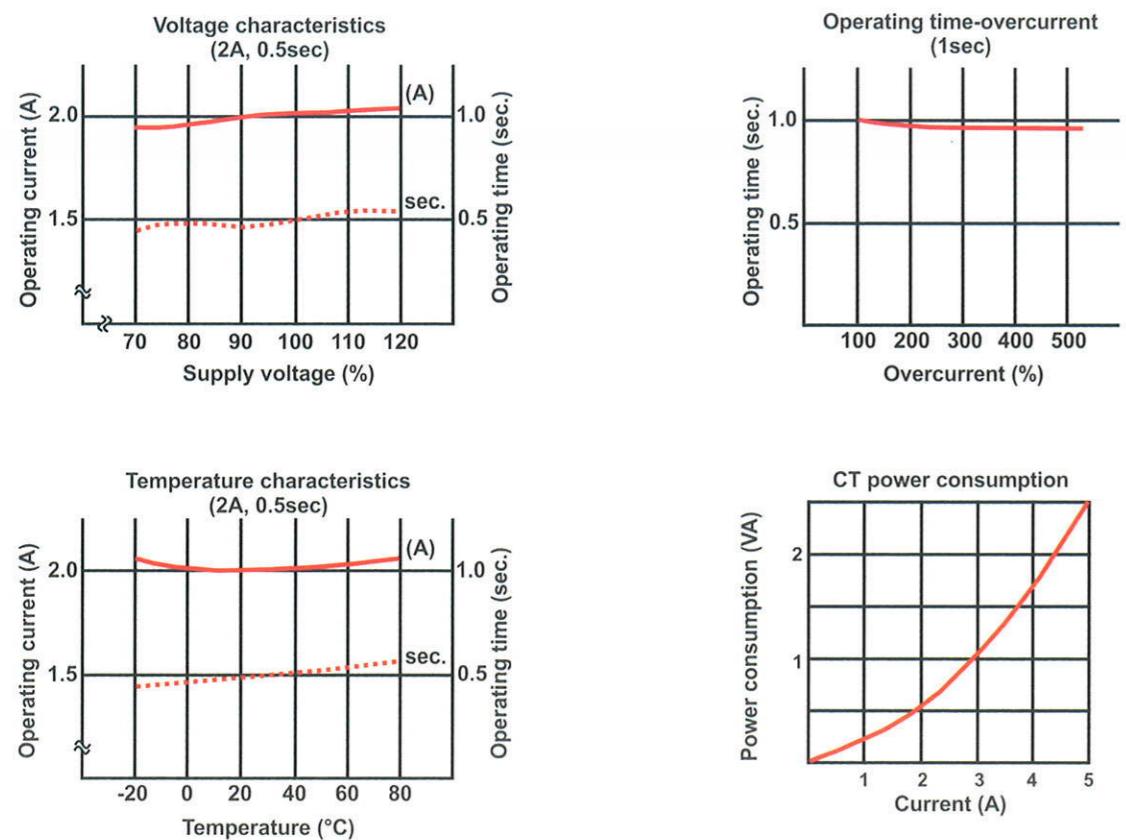
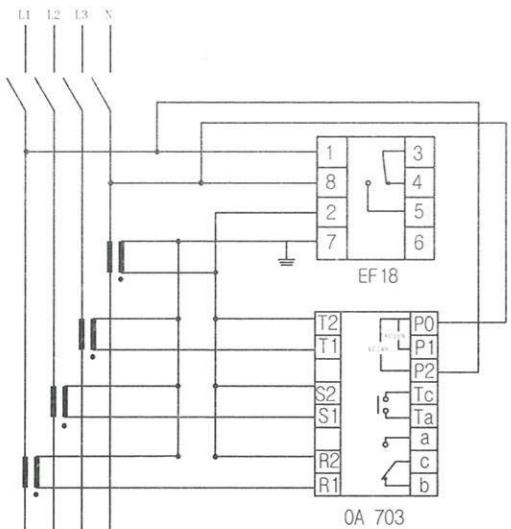


## Characteristics Curve



## Connection Diagram



Authorized Dealer:

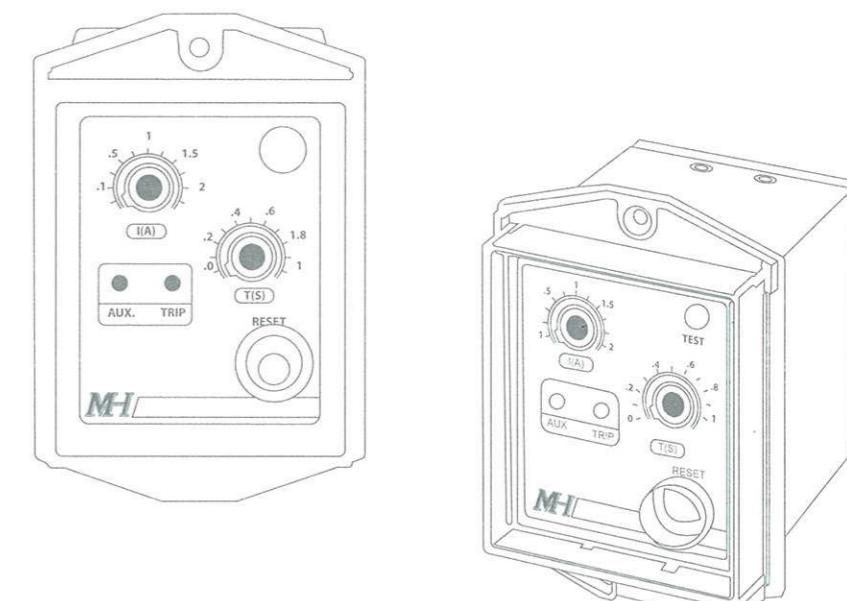
Product specifications and features are subject to change without prior notice

MH 05/2011-EFR

**MH**  
Protection Relays

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Protection Relays

*A Protection Class of its Own*  
DTL Earth Fault Relay • EF18



# MH Protection Relays

**MH** 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 manufactured by Kasuga of Japan, developed a range of electronic relays that dominated the market for decades.

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

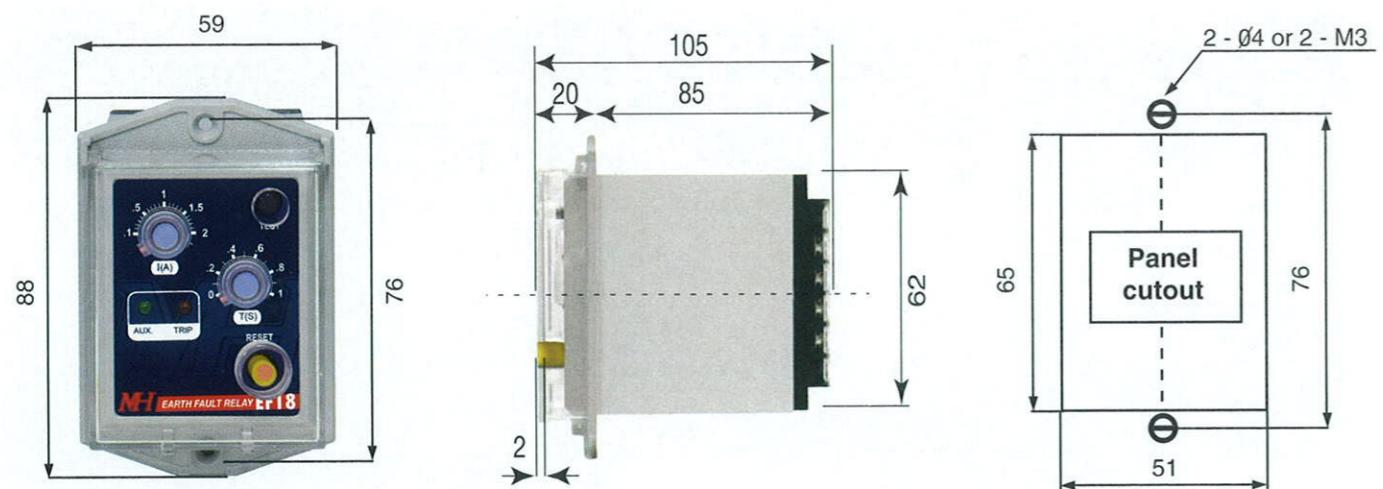
- Mechanical Trip Button (MTB) fault indication system
- No requirement for auxiliary power supply for fault indication
- Safeguard against automatic reset before fault rectification
- Tamper-proof design for settings protection
- Type tested\* for EMC compliance in acc. with IEC 61000
- High immunity to electrical interference (tested to 2.5GHz)
- Type tested in acc. with IEC 60255\*

\* Type test reports issued by independent testing laboratory are available upon request.



Models	EF 18	EF 18-C
Current setting	0.1 - 2 A	
Delay time setting	0 - 1 sec	
Operating time	With 105% input < 300 msec With more than 200% input < 100 msec	
Reset current value	≤ 90% of operating value	
Contacts	1 x C/O	2 x N/O

## Dimensions



## Technical Data

Characteristics	
Power supply	AC230V ± 15% * (other voltages available on request)
Operating frequency	50/ 60Hz
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 1min between all case terminals connected together and the case earth terminal 2kVrms for 1min between independent circuit including contact circuits
Overcurrent withstand	10 * I rated (for 3 sec)
Power Consumption	Approximately 2VA
Vibration withstand capacity (IEC 60255-2-1)	0.5G between 10Hz and 150Hz
Operational life expectancy	Electrical: > 1 x 10 <sup>5</sup> operations Mechanical: > 5 x 10 <sup>6</sup> operations
Output contact	AC 250V 5A
LED status indication	● (Normal operation) ● (Fault current detected)
Safety feature	● Mechanical Trip Button (MTB)
Housing material	ABS resin complying with UL94VO
Unit weight	Approximately 300g
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