HDFA Series
Adjustable Recycling Time Delay Relays (Flashers)

… 10 Ampere SPDT (1 form C) Switching
… CMOS digital timing circuitry
… OFF and ON-Time user adjustable
… Timing from milliseconds to hours
… UL File # Pending
… CSA File #Pending

Description:
The Amperite HDFA Series low cost adjustable recycling timers may be used to alternately switch one or two load circuits with both OFF-Time and ON-Time adjustable by means of two built-in potentiometers. A SPDT 10 ampere contact set alternates continuously as long as power is applied to the relay. Typical applications include OFF/ON cycling for equipment burn-in test, lighting controls, and automatic cycling of electrically operated devices.

Contact Information:
1 form C (SPDT) contact set. 1/2 HP @ 240 VAC, 1/3 HP @ 125 VAC. 10 amperes maximum @ 30 VDC or 250 VAC. Minimum switching load current 10 ma @ 5 VDC.

Timing Specifications:
OFF/ON recycling (flasher) timer. Standard timing ranges are shown below. Custom and fixed timing are available; consult factory.

Timing ranges:
A: .25 to 10 seconds  G: 1 to 4 hours
B: .25 to 25 seconds  H: 14.4 minutes to 24 hours
C: .6 to 60 seconds         I: .6 to 60 minutes
D: 1.2 to 120 seconds      J: .1 to 10 minutes
E: 1.8 to 180 seconds      K: 10 minutes to 24 hours
F: 1 to 100 minutes        M: 1 to 10 hours

Outline Dimensions:

Timing Diagram:

Input Information:
VOLTAGE:    AC units- 12V, 24V and 120V AC.
DC units- 12V, 24V, 48V and 110V DC.
Custom voltages are available.

POWER REQUIREMENT:    AC units: 3 VA or less;
DC units: 3 watts or less.
Polarity Protection on DC units - Yes.

Input Voltages & Limits:

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**Mechanical Information:**
Enclosure 2 X 2 X 3/4 inch black plastic, epoxy sealed. Center hole mounting. 1/4 inch quick connect male terminals.

**Ordering Information:**
Definition of a part number for the Amperite HDFA Series Recycling Relay:
Example:

```
120  A  A  /  A  R  HDFA
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A: Denotes nominal input voltage. Voltages available: 12V, 24V & 120V AC; 12V, 24V, 48V & 110V DC. **Custom voltages are available.**

B: Denotes type of control input power required for operation: A = AC - Alternating Current; D = DC - Direct Current.
C: Denotes first timing period which is an "OFF" time delay. See chart above. If fixed
time is required, specify time followed by S=seconds; M=minutes; or H=hours.

D: Denotes second timing period; see chart above. For fixed timing, specify time
followed by S=seconds; M=minutes; H=hours.

E: Add "R" only if the "ON" time delay period is to occur first. When using "R" option,
enter timing range for ON-Time in "C" & OFF-Time in "D".

F: Denotes Amperite HDFA Series 10 ampere SDT recycling timer.