



E3MAC-2P

2,200-12,500 VA Two Phase Modular AC Inverter

DATE:	COMMENTS:
PROJECT:	



FEATURES

- Optional Web-based Monitoring Platform – easily view, interact with, download and manage records as needed on any PC or mobile device
- Programmable and password protected user interface
- 98% efficient for minimal BTU losses
- PWM Inverter provides pure sine wave output with less than 3% THD
- Crest factor >4 overload protection for demanding high in-rush loads
- Programmable transfer time – select between standard and fast transfer times for load and site compatibility
- UL listed 90 minute run-time
- Compatible with all lighting loads, including HID
- Variable time delay
- Battery recharges in less than 24 hours
- Two Phase output
- Start-Up Diagnostics checks for proper installation

SEISMIC CERTIFIED

- Optional Zone 4 Seismic Restraints are shaker table tested and seismic certified to the latest California Building Code (CBC) 2016
- The shake table testing was performed in accordance with International Code Council-Evaluation Service Acceptance Criteria 156 (ICC-ES AC156)
- OSHPD (California Office of Statewide Health Planning and Development)



ORDERING INFORMATION *E3MAC-2200-2P-LC-IC-OC-C##-O##-S##*

1. SERIES	2. VA RATING	3. PHASE	4. BATTERY TYPE	5. INPUT VOLTAGE	6. OUTPUT VOLTAGE
E3MAC	-	2P	LC	-	-
	2200 2200 VA Two Phase 4000 4000 VA Two Phase ² 5000 5000 VA Two Phase ² 6000 6000 VA Two Phase ² 8000 8000 VA Two Phase ² 10000 10000 VA Two Phase ² 12500 12500 VA Two Phase ²	2P Two Phase	LC Lead Calcium	IC 120V/ 120V/208V IE 277V/277V/480V	OC 120V/ 120V/208V OE 277V/277V/480V

7. OUTPUT BREAKER - NORMALLY ON*	8. OUTPUT BREAKER - NORMALLY OFF*	9. OUTPUT BREAKER - SWITCHED*
C* * Normally On Breakers	O* * Normally Off Breakers	S* * Switched Breakers

SEE BREAKER CONFIGURATION TABLE ON PAGE 3 FOR MAXIMUM BREAKERS

10. OPTIONS

BLANK = NO OPTION	EEW Extended Electronics Warranty	TB Programmable Terminal Block (Not Included with RA)	EO Emergency Power Off
MB Maintenance Bypass Switch	KE Keyed Enclosure	Z4 Seismic Zone 4 Restraints (Includes KE)	WEB Web Monitoring Connection ¹
CB Custom Breaker	TA Trip Alarm with Breaker	BI BMS Integration	
DT Delayed Transfer	RA Remote Annunciator (Not Included with TB)	BTMS Battery Thermal Management System	
EBW20 Extended Battery Warranty			

NOTE

Maximum number of OUTPUT breakers supported depends on sizing and option selection. Contact factory for specific details.

ORDERING NOTES

- In order to use the web-based monitoring available at Isolite.com, the -WEB option must be selected.
- Indicated VA ratings may be ordered as a stacked unit using Configuration H. This configuration is not seismic certified. Contact factory for specific details.

ACCESSORIES ON NEXT PAGE

ACCESSORIES; ORDER SEPARATELY

- **E3MAC-MP#** = Maintenance Plan plus number of years (#)

SPECIFICATIONS
OPTIONAL FEATURES

- Maintenance bypass switch
- Circuit breakers – supervised or unsupervised
- Maintenance contract/plan
- Remote Annunciator
- Factory startup – increases electronics warranty to 3 years
- Seismic Zone 4 – OSHPD approval, available July 2017
- Circuit breaker protected loads (switched, normally on, and normally off)
- Fault summary alarm and 2 programmable alarms – form C dry contacts
- Keyed lockable enclosure

FRONT PANEL

- Modern 4x20 LCD character display with white LED back-light
- Heads-up diagnostic LEDs include 5 status (AC present, battery charging, inverter power, system ready, switched load energized), fault summary LED, and 5 specific faults (unit in bypass, circuit breaker trip, startup fault, charger fault, inverter fault)
- Dedicated System Test button – initiates 30-second test with UL compliant diagnostics
- 5-button keypad for menu navigation
- Sonic alarm with dedicated enable/disable pushbutton with heads-up LED. Alarm silence has 24-hour ring-back for alarm reminder
- SD memory card – download and store all events, tests, and alarm logs (password protected)
- USB connector – access to all event, tests, and alarm logs (password protected)
- Ethernet – 10 BASE-T, TCP/IP web serving

BATTERY

- Front access VRLA batteries with 10-Year pro-rated warranty

TEMPERATURE RATING

- From 68°F to 86°F

Battery service life will be negatively impacted at ambient temperatures above 77°F

ENVIRONMENTAL

- Operating temp: 20C° to 30C° (68°F to 86°F)
- Storage temp: Electronics - 20C° to 70C° (68°F to 158°F)

BATTERY STORAGE TEMP	
51°F (11°C) TO 77°F (25°C)	180 DAYS
78°F (26°C) TO 92°F (33°C)	90 DAYS

- Relative humidity: <95 % (non-condensing)

MAINTENANCE PLAN

- Once per year the manufacturer's technician shall visit the site to perform maintenance and software upgrades as needed. Maintenance shall include battery voltage checks, torque setting verification, cleaning, and a thorough visual inspection. All electronics warranties shall be extended to the duration of the Maintenance Plan. Maintenance Plans can be purchased for a duration of 1 year to 5 years.

APPROVALS

- UL 924
- OSHPD Seismic Certified (with Z4 option)
- New York City Approved, Calendar Number 51575
- NFPA 101 Life Safety Code
- NFPA 70-NEC
- OSHA
- NEMA Type 1 enclosure

BMS INTEGRATION

- BACNet IP
- BACNet MS/TP
- Modbus TCP
- Modbus RTU

WARRANTY

- Isolite warrants the E3MAC series electronics assembly against defects in material and workmanship for a period of 2 years, or 3 years with factory startup option. Extended Warranty options available.
- Isolite warrants the E3MAC series lead calcium batteries for a 1-year full and 9-year pro-rated limited warranty.
- For further details, refer to General Warranty and Obligations in the Isolite manual or on our website.
- The EEW option extends the electronics warranty to 5 years. Batteries are not included in the extended warranty.

MAXIMUM BREAKERS

Model	# of Breakers Normally On	# of Breakers Normally On with TA	# of Breaker Normally On with MB	# of Breaker Normally On with EO	# of Breakers Normally On with TA + MB	# of Breakers Normally On with MB + EO	# of Breakers Normally On with TA + EO	# of Breakers Normally On with TA + MB + EO	# of Breakers Normally Off	# of Breakers Switched
E3MAC-2200-2P	6	4	4	5	2	3	3	1	4	4
E3MAC-4000-2P	24	16	22	23	14	21	15	13	12	12
E3MAC-5000-2P	24	16	22	23	14	21	15	13	12	12
E3MAC-6000-2P	24	16	22	23	14	21	15	13	12	12
E3MAC-8000-2P	24	16	22	23	14	21	15	13	12	12
E3MAC-10000-2P	24	16	22	23	14	21	15	13	12	12
E3MAC-12500-2P	24	16	22	23	14	21	15	13	12	12

WEIGHT & DIMENSIONS

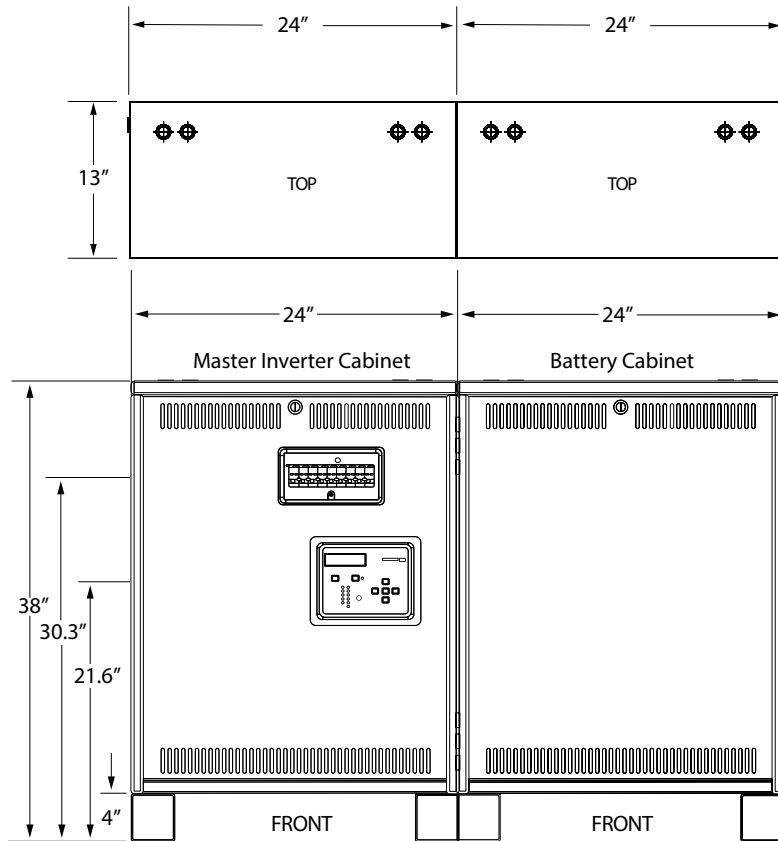
Model	Cabinet Config (See Next Page)	# of Cabinets	Inverter Cabinet Weight	Battery Cabinet Weight	Battery Count	Pallet Count	Total Weight
E3MAC-2200-2P	C/D	2	200	420	8	1	635
E3MAC-4000-2P	E/H	2	350	680	8	3	1030
E3MAC-5000-2P	E/H	2	350	840	10	3	1190
E3MAC-6000-2P	E/H	2	350	1000	12	3	1350
E3MAC-8000-2P	E/H	2	375	1570	16	3	2020
E3MAC-10000-2P	E/H	2	375	1890	20	3	2340
E3MAC-12500-2P	E/H	2	375	2210	24	3	2660

ELECTRICAL DATA

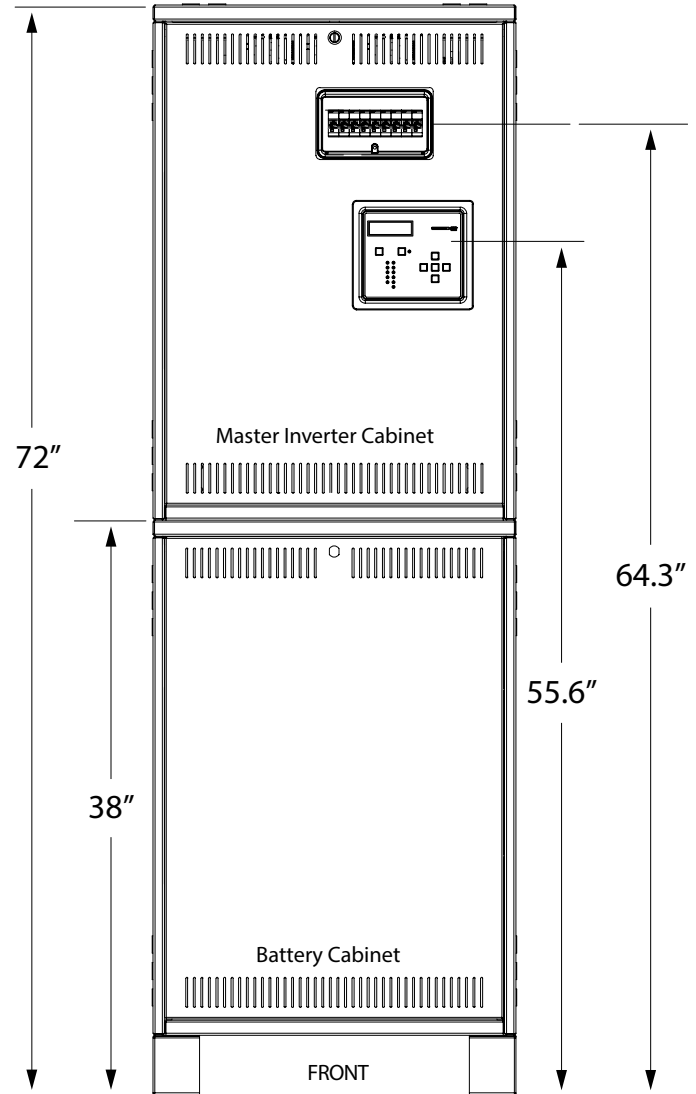
Model	Power Rating (kW)	Minimum Feed Breaker		Suggested Feed Breaker		Full Load BTU/Hr
		Input Voltage IC	Input Voltage IE	Input Voltage IC	Input Voltage IE	
E3MAC-2200-2P	2.2 kW	16.5 A	7.2 A	20 A	20 A	150
E3MAC-4000-2P	4.0 kW	30.0 A	13.0 A	40 A	20 A	286
E3MAC-5000-2P	5.0 kW	37.6 A	16.3 A	40 A	20 A	355
E3MAC-6000-2P	6.0 kW	45.1 A	19.5 A	50 A	20 A	426
E3MAC-8000-2P	8.0 kW	60.1 A	26.0 A	70 A	30 A	563
E3MAC-10000-2P	10.0 kW	75.1 A	32.6 A	80 A	40 A	716
E3MAC-12500-2P	12.5 kW	93.9 A	40.7 A	100 A	50 A	852

DIAGRAMS

CONFIGURATION C

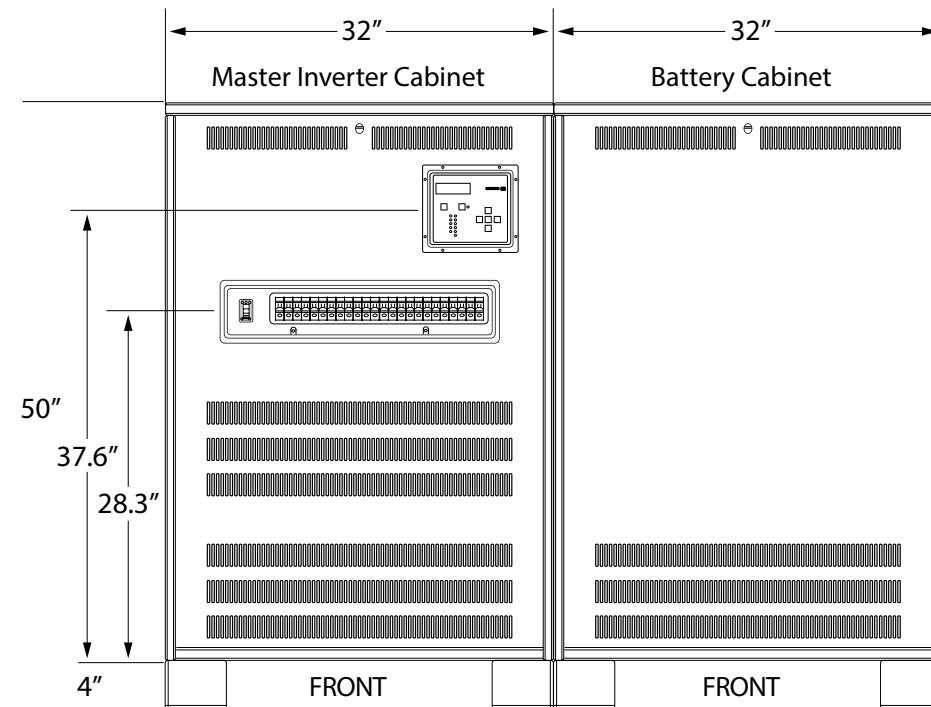
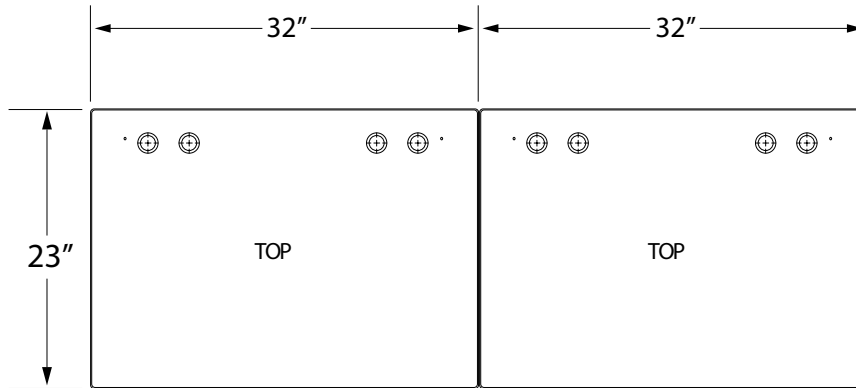


CONFIGURATION D



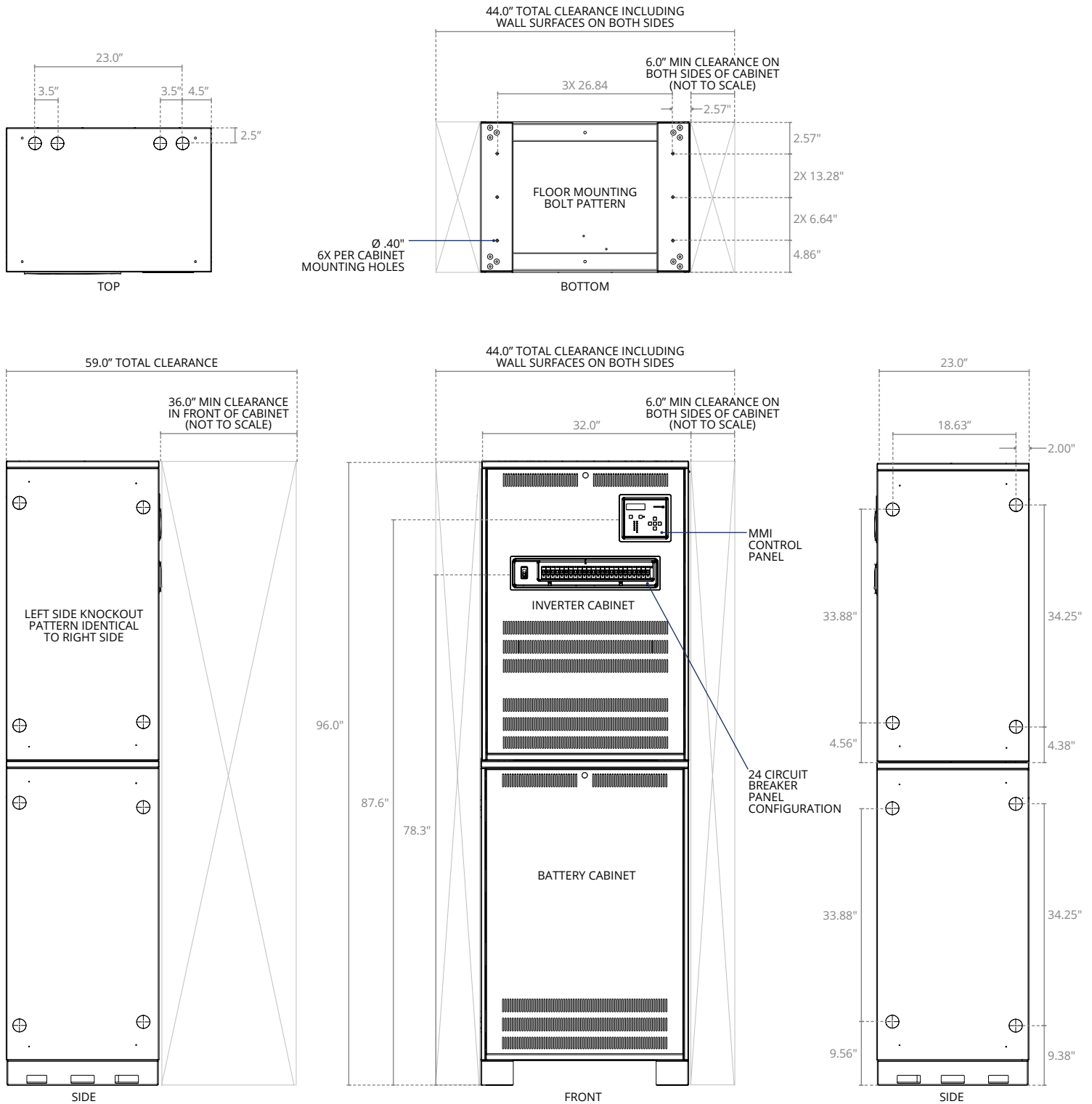
DIAGRAMS (CONTINUED)

CONFIGURATION E



DIAGRAMS (CONTINUED)

CONFIGURATION H



BMS INTERFACE POINTS LIST

POINT NAME	BACNET OBJECT TYPE	BACNET OBJECT ID	MODBUS REGISTER
Inverter	BI	1	10001
Charger	BI	2	10002
AC Present	BI	3	10003
Ready	BI	4	10004
Switched Load	BI	5	10005
Alarm Summary	BI	6	10006
Bypass	BI	7	10007
Circuit Breaker Tip	BI	8	10008
Startup Fault	BI	9	10009
Charger Fault	BI	10	100010
Inverter Fault	BI	11	100011
Input Voltage (Phase A)	AI	1	30001/30002 (FLOAT)
Input Voltage (Phase B)	AI	2	30003/30004 (FLOAT)
Input Voltage (Phase C)	AI	3	30005/30006 (FLOAT)
Output Voltage (Phase A)	AI	4	30007/30008 (FLOAT)
Output Voltage (Phase B)	AI	5	30009/30010 (FLOAT)
Output Voltage (Phase C)	AI	6	30011/30012 (FLOAT)
Output Current (Phase A)	AI	7	30013/30014 (FLOAT)
Output Current (Phase B)	AI	8	30015/30016 (FLOAT)
Output Current (Phase C)	AI	9	30017/30018 (FLOAT)
Battery Voltage	AI	10	30019/30020 (FLOAT)
Battery Current	AI	11	30021/30022 (FLOAT)
Temperature	AI	12	30023/30024 (FLOAT)
Output VA (Phase A)	AI	13	30101/30102 (UINT32)
Output VA (Phase B)	AI	14	30103/30104 (UINT32)
Output VA (Phase C)	AI	15	30105/30106 (UINT32)
Battery Power	AI	16	30107/30108 (UINT32)
System Runtime (Days)	AI	17	30109/30110 (UINT32)
Inverter Runtime (Minutes)	AI	18	30111/30112 (UINT32)
Inverter Runtime (Seconds)	AI	19	30113/30114 (UINT32)
System Events	AI	20	30115/30116 (UINT32)