

Order Number = Base Model + 12 Option Codes		
Base Model		M871
Optional Functions	Price Adder	Option Codes
<b>Auxiliary Power</b>		
V10 Universal plus COO	NO	3
V10 Universal plus blank	NO	4
<b>Option Slots 1-5</b>		
C00 Blank Cover	NO	0
Open for P31 in next slot	NO	Y
P20 Modbus Plus	YES	4
P30A 8 DIO Low Range	YES	6
P30A 8 DIO High Range	YES	8
P31 16 DIO Low Range	YES	7
P31 16 DIO High Range	YES	9
P40 8 input 0-1 mA	YES	W
P40 8 input 4-20 mA	YES	V
P40 8 input 0-10 V dc	YES	U
<b>Option Slot 6</b>		
COO Blank Cover	NO	0
P30A 8 DIO Low Range	YES	6
P30A 8 DIO High Range	YES	8
P31 16 DIO Low Range	YES	7
P31 16 DIO High Range	YES	9
P10 Ethernet	YES	1
P11 Ethernet	YES	2
P12 Ethernet	YES	3
<b>Host/Memory</b>		
H11 with 1MB	NO	2
H11 with 256MB	YES	4
H11 with 512MB	YES	6
<b>Analog Processor</b>		
A10	NO	1
<b>Option Slot 7</b>		
COO Blank Cover	NO	0
<b>Signal Input</b>		
S10 UL 100 A Max	NO	1
S11 UL 20 A Max	NO	2
S12 UL 4 A Max	NO	3
S10 CE/UL 100 A Max	NO	4
S11 CE/UL 20 A Max	NO	5
S12 CE/UL 4 A Max	NO	6
<b>Firmware Revision</b>		
Latest Available	NO	X

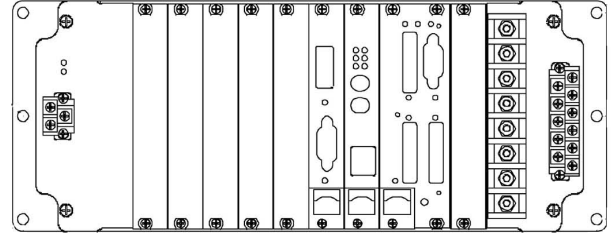
Build order number by selecting base model (871) and adding one option code from each category. A section for each option slot must be made. An example with 2 P31, P10, and 256Mb is 87149Y90014101X. Note that only one P20, P10, P11, or P12 can be selected per unit.



## Bitronics® 70 Series

### M87x Family

### M871 Modular IED Long Chassis



**Measurements:** Volts, Amps, Power (real, reactive, apparent), Power Factor, K-factor, harmonics (individual, odd, even, TDD, THD), demands, energy, frequency, unbalance, impedance, sequence components and phase angle. Includes many per-phase & total parameters, for over 2000 measurements.

**Local Indication:** Optional detached display M870D

**Serial Ports & Protocols:** One RS-232 DB9 and three Configurable RS-232/RS-485 ports. Modbus, DNP3, and ZMODEM protocols supported simultaneously.

**Current Inputs:** Four inputs. Selectable CT ratios. Three signal input ranges available: 100A max is 5A nominal, 20A max is 1A or 5A nominal, or 4A max is 1A nominal.

**Voltage Inputs:** Eight inputs, measures two buses. Field selectable scaling of PT ratios. Nominal 120V ac up to 600V peak to ground.

**Auxiliary Inputs:** Two additional voltage inputs suitable for measuring AC or DC. Nominal 125V dc/120V ac up to 600V peak to ground.

**Auxiliary Power:** Wide-range universal power supply, V10, nominal 24-250V dc/69-240V ac.

**Optional Modbus Plus:** Modbus Plus protocol supported via optional P20 Modbus Plus module.

**Optional Ethernet & Protocols:** 10BaseT/100BaseTX RJ45 port (P10), or with added 10Mb (10BaseFL – P11) or 100Mb (100BaseFX – P12) fiber optic port. UCA2, DNP3 TCP/IP, DNP3 UDP, MODBUS TCP/IP, telnet, and FTP protocols supported simultaneously.

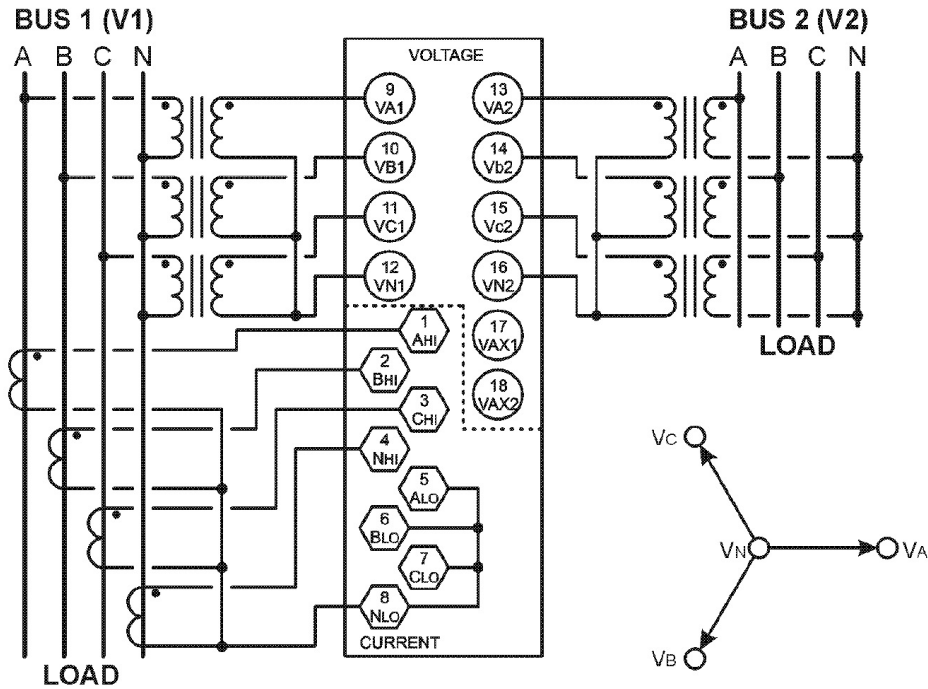
**Optional Digital I/O:** Four options are available for digital inputs and outputs. P30A has a total of 8 IO and P31 has a total of 16 IO. On both, 4 of the inputs can be used as either inputs or outputs. Either can be supplied in low range (100V dc max) or high range (300V dc – default setting). The P31 requires two module slots.

**Optional Transducer Input:** Three ranges of the 8 input P40 transducer input module are available; 0-1mA, 4-20mA, and 0-10V dc.

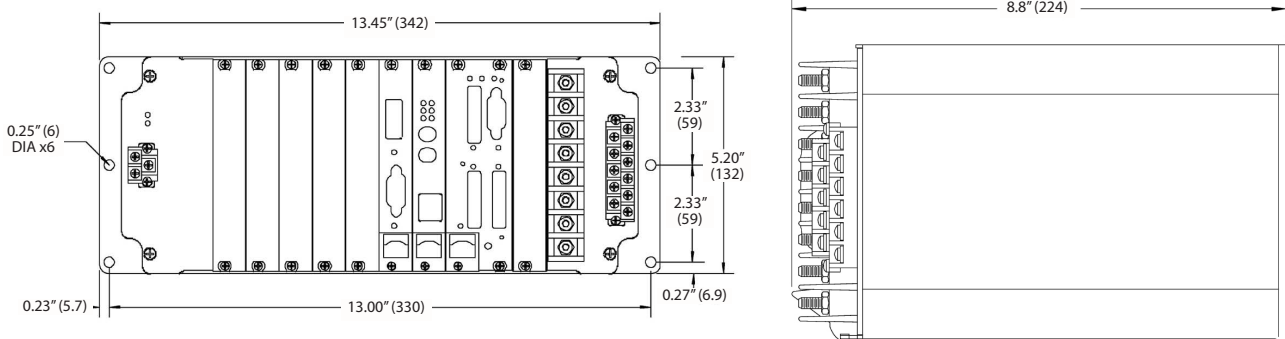
**Mechanical:** 13.5" (342mm) W x 5.2" (132mm) H x 8.8" (224mm) D



3-Element, 4-Wire WYE Connection with Neutral CT



Typical Wiring Diagram - refer to M87x User Manual for other diagrams



Overall Dimensions - maintain 1.75" (44mm) clearance top and bottom

**Contact:**