

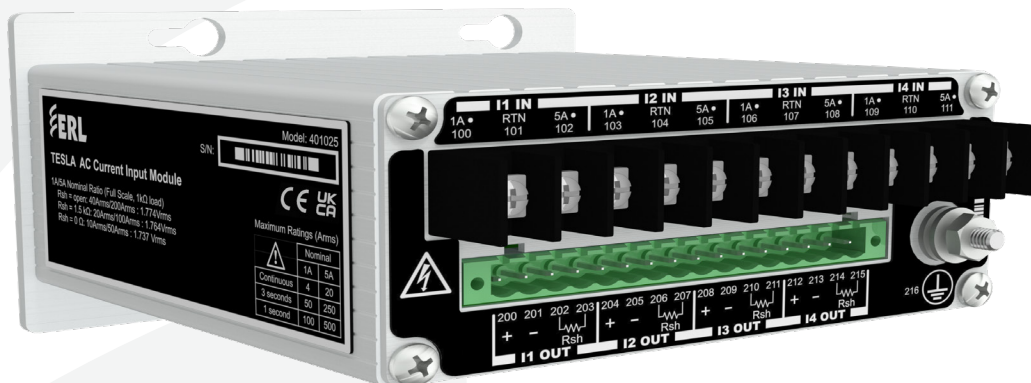


AC Current Input Modules

401025

Product Overview

The AC Current Input Module provides 4 isolated current channels for TESLA Power System Recorders. The current modules provide conditioning and isolation between the main CT secondaries and the inputs to the recorder. The nominal current input to these modules can be either 1A or 5A and outputs from the modules are scaled to connect directly to the TESLA's analog input terminals. Due to impedance matching requirements, module channels cannot be connected to more than one TESLA input channel. The modules may be located up to 1200 meters (4000 feet) from the recorder using shielded wire (e.g. Belden 9728/30) to connect to the recorder's inputs. The ground cable should be attached only at the recorder end.



Ordering Options

The modules are available in CE/UKCA compliant metal casing. The modules have a user-selectable Nominal current input setting (1A or 5A) with the following ordering options:

- DIN/Surface mount - DIN #1
- DIN mount - DIN #2
- Surface mount
- Rack mount



10 Year
WARRANTY

Specifications

The modules have user selectable 1A and 5A nominal input ratings. The selection is made by connecting to either the 1A terminal or the 5A terminal on the input connector and also indicated in the TESLA Control Panel software by selecting either the 1Aac or the 5Aac module type from the module type pulldown menu.

Module Scale

The Full Scale rating is also user selectable as 10x/20x/40x In for each module. The selection is guided by the faults expected in the power system; choosing a higher full scale rating would more faithfully capture high fault currents but sacrifices sensitivity at low fault levels and vice versa. This selection is made on the module by changing the shunt resistor (labeled "Rsh" on the module) on the output connector as shown in Table 1: Full Scale Rating Adjustment.

The Full Scale rating must also be correctly entered in TESLA Control Panel software settings to match the Rsh installed.

Table 1: Full Scale Rating Adjustment	
Full Scale	Shunt Resistor (Rsh)
10x In	Rsh = 0 ohms (short)
20x In	Rsh = 1500 ohms (default)
40x In	Rsh = open (empty)

Module Rating

The module ratings are as given below in Table 2: Module Rating.

Table 2: Module Rating		
Mounting	Dimensions L x W x H	Rating
DIN/Surface Mount	152.6 x 137.2 x 80.8 mm	Nominal In: 1 Arms and 5 Arms (connection option) Continuous: 4x In Full scale: user configurable from 10x In, 20x In, 40x In Thermal withstand: 50x In for 3 seconds, 100x In for 1 second Burden: 1A Input: < 0.07VA @ In, 5A Input: < 0.15VA @ In Ratio (1 kΩ load): Full Scale set to 40x In: 40Arms/200Arms:1.774Vrms Full Scale set to 20x In: 20Arms/100Arms:1.764Vrms Full Scale set to 10x In: 10Arms/50Arms:1.737Vrm
DIN Mount	152.6 x 137.2 x 80.8 mm	
Surface Mount	149.6 x 137.2 x 80.8 mm	
Rack Mount	149.6 x 137.2 x 81.3 mm	

DIN/Surface Mount Current Module (DIN#1)

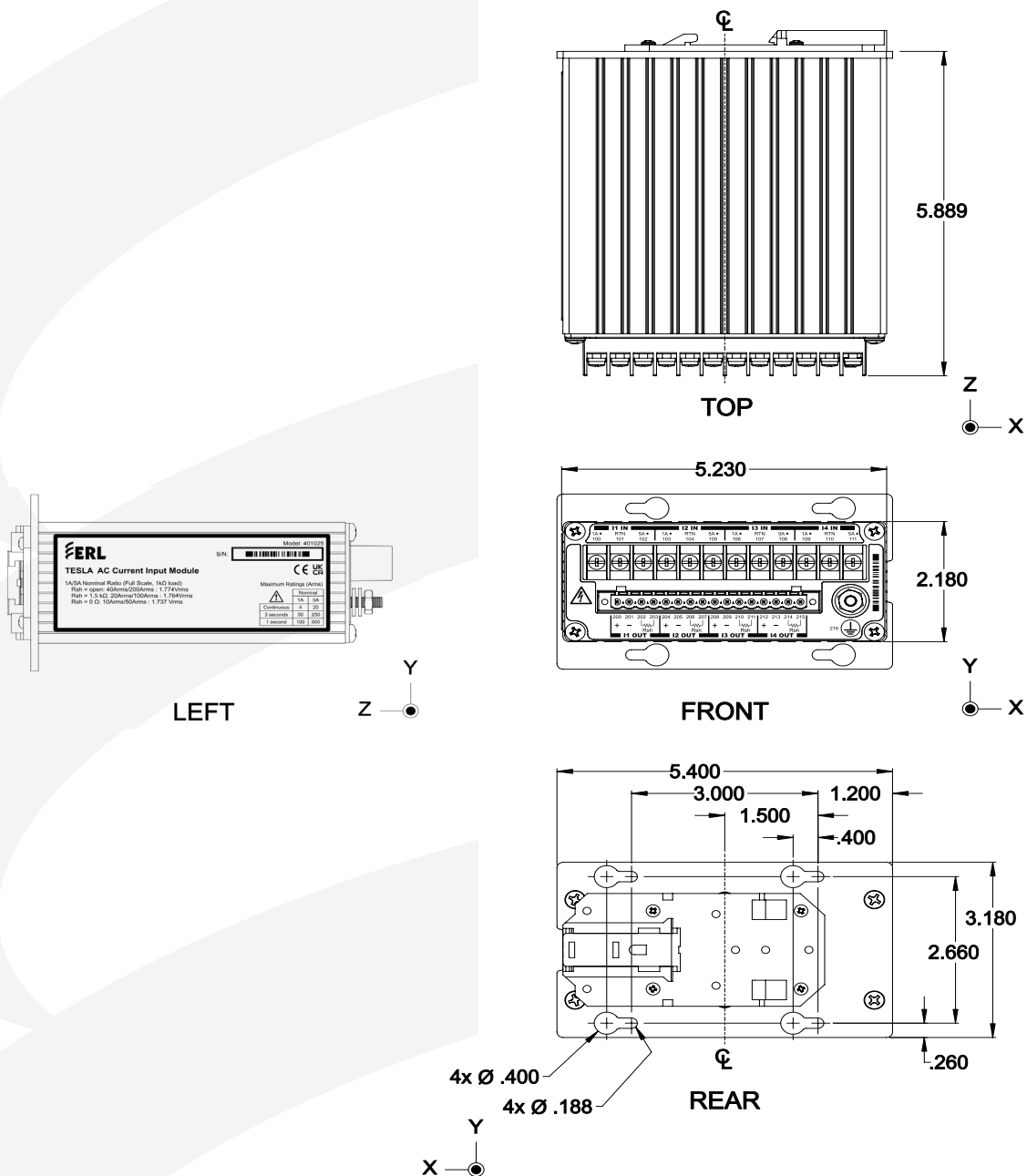


Figure 2: AC Current Input Module, 1A & 5A, DIN/Surface Mount
(Dimensions are in inches)

DIN Mount Current Module (DIN#2)

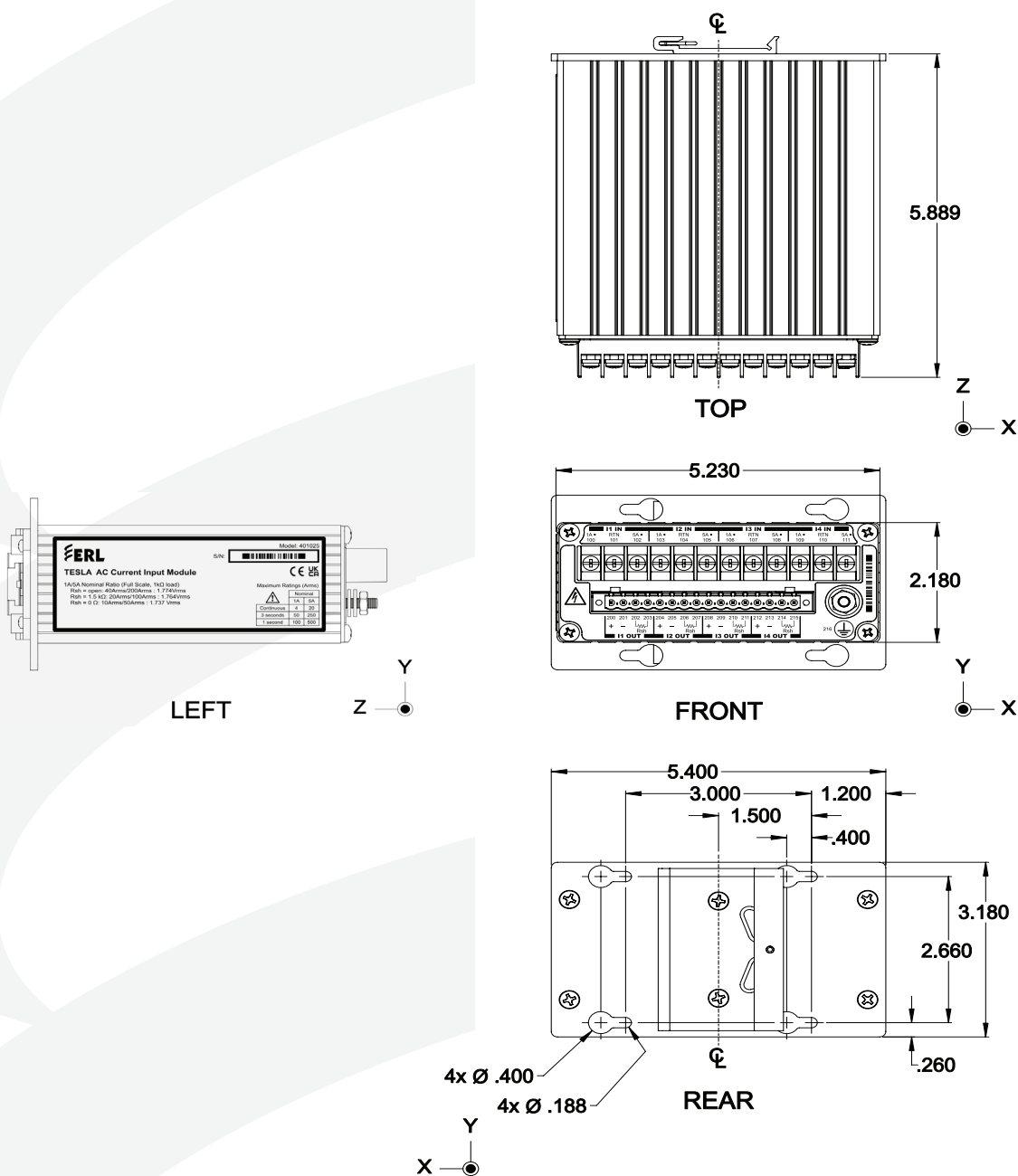


Figure 3: AC Current Input Module, 1A & 5A, DIN Mount
(Dimensions are in inches)

Surface Mount Current Module

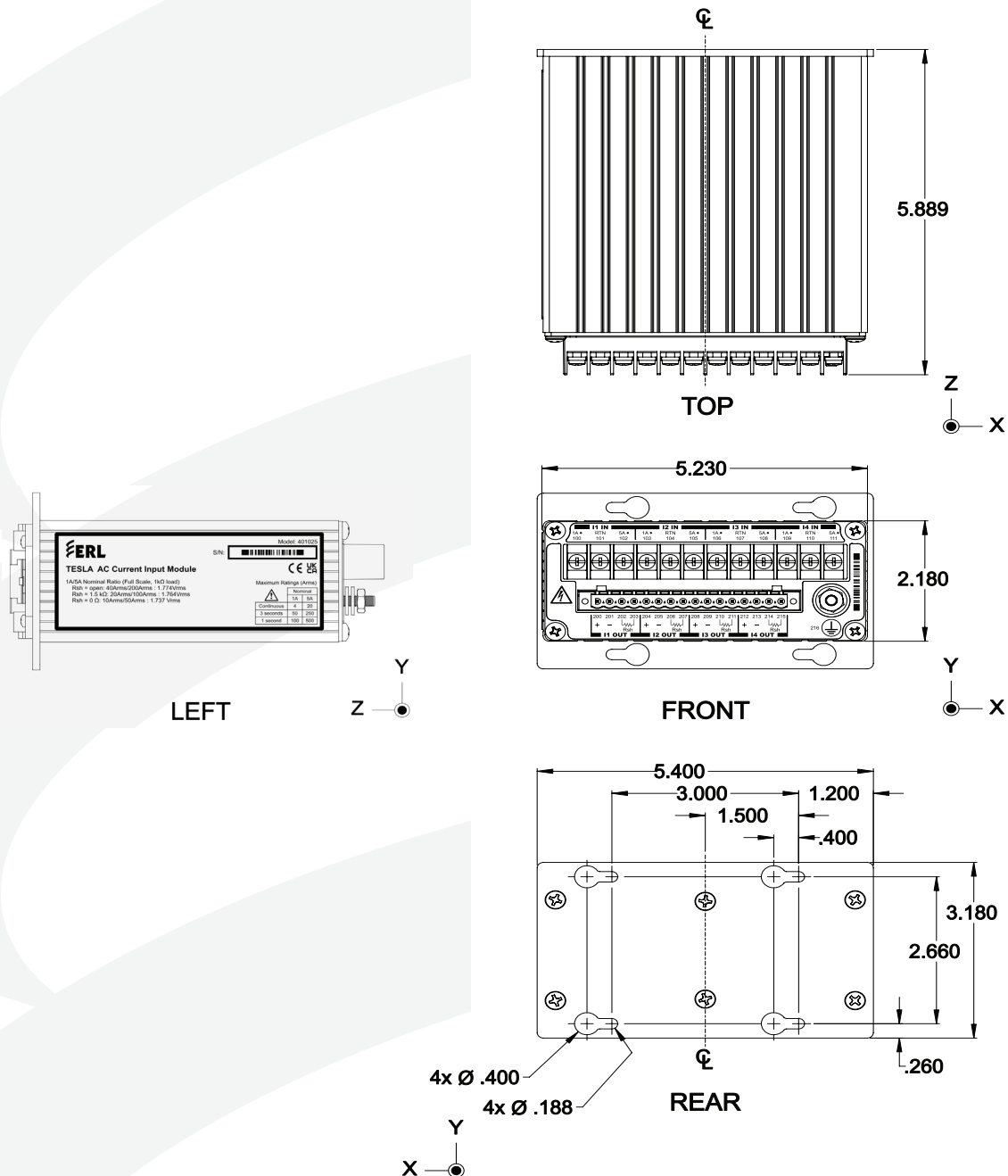


Figure 4: AC Current Input Module, 1A & 5A, Surface Mount
(Dimensions are in inches)

Rack Mount Current Module

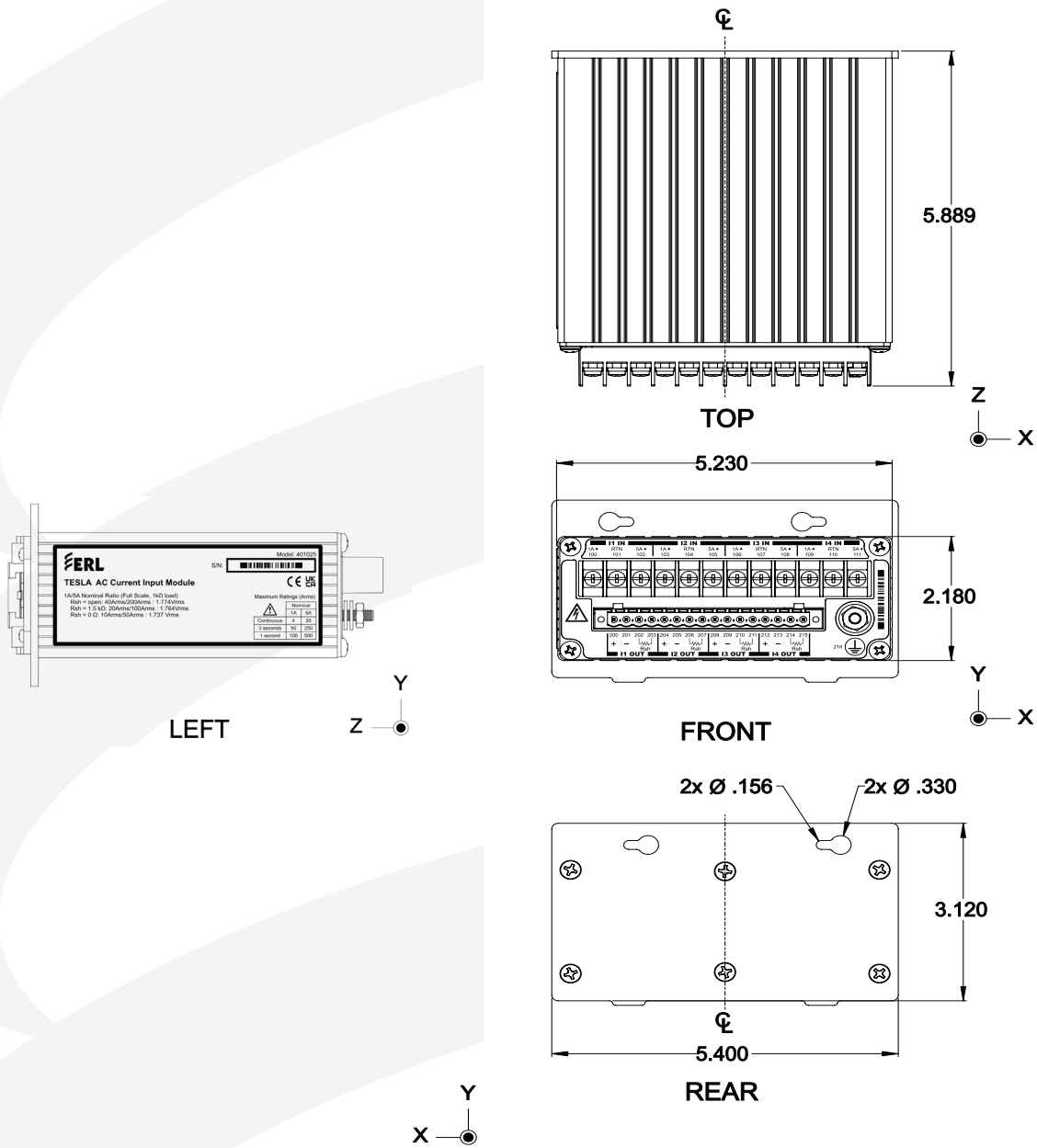


Figure 5: AC Current Input Module, 1A & 5A, Rack Mount
(Dimensions are in inches)

Rack Mount Plate

The rack mount plate (Figure 6), allows up to 3 modules to be installed in 2U of a 19" rack. The rack mount style modules are ordered separately from the rack mount plate and the modules must be installed into the plate by the customer. Figure 6 shows how to install the modules into the plate. Use 4 #10 or M6 screws to mount the rack mount plate into the 19 inch rack.

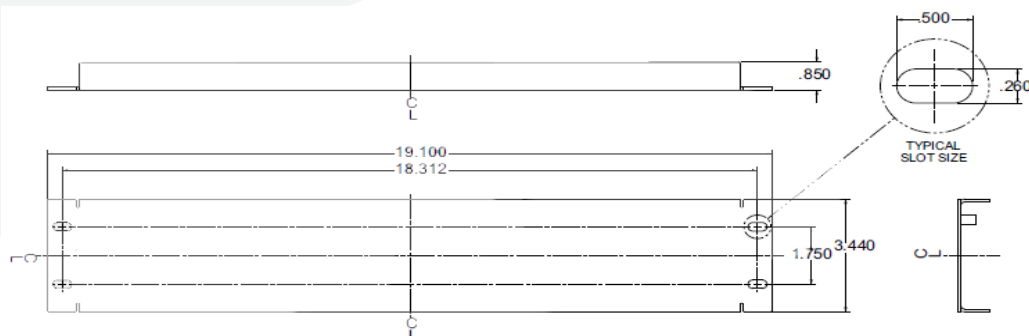


Figure 6: 2U Module Rack Mount Plate
(Dimensions are in inches)

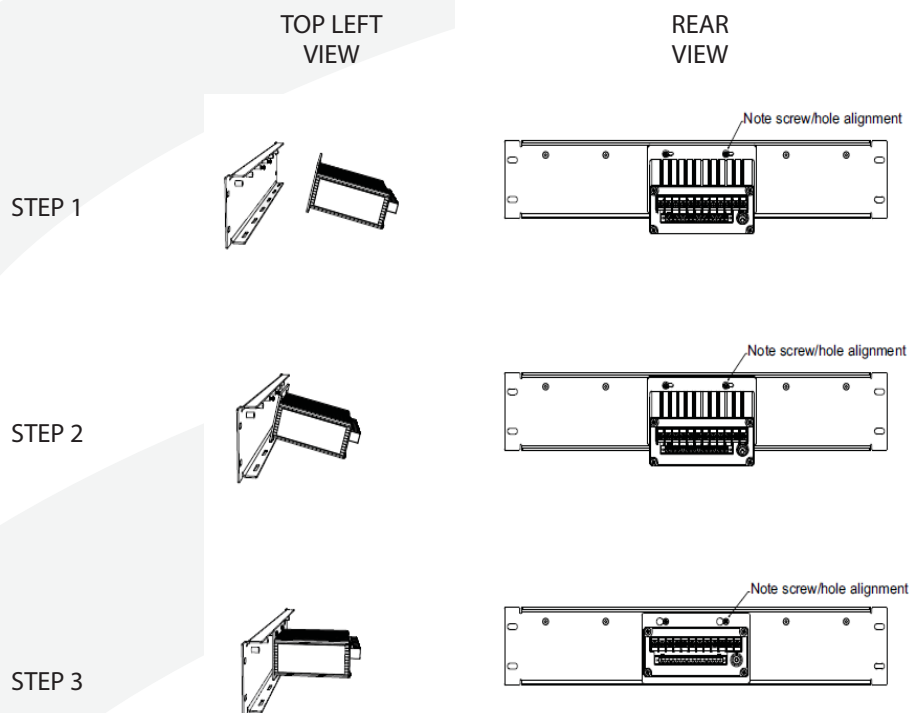


Figure 7: Installing Modules into Rack Mount Plate
(Dimensions are in inches)

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The specifications and product information contained in this document are subject to change without notice.
In case of inconsistencies between documents, the version at www.erlphase.com will be considered correct. (D04004R05)

