

# AC Current Switch

Current-Operated Solid-State Relays for Switching AC Circuits

ACS



## Description

The ACS products are solid-state current switches with N.O. triac outputs to control high-current line-voltage AC loads. The ACS 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.

## Duct Booster Fan Operation

The ACS can operate a duct booster fan directly. These devices sense when the interlock device is drawing 1 Amp of current and then closes the output switch to activate the duct booster fan. When the interlock device turn off and the current drops below the threshold, the output switch will open again (with a delay for the ACS-5, 10 & 15). The device output can switch 120 Vac loads up to 2.5 Amps.

## Features

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

## Applications

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

## Specifications

**Maximum Core Current :** 50 Amps

**Operating Temperature :**

0 to 40°C  
(32° to 104°F)

**Trip Set-Point :** Approximately 1 Amps

**Enclosure Size (H x W x D) :**

49 x 87 x 25mm  
(1.95" x 3.45" x 1")

**AC Conductor Hole :** 20mm (0.8") Diameter

**Switch Rating :** 120 Vac @ 2.5 Amps Max.

**Turn on time :** <200 mS

**ACS-0 turn off time :** 0 minute (factory set)

**ACS-5 turn off time :** 5 minutes (factory set)

**ACS-10 turn off time :** 10 minutes (factory set)

**ACS-15 turn off time :** 15 minutes (factory set)

**Operating Humidity :**

0 - 95% RH non-condensing

**Material :** UL 94V-0 flammability rated ABS  
Insulation Class 600V

**Mounting Holes :** 2 x 5mm holes spaced

76mm on base (2 x 0.19" holes spaced 3" on base)

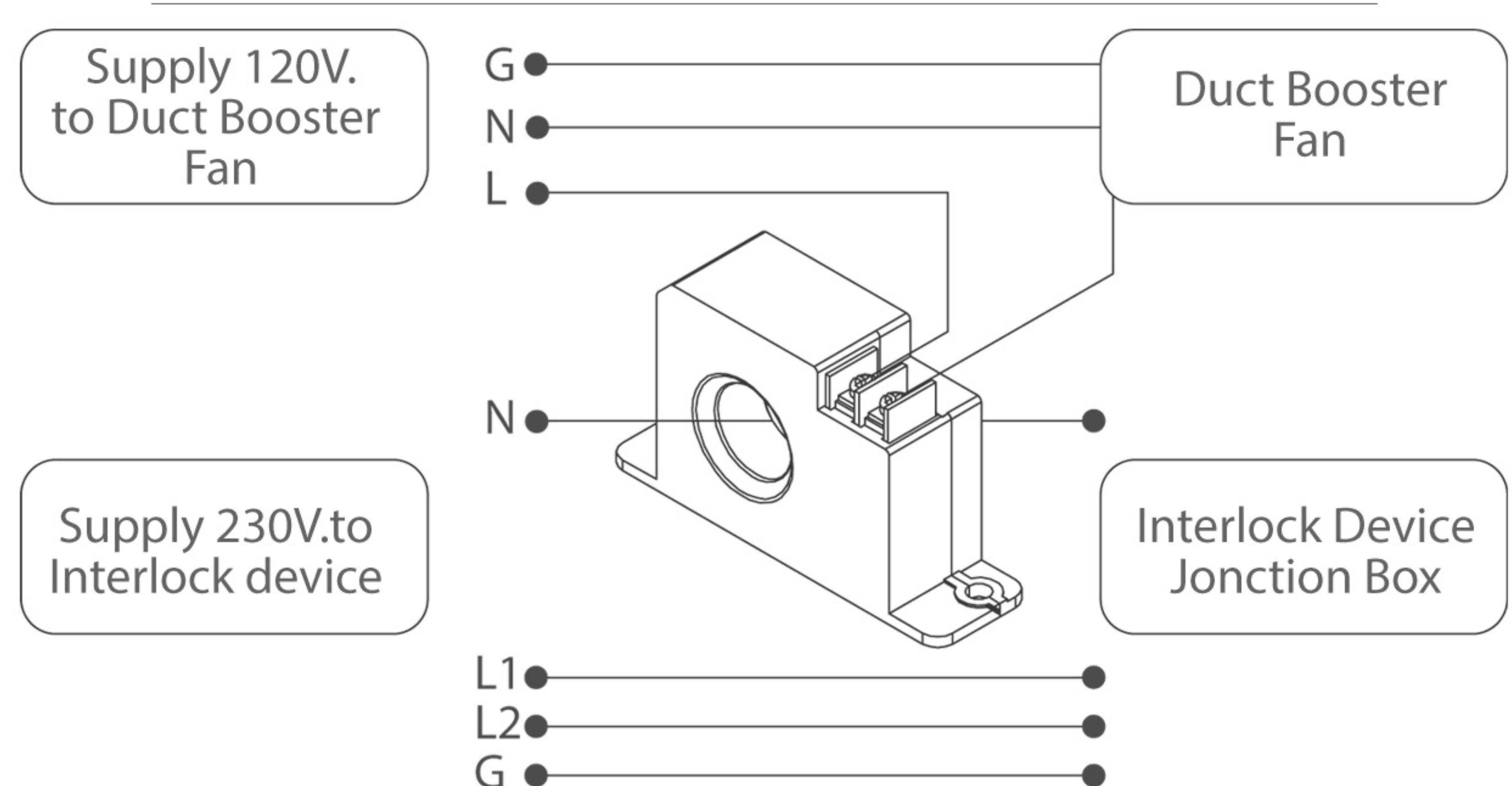
**Switch Type :** Solid-state triac

**Off-state Leakage :** <1 mA

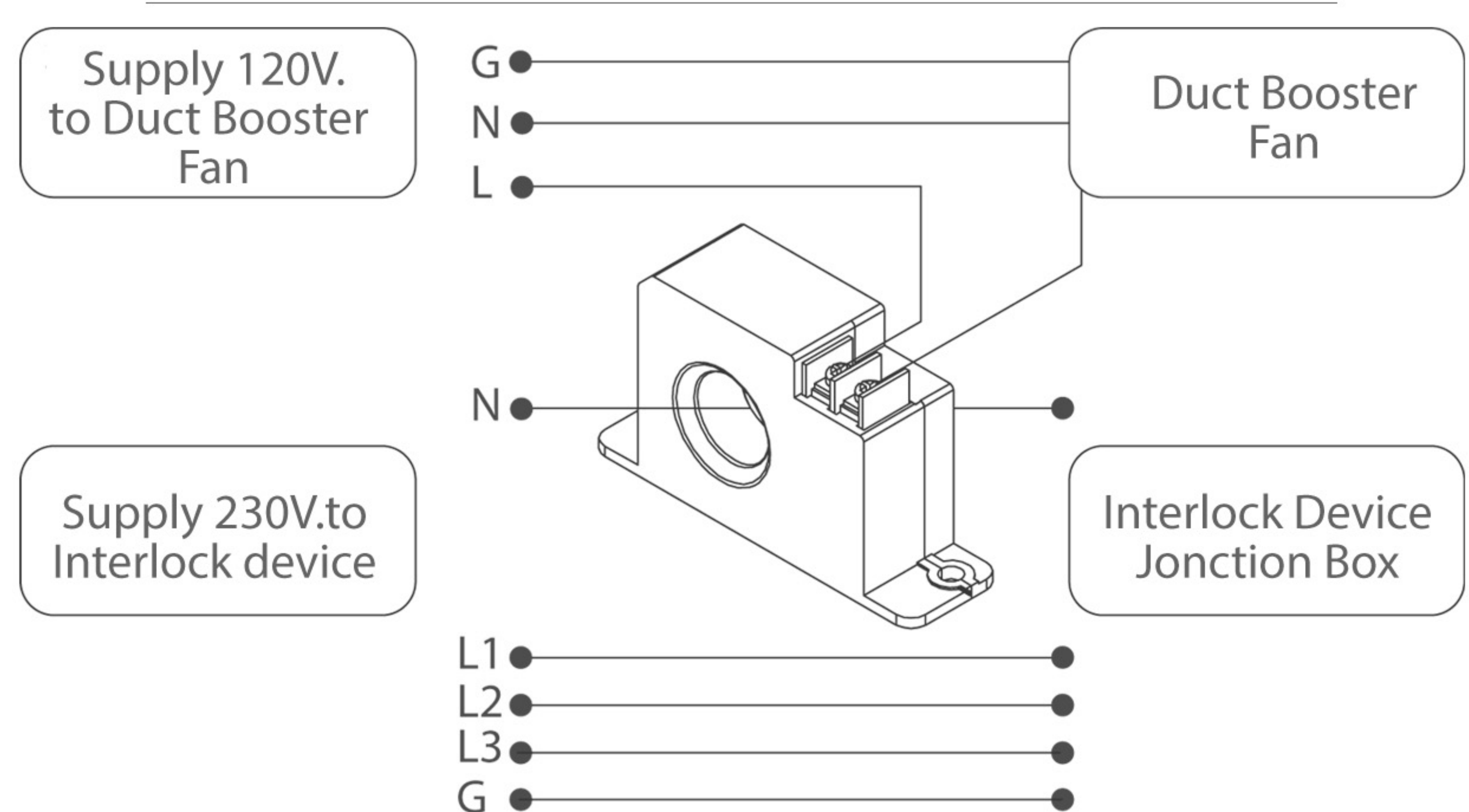
## Current Switch : Product ordering information

MODEL	Output Type	Switch V Max.	Switch I Max.	Leakage Current	Input I Min.	Input I+ Max.	Time Delay (off)	Approval
ACS-0 (HJ-TS0)	Triac	120 VAC	2.5 Amp	<1 mA	~1 Amp	50 Amps	none	cETLus
ACS-5 (HJ-TS5)	Triac	120 VAC	2.5 Amp	<1 mA	~1 Amp	50 Amps	5 minutes	cETLus
ACS-10 (HJ-TS10)	Triac	120 VAC	2.5 Amp	<1 mA	~1 Amp	50 Amps	10 minutes	cETLus
ACS-15 (HJ-TS15)	Triac	120 VAC	2.5 Amp	<1 mA	~1 Amp	50 Amps	15 minutes	cETLus

## 230V 3-wire single phase



## 3 phases



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