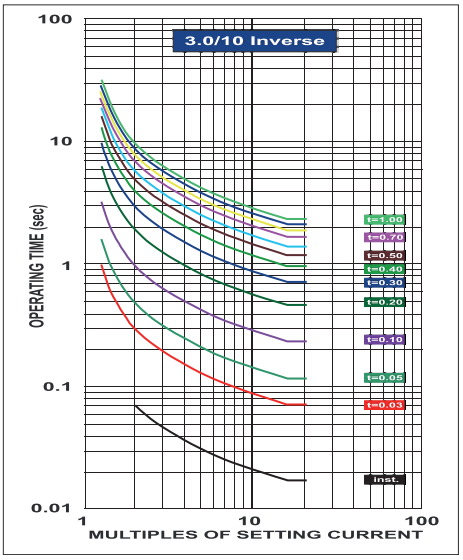
Dimensions



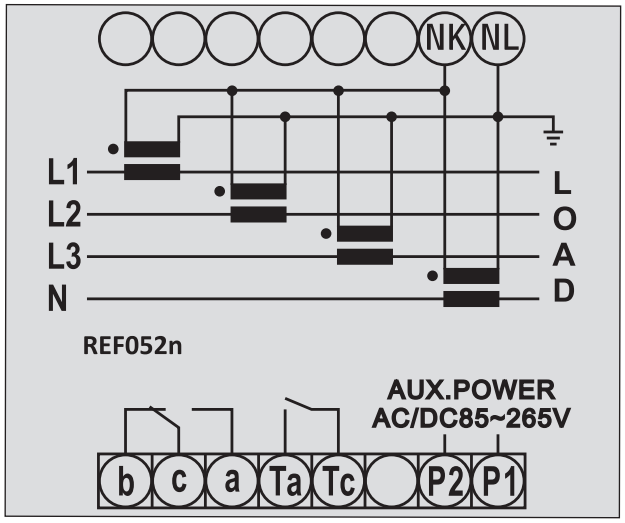
Characteristics Curve

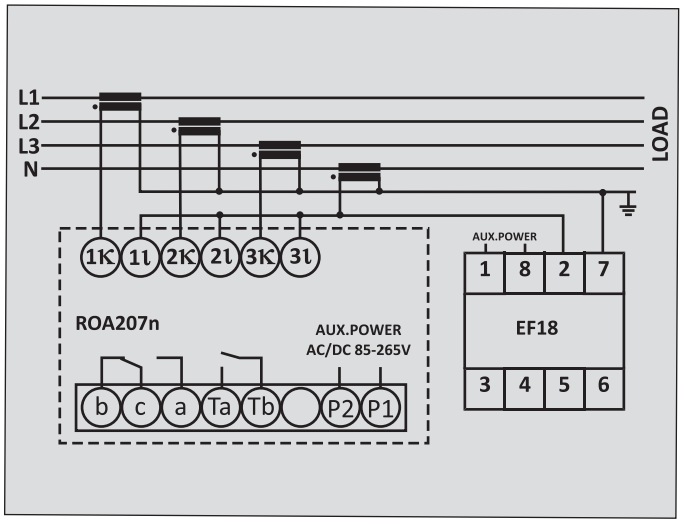
Time Current Characteristics in accordance with IEC 60255





Connection Diagram





About MTB Fault Indication System

MTB, or Mechanical Trip Button is a fault indication system incorporated in advanced protection relaying for electrical power networks. The MTB does not require auxiliary supply to provide a fault indication. The MTB is designed to prevent power circuits from re-energising before a fault is completely rectified. This is an essential safety feature which protection relays using electrical latching mechanisms are not able to provide.

Authorized Dealer:

PrgeRlse.201501

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