

# WHOLE HOME SOLAR STORAGE INVERTER

## FORTRESS POWER ENVY 12kW



- All-In-One Solution (PV, Generator, On/Off Grid, AC/DC Coupling)
- Whole Home Backup with 200A AC Passthrough
- Max. 18 kW PV Power Delivered to Battery & AC Outputs
- 12 kW (50A @240V) Backup Power
- Integrated AC & DC Breakers for Fast Installation & Commissioning
- Built-in APsmart Rapid Shutdown Transmitter and Button

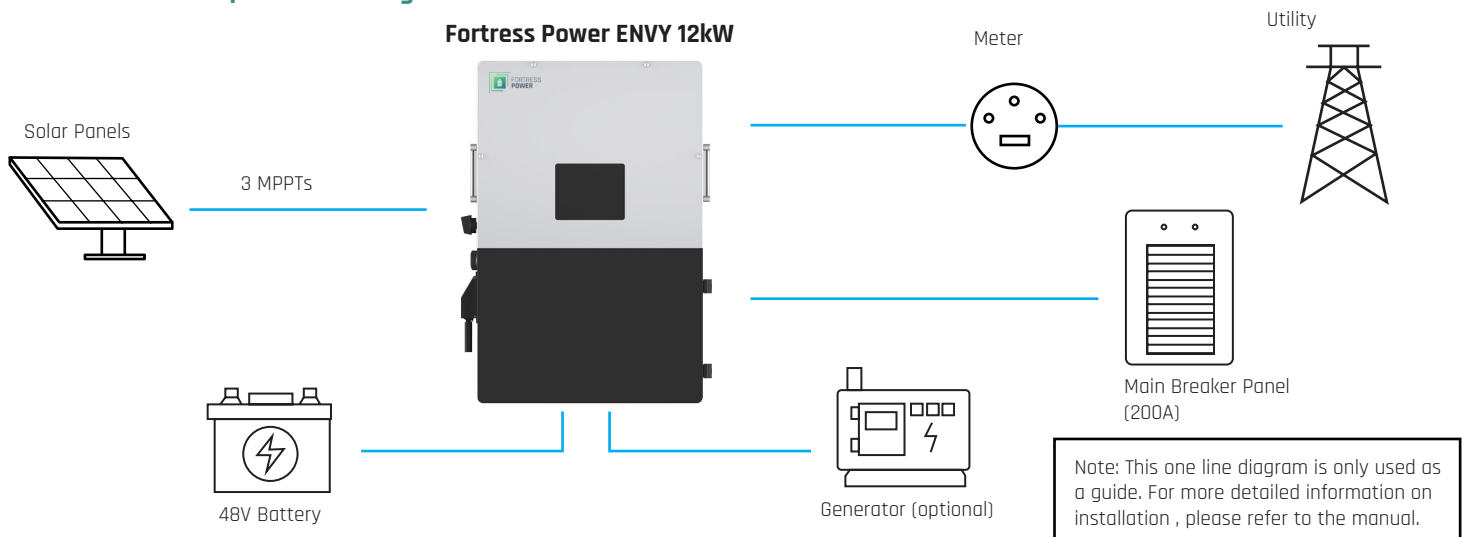
### KEY FEATURES:

- 200A AC passthrough current for whole home backup
- 3 MPPT output for max. 21 kW PV array
- AC/DC coupling
- IP65 rated for Indoor & Outdoor Installation
- Built-in Generator Input
- 5 units in parallel
- Online monitoring/app
- Color LCD touch screen
- 3 Phase Compatible (upcoming feature)

### SUPPORTED APPLICATIONS:

- ✓ **BACKUP**
- ✓ **OFF-GRID**
- ✓ **ZERO EXPORT**
- ✓ **TIME-OF-USE**
- ✓ **PEAK SHAVING**
- ✓ **DEMAND RESPONSE INTEGRATION (COMING SOON)**

### Whole Home Backup One Line Diagram



## ENVY 12kW

### Input DC (PV Side)

|                                                 |                                      |
|-------------------------------------------------|--------------------------------------|
| Max. DC Input Power for Single MPPT             | 12000W/7000W/7000W 1 x 12kW, 2 x 7kW |
| Max. PV Input Power                             | 21000W                               |
| Max. PV Power Delivered to Battery & AC Outputs | 18000W                               |
| DC Input Voltage Range                          | 100V-600V                            |
| Nominal DC Input Voltage                        | 360V                                 |
| Full Power MPPT Voltage Range                   | 230V-500V                            |
| Max. DC Input Current                           | 25A/15A/15A                          |
| MPPT Number/(Strings per MPPT)                  | 3(2/1/1)                             |

### Output/Input AC (Grid)

|                                                    |                                          |
|----------------------------------------------------|------------------------------------------|
| Continuous AC Power to Grid                        | 12000W (240V)                            |
| Continuous AC Power to Load with Grid or Generator | 48000W (240V) AC Passthrough/ 21000W GEN |
| Nominal Output Voltage                             | 120V/240V                                |
| Max. Continuous AC Current                         | 50A @ 240V                               |
| Nominal AC Frequency                               | 50Hz/60Hz                                |

### Output AC (Off-Grid)

|                                     |                                               |
|-------------------------------------|-----------------------------------------------|
| Max. Output Power                   | 12000W (240V)                                 |
| Nominal Output Voltage              | 120V/240V                                     |
| Nominal Output Frequency            | 50Hz/60Hz                                     |
| Nominal Output Current              | 50A @ 240V                                    |
| Peak Power                          | 14kW 10 minutes / 16kW 5 minutes / 20kW 500ms |
| Switching Time                      | Seamless                                      |
| Dedicated Auto-start Generator Port | 100A Max / 90A Continuous                     |

### Battery Parameters

|                                      |                               |
|--------------------------------------|-------------------------------|
| Compatible Battery Type              | eVault Max, eFlex, LFP-10 MAX |
| Nominal Battery Voltage              | 48V                           |
| Battery Voltage Range                | 48V-56V                       |
| Maximum Charging/Discharging Current | 250A                          |
| Maximum Charging/Discharging Power   | 12000W                        |

### Efficiency

|                 |       |
|-----------------|-------|
| MPPT Efficiency | 99.9% |
| Max. Efficiency | 97.5% |
| CEC Efficiency  | 96.5% |

### Protection

|                           |                              |
|---------------------------|------------------------------|
| Anti-islanding Protection | YES                          |
| DC Switch                 | YES                          |
| Ingress Protect Degree    | NEMA 4X, IP65                |
| SPD Protection            | YES                          |
| AFCI                      | YES                          |
| RSD                       | Built-in APsmart Transmitter |

### General Data

|                           |                                            |
|---------------------------|--------------------------------------------|
| Dimensions                | 31.1 x 20.5 x 10.4 in (790 x 520 x 264 mm) |
| Weight                    | 127 lbs (58 kg)                            |
| Display                   | Color LCD                                  |
| Ambient Temperature Range | -20 to 60 °C (-4 to 140 °F)                |
| Cooling                   | FAN                                        |
| Communication             | RS485/Wi-Fi/CAN                            |

### Standard & Certification

|                |                                                                              |
|----------------|------------------------------------------------------------------------------|
| Certifications | UL1741, UL1741SB, IEEE1547A, Rule 21, ISO-NE, FCC15 class B, HECO, CEC, Luma |
| Warranty       | 10 Years                                                                     |