

# Model CLSM-300

# Closed Loop Hall Effect

## Description

The Model CLSM-300 is a closed loop Hall effect current sensor that accurately measures DC and AC currents and provides electrical isolation between the current carrying conductor and the output of the sensor.

## Features

- Noncontact measurement of high current
- Measures DC, AC and impulse currents
- Current sensing up to 450A peak
- Very fast response and high accuracy
- High overload capacity

## Applications

- Variable speed drives for motors
- Welding Equipment
- Power supply Equipment
- Measure and control system
- Over current protection
- Protection of power semiconductors



## Electrical Specifications

### CLSM-300

Nominal current ( $I_N$ ) .....	$\pm 300$ A
Current range .....	0 to $\pm 400$ A
Nominal output current ( $I_M$ ) .....	150 mA
Turns Ratio .....	2000 / 1
Measuring Resistance ( $R_M$ ) .....	0 to $20 \Omega$
Overall accuracy at $25^\circ C$ .....	$\pm 0.5$ % of $I_N$
Supply voltage (Vdc).....	$\pm 15$ to $\pm 18$
Current consumption .....	15 mA + output current

## Accuracy-Dynamic Performance

Zero current offset at $25^\circ C$ .....	< $\pm 0.2$ mA
Offset current temperature drift ( $-25^\circ C$ to $+85^\circ C$ ) .....	< $\pm 0.3$ mA
Linearity .....	better than $\pm 0.1$ %
Response time .....	better than $1\mu s$
di / dt .....	better than $500A/\mu s$
Frequency range .....	DC to 150KHz (-3dB)

## General Information

Operating temperature.....	-25°C to +85°C
Storage temperature .....	-40°C to +100°C
Package .....	flame retardant plastic case, UL94V-0
Isolation voltage .....	5kV/50Hz/1 min.
Output reference.....	To obtain a positive output on terminal M, input current must flow in the direction of the arrow (conventional flow)
Weight .....	223 grams
Mounting .....	Panel mount via 4 holes, 5mm dia.
Aperture size .....	.787" (20 mm) diameter
Output connection .....	3 Faston Terminals

## Notes:

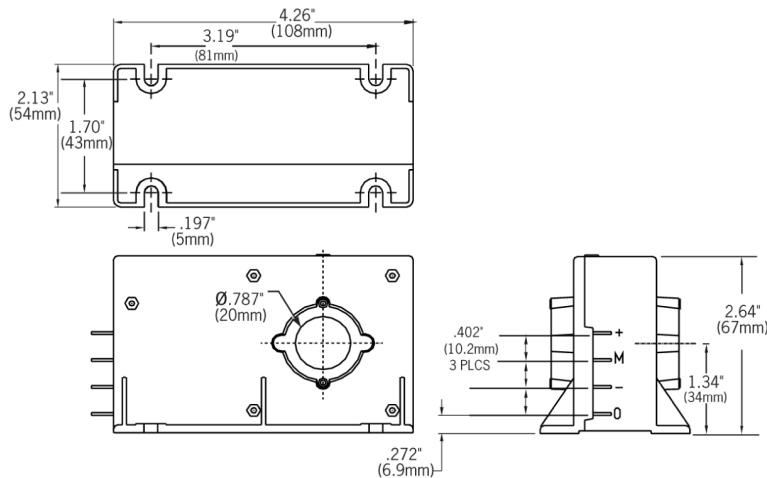
1. Busbar temperature should not exceed 100°C.
2. The dynamic performance is the best when the busbar fills the aperture.
3. Due to continuous process improvement, all specifications are subject to change without notice.

# Mechanical Dimensions

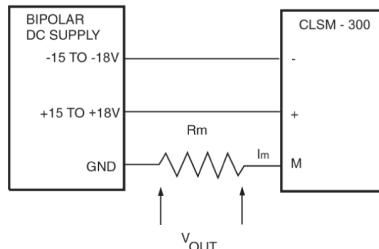
All dimensions are in inches (millimeters)

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### Mechanical Dimensions



### Connection Schematic



**Note:** Due to continuous process improvement, all specifications are subject to change without notice.