



AC Voltage Input Modules

401006

401026

Product Overview

The AC Voltage Input Module provides 3 (Model 401006) or 4 (Model 401026) isolated voltage channels for TESLA Power System Recorder. These voltage modules provide conditioning and isolation between the main PT/VT secondaries and the inputs to the recorder. The nominal signal level is 69 V rms ($120 \sqrt{3}$) with a full-scale 2x over-range capability that can be sustaining continuously.

Output from the module is 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. Modules can be located up to 1220 meters (4000 feet) from the recorder. Use shielded wire (e.g. Belden 9728/30) for connection to the recorder's inputs. The ground cable should be attached only at the recorder end.

Apply the nominal phase to ground voltage (V_n) - 69 Vrms - across one input to the module with a dot on the odd numbered input terminals indicating ac instantaneous polarity reference.

Model Options

The modules are available in two options with different characteristics externally identifiable by the casing– plastic casing and CE compliant metal casing. The green plastic casing modules provide 3 voltage inputs whereas the metal casing modules provide 4 voltage inputs.

These options are summarized in Table 1 below.

Table 1: AC Voltage Input Modules Options				
Part No	Case Material	Mounting Style	No of Inputs	Module Type in TESLA Control Panel
101756	Plastic	DIN	3	401006 69Vac Isolated Neutral
114154	Metal	DIN	4	401026 69Vac Isolated Neutral
114258	Metal	Rack	4	401026 69Vac Isolated Neutral
114259	Metal	Surface	4	401026 69Vac Isolated Neutral

NOTE:

The metal casing modules (module type 4010126) cannot be used with TESLA 2000 and TESLA 3000. The Plastic casing modules (Module type 401006) can be used with all TESLA models



10 Year WARRANTY

AC Voltage Input Modules with Plastic Casing

Part Number 101756



This Model 401006 ac voltage input module provides three isolated voltage inputs for TESLA Power System Recorders. The ratings for this module are as in Table 2 below.

Table 2 Ratings for Model 401006 Voltage Input Module			
Part No	Module Type in TESLA Control Panel	Specs	Rating
101754	Model 401006 69 Vac	Nominal voltage Vn Full scale / continuous Thermal withstand Burden: Ratio (1 kΩ load): Dimensions L x W x H:	69 Vrms (120 Vrms L-L) 2x Vn = 138 Vrms (240Vrms L-L) 4x Vn = 276 Vrms (480 Vrms L-L) for 3 seconds 3x Vn = 207 Vrms (360 Vrms L-L) for 10 seconds <0.15 VA @ 69 Vrms 12.14 mV/V 172 mm x 113 mm x 67.2 mm

See Figure F1 for this module's drawings.

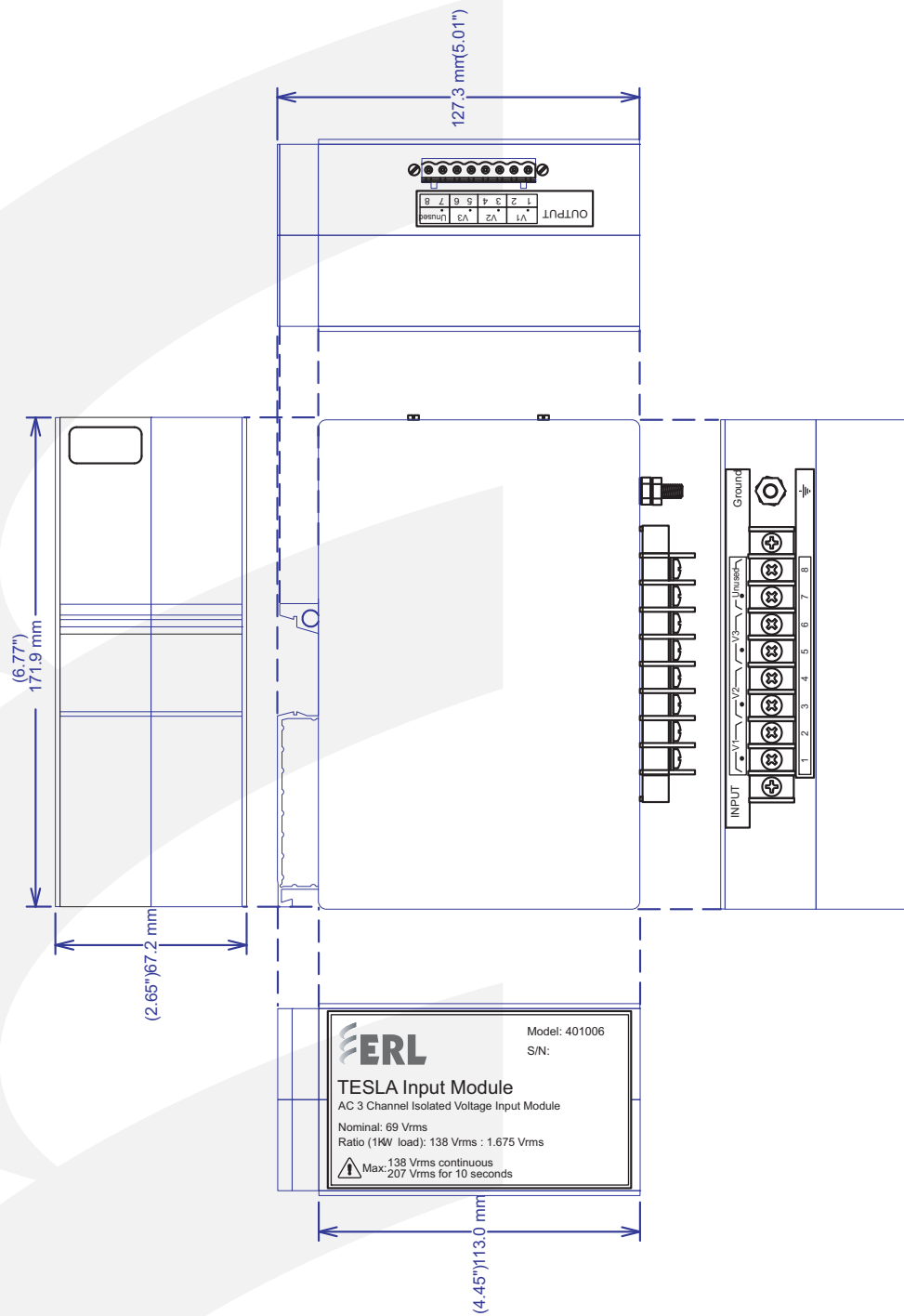


Figure F.1: Part No 101756 3 Channel AC Voltage Input Module

AC Voltage Input Modules Model 401026 with Metal Casing

Conforming to CE requirements.



- Part No 114154 – DIN rail mount
- Part No 114258 – Rack mount
- Part No 114259 – Surface mount

The Model 401026 metal casing AC Voltage Input Modules provide 4 isolated voltage inputs for TESLA Power System Recorders.

The ratings for these modules are as in Table 3 below.

Table 3: Voltage Input Modules Ratings			
Part No	Dimensions L x W x H	Mounting	Rating
114154	152.6 x 137.2 x 80.8 mm	DIN Rail	Nominal Vn: 69 Vrms (120 Vrms L-L) Full scale / continuous: 2x Vn = 138 Vrms (240Vrms L-L) Thermal withstand: 4x Vn = 276 Vrms (480 Vrms L-L) for 3 seconds, 3x Vn = 207 Vrms (360 Vrms L-L) for 10 seconds Burden: 0.03VA @ Vn Ratio (1 kΩ load) 138 Vrms : 1.675 Vrms
114258	149.6 x 137.2 x 81.3 mm	Rack	
114259	149.6 x 137.2 x 80.8 mm	Surface	

The 3 part numbers for these modules are for the 3 different mounting arrangements which have to be specified at the time of order. The part number and drawings are as below.

- Part No 114154 – DIN rail mount – Figure F2
- Part No 114258 – Rack mount – Figure F3
- Part No 114259 – Surface mount – Figure F4

The rack mount plate (Part No 114248 Figure F5), 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 F6 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.

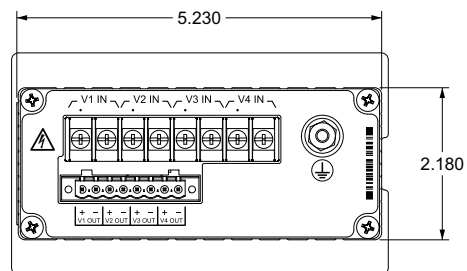
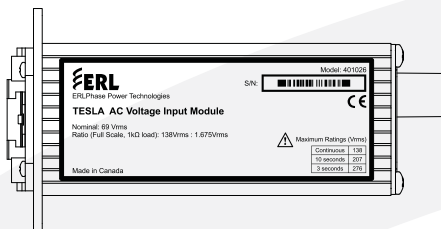
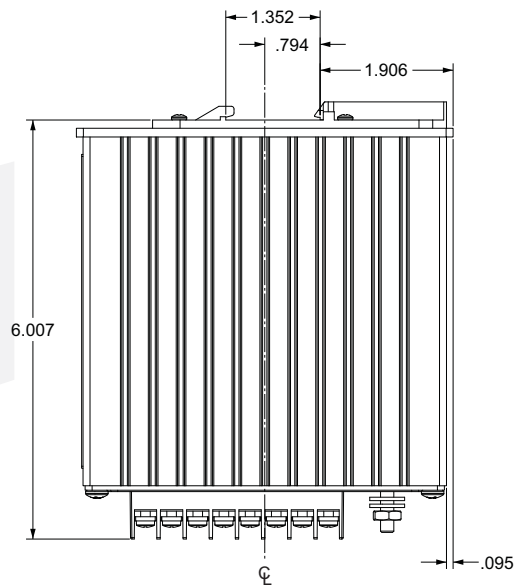
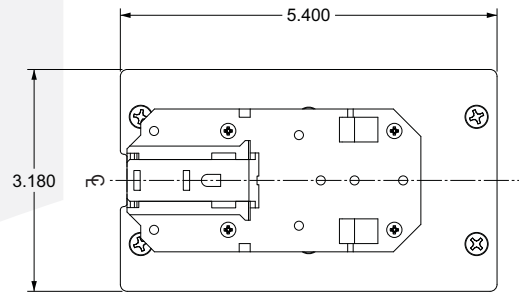


Figure F2: Part No 114154 4 Channel AC Voltage Input Module – DIN Mount
Dimensions are in inches.

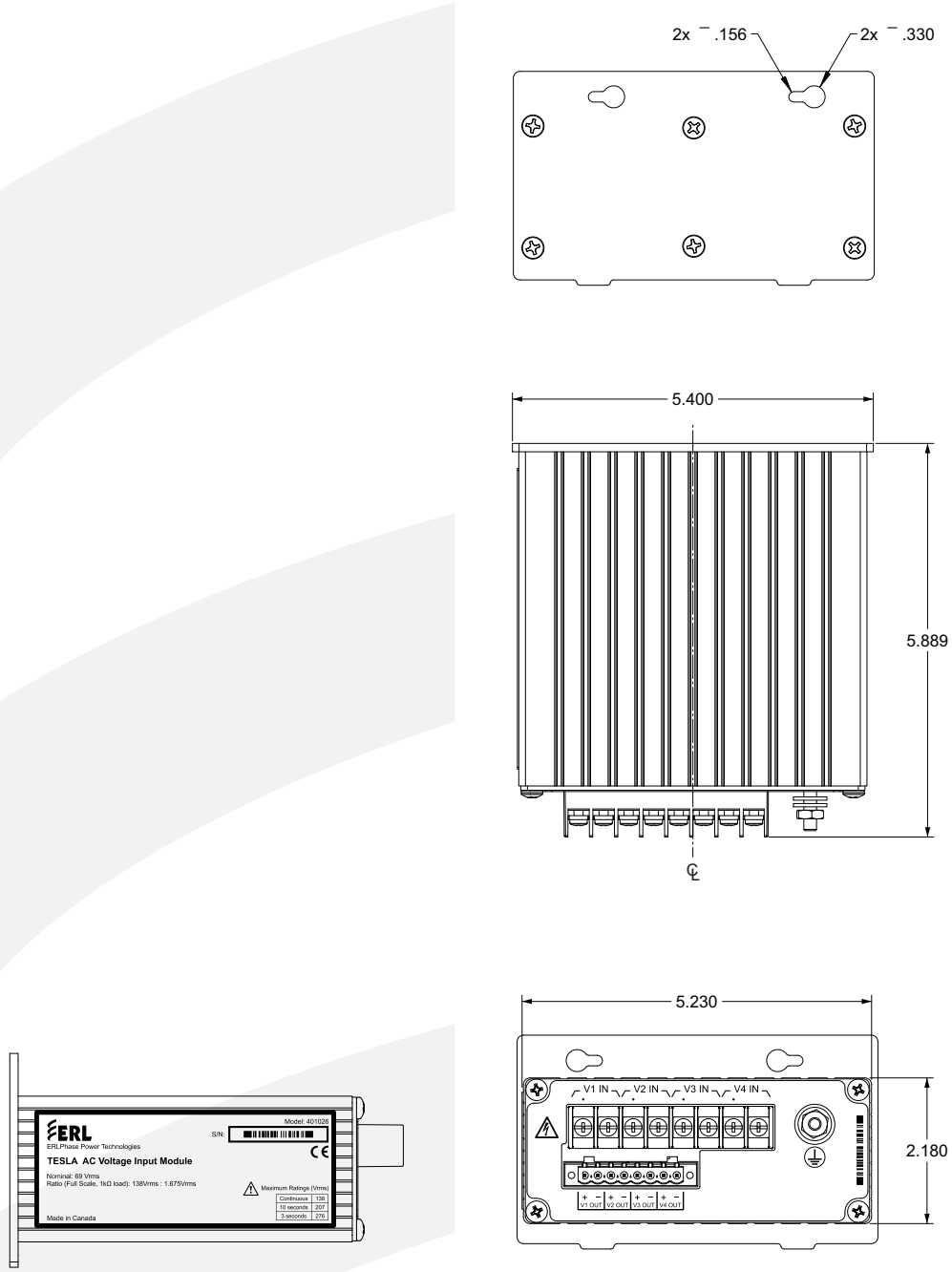


Figure F3: Part No 114258 4 Channel AC Voltage Input Module – Rack Mount
 Dimensions are in inches.

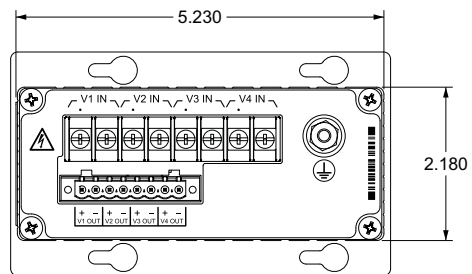
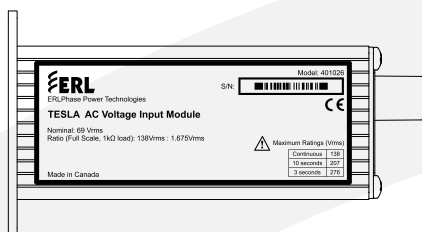
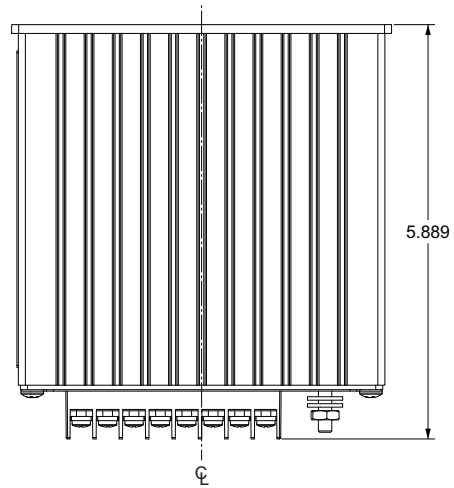
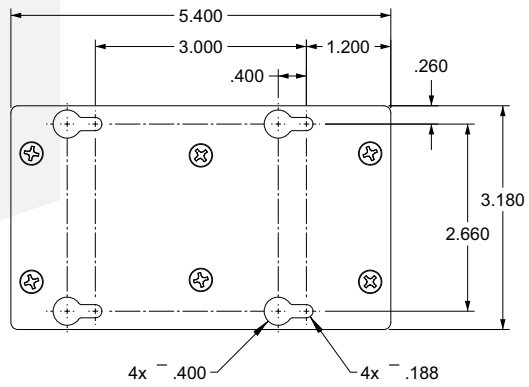


Figure F4: Part No 114259 4 Channel AC Voltage Input Module – Surface Mount
Dimensions are in inches.

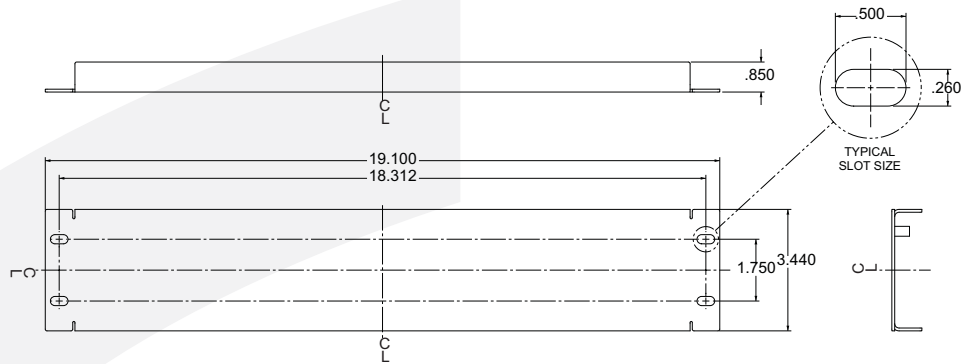


Figure F5: Part No 114248 2U Module Rack Mount Plate
Dimensions are in inches.

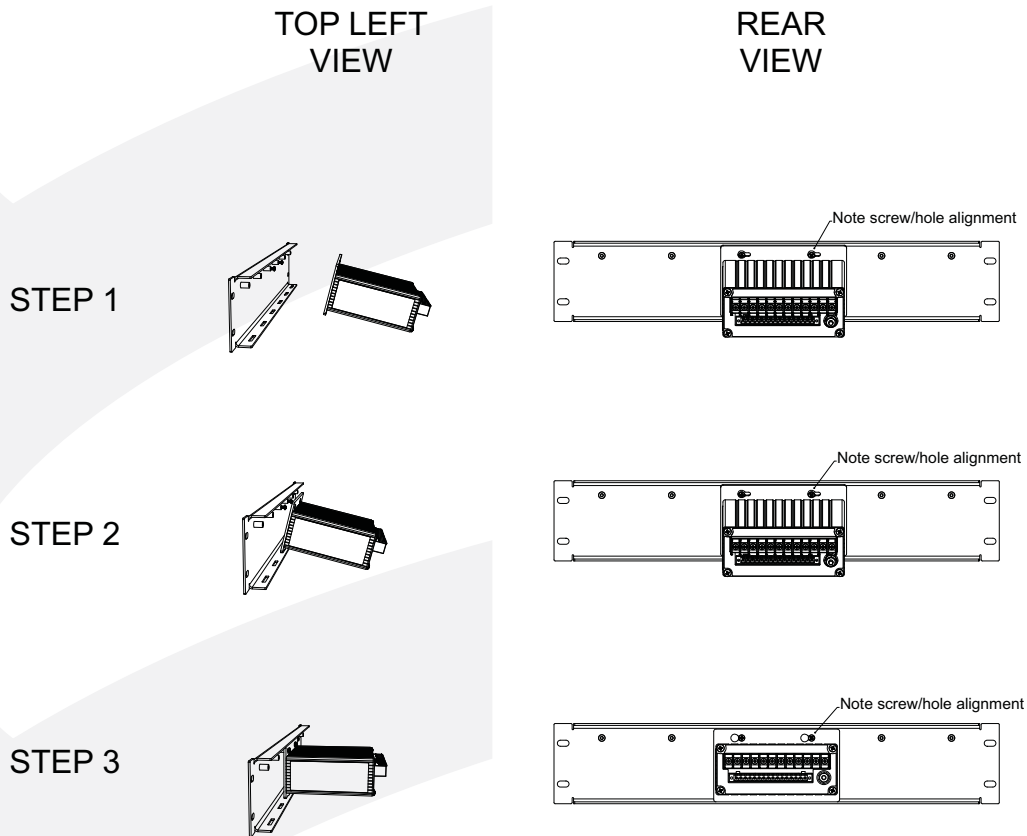


Figure F6: Installing Modules into Rack Mount Plate
Dimensions are in inches.