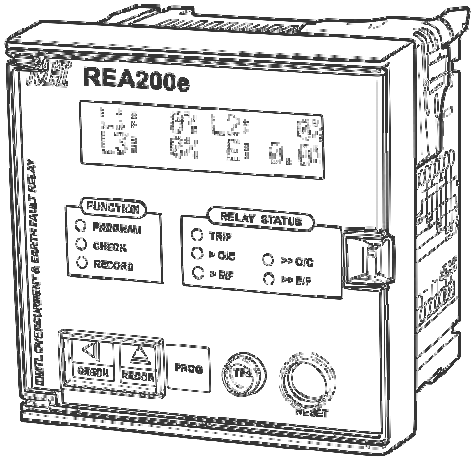
REA200e • Combined IDMTL Overcurrent & Earth Fault Relay - V1

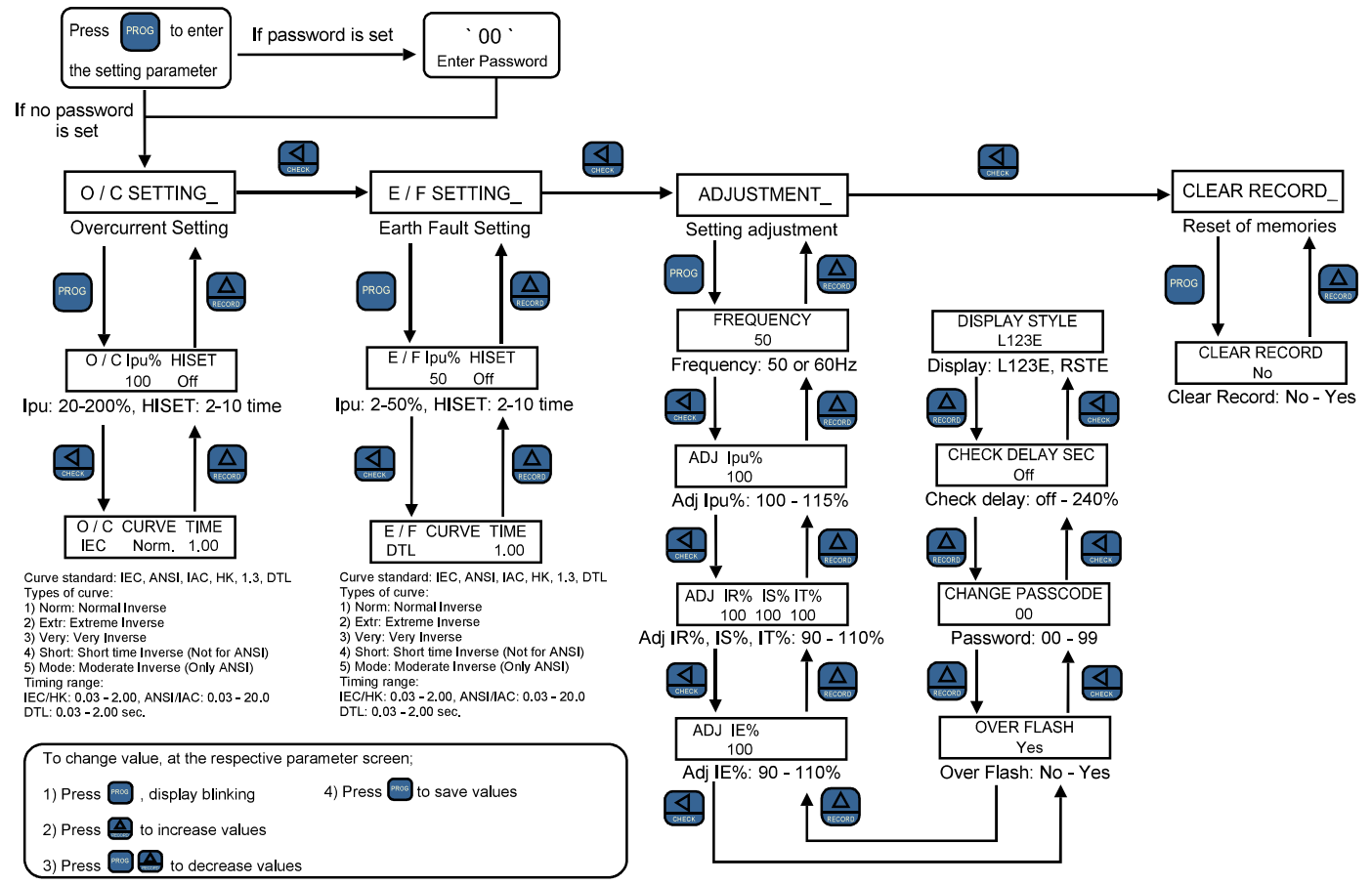
Operation and Installation Guide



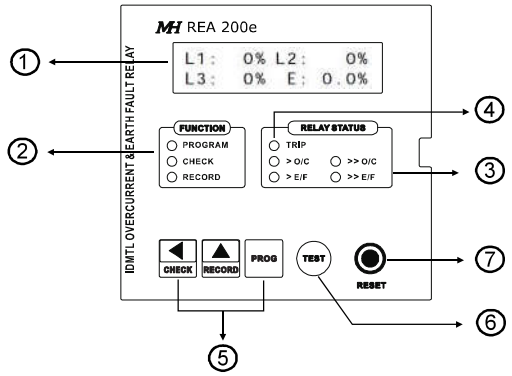
Configuration Overview

IDMTL Overcurrent and Earth Fault Relay

REA 200e



Overview



(1) Real Time Current Reading (%)
(2) Function Indicator
(3) Fault Indicator
(4) Trip Indicator
(5) Menu Navigation Button
(6) Test Button
(7) Reset Button

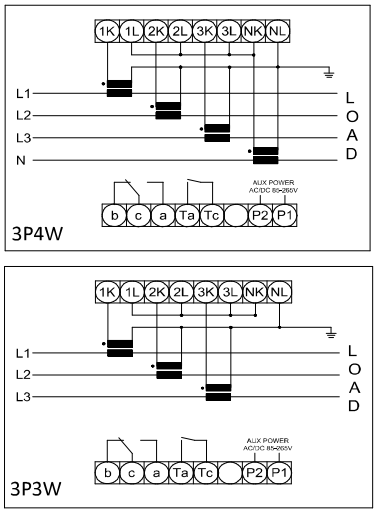
Features

- Provides elementary protection function
- Added security against nuisance trip handling
- Manual test button for relay operation checking
- Integrated surge arrestor against transient overvoltages
- Tamper-Proof design for setting protection

Standards Compliance

CISPR 11 / EN 55011	Conducted and radiated emissions
IEC/EN 61000-4-2	Electrostatic-discharge immunity
IEC/EN 61000-4-3	Radiated, radio-frequency, electromagnetic-field Immunity
IEC/EN 61000-4-4	Electrical fast transient/burst immunity
IEC/EN 61000-4-5	Surge immunity
IEC/EN 61000-4-6	Immunity to conducted disturbance, induced by radio-frequency fields
IEC/EN 61000-4-8	Power frequency magnetic field immunity
IEC/EN 61000-4-11	Voltage dips, short interruptions and voltage variations immunity
IEC/EN 61000-4-18	Damped oscillatory wave immunity
IEC/EN 60255-1	Measuring relay and protection equipment
IEC/EN 60255-5	Insulation coordination for measuring relays and protection equipment. Requirement & Test
IEC/EN 60255-27	Measuring relays and protection equipment - Part 27: Product safety requirements

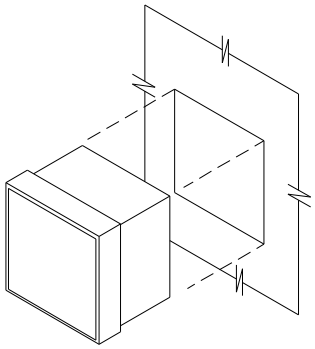
Connection Diagram



Technical Data

Power supply	AC/DC 85-265V (other voltages available upon request)
Operating frequency	50/60Hz
Current Input	5A or 1A (Optional), Approx. ≤ 0.5VA
Overcurrent	
Current setting	20 - 200% (1% per step)
Time multiplier setting	0.03 - 2.00 (0.01 step)
High-Set	2.0 - 10.0x setting current (0.1 step)
Earth Fault	
Current setting	2.0 - 50.0% (0.1% per step)
Time multiplier setting	0.03 - 2.00 (0.01 step)
High-Set	2.0 - 10.0x setting current (0.1 step)
Time setting range (DTL)	0.03 -2.00 sec (0.01 sec step)
Pick-up current	100 -115% of the setting current
Operating and storage temperature range	Operating -10°C to 55°C Storage and transit -20°C to 65°C
Curve Standard	IEC, IAC, ANSI, HK, 1.3/10, DTL
IDMTL Curve Type	Normal Inverse Very Inverse Extremely Inverse Short Time Inverse (Not for ANSI) Moderate Inverse (Only ANSI)
Relative humidity (IEC 60068-2-30)	95% at +40°C
Degree of protection (IEC 60529)	IP54 (Front), IP20 (Back)
Voltage withstand (IEC 60255-5)	2kVrms for 1 min
Overcurrent withstand	10x I_{rated} for 3 sec
Operation life expectancy	Electrical: > 100,000 operations Mechanical: > 5 x 10^6 operations
Output contact	2 NO and 1 NC, AC 250V, 5A
Indication	Red LED (relay tripped)
Housing material	ABS resin complying with UL94VO
Unit Weight	Approximately 500g
Power consumption	≤ 5VA

Installation



Cable cross section

Auxiliary Voltage:
0.2 to 3.3 mm², 0.8 Nm (tightening torque)
Current measurement:
0.2 to 5 mm², 1 Nm (tightening torque)
Output contacts :
0.2 to 3.3 mm², 0.8 Nm (tightening torque)

Dimension & Cut Out (in mm)