



EVOLUTION™ SERIES INVERTER/CHARGERS



**A BETTER WAY TO
DO OFF-GRID**



1-800-561-5885
samlexamerica.com/evo

How an Inverter/Charger Works

The primary function of an inverter/charger is to charge your batteries and convert the battery current into usable household power.



- 1 Pure Sine Inverter
 - 2 Battery Charger
 - 3 Transfer Switch
- One device does it all!**



EVO-2212

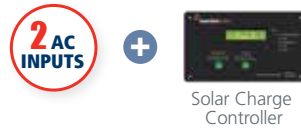


Dual AC Inputs

OPTIONAL REMOTE: EVO-RC OR EVO-RC-PLUS

MODELS: 2200W - 4000W **12 VDC | 24VDC** **120 VAC | 230 VAC**

This inverter/charger accepts input from the grid, a generator, and a solar charge controller to charge a bank of batteries – and all can be connected at the same time. The unit will automatically switch between power sources as they become available with priority being given to the grid.



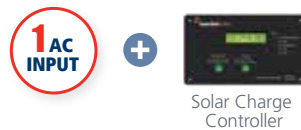
ETL FC ROHS ABYC
3 YEAR LIMITED WARRANTY

Single AC Input

OPTIONAL REMOTE: EVO-RC-PLUS

MODELS: 1200W **12 VDC | 24VDC** **Hardwire Option**

This inverter/charger has 1 AC input which means it accepts grid or generator input. At 1200W output and a lower height clearance, the F Series is perfect for those small spaces. It also comes with a hardwire option.



ETL FC ROHS ABYC
3 YEAR LIMITED WARRANTY

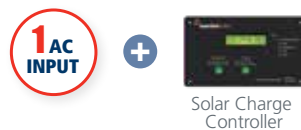


NEW Split Phase

OPTIONAL REMOTE: EVO-RC-PLUS

MODELS: 4200W **48 VDC** **120 / 240 VAC**

This inverter/charger expands the EVO™ line to include a 4200W unit with 48 VDC input, and 120/240 VAC split phase output to meet the needs of most common off-grid residential systems. The split phase functionality allows you to power everything from a small toaster (120V) to a 40-gallon electric water heater (240V).

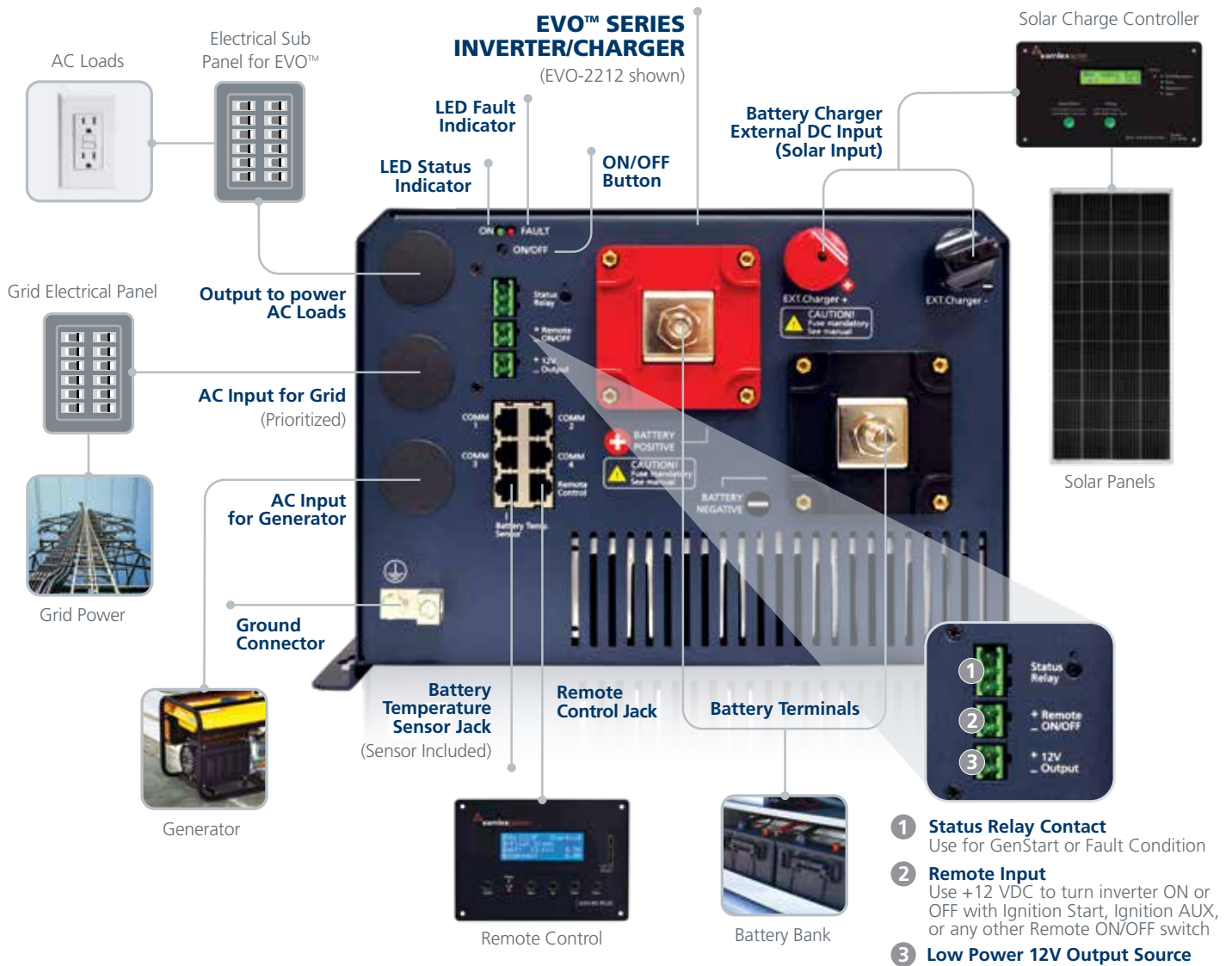


SP FC
3 YEAR LIMITED WARRANTY

EVOLUTION™ SERIES | Inverter/Chargers

What do you need to power when off the grid?

Appliances and household amenities in your cabin, power tools in your work truck, a coffee maker, microwave, and laptop in your RV. Samlex's EVO™ inverter/charger is THE choice for a complete off-grid power solution.



EVO™ Remote Controls

Comes with SD card slot which supports up to 32GB card.

(Sold separately)

ALLOWS YOU TO...

- Log historic power consumption, inverter function, battery charging activity, faults and the conditions during use.
- Program parameters and profiles for EVO™ Inverter/Charger.
- View performance detail in real time.

Experience the **EVOLUTION™**



Why choose an Inverter/Charger?

- Pure sine inverter, battery charger and transfer switch - ALL IN ONE device. Simplifies installation and maintenance.
- Run sensitive equipment and appliances with clean, pure sine AC power - same as you'd expect from the grid.
- Automatically keep your batteries fully charged with automatic generator start/stop.
- Fast synchronized transfer (<16ms) means no power interruption when the power source changes from grid/generator to inverter.

Product Features



Programmable Battery Charger with Equalization

Choose between Adaptive Algorithm or User Programmable multiple charging profiles to reduce excess charging and extend battery life. For most battery types, including Lithium.



3X Surge Capability

Allows you to turn on and power high surge items like sump pumps, compressors, refrigerators, freezers, air conditioners, quartz lamps, microwaves and heaters.



Input for Solar Charge Controller or other DC source

Connect a solar charge controller directly to the EVO™ inverter/charger. Other DC sources could be wind power for fixed off-grid installations, or the vehicle alternator in mobile fleet applications.



Active Power Boost

Allows inverter loads to exceed the continuous power output for short durations. No need to upsize to a larger unit to handle heavy surge loads, saving you money.

	TIME	5 SECS	30 SECS	5 MINS	30 MINS
	POWER BOOST	150%	140%	120%	110%
MODELS	EVO-1212F / 1224F	1800W	1680W	1440W	1320W
	EVO-2212 / 2224	3300W	3080W	2640W	2420W
	EVO-3012	4500W	4200W	3600W	3300W
	EVO-4024	6000W	5600W	4800W	4400W

Other Smart Features:



Bullet Proof Intelligence makes the EVO™ practically indestructible in the field.

Online Mode

Use to prioritize batteries/inverter over the grid. Ideal for those who want to primarily use solar power when grid is expensive.

Protection Monitoring

Detects adverse internal/external conditions. Will operate in extreme temperatures at -20°C to +60°C, -4°F to 140°F.

Intelligent Temperature Management

Activates cooling only when needed resulting in reduced fan noise and cooler operating temperature.

Programmable Power Save Mode

Extends battery/inverter run time during grid outage or failure. Power consumption is < 8 Watts in Sleep Mode.

Complete Off-Grid Solution



Commercial Vehicles

- Run power tools, test equipment and other AC devices from an auxiliary battery bank.
- Important to safely and rapidly recharge batteries when grid or alternator are available without having to reconfigure your setup.



RV & Marine

- Rough seas and extended trips on the water make dependable AC and backup power a necessity for any size of boat.
- Off-grid RV living requires an electrical system to maintain the comforts of home when you don't have access to grid power.



Backup Power

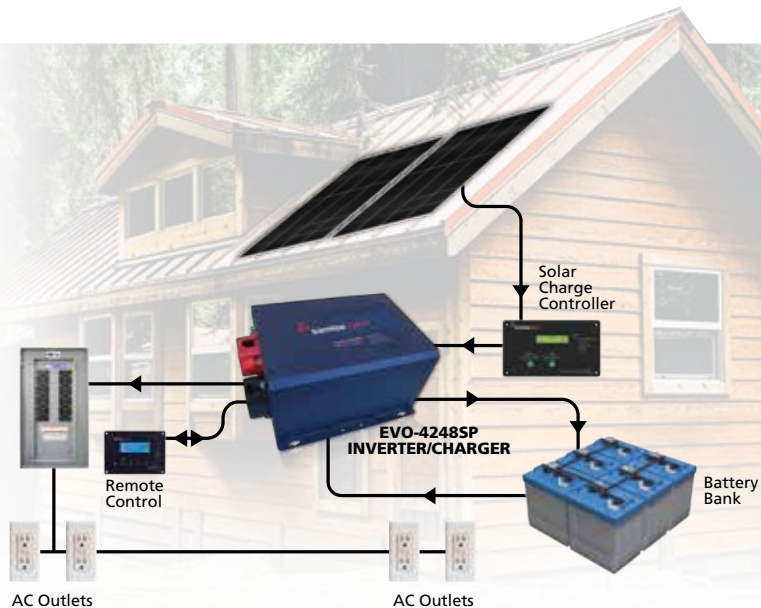
- Be prepared for power outages caused by major storms or other disasters, with the EVO™ for emergency backup support.

NEW EVO-4248SP

Split phase AC power for off-grid living

Remote Locations

When there is no electricity available, use solar as the primary source to charge your batteries. Connect the EVO™ to a breaker panel and receive clean 120V/240V split phase power through your whole house. Pair with grid for backup power, or generator for off-grid power.



What Our Customers Say About Samlex...

"We were looking for a high-quality modern inverter/charger unit to use as the core of our electrical system. The features of the EVO™ inverter/charger in combination with the reliability and price point means the EVO™ offers us outstanding value as an OEM."

"Months of research came down to the Samlex inverter/charger which had the qualifications I was looking for with performance and robustness. The EVO™ has been running straight for over two years, never has been turned off; it works beautifully!"



	EVO-1212F	EVO-1224F	EVO-2212	EVO-3012	EVO-2224	EVO-4024
INVERTER NOMINAL AC OUTPUT VOLTAGE, FREQUENCY, THD	120 VAC ± 5%, Single Phase, 60 Hz ± 0.1 Hz, Pure Sine Waveform < 5% THD		120 VAC ± 5%, Single Phase, 60 Hz / 50 Hz ± 0.1 Hz, Pure Sine Waveform < 5% THD			
CONTINUOUS AC OUTPUT CURRENT (A)	10A		18A	25A	18A	33A
SURGE POWER FOR 1 MS	300% (3600VA, 30A)		300% (6600VA, 54A)	300% (9000VA, 75A)	300% (6600VA, 54A)	300% (12,000VA, 99A)
SURGE POWER FOR 100 MS	200% (2400VA, 20A)		200% (4400VA, 36A)	200% (6000VA, 50A)	200% (4400VA, 36A)	200% (8000VA, 66A)
NO LOAD POWER CONSUMPTION	Normal Mode: 20W; Power Saving Mode: <8W; Standby Mode: <5W		Normal Mode: 30W; Power Saving Mode: <8W; Standby Mode: <5W		Normal Mode: 25W; Power Saving Mode: <8W; Standby Mode: <5W	
AC INPUT FROM GRID/GENERATOR	120 VAC (60-140VAC +/- 5% selectable) ; 60Hz		120 VAC (60 -140 VAC ± 5% selectable) ; 60Hz / 50Hz (40 - 70 Hz selectable)			
MAXIMUM PROGRAMMABLE AC INPUT CURRENT	5 - 20A (Default - 20A)		5-40A (Default 30A)	5-70A (Default 30A)	5-40A (Default 30A)	5-70A (Default 30A)
TRANSFER RELAY TRANSFER RELAY TYPE AND CAPACITY	SPDT, 40A		SPDT, 40A	DPDT, 70A	SPDT, 40A	DPDT, 70A
TRANSFER TIME: INVERTER TO GRID/GENERATOR	< 1 ms (Synchronized transfer at zero crossing)					
TRANSFER TIME: GRID/ GENERATOR TO INVERTER	Up to 18ms (Synchronized transfer at zero crossing)		Up to 16 ms (Synchronized transfer at zero crossing)			
PROGRAMMABLE BULK CHARGING CURRENT AND VOLTAGE	0 - 60A, DC	0 - 40A, DC	0-100A, DC; 12-16.5 VDC	0-130A, DC; 12-16.5 VDC	0-70A, DC; 24-33 VDC	0-110A, DC; 24-33 VDC
BATTERY TEMPERATURE COMPENSATION	Battery Temperature Sensor included. Compensation Range from -20°C to + 60°C					
EXTERNAL BATTERY CHARGER (SOLAR CHARGE CONTROLLER)	50A					
COOLING	2 Fans – Temperature Controlled, Variable Speed					
PROTECTIONS/ALARMS	Battery Low Voltage Alarm and Low / Over Voltage Shut Down; Shut Down under Input Over Current, Output Over Current, Output Overload and Output Short; Transformer and Heat Sink Overheat Shut Down; Immunity Against Conducted Electrical Transients in Vehicles					
ENVIRONMENTAL TEMPERATURE	OPERATING: -20 to +60°C (-4 to 140°F); STORAGE: -40 to +70°C (-40 to 158°F)					
DIMENSIONS W X D X H	324 x 415 x 148 mm; 12.76 x 16.34 x 5.83 in		325 x 426 x 207mm 12.79 x 16.77 x 8.15 inches			
WEIGHT	17.6 Kg / 38.8 lb		27 Kg / 59 lb	29 Kg / 64 lb	26 Kg / 57 lb	29 Kg / 64 lb
COMPLIANCE SAFETY	ETL listed to ANSI / UL STD. 458, and to CAN / CSA STD. C22.2 No. 107.1-01		ETL listed to ANSI/UL Standards: 1741 & 458 (with Marine Supplement*), and to CAN / CSA Std. C22.2 No. 107.1-16			
EMI / EMC	Certified to FCC Part 15(B), Class A.		Certified to FCC Part 15(B), Class A.			
RoHS	Compliant with RoHS Directive 2011/65/EU		Compliant with RoHS Directive 2011/65/EU			
ABYC	Meets ABYC A-31 and ABYC E-11 ; Meets Ignition Protection SAE-J1171 and ISO 8846		Meets ABYC A-31 and ABYC E-11 ; Meets Ignition Protection SAE-J1171 and ISO 8846			

(1) All AC power ratings in the Inverter Section are specified at Power Factor = 0.95
 (2) All specifications given above are at Ambient Temperature of 25°C / 77°F unless specified otherwise
 (3) Specifications are subject to change without notice
 (4) EVO-4248SP specs available separately

* Marine Supplement is valid when installing using Drip Shield. Please see Figs 3.1(a), 3.2(b), 3.3(b) and 3.4(b) in the Manual.

