

**DC-AC Inverter/** Charger **♣** Modified Sine Wave Model SAM-1500C-12 12 VDC - 115 VAC

## **Design Features**

- Integrated 1500W Modified Sine Wave Inverter, 30A Transfer switch, and 2 Stage 12 VDC, 15A Battery Charger.
- High efficiency, lightweight, and compact for easy installation
- Separate ON/OFF control for Inverter and Battery Charger for selectable operation as inverter, charger or UPS function
- 4 color LED indicators to monitor operational status
- Load controlled fan for efficient cooling when required
- Electronic protections including GFCI when in Inverter Mode

	MODEL NO.	SAM-1500C -12
	CONTINUOUS ACTIVE OUTPUT POWER	1500W (Power Factor = 1)
	MAXIMUM SURGE POWER	3000W (<4 millisec; Power Factor = 1)
OUTPUT:	NOMINAL OUTPUT VOLTAGE	115 VAC, +10% / -5%
INVERTER MODE	OUTPUT FREQUENCY	60 Hz ± 5%
	EFFICIENCY	87% (@ 100% load)
	INVERTER ON/OFF CONTROL	By front panel Switch
OUTPUT: GRID	NOMINAL VOLTAGE, FREQUENCY OF GRID	120 VAC, 60 Hz
PASS THROUGH	MAXIMUM POWER	1500W (Power Factor = 1; Battery fully charged)
	BATTERY SYSTEM VOLTAGE	12V (10.5V to 15.5V ± 0.5V)
INPUT: BATTERY	DC CURRENT DRAW FROM BATTERY AT OUTPUT POWER	150ADC at battery voltage of 12.5 VDC
	DC NO LOAD CURRENT DRAW IN INVERTER MODE	0.65A to 0.85A
INPUT: GRID	NOMINAL VOLTAGE, FREQUENCY	120 VAC, 60 Hz
	MAXIMUM AC INPUT CURRENT	15A (Protected by 15A breaker supplying Grid input)
	CURRENT RATING OF TRANSFER RELAY	30A
TRANSFER RELAY K1	TRANSFER TIME FROM GRID TO INVERTER	2 to 3 seconds
	TRANSFER TIME FROM INVERTER TO GRID	Up to 1 second
CROUND	TRANSFER TIME TROM INVERTER TO GRID	ор то т эссони
GROUND SWITCHING RELAY K2	CURRENT RATING	12A
	CHARGING ALGORITHM	2 Stage Charger - Bulk & Float
	FLOAT VOLTAGE	$13.8V \pm 0.3V$
	BULK CHARGE/MAX. CHARGING CURRENT	15A
BATTERY	MAXIMUM AC INPUT CURRENT	< 5A at 120 VAC
CHARGER	AC INPUT POWER FACTOR	0.6
CHARGER	EFFICIENCY	80 ± 5%
	VOLTAGE & CURRENT RATING OF FUSE	5 mm x 20 mm, Fast Acting Glass Tube Fuse 125V / 250V, 5A ; Bussman GMA-5 or equivalent
	CHARGER ON/OFF CONTROL	By front panel Switch
PASS THROUGH MODE: LOAD SIDE	OVERLOAD / SHORT CIRCUIT SHUTDOWN	Load >15A: Input Circuit Breaker on the unit will trip
PASS THROUGH	HIGH AC INPUT VOLTAGE SHUTDOWN	143 VAC. Auto reset at 138 VAC (No transfer to Inverter)
MODE: CHARGER SECTION	LOW AC INPUT VOLTAGE SHUTDOWN	< 10 VAC. Auto reset at > 75 VAC (No transfer to Inverter)
	GROUND FAULT SHUTDOWN IN CHARGER / PASS THROUGH MODE	GFCI of AC outlet supplying AC input will trip
	OVERLOAD SHUTDOWN	> 1650 ± 10% for up to 7 sec
	LOW BATTERY INPUT VOLTAGE ALARM	10.8 ± 0.3V
	LOW BATTERY INPUT VOLTAGE SHUTDOWN	10.5 ± 0.3V; Auto reset at 11.7 ± 0.3V
PROTECTIONS	BATTERY (INPUT) OVER VOLTAGE SHUTDOWN	> 15.5V; Auto reset at < 15.5V
PROTECTIONS:	COOLING - LOAD CONTROLLED FAN	Inverter Mode: ON at 85W; Charging Mode: ON at charging current $> 3A \pm 1A$
INVERTER MODE	INVERTER OVER TEMPERATURE SHUTDOWN	Internal hot spot > 88° to 110°. Auto reset when hot spot cools down 10° to 15°C below the threshold
	GROUND FAULT SHUTDOWN	Leakage > 5.8 mA. Manual reset
	DC INPUT REVERSE POLARITY	Fuse 240A (8 pcs. 30A Automotive Type ATC Fuses in parallel)
	DC INPUT	Nut & Bolt, M9
CONNECTIONS	AC INPUT / AC OUTPUT	6 foot cord with NEMA5-15P Plug / 2 x NEMA5-15R Outlets
	LED DISPLAY	GREEN "Inverter"; GREEN "Charger"; RED "Fault"; YELLOW "Input Fault"
	OPERATING TEMPERATURE RANGE (MIN. TO MAX.)	o°C to 25°C / 32°F to 77°F at 100% loading; 26°C to 35°C / 78.8°F to 95°F at 80% loading
GENERAL	OPERATING HIIMIDITY	3
GENERAL	OPERATING HUMIDITY DIMENSIONS (W X D X H)	< 80%; Non-condensing 202 x 345 x 84 mm / 7.95 x 13.58 x 3.30 in

NOTE: Specifications are subject to change without notice