

MK 2200

ANSI Number **50P** **51P** **50G** **51G** **CLP** **50BF**



General

MK-2200 เป็นการรวบรวมระบบป้องกันของ overcurrent protection relay เข้ากับ earth-fault protection relay ด้วยระบบปฏิบัติการแบบ digital - microprocessor ที่สามารถตอบสนองได้อย่างเที่ยงตรงและแม่นยำต่อการป้องกันระบบไฟฟ้าอย่างเต็มประสิทธิภาพ

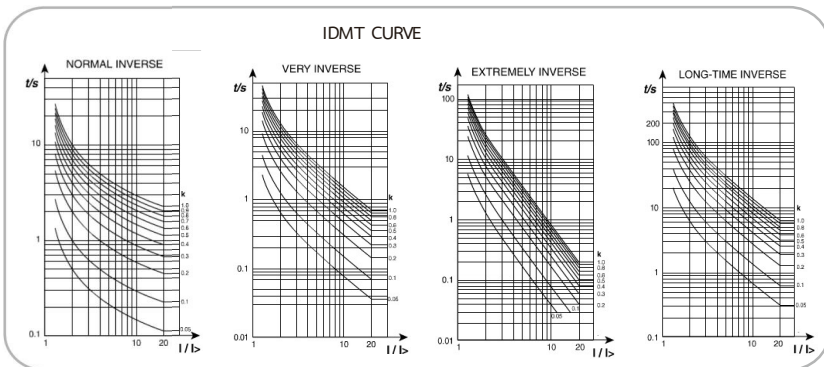
Products Feature

- Multifunction numerical relay
- Three phase, low-set and high-set phase overcurrent
- Two sets of low-set and high-set setting for phase overcurrent
- Low-set and high-set earth fault
- Two sets of low-set and high-set setting for earth fault
- Circuit breaker failure protection
- Four selectable IDMT characteristic curves
- Definite time for low-set and high-set
- Numerical display of phase and earth fault currents
- Display of relay settings
- 9 non-volatile records of previous tripping currents
- Recording of relay start time
- Highly flexible programmable relay outputs
- Multifunction external digital input
- Isolate RS-485 Modbus communication

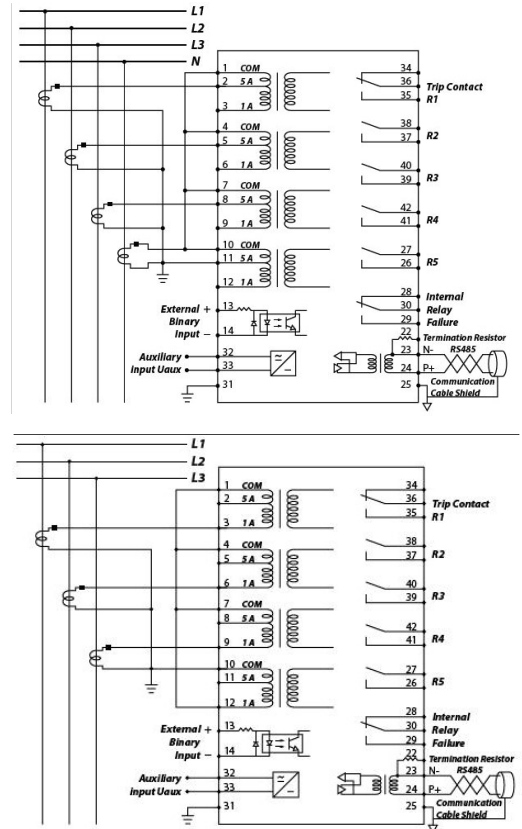


Functional

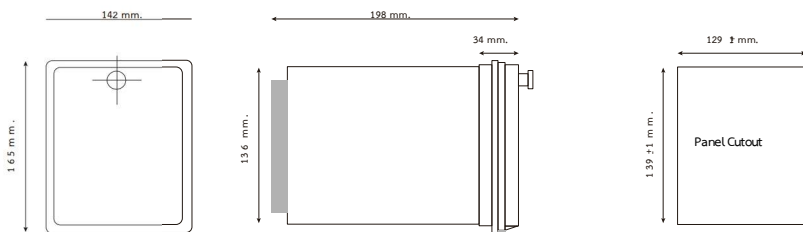
- Phase Overcurrent Protection
- Earth-Fault Protection
- Low-Set Characteristic Curves
- High-Set Characteristic
- External Binary Input
- Relay Output
- Support for CT /1A and CT / 5A
- Configuration
- Metering and Fault Record
- RS-485 Communication



Connection Diagram



Dimension



Tests and Standards

High Voltage Dielectric Withstand Test IEC60255-5.....	: 2.0 kV rms, 1 Min
High Voltage Impulse Test IEC60255-5.....	: 5 kV, 1.2/50 ms
Electrical Fast Transient IEC61000-4-4, Level 4, Power Supply Inputs.....	: 4 kV, 5/50 ns
Electrical Fast Transient IEC61000-4-4, Level 4, Other Inputs.....	: 2 kV, 5/50 ns
Electrostatic Discharge IEC61000-4-2, Class III, Air Discharge.....	: 8 kV
Electrostatic Discharge IEC61000-4-2, Class III, Contact Discharge.....	: 6 kV
IMHz Burst Disturbance IEC60255-22-1.....	: 2 kV Common Mode
Main Conducted Disturbance Voltage	: 1 kV Differential Mode
Radiated EM Field Emission.....	: EN 55011 Group 1 Class B
Enclosure Protection When Panel Mounted.....	: CISPR 11 Group 1 Class B
	: IP-54

รุ่น	MK 2200-150D	MK 2200-240A	MK 2200-240AD
SPECIFICATIONS			
INPUT			
Measuring Input			
Rated Current In	1A or 5A		
Frequency	50 or 60 Hz		
Thermal Withstand	4 x I _n Continuous 25 x I _n for less than 10 Sec 100 x I _n for less than 1 sec		
Burden	< 0.3 VA at I _n		
RATED AUXILIARY VOLTAGE			
Rated Auxiliary Voltage	24 - 150 VDC	198 - 265 VAC	85 - 265 VAC 110 - 340 VDC
POWER CONSUMPTION			
AC Auxiliary Voltage	6 - 10 VA Typical		
DC Auxiliary Voltage	5 - 9 W Typical		
BINARY INPUT			
External Binary Input	18 - 265 VDC 85 - 265 VAC		
OUTPUT			
5 Programmable Contact + 1 IRF Contact			
Rated Voltage	250 VAC/DC		
Continuous Carry	5 A		
Make and Carry for 0.2s	30 A		
CONTACT SPECIFICATION			
Operation time	15 ms (Max)		
Expected Electrical Life	10 ⁵ Operations		
Expected Mechanical Life	5 x 10 ⁶ Operations		
Approval	UL / CSA / VDE / TUV / SEMKO		
ACCURACY			
Protection Thresholds	±3%		
Time Delay	±2% with a minimum of 30 ms		
Measurements	±3%		
Reset Ratio	95% Typical		
Overshoot Time	Less Than 30 ms typical		
EARTH - FAULT ELEMENT			
Low-set setting, I _s	: 0.05 - 1.0 x I _n ——— : Step 0.01		
High-set setting, I _s >	: 0.05 - 10.0 x I _n ——— : Step 0.05		
Time multiplier, k _t	: 0.02 - 1.0 ——— : Step 0.01		
Low set definite time, t _s	: 0 - 300s } 0 - 10.0s : step 0.01		
High set definite time, t _s >	: 0 - 300s } 10.0 - 100s : step 0.10		
	: 0 - 300s } 100 - 300s : step 1.00		
OVERCURRENT ELEMENT			
Low-set setting, I _o	: 0.10 - 2.50 x I _n ——— : step 0.01		
High-set setting, I _o >	: 0.10 - 40 x I _n ——— : step 0.05 (0.1 - 10) , step 0.1 (10 - 40)		
Time multiplier, k _t	: 0.02 - 1.0 ——— : step 0.01		
Low set definite time, t _o	: 0 - 300s } 0 - 10.0s : step 0.01		
High set definite time, t _o >	: 0 - 300s } 10.0 - 100s : step 0.10		
	: 0 - 300s } 100 - 300s : step 1.00		
COMMUNICATION			
RS-485 Modbus RTU	●		
Price			
ราคา	52,000.-	52,000.-	52,000.-