

# SAMLEX POWER PRODUCTS



## TN Series Pure Sine Wave Inverters

**Pure Sine Wave Inverter with built-in Solar Charge Controller/AC charger & Transfer Relay for UPS function**

### FEATURES

- True sine wave output (THD<3%)**
- Power ON-OFF switch**
- Saving mode set by controller**
- LED indicator for operation status**
- Thermostatically controlled cooling fan**
- Protections: Bat. low alarm / Bat. low shutdown /Over temp. / Output short / Input polarity reverse / Overload**
- Application: Home appliance, power tools, office and portable equipment, vehicle and yacht, etc.**
- Solar panel input and with UPS function (TN-1500)**
- Optional monitoring software**
- 2 years warranty**



### TECHNICAL SPECIFICATIONS

MODEL		TN-1500-112F	TN-1500-124F
OUTPUT	RATED POWER (Typ.)	1500W	
	AC VOLTAGE	Factory setting set at 110VAC - 120V 100 / 110 / 115 / 120 selectable by setting button S.W.	
	MAXIMUM OUTPUT POWER	1725W for 180 sec / 2250W for 10s e/c surge power 3000W for 30 cycles	
	WAVEFORM	True sine wave (THD<3%) at rated input voltage	
	FREQUENCY	60±0.1% 50/60 Hz selectable by setting button S.W.	
	AC REGULATION (Typ.)	± 3.0%	
	TRANSFER TIME	t < 10ms inverter ↔ by-pass (TN-1500 only)	
	SAVING MODE (Typ.)	Load 5W will be changed to standby mode	
FRONT PANEL INDICATOR		Battery voltage level, output load level, saving mode, fault and operation status	
INPUT	DC CURRENT (Typ.) Note.5	150A	75A
	NO LOAD DISSIPATION	18W @ standby saving mode	
	OFF MODE CURRENT DRAW	1mA	
	BAT. VOLTAGE	12V	24V
	VOLTAGE RANGE (Typ.)Note.1	10.5 ~ 15VDC	21 ~ 30VDC
	EFFICIENCY (Typ.) Note.2	87%	89%
BATTERY TYPES		Open & sealed Lead Acid	
BATTERY INPUT PROTECTION	FUSE	40A x 5	30A x 3
	BAT. LOW ALARM	11.3 ± 4%	22.5 ± 4%
	BAT. LOW SHUTDOWN	10.5 ± 4%	21 ± 4%
	BAT. POLARITY	By internal fuse open	
OUTPUT PROTECTION	OVER TEMPERATURE	82°C ± 5 °C	82°C ± 5 °C
	OUTPUT SHORT	Protection type: Shut down o/p voltage, re-power on to recover; by internal RTH3 detect on heat-sink of power transistor	
	OVER LOAD (Typ.)	Protection type: Shut down output voltage, Reset: re-power on to recover 105 ~ 115% load for 180 sec., 115% ~ 150% load for 10 sec.	
	CIRCUIT BREAKER	20A	
	GFCI PROTECTION	Yes	
ENVIRONMENT	WORKING TEMP. Note.3	0 ~ +40°C @ 100% load; 60°C @ 50%	
	WORKING HUMIDITY	20% ~ 90% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-30 ~ +70°C / -22 ~ +158°F, 10 ~ 95% RH	
	VIBRATION	10 ~ 500Hz, 3 G 10min./1cycle, 60min. each along X, Y, Z axes	
SAFETY AND EMC	SAFETY STANDARDS	UL458	
	WITHSTAND VOLTAGE	Bat I/P - AC I/P:3.0KVAC Bat I/P - AC O/P:3.0KVAC AC O/P - FG:1.5KVAC	
	EMI CONDUCTION & RADIATION	Compliance to FCC class A	
AC CHARGER	CHARGE CURRENT	5.5A ± 0.5A	2.7A ± 0.4A
	CHARGE VOLTAGE	14.3V ± 4%	28.5V ± 4%
SOLAR CHARGER	MAX OPEN CIRCUIT VOLTAGE	25V	45V
	CHARGE CURRENT (max.)	30A	
	Vmax CHARGE VOLTAGE	14.3 ± 4%	28.5V ± 4%
OTHERS	CONTROL WIRING	RJ11 – RS232 (Option)	
	DIMENSION (L x W x H)	420 x 220 x 88 mm	
	PACKING	6.85Kg; 2pcs/14.7Kg/1.89CUFT	

Technical Specifications subject to change without notification

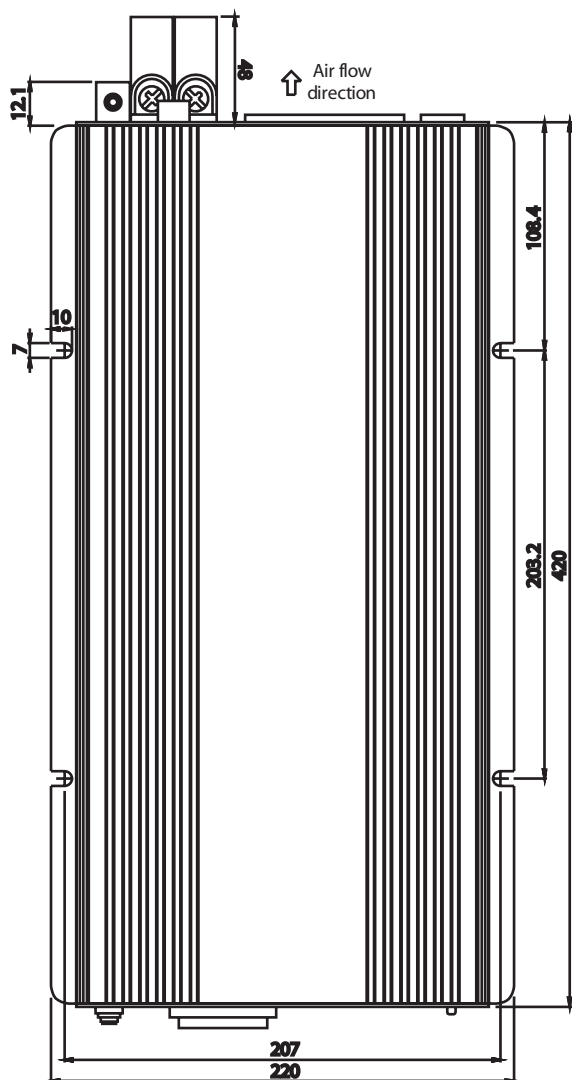
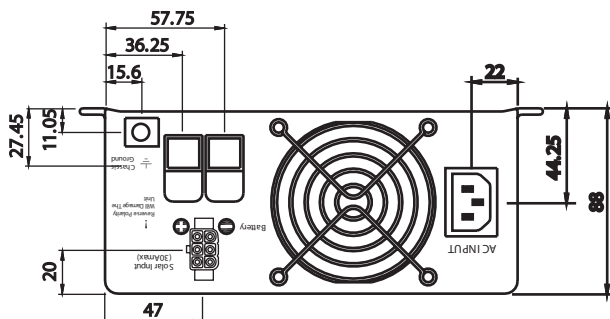


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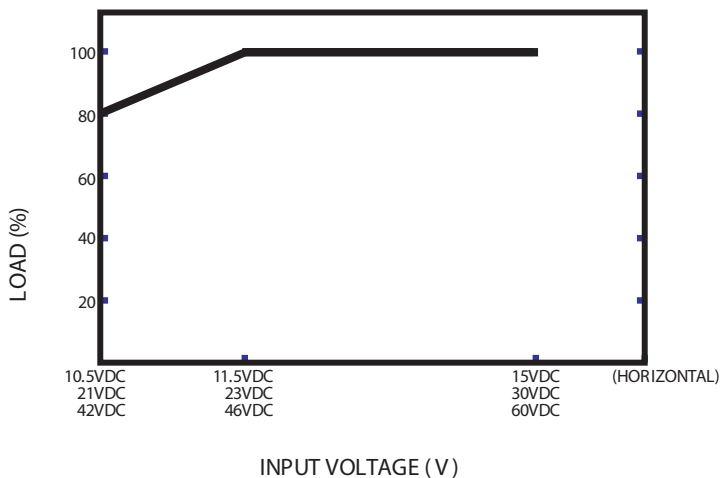
## NOTE

1. Output derating capacity referenced by curve 1.
2. Efficiency is tested by 1000W, linear load at 13V, 26V, 52V input voltage.
3. Output derating capacity referenced by curve 2.
4. All parameters not specified above are measured at rated load, 25C of ambient temperature.
5. DC current is tested by 1500W, linear load at 13V, 26V, 52V input voltage.

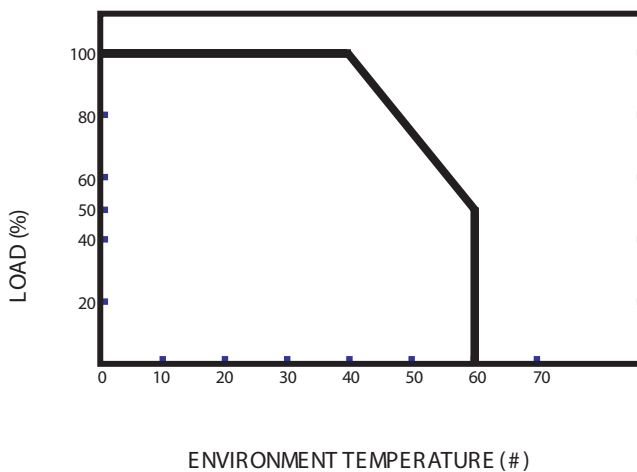
## MECHANICAL SPECIFICATIONS



## Output Derating and Curve



CURVE 1



CURVE 2