



Sun-In-One™
New Electrical Solar Light and Power Products



U.S. SPECIFICATIONS

Micro Grid Systems – 250KW

Highly Efficient Plug-N-Play Containerized Off-Grid Energy Solutions

SOLAR PANELS

| | | | |
|------------------------|---|--------|--------|
| NUMBER OF PANELS | | 900 | 552 |
| PEAK POWER | Pmax | 280W | 460W |
| RATED VOLTAGE | Vmp | 35.30V | 48.86V |
| RATED CURRENT | Imp | 7.93A | 9.40A |
| MAXIMUM SYSTEM VOLTAGE | IEC, UL | 1000V | 600V |
| DIMENSIONS | Various Configurations | | |
| WEIGHT | Dependent on Configuration | | |
| WARRANTY | 12 Yrs & 25 Yrs Limited on Minimum Power Output | | |
| CERTIFICATIONS | TUV, SUD, CQC, UL, CE, ROHS, MCS, ISO9001 | | |
| PV CLIPS FOR WIRE MGMT | 4 per Panel | | |



GROUND MOUNT RACKING

5-Panel high racking in landscape with 44 columns or ballast boxes per row (45 posts). Four (4) total rows.

A different layout, orientation, tilt, panel clearance, or snow load will require further engineering and additional costs.

PILE DRIVEN

| | |
|--------------------------------|-------------|
| 3.35m GALVANIZED STEEL POSTS | 190 |
| 4.35m GALVANIZED STEEL PURLINS | 190 |
| CLIPS FOR PANEL MOUNTING | 4 per Panel |
| TILT | 20 Degrees |
| SNOW LOAD | 0 psi |
| FRONT PANEL CLEARANCE | 76.2 cm |

BALLASTED GROUND MOUNT

| | |
|--------------------------------|--------------------------|
| BALLAST BOX | 190 |
| DIMENSIONS (LxWxH) | 198 cm x 61 cm x 30.5 cm |
| 1.28m FRONT POST | 190 |
| 1.9m REAR POST | 190 |
| 4.35m GALVANIZED STEEL PURLINS | 190 |
| CLIPS FOR PANEL MOUNTING | 4 per Panel |
| TILT | 20 Degrees |
| SNOW LOAD | 0 psi |
| FRONT PANEL CLEARANCE | 76.2 cm |

BATTERY

Battery storage is based on daily consumption and load profile of 700 KWh with one day of autonomy. Batteries recharge through PV and Generator. If a larger configuration of batteries is desired, additional costs may apply.

OPERATION & PERFORMANCE

| | |
|---|---|
| STORAGE CAPACITY | 733 KWh |
| NOMINAL ENERGY (10-HR CHARGE / 20-HR DISCHARGE) | 25.9 KWh |
| CYCLE LIFE | 3,000 Cycles (to 70% Retained Capacity) |
| AMBIENT OPERATING TEMP | -5 °C to 40 °C |
| PEAK POWER | 11.7 KW |
| CONTINUOUS CURRENT | 240 A |
| DIMENSIONS | Various Configurations |
| WEIGHT | 1504 Kg per Section |
| LIMITED WARRANTY | 8 Years; 5 Yrs full + 3 Yrs Prorated |



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INVERTER

| | |
|---------------------------|------------------------------------|
| INVERTER RATING | 250 KW |
| POWER TERMINALS | (2) DC and (1) AC |
| POWER STAGE TECHNOLOGY | High-Frequency PWM |
| POWER STAGE CONFIGURATION | (4) Fully Independent Power Stages |
| SIZE (LxWxH) | 241 cm x 104 cm x 178 cm |
| DIMENSIONS (LxWxH) | 1957 mm x 990 mm x 50 mm |
| WEIGHT | 1,632 Kg |
| ENCLOSURE | NEMA 3 (Outdoor) |
| WARRANTY | 5 Years |

DC PORT For Battery

| | |
|---------------------------|--|
| INPUT TYPE | Battery |
| DC VOLTAGE | 415-600 VDC |
| MAX CURRENT | 640 A |
| MAX CONTINUOUS POWER | 265 KW |
| BATTERY CHARGE CONTROLLER | Configurable 3-Stage Profile for Batteries |
| BATTERY MANAGEMENT SYSTEM | External Control for BMS Interface |

DC PORT for PV

| | |
|-------------------|---------------------|
| INPUT TYPE | PV |
| PV MPPT | 415-580 VDC |
| ISOLATION FROM AC | Yes, Grid Port Only |

AC PORT – Generator

| | |
|-------------------------------------|---|
| AC LINE VOLTAGE | 400-440 AC 3-Phase, 3-Wire Optimal |
| AC LINE FREQUENCY | 50 Hz Nominal |
| CONTINUOUS AC CURRENT | 325 A |
| CONTINUOUS AC POWER | 250 KVA |
| ISOLATION FROM AC | Yes (Internal) |
| OFF-GRID CONTROL FEATURE | Grid-forming Voltage Source |
| ON-GRID/OFF-GRID AUTO TRANSFER TIME | Autonomous Power Sharing Synchronized Start |

DISCONNECT COMBINER BOX

| | |
|------------------------------------|--------------------|
| NUMBER OF COMBINERS | 2 |
| DISCONNECT AMPACITY | 400 Amps |
| PREWIRED INPUT CIRCUIT CABLE WHIPS | 30 |
| # OUTPUT CONDUCTORS | 1 or 2 |
| OUTPUT CONDUCTOR SIZE RANGE | #2 AWG to 600 MCM |
| WEIGHT | 29.5 Kg |
| NEMA RATING | NEMA 4 |
| ETL LISTED TO UL-1741 | 600 VDC & 1000 VDC |

GENSET

DIESEL GENERATOR

| | |
|--------------------------|---------------------------------|
| RATING | 200 KW / 250 KVA / 60 Hz |
| DIESEL ENGINE | Regulated |
| VOLTAGE LEADS | 208 / 240 / 480 |
| MAIN CURCUIT BREAKER | 400-800 A |
| ELECTRONIC START | 12 VDC Start, Battery & Charger |
| LOAD SHARING CONTROLLER | Included |
| FUEL TANKS SIZE | 1500 Liters |
| START-UP & COMMISSIONING | Included |
| WARRANTY | Optional |

MICRO GRID CONTAINER CONTENTS

Micro Grid Container is a customized “plug-n-play” system that comes pre-wired with the inverter, batteries, and AC load panel. Wires run from the PV field and GENSET directly to the container, then from AC to the loads.

| | |
|------------------------------|--|
| INVERTER | 250 KW |
| BATTERIES | 733 KWh |
| BATTERY RACKING | Customized |
| TRANSFORMER | 208 / 240 / 277 HZ, 3-Phase |
| AC BREAKER PANEL | 400 A, 3-Phase |
| MICRO GRID MONITORING SYSTEM | Yes, Connection for Data Not Included |
| CONTAINER SIZE(S) | 40 FT HC |

FREIGHT NOT INCLUDED.

System sizing, stringing & layout are climate dependent. Products & specifications are subject to change without notice. Products are warranted only to meet Sun-In-One data sheet specifications.



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