



samlexamerica®

EVOLUTION™

EVOLUTION™ Series Inverter/Charger

⚡ Pure Sine Wave Inverter, Adaptive Battery Charger, Transfer Relay – All in ONE unit.

Using state of the art technology, the Samlex EVO™ inverter/charger operates at 165 million instructions per second with lightning fast load & response times, has 9 points of physical protection monitoring (being scanned up to 10,000 times per second) to detect fault conditions & prevent product damage and uses 5 different temperature sensors to activate 2 speed controlled cooling fans. It doesn't get much smarter than this. Samlex inverter/chargers are robust, reliable and affordable for everyone. Experience the Evolution™.

Two Separate AC Inputs for Grid & Generator

Connect grid and generator simultaneously. Priority is given to grid. Both AC input ranges are fully programmable. Generator input is specifically designed to have more tolerance for wave form distortion.

Adaptive Battery Charger

Algorithm monitoring in the Bulk Stage assesses the battery's condition. The remaining charging stages are based on the battery's condition rather than a pre-set charging time. Reduces excess charging time and extends life of battery.

Synchronized Transfer at Zero Crossing

Zero transfer time when switching from inverter to grid. When grid comes on, the inverter synchronizes with the wave form and then transfers instantly at zero crossing without any interruption to the load.

High Surge Inverter with Active Power Boost

In addition to 3X surge on start up, inverter loads can exceed the continuous power output by the Power Boost Allowances without triggering an overload fault. Get 140% for 30 seconds or 120% for five minutes! Use a smaller, more cost effective inverter to handle heavy surge loads.

Input for Solar Charge Controller

Connect a solar charge controller directly to the EVO™ through the Battery Charger External DC Input (Solar Input).

Online Mode

Use to prioritize batteries/inverter over the grid. Ideal for those who want to operate primarily on solar power even when grid is available (when grid is costly). In Online Mode, grid is only used as back-up power when batteries necessitate charge.

Bullet Proof Intelligence

9 physical points of protection monitoring are scanned up to 10,000 times per second to detect adverse internal and external conditions. When detected the unit will initiate a healthy shutdown before any damage can be done, making the EVO™ practically indestructible in the field.

Wide Operating Temperature Range

Will operate below zero! -20°C to +60°C, -4°F to 140°F.

Temperature Controlled Cooling

2 internal fans are speed controlled based on 5 different temperature sensors. Reduces unnecessary fan noise and energy consumption by cooling only where and when needed.

Conformally Coated Circuit Board

Dampens vibration, protects from corrosion in high humidity environments or marine salt air.

Safety Certified

ETL safety listed to stringent UL Standards: 1741 & 458 (with Marine Supplement), and to CSA C22.2 No. 107.1-01. EMI/EMC compliant with FCC Part 15(B), Class B.

FOR USE WITH: Alternative Energy Systems, trucks, boats, RVs, cabins, remote locations, areas with unreliable utility power and for emergency power back-up.

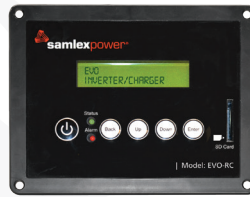
2 YEAR LIMITED WARRANTY





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EVOLUTION™



Programmable Remote Control
Model: EVO-RC
(Sold Separately)

Inverter/Charger

⚡ Pure Sine Wave

Models:
EVO-2212
EVO-3012
EVO-2224
EVO-4024

2 YEAR LIMITED WARRANTY



INVERTER	EVO-2212	EVO-3012	EVO-2224	EVO-4024	
NOMINAL AC OUTPUT, FREQUENCY, THD	120 ± 5% VAC, 60 Hz ± 0.1, < 5% THD				
INPUT BATTERY VOLTAGE RANGE	9.1 - 17 VDC	9.1 - 17 VDC	18.1 - 34 VDC	18.1 - 34 VDC	
CONTINUOUS POWER OUTPUT AT 25° C	2200 VA	3000 VA	2200 VA	4000 VA	
CONTINUOUS AC OUTPUT CURRENT (A)	18A	25A	18A	33A	
SURGE POWER FOR 1 MS	300% (6600VA, 54A)	300% (9000VA, 75A)	300% (6600VA, 54A)	300% (12000VA, 99A)	
SURGE POWER FOR 100 MS	200% (4400VA, 36A)	200% (6000VA, 50A)	200% (4400VA, 36A)	200% (8000VA, 66A)	
POWER BOOST FOR 5 SECONDS	150% (3300W)	150% (4500W)	150% (3300W)	150% (6000W)	
POWER BOOST FOR 30 SECONDS	140% (3080W)	140% (4200W)	140% (3080W)	140% (5600W)	
POWER BOOST FOR 5 MINUTES	120% (2640W)	120% (3600W)	120% (2640W)	120% (4800W)	
POWER BOOST FOR 30 MINUTES	110% (2420W)	110% (3300W)	110% (2420W)	110% (4400W)	
MAXIMUM CONTINUOUS DC INPUT CURRENT	266A	373A	133A	266A	
INVERTER EFFICIENCY (PEAK)	90%	90%	93%	94%	
NO LOAD POWER CONSUMPTION	Normal Mode: 30W; Power Saving Mode: <8W		Normal Mode: 25W; Power Saving Mode: <8W		
AC INPUT FROM GRID/GENERATOR	120 VAC Nominal (60 - 140 VAC ± 5% selectable) ; 60Hz / 50Hz (40 - 70 Hz selectable)				
PROGRAMMABLE AC INPUT CURRENT	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	DPDT, 70A (2X35A contacts)	SPDT, 40A	DPDT, 70A (2X35A contacts)
TRANSFER TIME: INVERTER TO GRID/GENERATOR	< 1 ms (Synchronized transfer at zero crossing)				
TRANSFER TIME: GRID/GENERATOR TO INVERTER	Up to 16 ms (Synchronized transfer at zero crossing)				
INTERNAL BATTERY CHARGER	AC INPUT VOLTAGE RANGE	120 VAC Nominal (60 - 140 VAC ± 5% selectable) ; 60Hz / 50Hz (40 - 70 Hz selectable)			
MAXIMUM AC INPUT CURRENT	15A	20A	19A	30A	
PROGRAMMABLE CHARGING CURRENT AND VOLTAGE	0-100A ; 13-16 VDC	0-130A ; 13-16 VDC	0-70A ; 26-32 VDC	0-110A ; 26-32 VDC	
POWER FACTOR	> 0.95				
CHARGER EFFICIENCY	75%	75%	86%	85%	
CHARGING STAGES & CONTROL	Normal Mode: 3 Stages – Bulk, Absorption and Float; Equalization Mode: 4 Stages – Bulk, Absorption, Equalization and Float; Adaptive Charging Control				
BATTERY TEMPERATURE COMPENSATION	Battery Temperature Sensor included. Compensation Range from -20°C to 60°C				
BATTERY CHARGER EXTERNAL INPUT (SOLAR INPUT)	CHARGING INPUT VOLTAGE RANGE	13 - 16 VDC	13 - 16 VDC	26 - 32 VDC	26 - 32 VDC
MAXIMUM CHARGING CURRENT	50A				
COOLING	2 Fans – Temperature Controlled, Variable Speed				
PROTECTIONS/ALARM	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				
COMPLIANCE	SAFETY/EMI/EMC/RoHS	ETL listed to UL Standards: 1741 & 458 (with Marine Supplement), and to CSA C22.2 No. 107.1-01. ; Compliant with RoHS2 Directive 2011/65/EU ; EMI/EMC compliant with FCC Part 15(B), Class B.			
ENVIRONMENTAL	TEMPERATURE	OPERATING: -20°C to 60°C (-4°F to 140°F); STORAGE: -40°C to 70°C (-40°F to 158°F)			
OPERATING HUMIDITY	0 to 95% RH non condensing				
WEIGHT AND DIMENSIONS	W x D x H	325 x 426 x 207mm / 12.79 x 16.77 x 8.15 inches			
WEIGHT	27 Kg / 59 lb	29 kg / 64 lb	26 Kg / 57 lb	29 Kg / 64 lb	

Note: (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

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