

## ABB

Flashers

## Solid State



- FSU

6.2

- FS126, FS127, FS146, FS147 .................6.3

■ FS143, FS152, FS162.............................6.4
■ FS200 ..................................................... 6.5
■ FS300 ......................................................6.6
■ FS400 ....................................................6.7
■ AF ........................................................... 6.8

## Relay



- FS500

Chasers


## Universal Flasher

FSU1000 Series
Solid State Flasher


- All Solid State - No Moving Parts or Contacts
- Onboard Adjustable Flash Rate
- Loads up to 20 A
- High Inrush - Up to 200 A
- Universal Voltage 24 ... 240 V AC

Approvals: c7

## Accessories

Female quick connect P/Ns
P1015-13 (AWG 10/12)
P1015-64 (AWG 14/16)
P1015-14 (AWG 18/22)


Quick connect to screw adaptor P/N: P1015-18

See accessory pages for specifications.

## Description

The FSU1000 incorporates an onboard adjustable flash rate of 10 to 100 flashes per minute and a universal input voltage in one device. Its circuitry is encapsulated and is capable of controlling loads of up to 20 A . The versatility of the FSU1000 makes it ideal for applications where various flash rates and operating voltages are required.

## Connection



Dashed lines are internal connections.

## Operation

When input voltage is applied to terminal 2 and the load (lamp), the load energizes steadily. When input voltage is applied to terminal 3 , the output flashes.

## Optional Low Current Switch (S1)

This low current switch could be a limit switch or contact. While open, the operator sees the load (lamp) ON and operating. When the limit switch closes, the load (lamp) flashes to attract attention.

Function
Flasher NC

$\mathrm{V}=$ Voltage $\mathrm{S} 1=$ Initiate Switch $\mathrm{L}=$ Load R = Reset T1 = ON Time T2 = OFF Time $\mathrm{T} 1 \cong \mathrm{~T} 2$

## Mechanical View



Ordering Table

| Inrush Rating | Rating | Part Number |
| :---: | :---: | :---: |
| 10 A | 1 A | FSU1000 |
| 60 A | 6 A | FSU1003 |
| 100 A | 10 A | FSU1004 |
| 200 A | 20 A | FSU1005 |

## Technical Data

Operation
Flash Rate
ON/OFF Ratio
Input
Range/Frequency
Output
Load Type
Maximum Load Rating
Inrush
Mechanical
Mounting *
Termination
Protection
Circuitry
Environmental
Operating Temperature
Storage Temperature
Weight
ON/OFF recycling solid state flasher (continuous duty)
Adjustable $10 \ldots 100 \mathrm{FPM}$
$\cong 50 \%$
$24 \ldots 240 \mathrm{~V} \mathrm{AC} / 50 \ldots 60 \mathrm{~Hz}$
Inductive, resistive, or incandescent
$1,6,10$, or 20 A steady state
10 times steady state current
Surface mount with one \#10 (M5 x 0.8) screw
0.25 in. ( 6.35 mm ) male quick connect terminals
Encapsulated
$-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C}\left(240 \mathrm{~V} \mathrm{AC}+50^{\circ} \mathrm{C}\right)$
$-40^{\circ} \mathrm{C} . .+85^{\circ} \mathrm{C}$
1 A units: $\cong 2.4 \mathrm{oz}(68 \mathrm{~g})$
$\geq 6 \mathrm{~A} \mathrm{units:} \cong 3.9 \mathrm{oz}(111 \mathrm{~g})$
*Units rated $\geq 6$ A must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is $90^{\circ} \mathrm{C}$.

## Flasher - Low Cost

FS100 Series
Solid State Flasher


## Description

The FS100 Series may be used to control inductive, incandescent or resistive loads. This series offers a 1 A (fullwave) or a 2 A (halfwave) steady state, 10 A inrush solid state output; and may be ordered with an input voltage of 24 or 120 V AC. The FS100 Series offers a factory fixed flash rate of 75 flashes per minute or may be ordered with a fixed custom flash rate ranging from 45 to 150 flashes per minute. Ideal for OEM applications where cost is a factor.

## Connection


$\mathrm{V}=$ Voltage $\mathrm{L}=$ Load $R=$ Red Wire $B=$ Black Wire

## Operation

Upon application of input voltage, the T2 OFF time begins. At the end of the OFF time, the T1 ON time begins and the load energizes. At the end of T1, T2 begins and the load de-energizes. This cycle repeats until input voltage is removed.
Reset: Removing input voltage resets the output and the sequence to T2.

Function


Mechanical View


## Ordering Table

| Input | Output Rating | Output Type | Load Type * | Part Number |
| :---: | :---: | :---: | :---: | :---: |
| 120 V AC | 1 A | AC, Fullwave | A | FS126 |
| 120 V AC | 1 A | AC, Fullwave | B | FS126RC |
| 120 V AC | 2 A | AC, Halfwave | A | FS127 |
| 24 V AC | 1 A | AC, Fullwave | A | FS146 |
| 24 V AC | 1 A | AC, Fullwave | B | FS146RC |
| 24 V AC | 2 A | AC, Halfwave | A | FS147 |

* Load Type: A - Incandescent \& Resistive B-Incandescent, Resistive \& Inductive

| Technical Data |  |
| :---: | :---: |
| Specifications |  |
| Mode of Operation | OFF/ON solid state flasher for continuous duty |
| Flash Rate | Factory fixed at 75 flashes per minute +/-20\% |
| Custom Flash Rates Available | From 45 ... 150 FPM +/-20\% |
| ON/OFF Ratio | §50\% |
| Input |  |
| Voltage | 24, 120 V AC, +/-15\%, $50 \ldots 60 \mathrm{~Hz}$ |
| Output |  |
| Output | Fullwave AC or Halfwave rectified AC |
| Load Type | Incandescent, resistive, or inductive, (Choose RC Suffix for inductive loads) |
| Maximum Load Rating | Fullwave: 1A steady state; Halfwave: 2 A steady state |
| Inrush | $10 \mathrm{~A}$ |
| Mechanical |  |
| Mounting | Removable mounting bracket, use one \#8 (M4 x 0.7) screw |
| Connection/Wires | 18 AWG (0.82mm²) wires 6 in. (15.2cm) |
| Package | $1.5 \times 0.94 \mathrm{in} .(38.1 \times 23.9 \mathrm{~mm})$ |
| Protection |  |
| Circuitry | Encapsulated |
| Environmental |  |
| Operating/Storage Temperature | $-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C} /-40^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$ |
| Humidity | 95\% relative, non-condensing |
| Weight | $\cong 1.1 \mathrm{oz} \mathrm{(31} \mathrm{g)}$ |

Technical Data
Specifications
Mode of Operation
Flash Rate
Custom Flash Rates Available
ON/OFF Ratio
Input
Output
Output
Output
Load Type
Maximum Load Rating
Inrush
Mechanical
Mounting
tion/Wires
Package
otection
Circuitry
Operating/Storage Temperature
Humidity
Weight

OFF/ON solid state flasher for continuous duty
Factory fixed at 75 flashes per minute $+/-20 \%$
From 45 ... 150 FPM +/-20\%

Fullwave AC or Halfwave rectified AC Incandescent, resistive, or inductive,
(Choose RC Suffix for inductive loads) A steady state; Halfwave: 2 A steady state

Removable mounting bracket, use one \#8 (M4 x 0.7) screw
18 AWG ( $0.82 \mathrm{~mm}^{2}$ ) wires 6 in . ( 15.2 cm )
$1.5 \times 0.94 \mathrm{in} .(38.1 \times 23.9 \mathrm{~mm})$
Encapsulated
$-20^{\circ} \mathrm{C} .+60^{\circ} \mathrm{C} /-40^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$
$\cong 1.1 \mathrm{oz}(31 \mathrm{~g})$

Flasher - Medium/High Power
FS100 Series

## Solid State Flasher

## Description

The FS100 Series may be used to control inductive, incandescent, or resistive loads. Input voltages of 24, 120 , or $230 \vee A C$ are available. Factory fixed flash rate of 90 flashes per minute or may be ordered with a fixed custom flash rate ranging from 10 to 300 flashes per minute. Encapsulation provides protection against shock, vibration, and humidity. This group of solid state flashers has proven reliability with years of use throughout the world.

## Connection



Dashed lines are internal connections.
Operation
Upon application of input voltage, the T2 OFF time begins. At the end of the OFF time, the T1 ON time begins and the load energizes. At the end of T1, T2 begins and the load de-energizes. This cycle repeats until input voltage is removed.
Reset: Removing input voltage resets the output and the sequence to T 2 .


Fixed at 90 Flashes per Minute

- Custom Flash Rate 10 ... 300 F.P.M.
- Switches Inrush Currents up to 30 A
24, 120, or 230 V AC Input volages

Encapsulated
Approvals:


Accessories


Quick connect to P/N: P1015-18

Mounting bracket P/N: P1023-6

DIN rail P/Ns: 017322005 (Steel) C103PM (Al)

## Mechanical

Mounting
Package
Termination
Protection
Circuitry
Environmental
Operating/Storage Temperature
Weight

OFF/ON solid state flasher for continuous duty
Factory fixed at 90 flashes per minute $+/-10 \%$
Available from 10 ... 300 FPM +/-10\%
$\cong 50 \%$
24,120 , or 230 V AC., +/-15\%, $50 \ldots 60 \mathrm{~Hz}$
Inductive, resistive, or incandescent
Fullwave AC, solid state, SPST
3 A steady state
10 times steady state current
Surface mount with one \#10 (M5 $\times 0.8$ ) screw
$2 \times 2 \times 1.21 \mathrm{in}$. $(50.8 \times 50.8 \times 30.7 \mathrm{~mm})$
0.25 in . ( 6.35 mm ) male quick connect terminals

Encapsulated
$-20^{\circ} \ldots+60^{\circ} \mathrm{C} /-40^{\circ} \ldots+85^{\circ} \mathrm{C}$
$\cong 2.2 \mathrm{oz}(62 \mathrm{~g})$

## DC Flasher

FS200 Series

## Solid State Flasher

Upon application of input voltage，the T2 OFF time begins．At the end of the OFF time，the T1 ON time begins and the load energizes．At the end of T1， T2 begins and the load de－energizes．This cycle

Reset：Removing input voltage resets the output


## Operation

 repeats until input voltage is removed． and the sequence to T 2 ． shock，vibration，and humidity．Uniform performance，high inrush current capability，and low RFI，make this shock，vibration，and humidity．Uniform performance，
high inrush current capability，and low RFI，make this series ideal for general industrial applications．

## Connection



Dashed lines are internal connections．

## Function



Description
The FS200 Series may be used to control inductive， incandescent，or resistive loads．Input voltages of 12， $24,36,48$ ，or 110 V DC are available．Factory fixed flash rate of 90 flashes per minute or may be ordered with a fixed custom flash rate ranging from 10 to 180 flashes per minute．Encapsulation provides protection against

## Ordering Table

## Accessories



Female quick connect
P／N：
P1015－64（AWG 14／16）


DC Flasher
FS300 Series

## Solid State Flasher



- Totally Solid State - No Mechanical Contacts to Arc and Wear
- High Surge Capability Designed to Operate Incandescent Lamp Loads
- High Noise and Transient Protection
- Two-Terminal Series Connection
- Encapsulated - Protects Against Shock, Vibration, and Humidity


## Accessories



Female quick
connect
P/N:
P1015-64 (AWG 14/16)

Quick connect to screw adaptor P/N: P1015-18


Mounting bracket P/N: P1023-6


See accessory pages for specifications.

## Description

The FS300 Series of solid state flashers were specifically designed to operate lamp loads. Their two-terminal series connection feature makes installation easy. The high immunity to line noise and transients makes the FS300 Series ideal for moving vehicle applications. All solid state construction means reliability and long life.

Connection


Note: Load may be in positive side

## Operation

Upon application of input voltage, the T2 OFF time begins. At the end of the OFF time, the T1 ON time begins and the load energizes. At the end of T1, T2 begins and the load de-energizes. This cycle repeats until input voltage is removed.
Reset: Removing input voltage resets the output and the sequence to T 2 .

Function


Mechanical View


Inches (Millimeters)

## Ordering Table

| Input | Maximum Load Current | Part Number |
| :---: | :---: | :---: |
| 12 V DC +/-20\% | 2.5 A | FS312 |
| 24 V DC +/-20\% | 1.5 A | FS324 |
| 36 V DC +/-20\% | 1.0 A | FS336 |
| 48 V DC +/-15\% | 0.75 A | FS348 |
| 72 V DC +/-15\% | 0.5 A | FS372 |
| 110 V DC +/-15\% | 0.25 A | FS390 |


| Technical Data |  |
| :--- | :--- |
| Specifications |  |
| Mode of Operation | OFF/ON recycling solid state flasher (continuous duty) |
| Flash Rate | Fixed at 75 flashes per min $+/-10 \%$ |
| Custom Flash Rates | Available from $60 \ldots 150$ flashes per min |
| ON/OFF Ratio | $\cong 50 \%$ |
| Input |  |
| Input Voltage | $12,24,36,48,72$, and 110 V DC |
| Output |  |
| Load Type | Incandescent or resistive |
| Maximum Load Rating | $0.25 \ldots 2.5$ A steady state |
| Inrush | 10 times steady state current |
| Mechanical |  |
| Mounting | Surface mount with one \#10 (M5 $\times 0.8)$ screw |
| Package | $2 \times 2 \times 1.21$ in. $(50.8 \times 50.8 \times 30.7 \mathrm{~mm})$ |
| Termination | 0.25 in. $(6.35 \mathrm{~mm})$ male quick connect terminals |
| Protection |  |
| Circuitry | Encapsulated |
| Environmental |  |
| Operating $/$ Storage Temperature | $-20^{\circ} \ldots+60^{\circ} \mathrm{C} /-40^{\circ} \ldots+85^{\circ} \mathrm{C}$ |
| Humidity | $95 \%$ relative; non-condensing |
| Weight | $\cong 2.2 \mathrm{oz}(62 \mathrm{~g})$ |

## Flasher - LED Lamps

FS400 Series

## Solid State Flasher



Description
The FS400 Series is a low leakage AC flasher designed to control LED, or resistive loads. This series offers a solid state output and may be ordered with an input voltage of 24 V to 240 V AC , in two ranges. It offers a factory fixed flash rate of 75 flashes per minute or may be ordered with a fixed custom flash rate ranging from 45 to 150 flashes per minute. The FS400 is the perfect solution for LED lamp flashing.

## Connection


$\mathrm{V}=$ Voltage $\mathrm{L}=$ Load
$R=$ Red Wire B = Black Wire W= White Wire

## Operation

Upon application of input voltage, the output energizes and the ON time begins. At the end of the ON time, the output de-energizes and the OFF time begins. At the end of the OFF time, the output energizes and the cycle repeats as long as input voltage is applied.
Reset: Removing input voltage resets the output and the flash sequence.

Function


ON time plus OFF time equals one complete flash.
Mechanical View

(12.70)
$R, B, W=20$ AWG $\left(0.52 \mathrm{~mm}^{2}\right)$ wires 6 in . ( 15.2 cm )
Mounting bracket is removable

## Ordering Table

| Input |  |  |  | Output Rating | Part Number |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $120 \mathrm{~V} \mathrm{AC} . .240 \mathrm{~V} \mathrm{AC}$ | 0.5 A | FS491 |  |  |  |
| 24 V AC | 1 A | FS421 |  |  |  |

## Technical Data

Operation
Mode of Operation
Flash Rate
ON/OFF Ratio
Custom Flash Rates Available
Input
Voltage
Tolerance
Frequency
Output
Load Type
Output
Maximum Load Rating 120 V AC... 240 V AC 24 V AC
Max. Load Leakage Current
Voltage Drop
Mechanical
Mounting
Package
Protection
Surge
Circuitry
Environmental
Operating / Storage Temperature
Humidity
Weight

ON/OFF solid state flasher for continuous duty
Factory fixed at 75 flashes per minute $+/-20 \%$
§50\%
From 45 ... 150 FPM +/-20\%
24 , or 120 ... 240 V AC
+/-15\%
50 ... 60 Hz

LED or resistive
Bridge Rectifier and FET
0.5 A steady state; 5 A Inrush

1A steady state; 10 A Inrush
$250 \mu \mathrm{~A}$
2 V Typical
Surface mount with one \#8 (M4 x 0.7) screw
$1.5 \times 0.94 \mathrm{in}$. ( $38.1 \times 23.9 \mathrm{~mm}$ )
IEEE C62.41-1991 Level A
Encapsulated
$-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C} /-40^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$
$95 \%$ relative, non-condensing
$\cong 1.1 \mathrm{oz}(31 \mathrm{~g})$

## Alternating Flasher

AF Series

## Solid State Flasher



- Alternately Flashes Two High Current Loads
■ High Surge Capacity -- Up to 200 A
■ Small Size -- $2 \times 2 \times 1.30 \mathrm{in}$. ( $50.8 \times 50.8 \times 33 \mathrm{~mm}$ )
- Totally Solid State \& Encapsulated

Accessories


Female quick connect P/Ns:
P1015-13 (AWG 10/12)
P1015-64 (AWG 14/16)
P1015-14 (AWG 18/22)

Quick connect to screw adaptor screw adaptor

See accessory pages for specifications.

## Description

The AF Series offers a high inrush capacity of up to 200 A. These devices exceed mechanical type relays in both performance and lifespan. The AF Series is constructed with no moving parts to arc, wear, and eventually fail; 100 million operations are typical. Circuitry is encapsulated to provide protection against vibration and moisture, making the AF Series ideal for outdoor applications.

## Connection



Operation
Upon application of input voltage T1 begins, Load 1 is ON and Load 2 is OFF. At the end of T1, T2 begins and Load 2 is now ON and Load 1 is OFF. At the end of T2, T1 repeats and this sequence continues until input voltage is removed. The duration of T1 and T2 is approximately equal.
Reset: Removing input voltage resets the flasher.

## Function



Mechanical View


Inches (Millimeters)

## Ordering Table

| AF | X | X | X |
| :---: | :---: | :---: | :---: |
| Series | Input | Output Rating | Flash Rate (flashes per min.) |
|  | -1-24 V AC | -1-6A | -1-10 |
|  | -2-120 V AC | -2-10A | -2-30 |
|  | -3-230 V AC | -3-20 A | -3-60 |
|  |  |  | -4-90 |
|  |  |  | -5-120 |
| Example P/N: | 224 Custom | - AF229-45 | -6-140 |
|  | 224 Custom | - | -9 - _ _ _ Custom Flash Rate |


| Technical Data |  |
| :---: | :---: |
| Operation | Alternating solid state flasher rated for continuous duty |
| Flash Rate | Factory fixed at $10,30,60,90,120$, or 140 flashes per min. $+/-10 \%$. |
| Custom Flash Rate | Specify as any number between 10 \& 140, inclusive |
| Ratio | $\cong 50 \%$ ( |
| Input Input Voltage, Frequency | 24, 120, or 230 V AC +/-15\%, $50 \ldots 60 \mathrm{~Hz}$ |
| Output |  |
| Load Type | Incandescent or resistive |
| Maximum Load Rating | $6,10, \& 20$ A steady state |
| Inrush | 10 times steady state current |
| Mechanical | Surface mount with one \#10 (M5 x 0.8) screw |
| Package | $2 \times 2 \times 1.30 \mathrm{in}$. ( $50.8 \times 50.8 \times 33 \mathrm{~mm}$ ) |
| Protection |  |
| Circuitry | Encapsulated |
| Environmental |  |
| Operating / Storage Temperature | $-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C} /-40^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$ |
| Humidity | 95\% relative, non-condensing |
| Weight | $\cong 2.9 \mathrm{oz}(82 \mathrm{~g})$ |
| *Must be bolted to metal surface using the included heat sink compound. |  |
| The maximum mounting surface | is $90^{\circ} \mathrm{C}$. |

## Flasher - Relay Output

FS500 Series


Approvals:
(some models)

## Accessories




Octal
8-pin socket P/N: NDS-8


## Description

The FS500 Series flash rate is adjustable from 10 to 100 flashes per minute. A locknut is provided to hold selected flash rate. The long-life electronic circuit combined with a quality electromechanical relay provides flexibility and reliability in most applications.

## Connection



Dashed lines are internal connections.

## Operation

Upon application of input voltage, the output relay is energized and the ON time begins. At the end of the ON time, the output relay de-energizes and the OFF time begins. At the end of the OFF time, the output is energized and the cycle repeats as long as input voltage is applied.
Reset: Removing input voltage resets the output and the sequence.

Function


Mechanical View


Inches (Millimeters)

| Ordering Table |  |  |
| :---: | :---: | :---: |
| Input | CSA | Part Number |
| 12 V DC | * | FS512 |
| 24 V AC/DC | * | FS524 |
| 120 V AC/DC | * | FS590 |
| 230 V AC |  | FS599 |

Technical Data
Specifications
Mode of Operation
Flash Rate
ON/OFF Ratio
Input
Input Voltage
Tolerance 12 V DC \& 24 V DC/AC 120 ... 230 V AC/DC
Frequency
Output
Type
Rating
Mechanical
Mounting
Termination
Protection
Isolation Voltage
Polarity
Environmental
Operating/Storage Temperature
Weight

ON/OFF recycling flasher with adjustable flash rate Adjustable from 10 ... 100 operations per minute (guaranteed range) $\cong 50 \%$

12 V DC, $24 \mathrm{~V} \mathrm{AC/DC}$,120 V AC/DC, 230 V AC
$-15 \% \ldots+20 \%$
$-20 \% ~ . . .+10 \%$
50 ... 60 Hz
Electromechanical relay DPDT
10 A resistive at $120 / 240 \mathrm{~V} \mathrm{AC} \& 28 \mathrm{~V} D$;
$1 / 3 \mathrm{hp}$ at $120 / 240 \mathrm{~V} \mathrm{AC}$
Plug-in socket
8 pin Octal plug
$\geq 1500$ V RMS input to output
DC units are reverse polarity protected

```
-20
\cong5.8 oz (164 g)
```


## Chaser (Flasher) SC3/SC4 Series Timing Module

 Flashing of Incandescent Loads

- Fixed or Adjustable Flash Rates - 30 ... 300 per m - 1 A Steady State Output ■ 24, 120, or 230 V AC Input Voltage
- Totally Solid State and Encapsulated

Approvals: ciluus

## Accessories



Female quick connect P/Ns:
P1015-13 (AWG 10/12)
P1015-64 (AWG 14/16)
P1015-14 (AWG 18/22)

Quick connect to
screw adaptor P/N: P1015-18

See accessory pages for specifications.

## Description

The SC3/SC4 Series are solid state 3 or 4 channel chasers designed for sequential three or four circuit flashing of incandescent lamp loads. Unlike electromechanical chasers, there are no contacts to arc, wear, and eventually fail. Fixed or adjustable rates of 30 to 300 operations per minute.

## Connection



SC4 shown; for SC3, terminal 6 \& load L4 are eliminated.
Dashed lines are internal connections.

## Operation

Sequential 3 or 4 circuit flashing of incandescent loads with equal time delays for each load. Upon application of input voltage, Load 1 is energized. At the end of the time delay, Load 1 de-energizes and Load 2 energizes. At the end of the time delay, Load 2 de-energizes and Load 3 energizes. This cycle continues until input voltage is removed.
Reset: Removing input voltage resets the unit and cycle.

## Function



SC4 shown; SC3, L4 is eliminated and L1 TD begins as soon as L3 TD is completed.
$\mathrm{V}=$ Voltage $\quad \mathrm{R}=$ Reset $\quad \mathrm{L}(1 \ldots 4)=$ Lamps TD = Time Delay (all are equal)

## Mechanical View



## Ordering Table

| $\mathbf{X}$ |  |
| :--- | :--- |
| Series | Input |
| - SC3 (3 outputs) | $-24-24$ V AC |
| SC4 (4 outputs) | $-120-120$ V AC |
|  | $-230-230$ V AC |

Example P/N: SC3120A, SC424F100

X
Rate
-A - Adjustable (30 ... 300)
-F - Fixed *
*If Fixed is selected, insert [30 ... 300] operations per minute.

Technical Data
Specifications
Mode of Operation
Rate
Input
Input Voltage
Frequency
Output
Type
Rating
Mechanical
Mounting
Termination
Package
Protection
Circuitry
Dielectric Breakdown
Insulation Resistance
Environmental
Operating / Storage Temperature Humidity
Weight
Sequential 3 or 4 circuit flashing of incandescent
lamp loads. Fixed or adjustable rates.
Adjustable: $30 \ldots . .300$ operations per minute
Fixed: $30 \ldots 300$ operations per minute $(+/-10 \%)$
24,120 , or $230 \mathrm{~V} \mathrm{AC}+/-15 \%$
$50 \ldots 60 \mathrm{~Hz}$
Solid state
1 A steady state per output
Surface mount with two \#6 (M3.5 x 0.6$)$ screws
0.25 in. $(6.35 \mathrm{~mm})$ male quick connect terminals
$3.5 \times 2.5 \times 1.22$ in. $(88.9 \times 63.5 \times 31 \mathrm{~mm})$
Encapsulated
$\geq 2000 \mathrm{~V} \mathrm{RMS}$ terminals to mounting surface
$\geq 100 \mathrm{M} \Omega$
$-20^{\circ} \mathrm{C} \ldots+60^{\circ} \mathrm{C} /-40^{\circ} \mathrm{C} \ldots+85^{\circ} \mathrm{C}$
$95 \%$ relative, non-condensing
$\cong 5.4 \mathrm{oz}(153 \mathrm{~g})$

