

## Peace of mind through reliable current monitoring

## AC CURRENT SWITCHES <br> CS-325



## ADJUSTABLE CURRENT-OPERATED SOLID-STATE RELAYS FOR SWITCHING AC CIRCUITS

## FEATURES:

- Self-powered and no insertion loss
-True digital switching and no leakage
- Small compact size
- Jumper-selectable ranges
- Easy field adjustment
- Input / Output isolation via current transformer
- Solid-state reliability
- Solid, reliable mounting method


## DESCRIPTION:

The CS-325 series of AC current switches are solid-state switches that activate a contact closure whenever the monitored primary circuit current exceeds a pre-set level. Models are available to switch various load types as indicated in the Product Ordering Chart. All models include a multi-turn adjustment to set the trip threshold to the desired value. They monitor up to 200 Amps and feature jumper selectable ranges.

## SPECIFICATIONS:

| Setpoint Range | 1-200 Amps | Enclosure Size ( $\mathrm{H} \times \mathrm{W} \times \mathrm{D}$ ) | $\begin{aligned} \text { Solid Core }-49 \times 87 \times 25 \mathrm{~mm} \\ \left(1.95 \times 3.45 \times 1.0^{\prime \prime}\right) \end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Wiring Connections | Solid Core - Barrier strip | Enclosure Material | UL 94V-0 flammability rated ABS Insulation Class 600 V |
| Hysteresis | < 2\% FS max. | Power Supply | None - Self-powered |
| Operating Temperature | 0 to $40^{\circ} \mathrm{C}\left(32\right.$ to $\left.104^{\circ} \mathrm{F}\right)$ | AC Conductors Hole | Solid Core - 20mm (0.8") diameter |
| Response Time | < 200 mS |  |  |

## CURRENT SWITCH: PRODUCT ORDERING INFORMATION

| Model | Output <br> Type | Switch <br> V Max | I Max | Von @ 24Vdc <br> @ $\mathbf{1 5 0} \mathbf{m A}$ | Leakage <br> Current | Power <br> LED | Status <br> LED | Auto <br> Range | Input <br> I Min | Input <br> I Max |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS-325* | Triac | 250 Vac | 1 Amp | $\mathrm{n} / \mathrm{a}$ | $<5 \mathrm{~mA}$ | No | No | No | 1.25 A | 200 A |  |
| CS-325-NS* | Triac | 250 Vac | 1 Amp | $\mathrm{n} / \mathrm{a}$ | $<1 \mathrm{~mA}$ | No | No | No | 1.25 A | 200 A |  |

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## CS-425-HC Series



## CURRENT-OPERATED SOLID-STATE RELAYS FOR SWITCHING AC CIRCUITS WITH TIME DELAY

## FEATURES:

- Self-powered and no insertion loss
- True digital switching and no leakage
- Small compact size
- $0,5,10$, or 15 minutes time delay models
- Input / Output isolation via current transformer
- Solid-state reliability
- Solid, reliable mounting method


## APPLICATIONS:

Direct control of AC loads, such as dryer booster fans, in response to the current of a monitored AC circuit

## DESCRIPTION:

The CS-425-HC products are solid-state current switches with N.O. triac outputs to control high-current line-voltage AC loads. All models have a factory set trip level of approximately 1 Amp and require no field adjustment for easy installation. Internal circuits are powered by induction from the line being monitored and all models are cULu certified.

SPECIFICATIONS:

| Maximum Core Current | 50 Amps | Turn on time Turn off time | $<200 \mathrm{mS}$ <br> $0,5,10$ or 15 minutes (factory set) |
| :---: | :---: | :---: | :---: |
| Operating Temperature | 0 to $40^{\circ} \mathrm{C}\left(32\right.$ to $\left.104^{\circ} \mathrm{F}\right)$ | Operating Humidity | 0-95\% RH non-condensing |
| Trip Set-Point | Approximately 1 Amps | Material | UL 94V-0 flammability rated ABS Insulation Class 600V |
| $\begin{aligned} & \text { Enclosure Size } \\ & \text { (H x W x D) } \end{aligned}$ | $49 \times 87 \times 25 \mathrm{~mm}$ (1.95" $\left.\times 3.45{ }^{\prime \prime} \times 1{ }^{\prime \prime}\right)$ | Mounting Holes | $2 \times 5 \mathrm{~mm}$ holes spaced 76 mm on base ( $2 \times 0.19^{\prime \prime}$ holes spaced $3^{\prime \prime}$ on base) |
| AC Conductor Hole | 20 mm (0.8") Diameter | Switch Type | Solid-state triac |
| Switch Rating | 120 Vac @ 2.5 Amps Max. | Off-state Leakage | <1 mA |

## DRYER BOOSTER FAN OPERATION:

The CS-425-HC series can operate a dryer booster fan directly. These devices sense when a clothes dryer is drawing 1 Amp of current and then closes the output switch to activate the dryer vent booster fan. When the dryer cycle is complete and the current drops below the threshold, the output switch will remain closed for a pre-set delay time to allow heat to be removed from the vent before the switch is opened again. The device output can switch 120 Vac loads up to 2.5 Amps .

CURRENT SWITCH: PRODUCT ORDERING INFORMATION

| Model | Output <br> Type | Switch V <br> Max. | Switch I <br> Max. | Leakage <br> Current | Input I <br> Min. | Input It <br> Max. | Time Delay <br> (off) | Approval |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CS-425-HC-0 | Triac | 120 VAC | 2.5 Amp | $<1 \mathrm{~mA}$ | $\sim 1 \mathrm{Amp}$ | 50 Amps | none | cULus |
| CS-425-HC-5 | Triac | 120 VAC | 2.5 Amp | $<1 \mathrm{~mA}$ | $\sim 1 \mathrm{Amp}$ | 50 Amps | 5 minutes | cULus |
| CS-425-HC-10 | Triac | 120 VAC | 2.5 Amp | $<1 \mathrm{~mA}$ | $\sim 1 \mathrm{Amp}$ | 50 Amps | 10 minutes | cULus |
| CS-425-HC-15 | Triac | 120 VAC | 2.5 Amp | $<1 \mathrm{~mA}$ | $\sim 1 \mathrm{Amp}$ | 50 Amps | 15 minutes | cULus |

Solid Core CS-325 Series Current Switch


Solid Core CS-425 Series
Current Switch


## Typical Installation




[^0]:    * The CS-325 with the snubber circuit is best used to switch high-current inductive loads such as small fan motors. The CS-325-NS is best used to switch resistive or low-current inductive loads such as relays or lights.

