



■ 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						Factory setting set at 110VAC
	AC VOLTAGE						Factory setting set at 230VAC
	FREQUENCY						100 / 110 / 115 / 120VAC selectable by setting button S.W
	FREQUENCY						200 / 220 / 230 / 240VAC selectable by setting button S.W
	FREQUENCY						60 ± 0.1Hz 50/60Hz selectable by setting button S.W
	FREQUENCY						50 ± 0.1Hz 50/60Hz selectable by setting button S.W
INPUT	WAVEFORM						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
	BAT. VOLTAGE						12V 24V 48V 12V 24V 48V
	VOLTAGE RANGE (Typ.)						10.5 ~ 15VDC 21 ~ 30VDC 42 ~ 60VDC 10.5 ~ 15VDC 21 ~ 30VDC 42 ~ 60VDC
	DC CURRENT (Typ.)						150A 75A 37.5A 150A 75A 37.5A
BATTERY INPUT PROTECTION	NO LOAD DISSIPATION (Typ.)						≤ 18W @ standby saving mode
	OFF MODE CURRENT DRAW						≤ 1mA
	EFFICIENCY (Typ.)						87% 89% 89% 88% 90% 91%
	BATTERY TYPES						Open & sealed Lead Acid
	FUSE						40A*5 30A*3 30A*2 40A*5 30A*3 30A*2
	BAT. LOW ALARM						11.3 ± 4% 22.5 ± 4% 45 ± 4% 11.3 ± 4% 22.5 ± 4% 45 ± 4%
	BAT. LOW SHUTDOWN						10.5 ± 4% 21 ± 4% 42 ± 4% 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 68°C ± 5°C 68°C ± 5°C 68°C ± 5°C
	OUTPUT SHORT						Protection type : Shut down o/p voltage, re-power on to recover ; by internal RTH3 detect on heatsink of power transistor
	OVER LOAD (Typ.)						105 ~ 115% load for 180 sec., 115% ~ 125% load for 10 sec.
	CIRCUIT BREAKER						15A 10A
	GFCI PROTECTION						Optional (Only type F) None
ENVIRONMENT	WORKING TEMP.						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
AC CHARGER	EMC IMMUNITY						Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, EAC TP TC 020
	CHARGE CURRENT (Typ.)						5.5A 2.7A 1.35A 5.5A 2.7A 1.35A
	CHARGE VOLTAGE						14.3V ± 4% 28.5V ± 4% 57V ± 4% 14.3V ± 4% 28.5V ± 4% 57V ± 4%
SOLAR CHARGER	MAX OPEN CIRCUIT VOLTAGE						25V 45V 75V 25V 45V 75V
	CHARGE CURRENT (max.)						30A
	CHARGE VOLTAGE						14.3V ± 4% 28.5V ± 4% 57V ± 4% 14.3V ± 4% 28.5V ± 4% 57V ± 4%
OTHERS	CONTROL WIRING						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	<p>1. Output derating capacity referenced by curve 1.</p> <p>2. THD and Efficiency is tested by 1000W, linear load at 13V, 26V, 52V input voltage.</p> <p>3. Input derating capacity referenced by curve 2.</p> <p>4. All parameters not specified above are measured at rated load, 25°C of ambient temperature and set to factory setting.</p> <p>5. DC current is tested by 1500W, linear load at 13V, 26V, 52V input voltage.</p> <p>6. The tolerance of each voltage value by models is: 112/212 → ± 0.5V; 124/224 → ± 1V; 148/248 → ± 2V.</p> <p>7. The cable is enclosed for the connection between TN-1500 and computer for software monitoring.</p> <p>8. Please do not turn on the inverter before start the engine if inverter connect to vehicle's battery directly.</p> <p>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).</p> <p>10. Type F for 60Hz only.</p> <p>※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx</p>						

■ **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

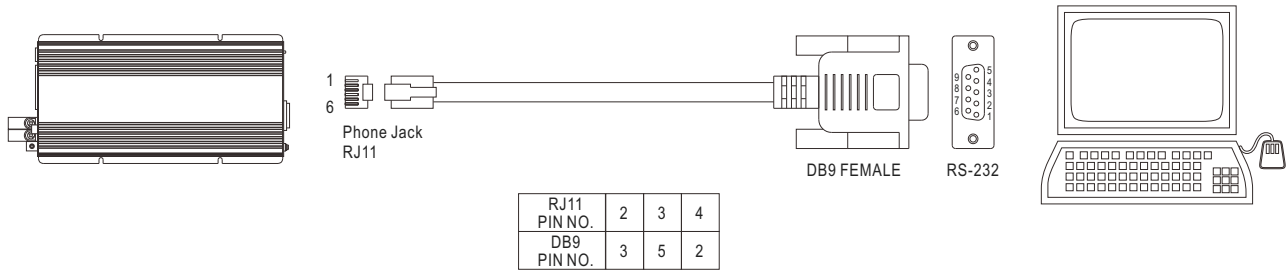


Figure 1

4. Explanation of Monitoring Manu

4.1 Main Page

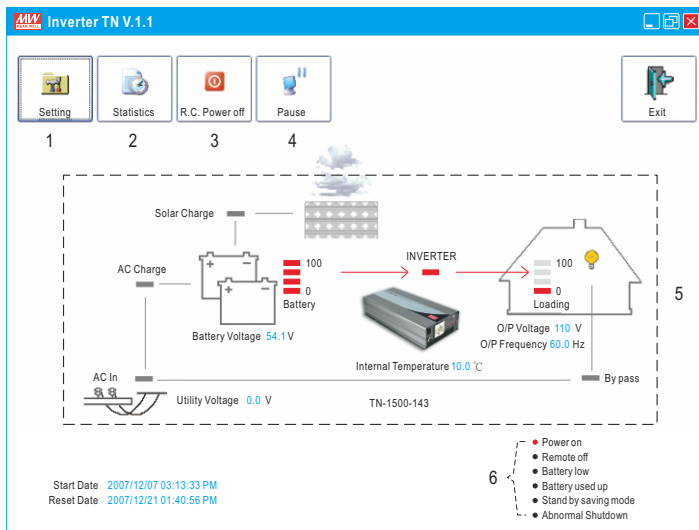


Figure 2

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

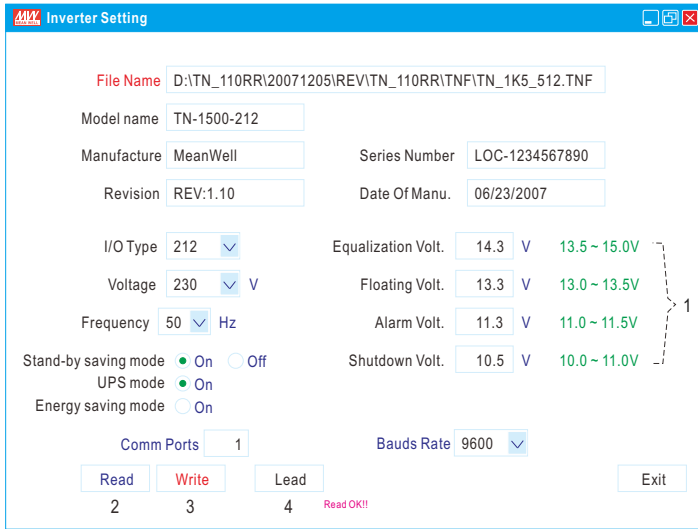


Figure 3

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

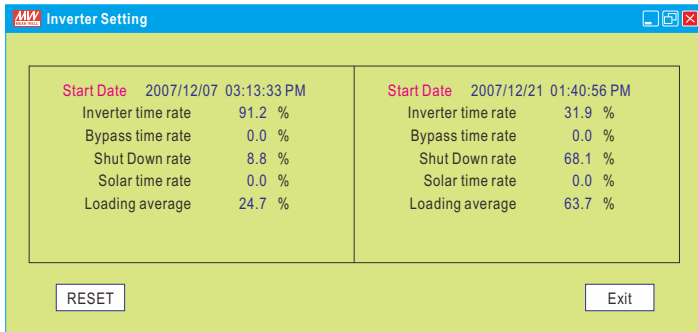
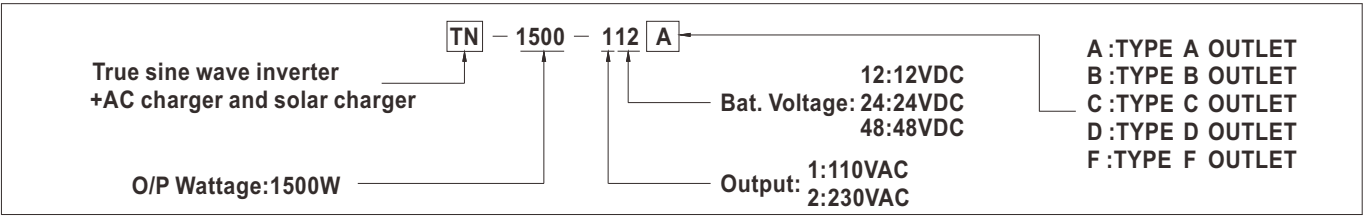


Figure 4

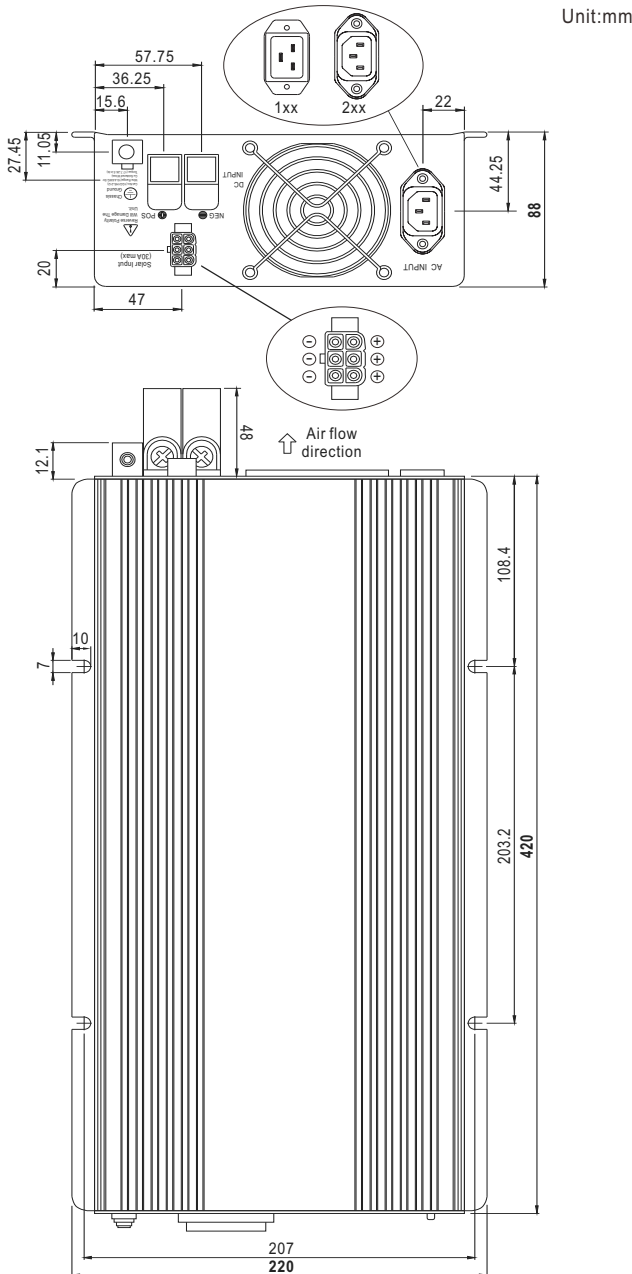
1. Start Date: Date that installing the monitoring software.
2. Reset Date: Date that resetting the statistics. The Start Date will not be influenced by resetting the statistics or turning off the unit.
3. Inverter time rate: Operating period of "Inverter Mode" represents how many percent of the whole 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	TYPE-C	TYPE-D	TYPE-D
	Standard	Optional	Standard	Optional	Optional	Optional
Country	USA	GFCI (60Hz)	EUROPE	AUSTRALIA	U.K	U.K
Certificate						

■ Mechanical Specification



■ Derating Curve

