

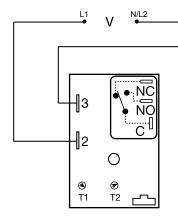
HLVA6123

Single-Phase Monitor





Wiring Diagram



V = Voltage

NO = Normally Open

NC = Normally Closed C = Common

T1 = Undervoltage Trip Point

T2 = Restart Delay

Description

The HLVA6l23 is a single-phase undervoltage monitor designed to protect sensitive equipment from brownout or undervoltage conditions. Time delays are included to prevent nuisance tripping and short cycling. The 30A, 1hp rated, SPDT relay contacts allow direct control of motors, solenoids and valves. The output relay can be ordered with isolated SPDT contact to allow monitoring of one voltage and switching a separate voltage. Two undervoltage trip point ranges allow monitoring of 110 to 120VAC or 208 to 240VAC systems.

Operation

Upon application of input voltage the output relay remains de-energized. When the input voltage value is above the pull-in voltage, the restart delay begins. At the end of the restart delay, the output relay energizes. When the input voltage falls below the trip point, the trip delay begins. If the input voltage remains below the pull-in voltage for the entire trip delay the relay deenergizes. If the input voltage returns to a value above the pull-in voltage, during the trip delay, the trip delay is reset and the relay remains energized. If the input voltage falls below the trip point voltage during the restart delay, the delay is reset and the relay remains de-energized. Reset is automatic upon correction of an undervoltage fault.

Reset: Removing input voltage resets the output relay and the time delays.

Features

- 30A, SPDT, NO output contacts
- 100 to 240VAC input voltage
- 70 to 220VAC adjustable undervoltage trip point in 2 ranges
- Restart delays from 3 300s
- Trip delay 1 20s fixed
- Isolated or non-isolated relay contacts

Accessories



P1015-13 (AWG 10/12), **P1015-64** (AWG 14/16) **Female Quick Connect**

These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.



C103PM (AL) DIN Rail

35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



P1023-6 Mounting bracket

The 90° orientation of mounting slots makes installation/removal of modules quick and easy.



P1023-20 DIN Rail Adapter

Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.



P1015-18 Quick Connect to Screw Adapter

Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

HLVA6123

Specifications

Input

Min & Max RMS Voltage 70 to 264VAC AC Line Frequency 50/60 Hz **Power Consumption** $AC \le 4VA$

Undervoltage Sensing Type

Ranges (4) 70 to 120VAC (6)170 to 220VAC

Pull-In Voltage 105% or trip point voltage Trip Point Accuracy ± 3% of trip point

Time Delay

3 - 300s adjustable **Restart Delays**

Trip Delay 1 - 20s fixed in 1s increments **Repeat Accuracy** ±0.5% or 20ms, whichever is greater

Peak voltage sensing

Tolerance (Factory Calibration) ±5%

Reset Time ≤ 150ms Time Delay vs. Temp.

& Voltage $\leq \pm 10\%$

Output

Type Electromechanical relay

SPDT Form

SPDT-NO SPDT-NC Ratings **General Purpose** 125/240VAC 30A 15A 125/240VAC Resistive 30A 15A 28VDC 20A 10A **Motor Load** 125VAC 1/4 hp** 1 hp*

240VAC 2 hp** 1 hp**

Mechanical - 1 x 106 Life

Electrical - 1 x 105, *3 x104, **6,000

Protection

IEEE C62.41-1991 Level A Surge

Circuitry Encapsulated

Isolation Voltage ≥ 1500V RMS input to output; isolated units

Insulation Resistance ≥ 100 MΩ

Mechanical

Surface mount with one #10 (M5 x 0.8) screw Mounting

Dimensions H 76.7 mm (3"); **W** 51.3 mm (2");

D 38.1 mm (1.5")

Termination 0.25 in. (6.35 mm) male quick connects

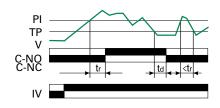
Environmental

Operating/Storage

Temperature -40° to 60°C / -40° to 85°C Humidity 95% relative, non-condensing

Weight $\approx 3.9 \text{ oz } (111 \text{ q})$

Function Diagram



tr = Restart Delay td =Trip Delay PI = Pull-in 105% or trip point TP = Trip Point V = Monitored Voltage IV = Input voltage C-NO = Normally Open Contacts C-NC = Normally Closed

Contacts