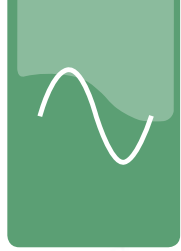


POWER MONITORING & PROTECTION

MOTRSAVER™ THREE-PHASE VOLTAGE MONITOR

460



DESCRIPTION

The **MotorSaver™ Model 460** microcontroller-based voltage and phase sensing circuit constantly monitors the three phase voltage to detect harmful power line conditions. When a harmful condition is detected, the **Model 460** output relay is deactivated after an adjustable trip delay time. The output relay reactivates after power line conditions return to an acceptable level for an adjustable restart delay time. If equipped with the manual reset option, an external normally open momentary reset switch must be closed to reactivate the output relay. The trip and restart delays prevent nuisance tripping due to rapidly fluctuating power line conditions. The **Model 460** automatically senses whether it is connected to a 190-240V 60 Hz system, a 440-480V 60 Hz system, or a 380-416V 50 Hz system. An adjustment is provided to set the nominal line voltage from 190-240 or 380-480 VAC. Other adjustments include a 1-30 second trip delay, a 1-500 second restart delay, and a 2% to 8% voltage-unbalance trip point adjustment.

FEATURES

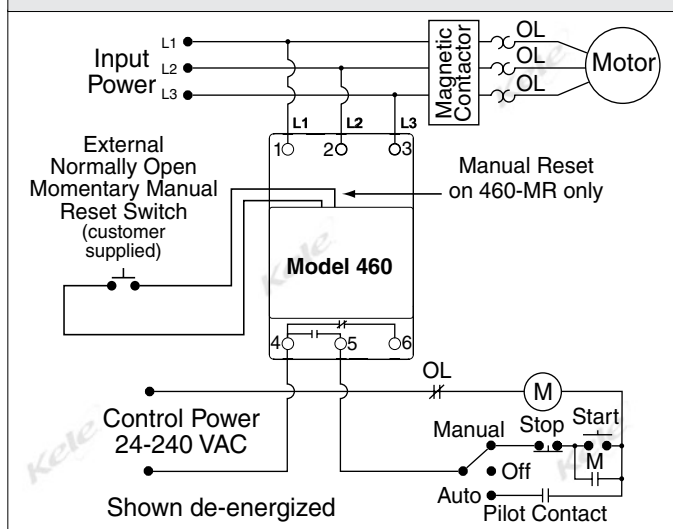
- Protection of three-phase motors from loss of any phase, low-voltage, phase reversal, voltage unbalance, and high voltage
- Adjustable restart delay
- Adjustable trip delay
- Adjustable voltage unbalance trip point
- Optional manual reset
- Diagnostic LEDs for indication of trip status
- Single-phase condition detection regardless of regenerated voltages
- Surface or DIN rail mounting



460



WIRING



POWER MONITORING & PROTECTION

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SPECIFICATIONS

Supply Voltage	190-480 VAC	Trip Delay Time Low Voltage	1-30 second adjustable
Supply Watts	6W maximum	Trip Delay Time Phase Fault	1 second fixed
Frequency	50*/60 Hz	Trip Delay Time Unbalance	1-30 second adjustable
Humidity	10-95% RH, non-condensing	Voltage Unbalance Reset	Trip setting minus 1% (5-8%) Trip setting minus 0.5% (2-4%)
Relay Rating	SPDT, pilot duty 480 VA @ 240 VAC	Voltage Unbalance Trip	2% to 8%, adjustable
Transient Protection	General-purpose 10A @ 240 VAC	Operating Temperature	-4° to 158°F (-20° to 70°C)
Low Voltage Trip	90% of setpoint (±1%)	Mounting	Foot
Low Voltage Reset	93% of setpoint (±1%)	Dimensions	3.5"H x 2.1"W x 2.4"D (8.9 x 5.3 x 6.1 cm)
Reset Delay Time after Fault	1-500 second adjustable	Weight	0.9 lb (0.4 Kg)
Reset Delay Time after Power Loss	1-500 second adjustable	Approvals	UL File #E68520, CE
Trip Delay Time High Voltage	1-30 second adjustable	Warranty	5 years

* 50 Hz will increase all delay times by 20%.

ORDERING INFORMATION

MODEL	DESCRIPTION
460	Three-phase voltage monitor, 190-480 VAC
460-MR	Three-phase voltage monitor, 190-480 VAC with manual reset
460-575	Three-phase voltage monitor, 190-480 VAC, 1-30 second trip delay, 1-500 second restart delay, 2-8% voltage unbalance trip point