

General

AKR under current protection relays are designed to prevent loads from being damaged due to under current.

Usage and Working Principle of the Device

Make the connection of the device in accordance with the connection type. After making the connections, energize the device. Make the device settings according to the minimum operating current of the load you will use. You can set the under current setting with the "A<" knob, the starting time (inrush time) value with the "ST" knob, and the error waiting time with the "DT" knob.

When the device is energized, the relay is energized, the contact output switches to terminal 3 and the OUT led turns on. When the start button is pressed, the contactor is energized, when the current starts to be drawn from the system, the device starts to count the start (inrush) time. At the end of the inrush period, if the drawn current is lower than the set under current (A<) value, the A< led turns on and the device counts as long as the error waiting time, OUT led turns off, then the device de-energize the relay and the contactor is de-energized. To re-energize the contactor, the start button must be pressed again.

When the contactor is energized, the contactor is de-energized by pressing the stop button when it is desired to be-energized.

In order to protect the device in the system from overcurrent, it is recommended to connect an overcurrent (thermal) relay to the circuit.

Settings on the device

- ST knob:** Sets the start (inrush current) time.
- DT knob:** Sets the undercurrent fault waiting time.
- >A knob:** Sets the under current set value

- AKR-60U: 1 - 63AAC (With CT-60)
- AKR-100U: 10 - 100AAC (With CT-120)
- AKR-250U: 10 - 250AAC (With CT-300)

Device Maintenance

Switch off the device and release from connections. Clean the trunk of device with a swab. Don't use any conductor or chemical might damage the device. Make sure device works after cleaning.

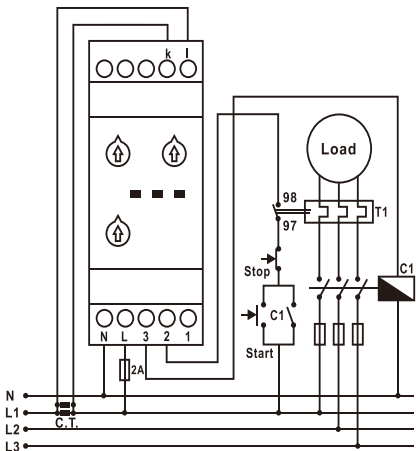
Warning

- Please use the device according to the manual.
- Don't use the device in wet.
- Include a switch and circuit breaker in the assembly.
- Put the switch and circuit breaker nearby the device, operator can reach easily.
- Mark the switch and circuit breaker as releasing connection for device.

Technical Specifications

- Operating Voltage :110V/220V/380V AC 50/60Hz.
- AKR-60U : 1 - 63AAC
- AKR-100U : 10 - 100AAC
- AKR-250U : 10 - 250AAC
- Start Time (Inrush) :1 sec. - 10 sec.
- Delay Time (Waiting):0,5 sec. - 2,5 sec.
- Operating Power :<6VA
- Operating Temp :-20°C.... +55°C
- Display :3x LEDs
- Connection Type :Terminal connection.
- Mounting :Assembled on the din rail.
- Weight :0.11 kg.
- Contact :5A 250VAC Resistive Load
- Operating Altitude :<2000m
- Cable Diameter :2,5mm²

Connection Diagram



Dimensions

