



ADJUSTABLE RECYCLE TIME DELAY RELAYS (FLASHERS)

HDFA Series Recycling Timers



The HDFA Series low cost adjustable recycling timers are packaged in the familiar hockey-puck enclosure and may be used to alternately switch power to two independent loads. Both OFF and ON times are independently adjustable by means of built-in potentiometers. Load power is controlled by an isolated SPDT relay contact. Timing ranges are adjustable of a 100:1 span and cover 0.25 seconds to 100 minutes. Contact Rating: 10 amperes maximum @ 250V AC or 30V DC. Operating Temp. Range: -40 C to 65 C. Mounting: Single center hole mount. Timing cycle interrupt transfer: None.

Ordering Information:

120 A A / A R HDFA
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 A B C D E F

- 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 below. If fixed time is required, specify time followed by S=seconds; M=minutes; or H=hours.
- D: Denotes second timing period; see chart below. For fixed timing, specify time followed by S=seconds; M=minutes; or 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 SPDT recycling timer.

Mfr. No.	Recycle Delay	Input Voltage	Mode of Operation
120AA/AHDFA	.25-10 SEC	120V AC	SPDT
120AC/CHDFA	.6-60 SEC	120V AC	SPDT
120AF/FHDFA	1-100 MIN	120V AC	SPDT
12DA/AHFA	.25-10 SEC	12V DC	SPDT
12DC/CHDFA	.6-60 SEC	12V DC	SPDT
12DF/FHDFA	1-100 MIN	12V DC	SPDT
24DA/AHDFA	.25-10 SEC	24V DC	SPDT
24DC/CHDFA	.6-60 SEC	24V DC	SPDT
24DF/FHDFA	1-100 MIN	24V DC	SPDT

FLASHERS



DFS Series Flashers

The DFS Series flasher has CMOS circuitry. Units are 100% solid state with no moving parts to wear out, units have three terminals and are packaged in the familiar 2" x 2" x 3/4" hockey puck enclosure, epoxy sealed. Numerous voltage ratings, both AC and DC, are available. Load current ratings available are 3 amps and 12 amps (except for 110V DC units). Flash rate is fixed and available over a range of 1 to 1000 flashes per minute, with a 50% duty cycle. UL and CSA approvals pending. Operating temp. range: -23 C to +60 C. Mounting: single center hole mount. Input voltage limits: +/- 10% of nominal.

Ordering Information:

Refer to model chart below. Select appropriate model number in accordance with the power input and load current required, and specify desired flash rate in flashes per minute (FPM). Standard flash rates: 30, 45, 60, 75, 90 and 120 FPM.

Note: Custom voltages and flash rates are available; consult factory.

MODEL	VOLTAGE	CURRENT
DFS123	12V AC	3 AMPERES
DFS124	12V AC	12 AMPERES
DFS143	24V AC	3 AMPERES
DFS144	24V AC	12 AMPERES
DFS152	120V AC	3 AMPERES
DFS154	120V AC	12 AMPERES
DFS162	230V AC	3 AMPERES
DFS163	230V AC	12 AMPERES
DFS164	110-230V AC	3 AMPERES
DFS166	110-230V AC	12 AMPERES

MODEL	VOLTAGE	CURRENT
DFS219	12V DC	3 AMPERES
DFS220	12V DC	12 AMPERES
DFS224	24V DC	3 AMPERES
DFS225	24V DC	12 AMPERES
DFS236	36V DC	3 AMPERES
DFS237	36V DC	12 AMPERES
DFS248	48V DC	3 AMPERES
DFS249	48V DC	12 AMPERES
DFS290	110V DC	0.5 AMPERES
DFS291	110V DC	2 AMPERES

EXAMPLE: DFS152- 60 denotes 120 volt AC power, 3 ampere load rating, 60 FPM.
 MODEL - FPM