## 3-Phase Voltage Monitor

## Model 460-400Hz



The Model 460-400Hz is designed to protect 3-phase, 400Hz motors from damaging power conditions. The 460s wide operating range combined with UL and CE compliance enables quick access to domestic and global markets.

A unique microcontroller-based voltage and phase-sensing circuit constantly monitors the 3-phase voltages to detect harmful power line conditions. When a harmful condition is detected, the MotorSaver's output relay is deactivated after a specified trip delay. The output relay reactivates after power line conditions return to an acceptable level for a specified amount of time (restart delay). The trip delay prevents nuisance tripping due to rapidly fluctuating power line conditions.

The Model 460-400Hz has an operating range from 190-480V, 400Hz.



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Low Voltage (% of setpoint) Trip Reset90% +1% 93% +1%High Voltage (% of setpoint) Trip Reset93% +1%High Voltage (% of setpoint) Trip Reset110% +1% 107% +1%Voltage Unbalance (NEMA) Trip Reset2-8% adjustable Trip setting minus 1% (5-8%) Trip setting minus 0.5% (2-4%)Trip Delay Time Low, High and Unbalanced Voltage Single-phasing faults (> 25% unbalance)1-30 seconds adjustable 1 second fixedRestart Delay Time After a Fault After a Complete Power Loss1-500 seconds adjustable
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Voltage Unbalance (NEMA)   2-8% adjustable     Trip   2-8% adjustable     Reset   Trip setting minus 1% (5-8%)     Trip Delay Time   1-30 seconds adjustable     Low, High and Unbalanced Voltage   1-30 seconds adjustable     Single-phasing faults (> 25% unbalance)   1 second fixed     Restart Delay Time   1-500 seconds adjustable     After a Fault   1-500 seconds adjustable     Insut Characteristics   1-500 seconds adjustable
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Restart Delay Time 1-500 seconds adjustable   After a Fault 1-500 seconds adjustable   Input Characteristics 1-500 seconds adjustable
After a Fault 1-500 seconds adjustable   After a Complete Power Loss 1-500 seconds adjustable
After a Complete Power Loss 1-500 seconds adjustable   Input Characteristics 1-500 seconds adjustable
Input Characteristics
Supply Voltage 190-480VAC
Frequency 400Hz
Output Characteristics
Output Contact Rating-1 Form C 10A General Purpose @240VAC
Pilot Duty 480VA@240VAC, B300
General Characteristics
Operating Temperature
Ambient -20° to 70° C (-4° to 158° F)
Storage -40° to 80° C (-40° to 176° F)
Power Consumption 6 Watts (max.)
Wire Gauge Solid or Stranded 12 - 20AWG, one per terminal
Terminal Torque 6 inlbs.
Class of Protection IP20, NEMA 1 (finger-safe)
Relative Humidity 10-95%, non-condensing per IEC 68-2-3
Standards Passed
Electrostatic Discharge (ESD) IEC 1000-4-2, Level 3, 6kV contact,8kV air
Radio Frequency Immunity, Radiated 159 MHz, 10V/m
Fast Transient Burst IEC 1000-4-4, Level 3, 3.5kV input power & controls
Surge
IEC I000-4-5, Level 3, 4kV line-to-line
Level 4, 4kV line-to-ground
ANSI/IEEE C62.41 Surge and Ring Wave Compliance
to a level of 6kV line-to-line
Hi-potential Test Meets UL 508 (2 x rated V + 1000V for 1 minute)
Safety Marks
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CE IFC 60947-6-2
CE     IEC 60947-6-2       Dimensions     2.08" L x 3.5" H x 2.35" D
CE     IEC 60947-6-2       Dimensions     2.08" L x 3.5" H x 2.35" D       Weight     14 oz

## How to order:

Part Number: 460-400Hz

