**DF Series Flasher**

... Solid state analog flasher circuitry
... No moving parts to wear out - totally encapsulated circuitry
... 2A load rating
... Low cost
... Small size
... Universal Input -24V to 120V AC and DC operation in one device
... 2 terminal configuration - easy connection to load
... Factory fixed flash rates from 2 to 1000 FPM
... UL File #E96739 (M)
... CSA File #LR62586-3

**Timing Mode:**
On/off recycling solid state flasher. The flash rates are fixed and are available from 2 to 1000 flashes per minute (FPM). Duty cycle is approximately 50% with custom duty cycles available.

**Timing Diagram:**

```
+-------------------+-------------------+
|                   |                   |
| INPUT VOLTAGE     | OUTPUT VOLTAGE    |
|                   |                   |
| ON                | ON                |
|                  |                  |
| OFF               | OFF               |
```

**Output Circuit:**
Totally solid state switching device.
Rating:
(Resistive): 2A @ 120V AC or DC, 10 ma minimum load,
(Inrush): 10A maximum.

Higher loads and inrush capabilities are available.
Expected Life @ 25°C: Solid state circuitry - no moving parts to wear out.

**Environmental Information:**
Temperature Range: Operating & storage: -23°C to +60°C, (-10°F to +140°F)

**Mechanical Information:**
Termination: .250 inch quick connect terminals are standard; .110 inch, screw terminals, or 18" wires are available.
Enclosure: Black plastic case
Mounting: Single screw or optional 2-screw panel mount
Weight: 2 oz (56g) approx.
Outline Dimensions:

![Outline Dimensions Image]

Timing Specifications:
Flash Rate - Fixed: Standard - 30, 45, 60, 75, 90 & 120 FPM. Custom rates available from 2 to 1000 FPM.
Flash Rate Tolerance: ± 10%

Input Information:
Voltage: Universal input type: 24 - 120V AC or DC. Custom voltages from 5 - 240V are available.
Power Requirement: 3 Watts or less

Input Voltages & Limits:

**UNIVERSAL INPUT VOLTAGE**

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 - 120V AC/DC</td>
<td>22V AC/DC</td>
<td>125V AC/DC</td>
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</tbody>
</table>

**SINGLE VALUE VOLTAGES**

<table>
<thead>
<tr>
<th>Nominal</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>12V AC</td>
<td>10V</td>
<td>14V</td>
</tr>
<tr>
<td>24V AC</td>
<td>20V</td>
<td>28V</td>
</tr>
<tr>
<td>48V AC</td>
<td>41V</td>
<td>55V</td>
</tr>
<tr>
<td>115V AC</td>
<td>105V</td>
<td>130V</td>
</tr>
<tr>
<td>12V DC</td>
<td>11V</td>
<td>14V</td>
</tr>
</tbody>
</table>
Solving your relay requirements since 1922

24V DC  20V  28V
48V DC  41V  55V

Wiring Diagram:

Note: Optional 10 MA load may be used to reduce initial delay time.

Ordering Information:
Definition of a part number for the Amperite DF Series Flasher.
Example:

24-120 A F 60 H Q DF
A B C D E F G

A: Denotes input voltage: Universal input voltages from: 24 - 120V AC or DC. Can be replaced by a single value from 5 - 240 for custom voltages.

B: For custom voltages only - Denotes type of input current required for operation
A = AC - Alternate Current
D = DC - Direct Current

C: Denotes flasher configuration.

D: Denotes flash rate. Standard rates are 30, 45, 60, 75, 90 & 120 FPM. Custom rates are available from 2 to 1000 FPM.

E: Denotes load current options - Blank = Standard, H = Higher Operating Current.
**F:** Denotes form of termination - Blank = .250 Male Quick Connect Terminals (standard), S = Screw Terminal (optional), Q = .110 Male Solder Terminals (optional), W = two 18" wires (optional).

**G:** Denotes solid state 2-terminal DF flasher.