

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**

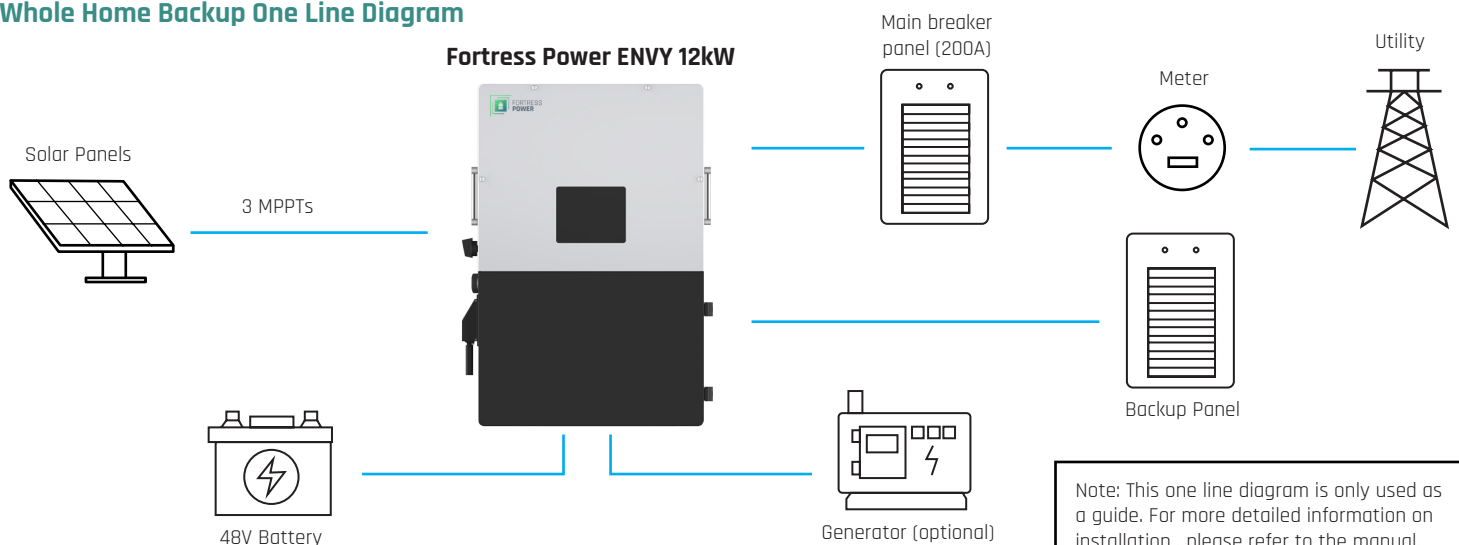
KEY FEATURES:

- 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



Note: This one line diagram is only used as a guide. For more detailed information on installation, please refer to the manual.

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 / Lead Acid or Fortress Lithium Batteries Only