MKR-AKXX
Over / Under Current Protection Relay

1. INTRODUCTION

MKR-AKXX have been developed to secure motors or alike system against over or under current fluctuations (demourage/peak currents). There are two delay time setting (start-up delay and relay output delay) along with a "current protection level setting".

MKR-AKA05 : Over current protection relay (0.5-5A)
MKR-AKD05 : Under current protection relay (0.5-5A)
MKR-AKA15 : Over current protection relay (1.5-15A)
MKR-AKD15 : Under current protection relay (1.5-15A)

2. USAGE OF MKR-AKXX

Device must be connected according to the connection diagram shown here below. Phase must be connected to number 2 terminal via pushing "start" button while the relay is switched on to operate. (Start button and C1 contact will be locked.)

Start-Up Delay Time Setting (0.5-8 sec.): Thanks to this property of having a start-up delay time to ignore of the current level with which the initial peak current affects are prevented when the motor is initiated running.

Current Level Setting (0.5-5A): "k" and "l" terminals are used for measuring of current level. The current being passed through the terminals is compared with the adjusted current protection level. If the measured current is in normal level, the contacts of the relay will not change the position (be switched on).

Relay Delay Time (0.5-15 sec.): Relay will keep its position until the delay (tripping) time counting ends, if provided that the current level being measured between "k" and "l" terminals is out of adjusted ranges protection relay will be switched off .

Warning LEDs:
U: On when Supply Voltage is active.
R: On when relay is switched.
D: On when current protection is activated.

NOTE: MKR-AKA05 and MKR-AKD05 can be used up to 5A without using CT. To ensure higher level current protection, an external current transformer can be used for up to 10000A. MKR-AKA15 and MKR-AKD15 can be used for up to 15A without using CT.

3. CONNECTION DIAGRAM

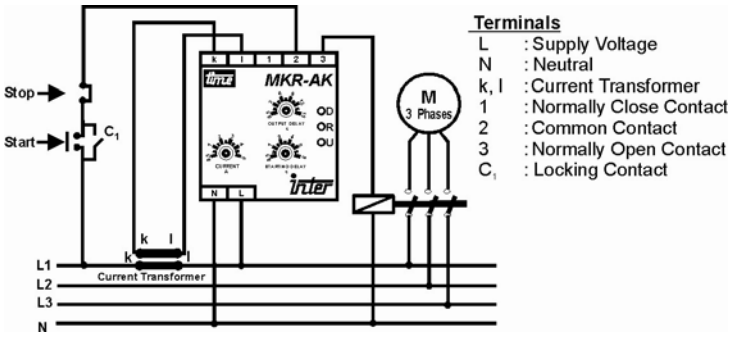
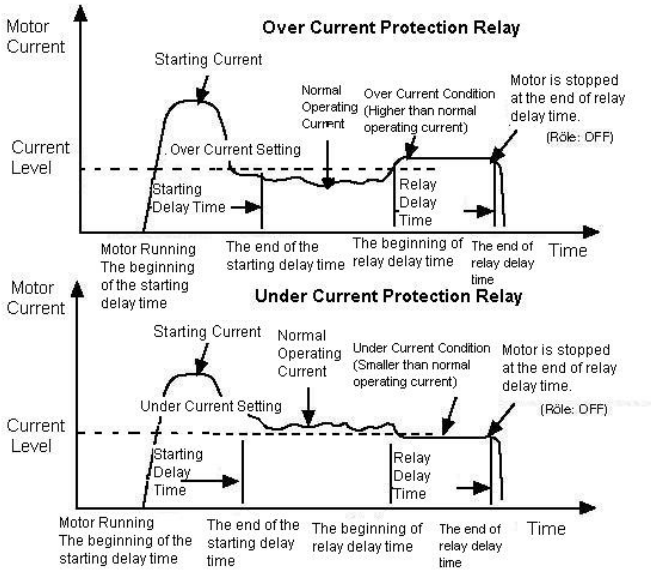


Figure -1 Connection Diagram



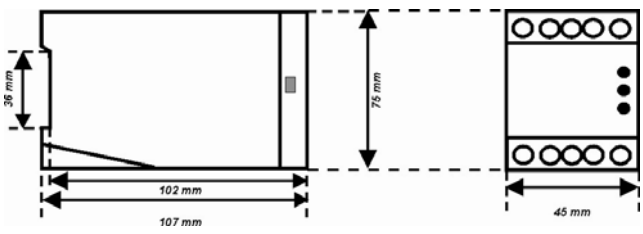
4. TECHNICAL SPECIFICATIONS

Operating Voltage (Un)	220VAC
Operating Range	(0,8-1,2)xUn
Operating Frequancy	50/60 Hz
Power Consumption	≤2W
Output Type	Relay Output
Maximum Contact Current	5A
Maximum Contact Voltage	250VAC
Input Current Level	AKA05 /AKD05; max 5A AKA15 /AKD15; max 15A
Mounting Type	Rail Mounted
Protection Class	IP 20
Plastic Material	V0 Nonflammable
Operating Temperature	-25°C … +65°C
Weight	280 gr.

5. SAFETY & WARNING INSTRUCTIONS

- Turn off power during connection/wiring.
- Check correct mains voltage/wiring terminal.
- Installation shall only be performed by qualified personnel.
- Do not use any solvent or alike for cleaning.

6. MECHANICAL DIMENSIONS



INTER ELECTRIC-ELECTRONIC IND.CO. LTD.
Namik Kemal Mh. Adile Nasit Blv. 139. Sok. No:4 Esenyurt – ISTANBUL/TURKEY
Tel: + 90 212 699 77 99 Faks: + 90 212 620 95 69
Web: www.intertime.com.tr E-Mail : inter@intertime.com.tr