# Littelfuse® Expertise Applied | Answers Delivered

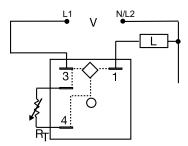
# **PHS SERIES**

#### Phase Control





#### **Wiring Diagram**



Triac Output Device V = Voltage L = Load RT = External Adjustment

## **Ordering Information**

MODEL	INPUT VOLTAGE	RATING
PHS120A10	120VAC	10A
PHS120A20	120VAC	20A
PHS120A6	120VAC	6A
PHS230A10	230VAC	10A
PHS230A20	230VAC	20A
PHS230A6	230VAC	6A

If you don't find the part you need, call us for a custom product 800-843-8848

## **Description**

The PHS Series is an ideal method of changing lamp intensity, varying the speed of a fan/motor, or controlling the temperature of a heater. The effective output voltage is adjusted with an accessory external potentiometer suitable for line voltage applications.

#### Operation

Upon application of input voltage, effective output voltage can be varied by changing the external resistance value. As the external resistance increases, the effective output voltage decreases. The inverse is also true.

#### Features & Benefits

FEATURES	BENEFITS	
External adjustment - 230VAC rated potentiometer	Allows control of heavy loads directly, solid state design will provide long life	
Up to 20A steady state - 200A inrush	Allows control of heavy loads directly, solid state design will provide long life	
Single hole surface mounting	Provides quick and easy installation	

#### **Accessories**



**P1004-174** (100kΩ 1W), **P1004-175** (200kΩ 2W) **Versa-Pot** 

Panel mountable, industrial potentiometer recommended for remote time delay adjustment.



#### P0700-7 Versa-Knob

Designed for 0.25 in (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.



## **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.



#### 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.



## PHS SERIES

### **Specifications**

Output

Type Variable voltage phase angle control Rating Steady State (at 100% On) Inrush\* 10A 1A 6A 60A 10A 100A 20A 200A

**Minimum Load Current** 100mA

**Voltage Drop** ≈ 2.0V at rated current

Input

Voltage 120 or 230VAC **Tolerance** ±20% **AC Line Frequency** 50/60Hz

**Protection** 

**Dielectric Breakdown** ≥ 2000V RMS terminals to mounting surface **Insulation Resistance** ≥100 $M\Omega$ 

Mechanical

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

**Dimensions H** 50.8 mm (2"); **W** 50.8 mm (2");

**D** 38.4 mm (1.51")

**Termination** 0.25 in. (6.35 mm) male guick connect terminals

**Environmental** 

Operating/Storage

-20 $^{\circ}$  to 60 $^{\circ}$ C / -40 $^{\circ}$  to 85 $^{\circ}$ C **Temperature** Humidity 95% relative, non-condensing

Weight  $1A: \cong 2.4 \text{ oz } (68 \text{ g})$ 

6, 10, & 20A:  $\approx$  3.9 oz (111 g)

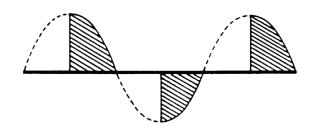
**External Adjustment** Potentiometer

**120VAC**  $100 K\Omega$  rated at 1W230VAC  $200K\Omega$  rated at 2W

Must have insulation resistance suitable for

line voltage applications.

## **Typical Output Waveform**



<sup>\*</sup>Units rated ≥ 6A must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is 90°C. Inrush: Non-repetitive for 16ms.

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# Littelfuse:

PHS230A6 PHS120A6 PHS120A10 PHS230A10 PHS230A20 PHST-38QTN PHS120A20