GEORGE PAX
NEW ENERGY STORAGE SYSTEM

SYSTEM DETAILS

DESCRIPTION	NEW GRID-INTERACTIVE ENERGY STORAGE SYSTEM
AC RATING OF SYSTEM	12 KW
AC OUTPUT CURRENT	50A
NO. OF INVERTERS	(N) (1) EG4 18KPV-12LV INVERTER
NO. OF BATTERIES	(N) (1) EG4 14.3KWH POWERPRO BATTERIES

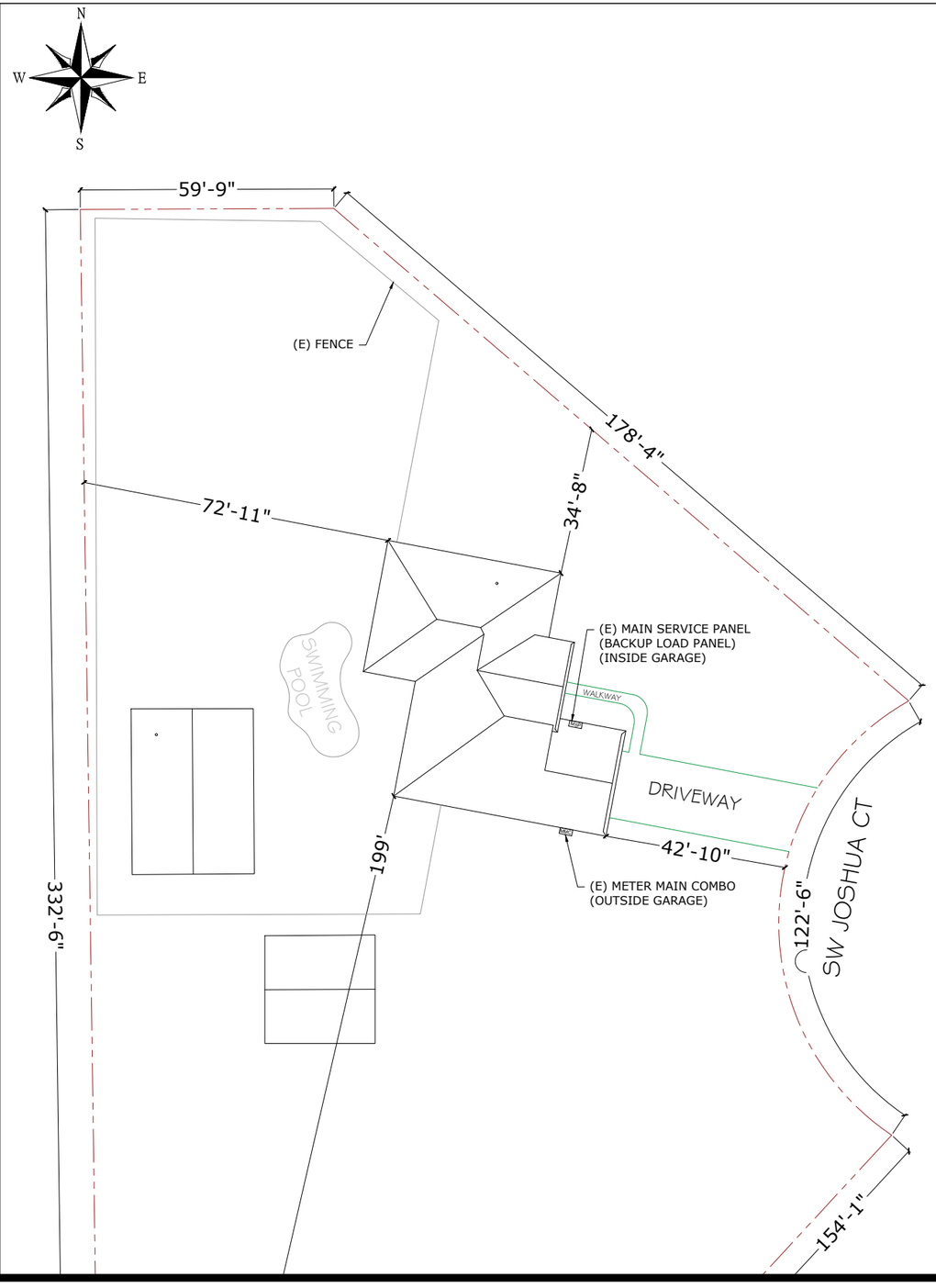
SITE DETAILS

ASHRAE EXTREME LOW	-6°C
ASHRAE 2% HIGH	34°C
GROUND SNOW LOAD	4 LBS
WIND SPEED	119 MPH (ASCE 7-22)
RISK CATEGORY	II
WIND EXPOSURE CATEGORY	B

GOVERNING CODES

FLORIDA RESIDENTIAL CODE, 8TH EDITION 2023 (FRC)
FLORIDA BUILDING CODE, 8TH EDITION 2023 (FBC)
FLORIDA FIRE PREVENTION CODE, 8TH EDITION 2023 (FFPC)
NATIONAL ELECTRICAL CODE, NEC 2020 CODE BOOK, NFPA 70

SHEET INDEX



SITE MAP (N.T.S)

VICINITY MAP

WIND FLOW MAP

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CONTACT:-(800) 798-0315

ENGINEER OF RECORD

GREGORY DILLETT II LICENSE No. 96359 STATE OF FLORIDA PROFESSIONAL ENGINEER
Exp:02/28/2027

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GEORGE PAX

194 SW JOSHUA CT, LAKE CITY, FL 32024, USA

REVISIONS

REV	DESCRIPTION	DATE	PAGE	MARK
1	REMOVED MANUAL BYPASS AND ADDED EG4 GRID BOSS	02-14-2025	A-02 E-01 E-03	1

PERMIT DEVELOPER	
DATE	01/10/2025
DESIGNER	OAN
REVIEWER	

SHEET NAME

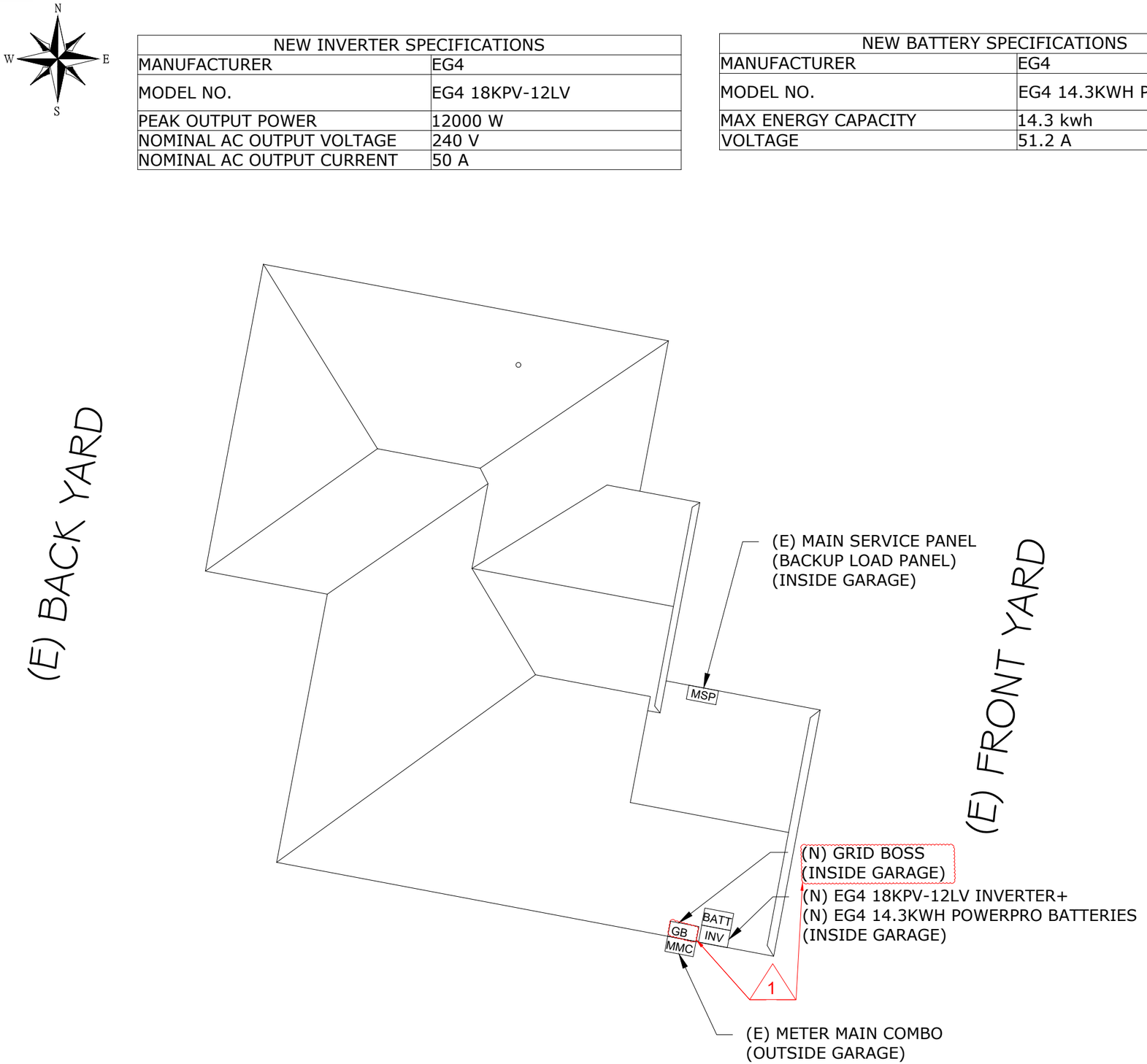
SITE MAP & VICINITY MAP

SHEET NUMBER

A-01

NEW INVERTER SPECIFICATIONS	
MANUFACTURER	EG4
MODEL NO.	EG4 18KPV-12LV
PEAK OUTPUT POWER	12000 W
NOMINAL AC OUTPUT VOLTAGE	240 V
NOMINAL AC OUTPUT CURRENT	50 A

NEW BATTERY SPECIFICATIONS	
MANUFACTURER	EG4
MODEL NO.	EG4 14.3KWH POWER PRO
MAX ENERGY CAPACITY	14.3 kwh
VOLTAGE	51.2 A



LEGENDS

- M - METER MAIN COMBO
- MSP - MAIN SERVICE PANEL (BACKUP LOAD PANEL)
- GB - GRID BOSS
- JB - JUNCTION BOX
- ACD - AC DISCONNECT
- INVT - INVERTER
- BATT - BATTERY
- - FIRE SETBACK
- - ROOF ACCESS POINT
- - VENT, ATTIC FAN (ROOF OBSTRUCTION)
- - CONDUIT

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REVISIONS

REV	DESCRIPTION	DATE	PAGE	MARK
1	REMOVED MANUAL TRANSFER SWITCH ADDED EG4 GRID BOSS	02-14-2025	A-02 E-01 E-03	1

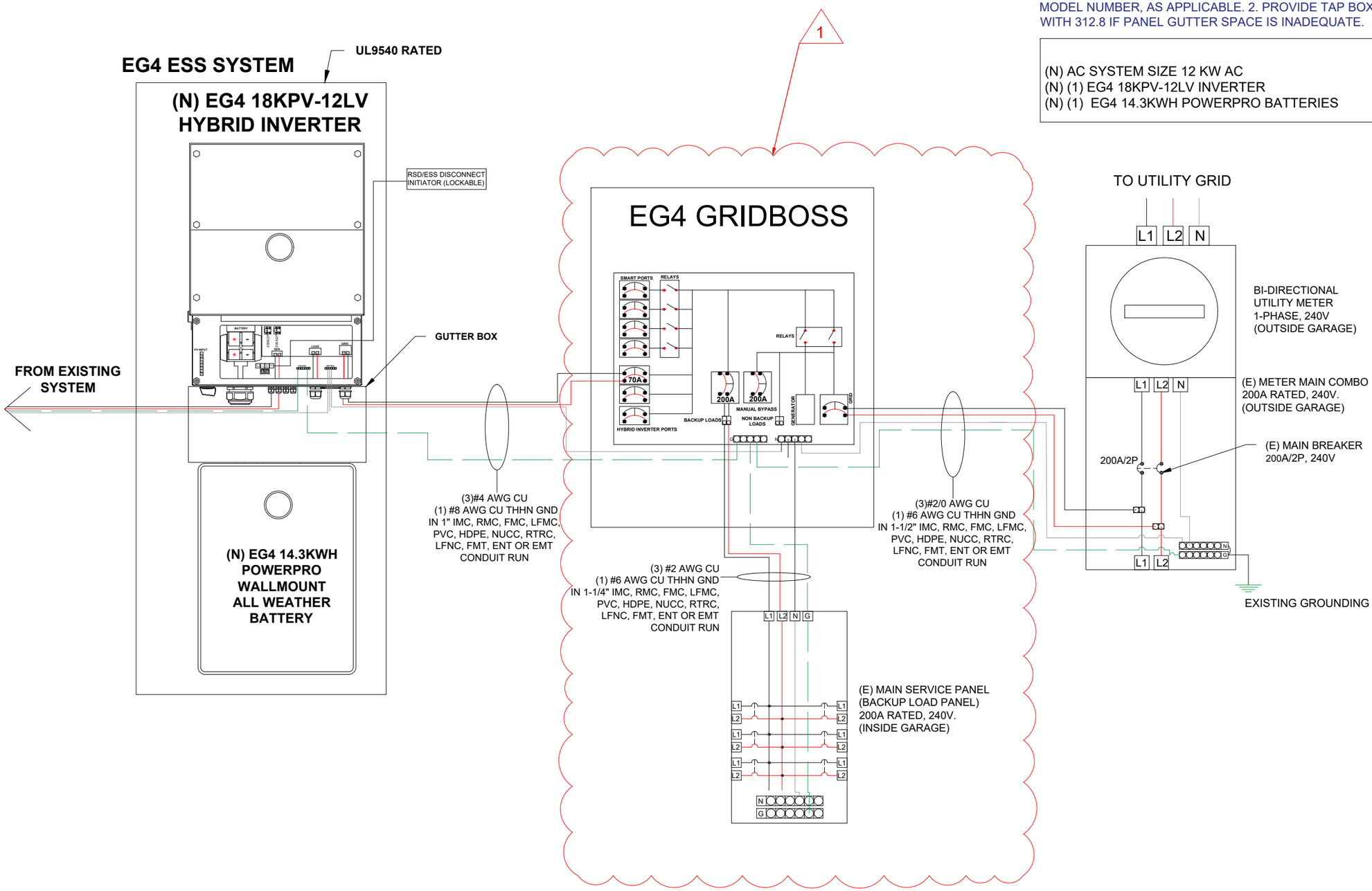
PERMIT DEVELOPER	
DATE	01/10/2025
DESIGNER	OAN
REVIEWER	

SHEET NAME: ROOF PLAN

SHEET NUMBER: A-02

NOTE:
SUBJECT PV SYSTEMS HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE NEC 2020, NFPA 70 AND THOSE SET FORTH BYTHE FLORIDA SOLAR ENERGY CENTER CERTIFICATION, INCLUDINGMAXIMUM NUMBER OF MODULE STRINGS, MAXIMUM NUMBER OFMODULES PER STRING, MAXIMUM OUTPUT, MODULE MANUFACTURERAND MODEL NUMBER, INVERTER MANUFACTURER AND MODEL NUMBER, AS APPLICABLE. 2. PROVIDE TAP BOX IN COMPLIANCE WITH 312.8 IF PANEL GUTTER SPACE IS INADEQUATE.

(N) AC SYSTEM SIZE 12 KW AC
(N) (1) EG4 18KPV-12LV INVERTER
(N) (1) EG4 14.3KWH POWERPRO BATTERIES



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REVISIONS

REV	DESCRIPTION	DATE	PAGE	MARK
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PERMIT DEVELOPER

DATE	01/10/2025
DESIGNER	OAN
REVIEWER	

SHEET NAME
SINGLE LINE DIAGRAM

SHEET NUMBER
E-01

ELECTRICAL CALCULATIONS:

1. BATTERY CURRENT PROTECTION ..NEC 690.9(B)

=TOTAL INVERTER O/P CURRENT x 1.25
=(1x50) x 1.25 = 62.5 A
SELECTED OCPD = 200A

SELECTED EQUIPMENT GROUND CONDUCTOR (EGC) = #6 THHN ... NEC 250.122

NEW INVERTER SPECIFICATIONS	
MANUFACTURER	EG4
MODEL NO.	EG4 18KPV-12LV
PEAK OUTPUT POWER	12000 W
NOMINAL AC OUTPUT VOLTAGE	240 V
NOMINAL AC OUTPUT CURRENT	50 A

NEW BATTERY SPECIFICATIONS	
MANUFACTURER	EG4
MODEL NO.	EG4 14.3KWH POWER PRO
MAX ENERGY CAPACITY	14.3 kwh
VOLTAGE	51.2 A

ELECTRICAL NOTES

1. ALL EQUIPMENT TO BE LISTED BY UL OR OTHER NRTL AND LABELED FOR ITS APPLICATION.
2. COPPER CONDUCTORS SHALL BE RATED FOR 600 V AND 90 DEGREE C WET ENVIRONMENT.THE TERMINALS ARE RATED FOR 75 DEGREE C ROMEX/NM-B (NONMETALLIC-SHEATHED) CABLE MAY BE USED FOR BOTH EXPOSED AND CONCEALED WORK IN NORMALLY DRY LOCATIONS AT TEMPERATURES NOT TO EXCEED 90°C (WITH AMPACITY LIMITED TO THAT FOR 60°C CONDUCTORS) AS SPECIFIED IN THE NATIONAL ELECTRICAL CODE. VOLTAGE RATING FOR NM-B CABLE IS 600 VOLTS.
3. CONDUCTOR TERMINATION AND SPLICING AS PER NEC 110.14 WIRING, CONDUIT AND RACEWAYS MOUNTED ON ROOFTOPS SHALL BE ROUTED DIRECTLY TO AND LOCATED AS CLOSE AS POSSIBLE TO THE NEAREST RIDGE, HIP, OR VALLEY.SHALL BE ROUTED DIRECTLY TO, AND LOCATED AS CLOSE AS
4. WORKING CLEARANCES AROUND ALL NEW AND EXISTING ELECTRICAL EQUIPMENT SHALL COMPLY WITH NEC 110.265. WORKING CLEARANCES AROUND ALL NEW AND EXISTING
5. DRAWINGS INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS CONTRACTOR SHALL FURNISH ALL NECESSARY OUTLETS, SUPPORTS, FITTINGS AND ACCESSORIES TO FULFILL APPLICABLE CODES AND STANDARDS.
6. WHERE SIZES OF JUNCTION BOXES, RACEWAYS, AND CONDUITS ARE NOT SPECIFIED, THE CONTRACTOR SHALL SIZE THEM ACCORDINGLY.
7. ALL WIRE TERMINATIONS SHALL BE APPROPRIATELY LABELED AND READILY VISIBLE.
8. MODULE GROUNDING CLIPS TO BE INSTALLED BETWEEN MODULE FRAME AND MODULE SUPPORT RAIL, PER THE GROUNDING CLIP MANUFACTURER'S INSTRUCTION.
9. MODULE SUPPORT RAIL TO BE BONDED TO CONTINUOUS COPPER G.E.C. VIA WEEB LUG OR ILSCO GBL-4DBT LAY-IN LUG.
10. THE POLARITY OF THE GROUNDED CONDUCTORS IS NEGATIVE.
11. UTILITY HAS 24-HR UNRESTRICTED ACCESS TO ALL PHOTOVOLTAIC SYSTEM COMPONENTS LOCATED AT THE SERVICE ENTRANCE.
12. MODULES CONFORM TO AND ARE LISTED UNDER UL 1703.
13. RACKING CONFORMS TO AND IS LISTED UNDER UL 2703.
14. CONDUCTORS EXPOSED TO SUNLIGHT SHALL BE LISTED AS SUNLIGHT RESISTANT PER NEC ARTICLE 300.6 (C) (1) AND ARTICLE 310.10 (D).
15. CONDUCTORS EXPOSED TO WET LOCATIONS SHALL BE SUITABLE FOR USE IN WET LOCATIONS PER NEC ARTICLE 310.10 (C).

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REVISIONS

REV	DESCRIPTION	DATE	PAGE	MARK
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PERMIT DEVELOPER	
DATE	01/10/2025
DESIGNER	OAN
REVIEWER	

SHEET NAME: WIRING CALCULATIONS

SHEET NUMBER: E-02

⚠ WARNING

ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS TERMINALS ON BOTH LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION:
AC DISCONNECT, POINT OF INTERCONNECTION, COMBINER PANEL
(PER CODE: NEC 690.13(B))

WARNING PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:
CONDUIT RUNWAY
(PER CODE: NEC690.31(D)(2))

⚠ WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

LABEL LOCATION:
MAIN SERVICE DISCONNECT
(NEC 705.12(C) & NEC 690.59)

ADHESIVE FASTENED SIGNS:

·ANSI Z535.4-2011 PRODUCT SAFETY SIGNS AND LABELS, PROVIDES GUIDELINES FOR SUITABLE FONT SIZES, WORDS, COLORS, SYMBOLS, AND LOCATION REQUIREMENTS FOR LABELS. NEC 110.21(B)(1)
·THE LABEL SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. NEC 110.21(B)(3)
·ADHESIVE FASTENED SIGNS MAY BE ACCEPTABLE IF PROPERLY ADHERED. VINYL SIGNS SHALL BE WEATHER RESISTANT. IFC 605.11.1.3

PHOTOVOLTAIC SYSTEM EQUIPPED WITH RAPID SHUTDOWN

LABEL LOCATION:
AC DISCONNECT, DC DISCONNECT, POINT OF INTERCONNECTION
(PER CODE: NEC 690.56(C))

⚠ WARNING

INVERTER OUTPUT CONNECTION
DO NOT RELOCATE THIS OVERCURRENT DEVICE

EMERGENCY CONTACT
(800) 798-0315

PHOTOVOLTAIC SYSTEM AC DISCONNECT
RATED AC OPERATING CURRENT 50 AMPS
AC NOMINAL OPERATING VOLTAGE 240 VOLTS

LABEL LOCATION:
AC DISCONNECT, INVERTER
(PER CODE: NEC 690.54)

WARNING
INVERTER OUTPUT CONNECTION DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION:
POINT OF INTERCONNECTION, MAIN SERVICE DISCONNECT
(PER CODE: NEC 705.12 (B)(3)(3))
[Not required if panelboard is rated not less than sum of ampere ratings of all overcurrent devices supplying it]

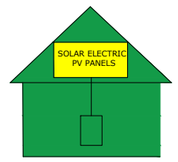
LABEL LOCATION:
COMBINER PANEL, AC DISCONNECT
(PER CODE: NEC 690.52)

⚠ WARNING

DEDICATED SOLAR PANELS DO NOT CONNECT ANY OTHER LOADS

EMERGENCY RESPONDER THIS SOLAR PV SYSTEM IS EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUTDOWN PV SYSTEM.



NEC690.56(C)(1) AND NFPA 111.12.2.1.1.1.1, 11.12.2.1.4

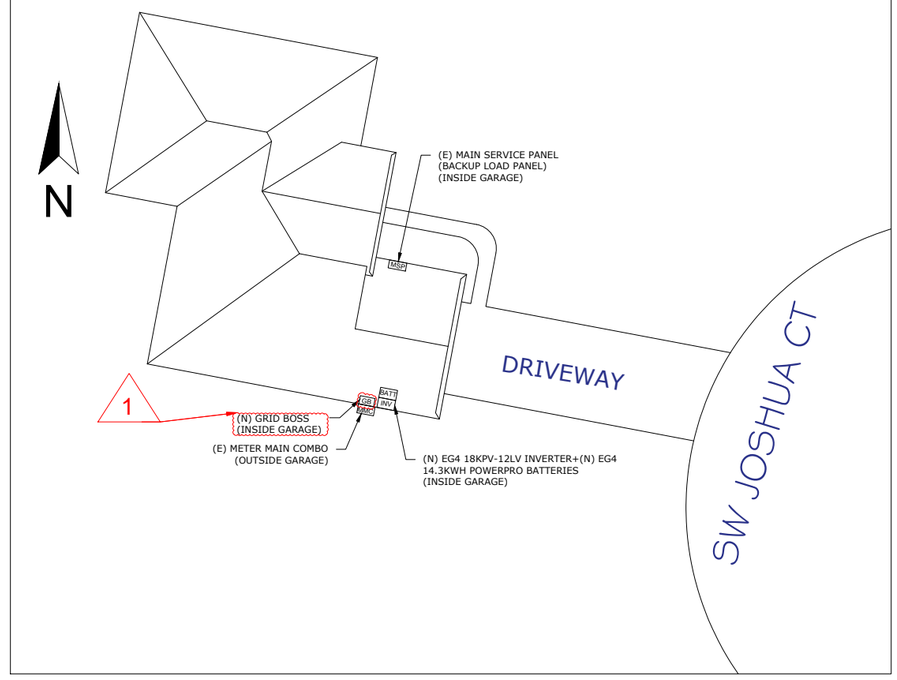
⚠ CAUTION

TRI POWER SOURCES

SECOND SOURCE IS PV SYSTEM
THIRD SOURCE IS DC BATTERY

CAUTION

MULTIPLE SOURCES OF POWER WITH DISCONNECTS LOCATED AS SHOWN:



AUXILIARY GENERATION DISCONNECT

LABEL LOCATION:

WARNING

ELECTRIC SHOCK HAZARD
DO NOT TOUCH TERMINALS
TERMINALS ON BOTH THE LINE AND LOADS SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION:
METER

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REVISIONS

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PERMIT DEVELOPER	
DATE	01/10/2025
DESIGNER	OAN
REVIEWER	

SHEET NAME
SYSTEM LABELING

SHEET NUMBER
E-03

EG4® 18KPV-12LV

Hybrid Inverter/Charger

The EG4® 18KPV is a 48V split phase, hybrid inverter/charger capable of utilizing 18kW of PV and efficiently outputting 12kW of power while charging your battery bank. You can parallel up to 10 units for 120kWs of AC power and control multiple stations and units using the new EG4® monitoring software.

AC Coupling Capability | **Remote Adjustments via EG4® Software** | **10-Year Warranty**

All-In-One Hybrid Inverter

Capable of running entirely off the grid, using grid electricity, or selling power back to the grid.

600VDC Max

The extra high voltage enables lower cable sizing for the 3 MPPTs and a maximum recommended PV input of 21,000W. Eliminating the need for a combiner box.

Mountable Wi-Fi Device

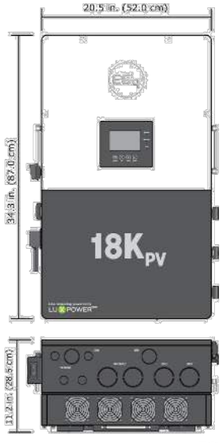
Enables wireless connection between our new monitoring platform and the 18KPV through the app or online website.

Closed-Loop Communications

Able to communicate with EG4® 48V batteries and other battery brands. *A firmware update is required for closed-loop communications with LifePower4 batteries.

High Frequency, Split Phase Output

Allows for 120/240V with a single unit or 120/208VAC service operation.



EG4® Electronics | Specification Sheet

EG4® 18KPV-12LV

Hybrid Inverter/Charger

AC Input Data	
Nominal AC Voltage	240 | 208VAC
Frequency	50/60Hz
Max. Continuous AC Current	50A
AC Grid Output Data	
Max. Continuous Output Current	50A
AC Bypass (Grid)	200A
Rated Voltage	240VAC
Operating Voltage Range	180–270VAC
Nominal Power Output (W)	@240V 12kW/@208V 10.4kW
Operating Frequency	50/60Hz
Phase Shift	0.99@ full load
Reactive Power Adjust Range	(-0.8) – (+0.8) leading adjustable
Sync Inrush Current	35A
Backup/UPS AC Output Data	
Rated Output Current (240V/208V)	50A
AC Bypass (Generator)	90A
Nominal Output Voltage (V)	240 | 120/240 | 120/208 VAC
Rated Output Power (W)	@240VAC 12kW/@208VAC 10.4kW
Max Cont. Line Wattage	8kW per 120V
Peak Power (W)	With PV: 14.7kW (10 min), 15.5kW (5 min) Without PV: 13.5kW (10 min)
Operating Frequency	50/60Hz
THDV (Total Harmonic Distortion Voltage)	<5%
Switching Time	10ms
PV Input Data	
Number of MPPTs	3
Inputs per MPPT	2/1/1
Max. Usable Input Current	25/15/15A
Max. Short Circuit Input Current	31/19/19A
DC Input Voltage Range	100–600 VDC
Unit Startup Voltage	100 VDC
Load Output Minimum Voltage	>140 VDC
MPP Operating Voltage Range	120–500 VDC
Full Power MPPT Voltage Range	230–500 VDC
Nominal MPPT Voltage	360 VDC
Maximum Utilized Solar Power	18kW
Recommended Maximum Solar Input	21kW

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EG4® Electronics | Specification Sheet

EG4® 18KPV-12LV

Hybrid Inverter/Charger

Efficiency	
Max. Efficiency @ PV to Grid	97.5%
Max. Efficiency @ Battery to Grid	94%
MPPT Efficiency	99.9%
Battery Charging Efficiency	95%
Battery Discharging Efficiency	94.5%
Idle Consumption (Normal mode)	≈70W
Idle Consumption (Standby mode)	≈18W
Battery Data	
Type	Lead-acid battery/Lithium battery
Max. Charge/ Discharge Current	250A
Nominal Voltage	48 VDC
Voltage Range	40–60 VDC
General Data	
Integrated Disconnect	DC switch
PV Reverse Polarity Protection	Yes
DC Switch Rating for each MPPT	Yes
Output Over-Voltage Protection Varistor	Yes
Output Over-Current Protection	Yes
Grid Monitoring	Yes
Anti-islanding Protection (Fast Zero Export)	Yes
Pole Sensitive Leakage Current Monitoring Unit	Yes
Surge Protection Device	Yes
Dimensions H×W×D	34.3×20.5×11.2 in. (87×52×28.5 cm)
Weight	121.25 lbs (55kg) 132.28 lbs (60kg) with the packaging
Cooling Concept	Fan
Topology	TL (Transformerless)
Relative Humidity	0-100%
Altitude	<2,000m
Operating Temperature Range	-25~60°C, >45° derating
Noise Emission	68dB @3ft
Display	Color touchscreen
Communication Interface	RS485/Wi-Fi/CAN
Standard Warranty	10* year standard warranty
	*See EG4® Warranty Registration for terms and conditions

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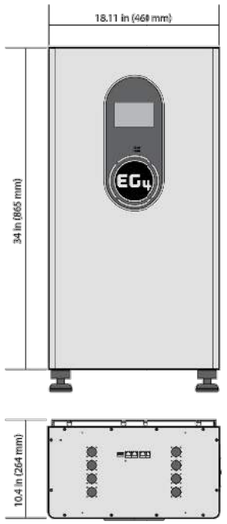
PERMIT DEVELOPER	
DATE	01/10/2025
DESIGNER	OAN
REVIEWER	

SHEET NAME
INVERTER DATASHEET

SHEET NUMBER
DS-01



EG4® WALLMOUNT INDOOR 280Ah LITHIUM BATTERY

The WallMount Indoor 280Ah batteries are ideal for low-voltage residential indoor energy storage applications. The batteries use lithium iron phosphate cells with the highest safety performance and an intelligent Battery Management System (BMS) that can monitor and record the voltage of each cell along with the current, voltage, and temperature of the module in real-time. The BMS also contains a passive balance function and an advanced battery control method, both of which improve the performance of the battery pack.

BUILT-IN 200A BMS	INTEGRATED 600A BUSBARS	82.6MWh LIFETIME PRODUCTION*	10 YEAR WARRANTY >8000 CYCLES @ 80% DOD

ON-BOARD LCD TOUCH SCREEN

Easy to see BMS monitoring, and selectable closed-loop communications with EG4, Schneider, Sol-Ark, Victron, Growatt, Megarevo, Luxpower, and Deye inverters.

DUAL ON-BOARD FIRE ARRESTORS

Offer fail-safe protection against thermal runaway.

INTEGRATED SELF-HEATING FEATURE

Internal heating keeps cells operating during cold temperatures.

INTEGRATED BUSBARS

The battery design comes manufactured with 600A internal busbars with multiple terminals (4 positive & 4 negative) eliminating the need for external busbars when paralleling batteries and/or multiple inverters.

INNOVATIVE EMERGENCY STOP FUNCTION

The optional ESS disconnect can shut down all batteries and inverters (if equipped with rapid shut down capability) with the press of a button.

THE PERFECT PARTNER TO EG4 INVERTERS

The optional conduit box mates up directly to the connection ports of EG4 inverters allowing a sleek and efficient installation. For other inverters or stand-alone battery installation, the conduit box plugs should be installed.

VERSION 1.1.3 | INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
MODEL #: WM-48|280-LL-00 / WM-48-280-1-IN-LL-00

EG4 ELECTRONICS

TECHNICAL SPECIFICATIONS

MODULE OPERATING PARAMETERS		
PARAMETER	BMS	RECOMMENDED SETTING
TOTAL ENERGY CAPACITY	14.3kWh @25C, 100% SOC	-
VOLTAGE	51.2V	-
CAPACITY	280Ah	-
CHARGING VOLTAGE (BULK/ABSORB)	56.0V (+/-0.8V)	56.2V (+/-0.2V)
FLOAT	-	54V (+/-0.2V)
SOC CUTOFF	-	20%*
CHARGING CURRENT	200A (Max. continuous)	60A – 160A
DISCHARGING CURRENT	200A (Max. continuous)	160A
DISCHARGE RATE	10.24kW (Max. continuous)	-

BMS PARAMETERS			
CHARGE	SPEC	DELAY	RECOVERY
CELL VOLTAGE PROTECTION	3.8V	1 sec	3.45V
MODULE VOLTAGE PROTECTION	60.0V	1 sec	55.2V
OVER CHARGING CURRENT 1	>205A	10 sec	-
OVER CHARGING CURRENT 2	>225A	3 sec	-
TEMPERATURE PROTECTION	<23°F or >158°F <-5°C or >70°C	1 sec	>32°F or <140°F >0°C or <60°C
DISCHARGE	SPEC	DELAY	RECOVERY
CELL VOLTAGE PROTECTION	2.3V	1 sec	3.1V
MODULE VOLTAGE PROTECTION	44.8V	1 sec	48V
OVER-CHARGING CURRENT 1	>205A	10 sec	60 sec
OVER-CHARGING CURRENT 2	>300A	3 sec	60 sec
SHORT CIRCUIT	>600A	<0.1 mS	-
TEMPERATURE PROTECTION	<-4°F or >167°F <-20°C or >75°C	1 sec	>14°F or <149°F >-10°C or <65°C
PCB TEMP PROTECTION	>230°F (>110°C)	1 sec	@ <176°F (<80°C)

GENERAL SPECIFICATIONS			
PARAMETER	SPEC		CONDITION
CELL BALANCE	120mA	Passive Balance	Cell Voltage Difference >40mV
TEMPERATURE ACCURACY	3%	Cycle Measurement	Measuring Range -40°F to ≈212°F (-40°C to ≈100°C)
VOLTAGE ACCURACY	0.5%	Cycle Measurement	For Cells & Module
CURRENT ACCURACY	3%	Cycle Measurement	Measuring Range -200A - 200A
SOC	5%	-	Integral Calculation
POWER CONSUMPTION	Sleep & Off Mode	<300uA	Storage/Transport/Standby
POWER CONSUMPTION	Operating Mode	<25mA	Charging/Discharging
COMMUNICATION PORTS	RS485/CAN		Can be customized

BATTERY HEATER SPECIFICATIONS		
PARAMETER	SPEC	CONDITION
VOLTAGE	56V	-
POWER CONSUMPTION	224W	-
INTERNAL BATTERY TEMPERATURE	≤32°F (0°C)/≥41°F (5°C)	Heat On/Heat Off

EnLight Energy
978 SW 2ND AVE GAINESVILLE , FL 32601
CONTACT:-(800) 798-0315

ENGINEER OF RECORD

GREGORY DILLETT II LICENSE No. 96359 STATE OF FLORIDA PROFESSIONAL ENGINEER Exp:02/28/2027

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GEORGE PAX

194 SW JOSHUA CT, LAKE CITY, FL 32024, USA

REVISIONS						
REV	DESCRIPTION	DATE	PAGE	MARK		
1	REMOVED MANUAL BYPASS AND ADDED EG4 GRID BOSS	02-14-2025	A-02 A-03 E-03	1		

PERMIT DEVELOPER	
DATE	01/10/2025
DESIGNER	OAN
REVIEWER	

SHEET NAME
BATTERY DATASHEET

SHEET NUMBER
DS-02

EG4 ELECTRONICS

ENVIRONMENTAL PARAMETERS	
CHARGING RANGE	32° to ≈113°F (0°C to ≈45°C)
DISCHARGING RANGE	-4°F to ≈122°F (-20°C to ≈50°C)
STORAGE RANGE	-4°F to ≈122°F (-20°C to ≈50°C)
INGRESS PROTECTION	IP20
PHYSICAL SPECIFICATIONS	
DIMENSIONS (H×W×D)	36.4 in.×18.1 in.×9.6 in. (925 mm×460 mm×245 mm)
WEIGHT	282.2 lbs. (128 kg)
DESIGN LIFE	>10 Years
CYCLE LIFE	>8000 cycles, 0.5C 80% DOD
LIFETIME PRODUCTION	82.6MWh**
SAFETY CERTIFICATIONS	
CERTIFICATIONS	UL1973, UL 9540A (Passed)

**EG4 recommends this value be set no lower than 20% to maintain the recommended 80% depth of discharge.*

***(51.2V×280Ah/1000×80%×8000 cycles/1000)90%=MWh*

EG4 ELECTRONICS

CHANGELOG

Version 1.1.3
- Replaced Low DC Cutoff with SOC Cutoff at 20% with a note under the table.
- Minor formatting changes

Version 1.1.2
- Added 2 line items to the spec sheet notating Total Energy Capacity and Max Continuous Discharge Rate
- Minor formatting changes
- Greyscale image added to front page

Version 1.1.1
- Changed verbiage on page 1 of the document
- Added changelog

Version 1.1
- Changed verbiage on page 1 of the document
- Changed UL 9540A certification from (Testing) to (Passed)

Version 1.0
- First iteration of the completed Spec Sheet

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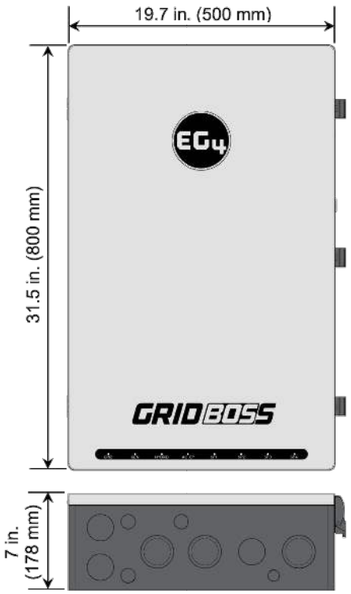
DS-02.1



EG4® GRID BOSS

MICRO-GRID INTERCONNECTION DEVICE (MID)

The EG4 GridBOSS Micro-Grid Interconnection Device (MID) simplifies Energy Storage Systems (ESS) by consolidating multiple components into a single, innovative unit. It replaces traditional elements such as the point of common connection, back-fed breakers, feeder taps, tap breakers, supply-side taps, transfer switches, and dedicated combiner panels for grid-in, grid-out, and generator input. As a versatile solution, the GridBOSS serves as the service entrance equipment* when paired with the utility meter, providing a single point of connection for utilities, hybrid inverters, generators, smart loads, and AC-coupled inverters.

200A SERVICE ENTRANCE*

4 CONFIGURABLE SMART PORTS

INTEGRATED GENERATOR SUPPORT

CENTRALIZED ESS CONTROL

Provides a single point of connection for utility, hybrid inverters, generators, smart loads, and AC-coupled inverters.

REDUCED ESS COMPLEXITY

Replaces up to 10 components with one unit, including point of common connection, back-fed breakers, feeder taps, feeder tap breakers, supply side taps & breakers, transfer switches, and dedicated combiner panels for grid-in, load/EPS, and generator input.

SERVICE ENTRANCE RATED

200 Amp service entrance with a 22 kAIC main breaker, acts as service entrance equipment in conjunction with a utility meter and a 200A Eaton braker (CSR25K).

REMOTE MONITORING

Enable remote monitoring, configuration, and firmware updates through the EG4 mobile app or online monitoring system.

SMART PORTS

Includes load shedding, which disconnects loads during low battery voltage and reconnects on high voltage. Power shedding connects loads when at full SOC and PV flow and disconnects on low SOC or PV loss.

*When used with an Eaton 200A main breaker (model CSR25k)

VERSION 1.1.2 | INFORMATION SUBJECT TO CHANGE WITHOUT NOTICE.
MODEL #: MI-200-2P-HYB-AW-01

1

EG4 ELECTRONICS

TECHNICAL SPECIFICATIONS

GRID	
NOMINAL AC VOLTAGE	120/240VAC (L1/L2/N required)
FREQUENCY	60 Hz
MAXIMUM CURRENT	200A
SERVICE ENTRANCE RATED	22kAIC with 200A Eaton breaker (model: (CSR2200N) CSR25K)
GENERATOR	
NOMINAL VOLTAGE	120/240VAC (L1/L2/N required)
FREQUENCY	60 Hz
MAXIMUM CURRENT	125A
NON-BACKUP	
NOMINAL VOLTAGE	120/240VAC (L1/L2/N required)
FREQUENCY	60 Hz
MAXIMUM CURRENT	200A
BACKUP	
NOMINAL VOLTAGE	120/240VAC (L1/L2/N required)
FREQUENCY	60 Hz
MAXIMUM CURRENT	200A
HYBRID	
NUMBER OF PORTS	3
NOMINAL VOLTAGE	120/240VAC (L1/L2/N required)
FREQUENCY	60 Hz
MAXIMUM CURRENT PER PORT	70A*
SUPPORTED INVERTERS	EG4® 12kPV, 18kPV, & FlexBOSS21**
SMART PORTS	
NUMBER OF PORTS	4
NOMINAL VOLTAGE	120/240VAC (L1/L2/N required)
FREQUENCY	60 Hz
MAXIMUM CURRENT PER PORT	1: 125A | 2: 80A | 3: 60A | 4: 60A
GENERAL DATA	
COMMUNICATION INTERFACE	RS485/Wi-Fi/CAN
IDLE CONSUMPTION	~55W
TRANSFER TIME	~25 ms
INTERNAL BUS RATING	350A
INTERNAL FUSE RATING	315A
OPERATING ALTITUDE	<6561 ft (<2000 m)
RELATIVE HUMIDITY	0 – 100%
OUTDOOR RATING	NEMA 3R
OPERATING AMBIENT TEMPERATURE RANGE	-40°F – 140°F (-40°C – 60°C)
PRODUCT DIMENSIONS (H×W×D)	31.5×19.7×7 in (800×500×178 mm)
UNIT WEIGHT	55 lbs. (25 kg)
STANDARD WARRANTY	10-year standard warranty***

*Install a properly sized breaker based on the connected inverter: 50A - 12kPV; 70A - 18kPV; 90A - FlexBOSS21.

**Third party inverters are not supported and cannot be connected to the hybrid ports.

***For information regarding warranty registration on EG4® Electronics products, please navigate to https://eg4electronics.com/warranty/ and select the corresponding product to begin the registration process.

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