

# 3-Phase Voltage Monitor

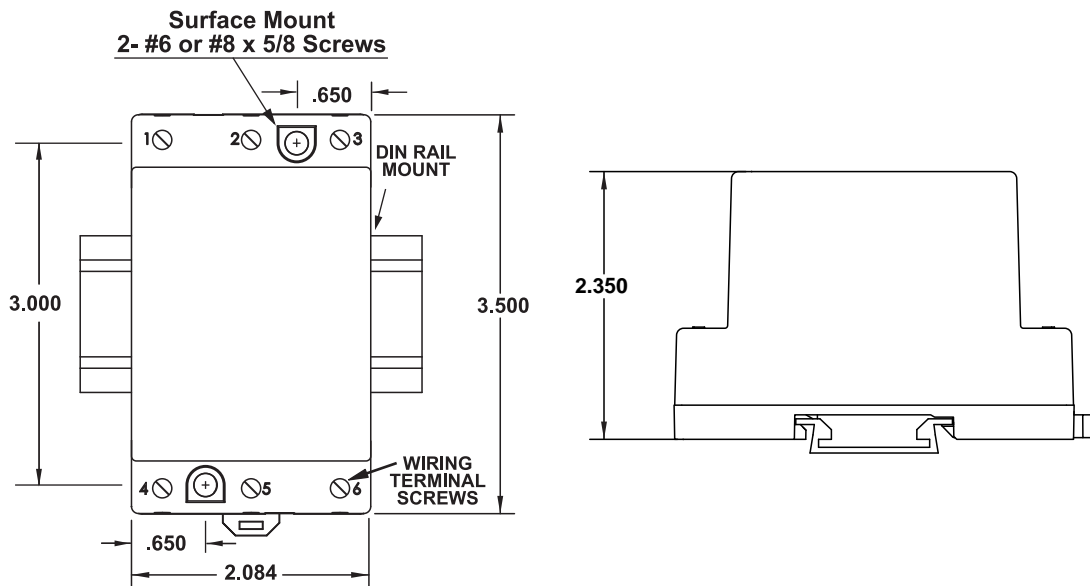
## Model 460-400Hz



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.



## Specifications

<b>Functional Specifications</b>	
Low Voltage (% of setpoint)	
Trip	90% +1%
Reset	93% +1%
High Voltage (% of setpoint)	
Trip	110% +1%
Reset	107% +1%
Voltage Unbalance (NEMA)	
Trip	2-8% adjustable
Reset	Trip setting minus 1% (5-8%) Trip setting minus 0.5% (2-4%)
Trip Delay Time	
Low, High and Unbalanced Voltage	1-30 seconds adjustable
Single-phasing faults (> 25% unbalance)	1 second fixed
Restart Delay Time	
After a Fault	1-500 seconds adjustable
After a Complete Power Loss	1-500 seconds adjustable
<b>Input Characteristics</b>	
Supply Voltage	190-480VAC
Frequency	400Hz
<b>Output Characteristics</b>	
Output Contact Rating-1 Form C	10A General Purpose @240VAC Pilot Duty 480VA@240VAC, B300
<b>General Characteristics</b>	
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 in.-lbs.
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	IEC 1000-4-5, 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 UL508 (2 x rated V + 1000V for 1 minute)
Safety Marks	
UL	UL508
CE	IEC 60947-6-2
Dimensions	2.08" L x 3.5" H x 2.35" D
Weight	14 oz.
Mounting Methods	#8 screws

### How to order:

Part Number: 460-400Hz

