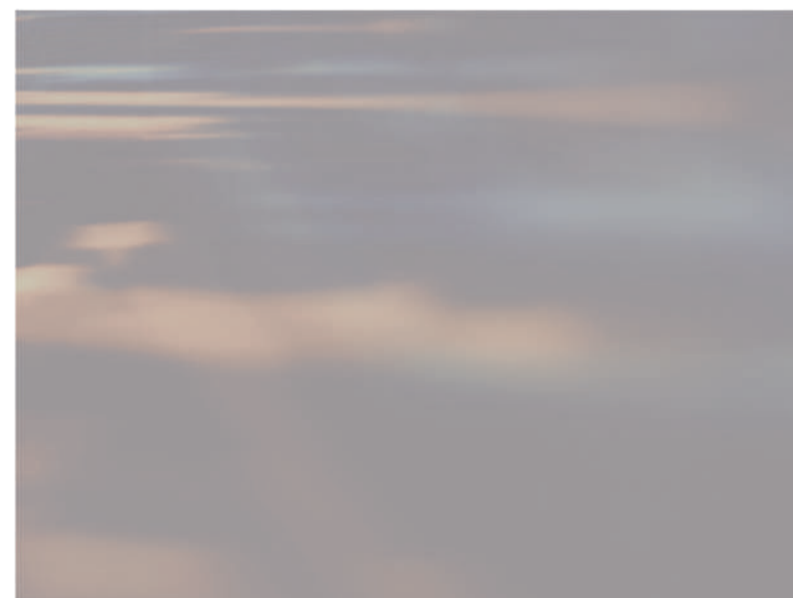


# MH

Protection Relays



## Digital Earth Fault Relay EF 18D

A Protection Class of its Own

# Digital Earth Fault Relay

## Model EF 18D

The **MH EF 18D** is a microprocessor controlled DTL Digital Earth Fault Protection Relay for panel mounting. It is designed to provide network protection with coordinated definite time delay function in event of an earth fault situation. It provides real-time communication via Modbus-RTU protocol to Building Monitoring System / Energy Management System network and 2-Contacts Output to support traditional management system.



### Key features

- Earth Fault Current protection
- Microprocessor controlled DTL operation
- Backlit high contrast LCD display
- Modbus-RTU RS485
- Differentiate of Actual Trip and Test Trip
- Sealable tamper proof front cover
- 4 Trip Event Records with Date and Time Stamping
- Mechanical Trip Button (MTB) comply to ANSI 86 Fault Indication does not require auxiliary supply

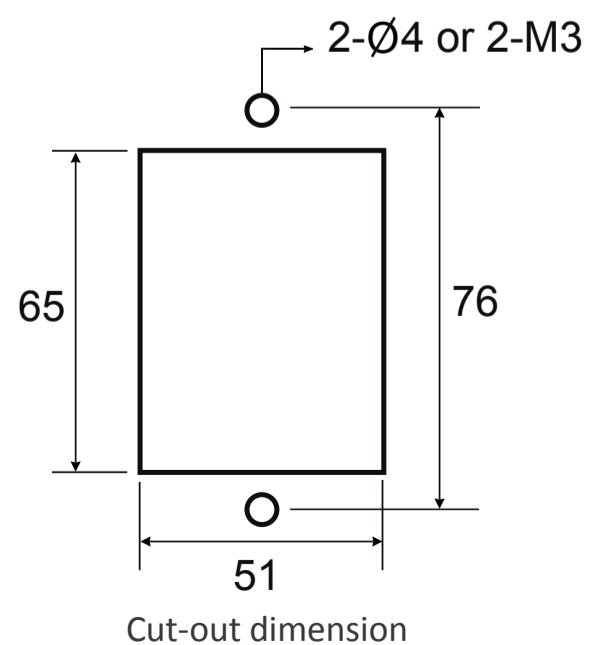
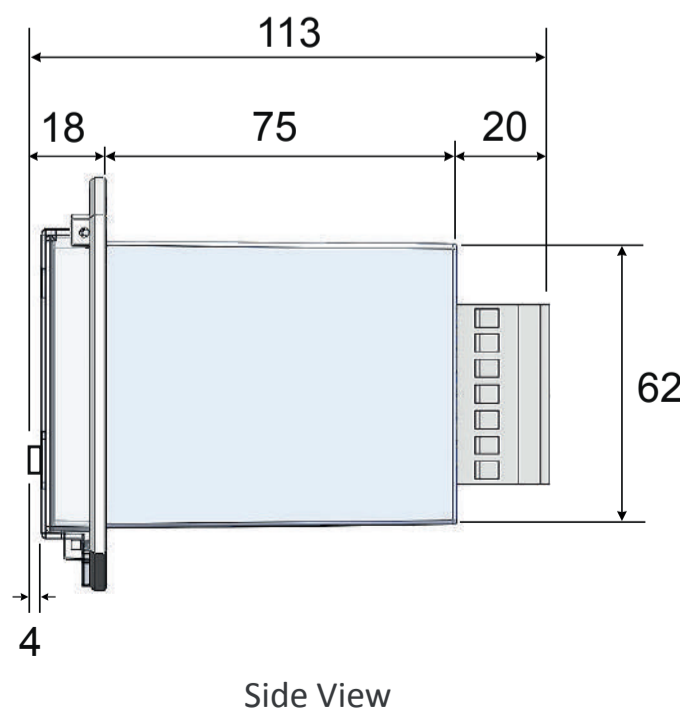
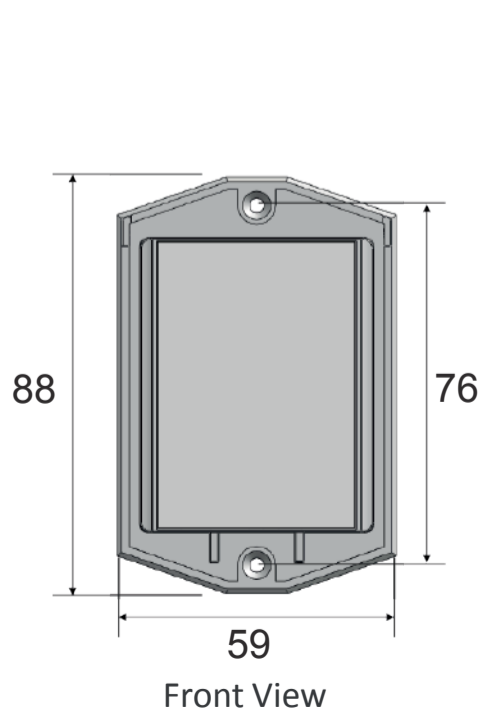
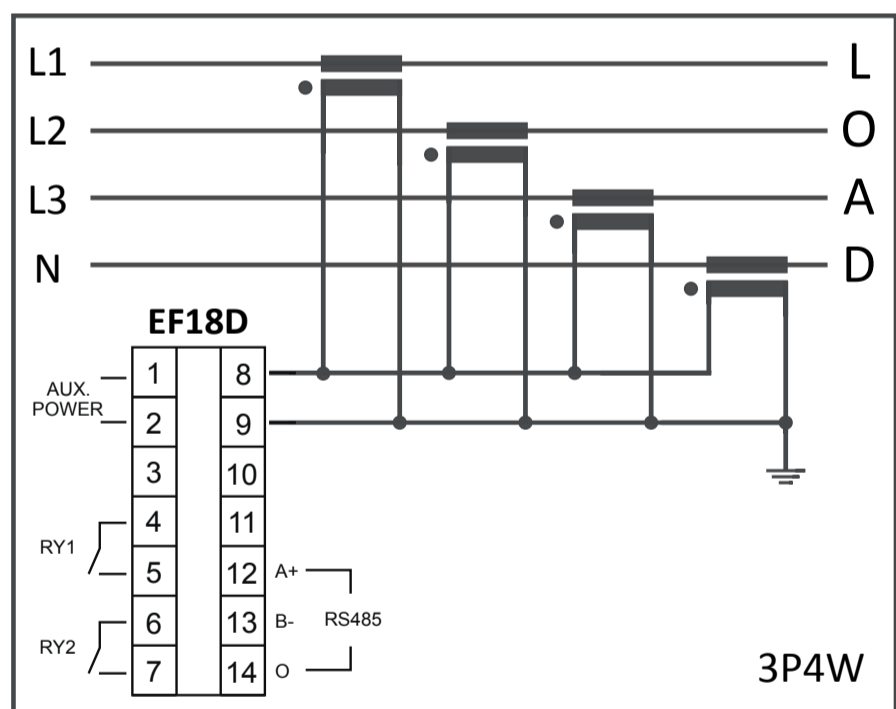
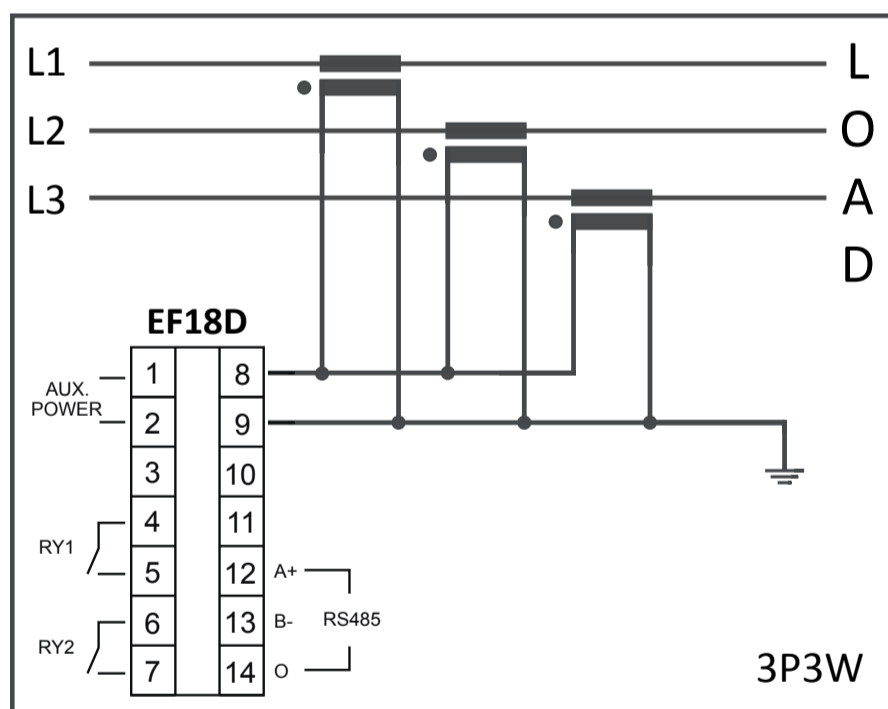
### Standards Compliance

- MTB Fault Indication System  
ANSI 86 Lockout Relay
- Product Safety  
IEC 60255-27
- Electromagnetic Compatibility  
IEC 61000-4-2 (IEC 60255-26)  
IEC 61000-4-3 (IEC 60255-26)  
IEC 61000-4-4 (IEC 60255-26)  
IEC 61000-4-5 (IEC 60255-26)  
IEC 61000-4-6 (IEC 60255-26)  
IEC 61000-4-8 (IEC 60255-26)  
IEC 61000-4-11 (IEC 60255-26)
- Vibration, Shock and Bump Test  
IEC 60255-21-1  
IEC 60255-21-2
- Dry Heat, Damp Heat, Steady State, Cyclic Temperature with Humidity Test  
IEC 60068-2-2 (IEC 60255-1)  
IEC 60068-2-78 (IEC 60255-1)  
IEC 60068-2-30 (IEC 60255-1)



## Technical Specification

Earth Fault Setting	2.0 - 50.0% (step of 0.1%)
Delay Time Setting	0.10 - 2.00 sec (step of 0.01sec)
Power Supply voltage	85 - 265 VAC/DC (other voltage available upon request)
Power consumption	< 3.5VA
Rated Input Current	5A (1A available upon request)
Overcurrent withstand	10 * I rated (for 1 sec)
Output Relay Contacts	Contact Trip – 2 x N/O (250VAC 5A)
Display type	Back lit LCD with Setting & Delay Time Value, Instantaneous Fault Current % Value, Communication Status, Date & Time Stamping
LED Status Indicator	Red LED for Tripped
Operating temperature	-10 to +60°C
Trip Event recording	4 event recording with Event Trip Current %, date and time stamping
Relative humidity	< 93% RH (non-condensing)
Communication	Modbus-RTU RS485 upto 384kbps baud rate
Password access PIN	3 Digit numeric password user configurable
Housing material	ABS resin complies with UL94VO
Protection class	IP 31 (Front)
Unit weight	Approximately 185g
Unit dimension	59mm (width) x 88mm (height) x 113mm (depth)



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