



■ Features :

- True sine wave output (THD<3%)
- High surge power up to 3000W
- U.P.S. mode and energy saving mode (selectable)
- High efficiency up to 91%
- Power ON-OFF switch
- Standby saving mode can be selectable
- Front panel indicator for operation status
- Thermostatically controlled cooling fan
- Protections: Bat. low alarm / Bat. low shutdown / Over voltage / Over temp. / Output short / Input polarity reverse / Overload / AC circuit breaker
- Application : Home appliance, power tools, office and portable equipment, vehicle and yacht ...etc.
- Built-in solar / AC charger
- Support RS-232 communication (communication cable RJ11-RS232 included) Note.7
- 3 years warranty



■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

SPECIFICATION

MODEL NO.	TN-1500-112□	TN-1500-124□	TN-1500-148□	TN-1500-212□	TN-1500-224□	TN-1500-248□
	□ = A, F			□ = B, C, D		
OUTPUT	RATED POWER (Typ.) 1500W					
	MAXIMUM OUTPUT POWER (Typ.) 1725W for 180 sec. / 1875W for 10 sec. / surge power 3000W for 30 cycles					
	AC VOLTAGE			AC VOLTAGE		
	Factory setting set at 110VAC			Factory setting set at 230VAC		
	100 / 110 / 115 / 120VAC selectable by setting button S.W			200 / 220 / 230 / 240VAC selectable by setting button S.W		
	FREQUENCY Note.10			FREQUENCY		
	60±0.1Hz 50/60Hz selectable by setting button S.W			50±0.1Hz 50/60Hz selectable by setting button S.W		
	WAVEFORM Note.2			WAVEFORM		
True sine wave (THD<3%)			True sine wave (THD<3%)			
AC REGULATION (Typ.) ±3.0%						
TRANSFER TIME (Typ.) 10ms inverter→→by pass						
SAVING MODE (Typ.) Default disabled. Load ≤5W will be changed to standby mode						
FRONT PANEL INDICATOR Battery voltage level, output load level, saving mode, fault and operation status						
INPUT	BAT. VOLTAGE		BAT. VOLTAGE		BAT. VOLTAGE	
	12V		24V		48V	
	VOLTAGE RANGE (Typ.) Note.3,6		VOLTAGE RANGE (Typ.) Note.3,6		VOLTAGE RANGE (Typ.) Note.3,6	
	10.5 ~ 15VDC		21 ~ 30VDC		42 ~ 60VDC	
	DC CURRENT (Typ.) Note.5		DC CURRENT (Typ.) Note.5		DC CURRENT (Typ.) Note.5	
	150A		75A		37.5A	
NO LOAD DISSIPATION (Typ.) ≤18W @ standby saving mode						
OFF MODE CURRENT DRAW ≤1mA						
EFFICIENCY (Typ.) Note.2		EFFICIENCY (Typ.) Note.2		EFFICIENCY (Typ.) Note.2		
87%		89%		88%		
BATTERY TYPES Open & sealed Lead Acid						
BATTERY INPUT PROTECTION	FUSE					
	40A*5		30A*3		30A*2	
	BAT. LOW ALARM		BAT. LOW ALARM		BAT. LOW ALARM	
	11.3±4%		22.5±4%		45±4%	
BAT. LOW SHUTDOWN		BAT. LOW SHUTDOWN		BAT. LOW SHUTDOWN		
10.5±4%		21±4%		42±4%		
REVERSE POLARITY By internal fuse open						
OUTPUT PROTECTION	OVER TEMPERATURE					
	82°C ±5°C		82°C ±5°C		96°C ±5°C	
	Protection type : Shut down o/p voltage, re-power on to recover ; by internal RTH3 detect on heatsink of power transistor					
	OUTPUT SHORT					
	Protection type : Shut down o/p voltage, re-power on to recover					
OVER LOAD (Typ.)						
105 ~ 115% load for 180 sec., 115% ~ 125% load for 10 sec.						
Protection type : Shut down o/p voltage, re-power on to recover						
CIRCUIT BREAKER						
15A			10A			
GFCI PROTECTION						
Optional (Only type F)				None		
ENVIRONMENT	WORKING TEMP. Note.1					
	0 ~ +40°C @ 100% load ; 60°C @ 50% load					
	WORKING HUMIDITY					
	20% ~ 90% RH non-condensing					
STORAGE TEMP., HUMIDITY						
-30 ~ +70°C / -22 ~ +158°F, 10 ~ 95% RH non-condensing						
VIBRATION						
10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes						
SAFETY & EMC	SAFETY STANDARDS					
	UL458 (only for "GFCI" receptacle-Type F), EAC TP TC 004		EAC TP TC 004		IEC62368-1 CB, EAC TP TC 004 approved; Design refer to BS EN/EN62368-1	
	WITHSTAND VOLTAGE					
	Bat I/P - AC I/P:3.0KVAC Bat I/P - AC O/P:3.0KVAC AC O/P - FG:1.5KVAC					
ISOLATION RESISTANCE						
Bat I/P - AC O/P, Bat I/P - FG, AC O/P - FG: 100M ohms / 500VDC / 25°C / 70% RH						
EMC EMISSION						
Compliance to FCC class A, EAC TP TC 020			Compliance to BS EN/EN55032 class B, 72/ 245/ CEE, 95/ 54/ CE, E-Mark, EAC TP TC 020			
EMC IMMUNITY						
Compliance to EAC TP TC 020			Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, EAC TP TC 020			
AC CHARGER	CHARGE CURRENT (Typ.)		CHARGE CURRENT (Typ.)		CHARGE CURRENT (Typ.)	
	5.5A		2.7A		1.35A	
CHARGE VOLTAGE		CHARGE VOLTAGE		CHARGE VOLTAGE		
14.3V ±4%		28.5V ±4%		57V ±4%		
SOLAR CHARGER	MAX OPEN CIRCUIT VOLTAGE		MAX OPEN CIRCUIT VOLTAGE		MAX OPEN CIRCUIT VOLTAGE	
	25V		45V		75V	
CHARGE CURRENT (max.)		CHARGE CURRENT (max.)		CHARGE CURRENT (max.)		
30A		30A		30A		
CHARGE VOLTAGE		CHARGE VOLTAGE		CHARGE VOLTAGE		
14.3V ±4%		28.5V ±4%		57V ±4%		
OTHERS	CONTROL WIRING Note.7					
	RJ11-RS232					
	MTBF					
	229.1K hrs min. Telcordia SR-332 (Bellcore) ; 38.1K hrs min. MIL-HDBK-217F (25°C)					
DIMENSION						
420*220*88mm (L*W*H)						
PACKING						
6.85Kg; 2pcs/15.7Kg/1.61CUFT						

NOTE

1. Output derating capacity referenced by curve 1.
2. THD and Efficiency is tested by 1000W, linear load at 13V, 26V, 52V input voltage.
3. Input derating capacity referenced by curve 2.
4. All parameters not specified above are measured at rated load, 25°C of ambient temperature and set to factory setting.
5. DC current is tested by 1500W, linear load at 13V, 26V, 52V input voltage.
6. The tolerance of each voltage value by models is: 112/212 → ±0.5V; 124/224 → ±1V; 148/248 → ±2V.
7. The cable is enclosed for the connection between TN-1500 and computer for software monitoring.
8. Please do not turn on the inverter before start the engine if inverter connect to vehicle's battery directly.
9. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).
10. Type F for 60Hz only.

※ Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>

■ **Instructions for TN-1500 monitoring software**

1. The monitoring software can be downloaded from product section (with TN-1500 specification) on MEAN WELL's official website, <http://www.meanwell.com/productsoftware.aspx>
2. The monitoring software can run on Windows 7 English version, Windows 7 Chinese (Traditional, Taiwan) version, Windows 8 English version and Windows 8 Chinese (Traditional, Taiwan) version
3. Installation of TN-1500 unit and PC

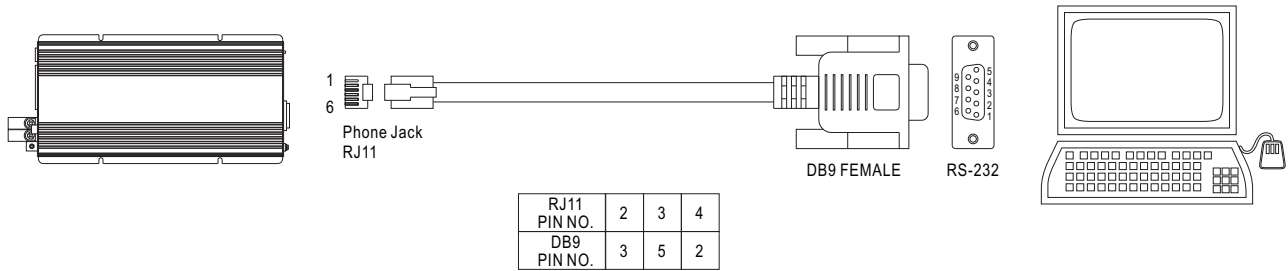


Figure 1

4. Explanation of Monitoring Manu

4.1 Main Page

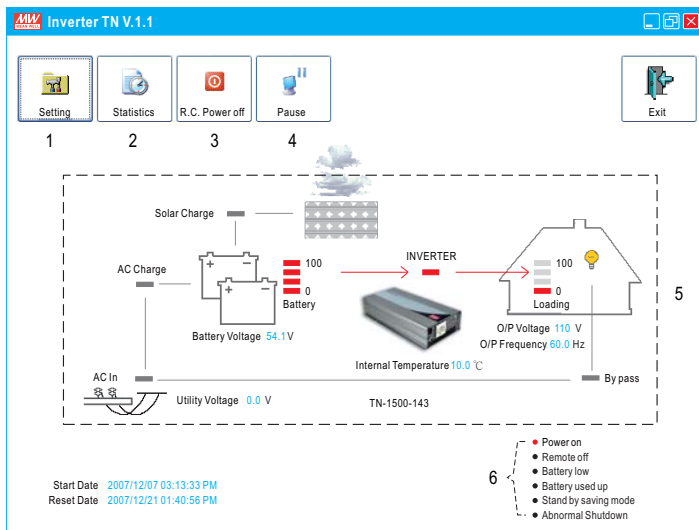


Figure 2

1. Setting: Adjustment for output voltage, charging related voltage, frequency, and operation mode. Please refer to Figure 3 for details.
2. Statistics: Calculate for the percentage of operating period for each operation mode. Please refer to Figure 4 for details.
3. R.C. Power off: Power can be turned ON or OFF at the remote location.
4. Pause: Stop refreshing the page of monitoring software.
5. Status of unit: Indicating current operating status of TN-1500.
6. Signals that display current condition of the unit.

4.2 Setting Page

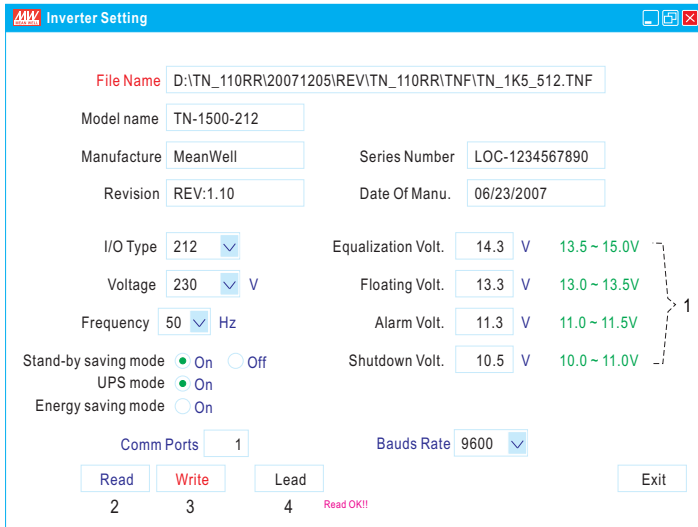


Figure 3

1. User can adjust the settings based on the characteristics of batteries been used: Equalization Voltage, Floating Voltage, Alarm Voltage, and Shut-down Voltage. UPS Mode / Energy Saving Mode selection and AC output voltage and frequency can also be set in this page.
2. Read: Read current settings of the unit.
3. Write: Write the revised setting into the unit.
4. Load: Load in factory default settings.

4.3 Statistic Page

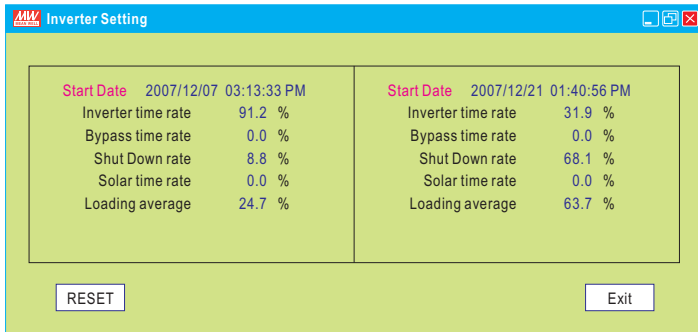
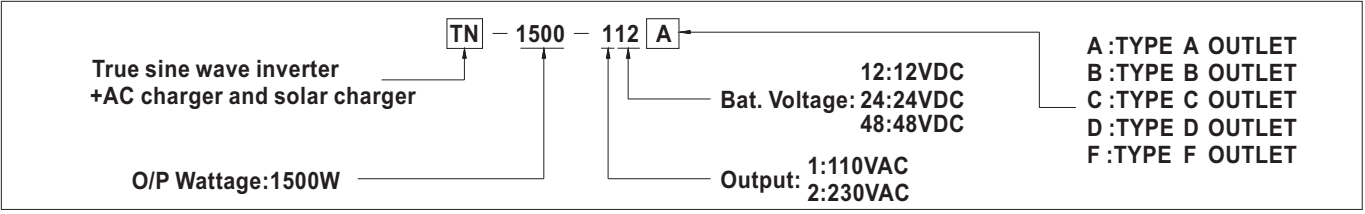


Figure 4

1. Start Date: Date that installing the monitoring software.
2. Reset Date: Date that resetting the statistics. The Start Date will not be influenced by resetting the statistics or turning off the unit.
3. Inverter time rate: Operating period of "Inverter Mode" represents how many percent of the whole operating period.
4. Bypass time rate: Operating period of "Bypass Mode" (energy provides directly by the utility) represents how many percent of the whole operating period.
5. Shut down rate: Percentage of time period that the unit is under the condition of shut down.
*** Inverter time rate + Bypass time rate + Shut down rate = 100%**
6. Solar time rate: Percentage of time period that the solar charger is functioning after turning on the TN-1500 unit.
7. Loading average: Average loading after turning on the TN-1500 unit.



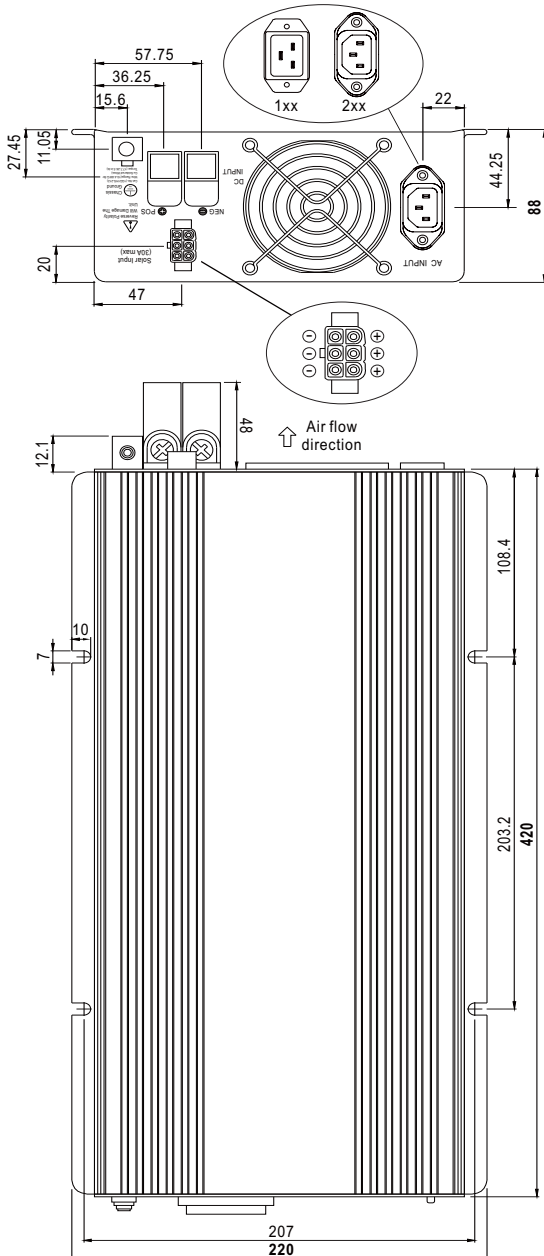
■ AC Output Socket (optional)

MODEL NO.	TN-1500-112 <input type="checkbox"/>	TN-1500-124 <input type="checkbox"/>	TN-1500-148 <input type="checkbox"/>	TN-1500-212 <input type="checkbox"/>	TN-1500-224 <input type="checkbox"/>	TN-1500-248 <input type="checkbox"/>
Socket type						
	TYPE-A		TYPE-F		TYPE-B	
	Standard		Optional		Optional	
Country	USA		GFCI (60Hz)		EUROPE	
Certificate						

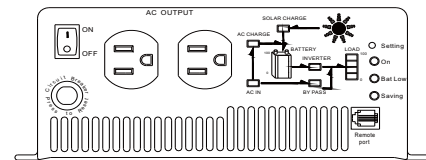
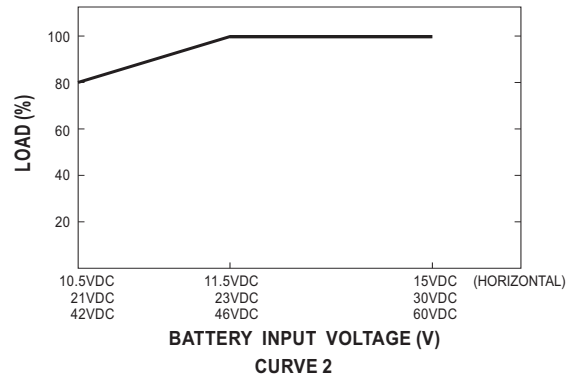
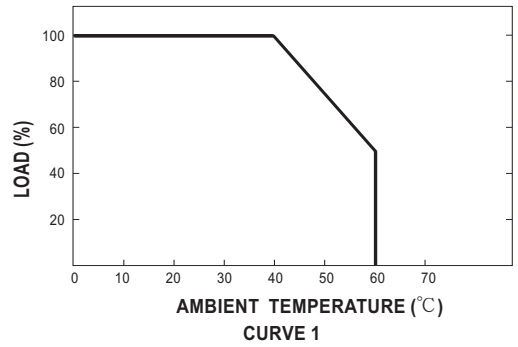
■ Mechanical Specification

(Unit: mm , tolerance ±0.5mm)

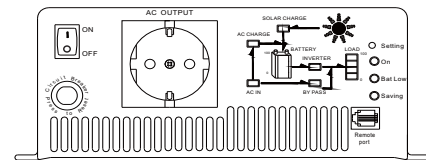
Unit:mm



■ Derating Curve



Type-A



Type-B