

User's Manual







3000W True Sine Wave DC-AC Inverter with Solar Charger

- True sine wave output (THD<3%)
- High surge power up to 6000W
- U.P.S. mode and energy saving mode (selectable)
- High efficiency up to 92%
- 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



SPECIFICATION TN-3000-112 TN-3000-124 TN-3000-248 TN-3000-148 TN-3000-212 TN-3000-224 MODEL NO

MODEL NO.		TN-3000-112	TN-3000-124	TN-3000-148∟	TN-3000-212	TN-3000-224	TN-3000-248	
		□ = A, F, G			□= B, C, D, G			
ОИТРИТ	RATED POWER (Typ.)	3000W						
	MAXIMUM OUTPUT POWER (Typ.)	3450W for 180 sec. / 4500W for 10 sec. / surge power 6000W for 30 cycles						
	AC VOLTAGE	Factory setting set at 110VAC Factory setting set at 230VAC						
	AC VOLIAGE	100 / 110 / 115 / 120VAC selectable by setting button S.W 200 / 220 / 230 / 240VAC selectable by setting button S.W						
	FREQUENCY Note.11	60±0.1Hz 50/60Hz selectable by setting button S.W			50±0.1Hz 50/60Hz selectable by setting button S.W			
	WAVEFORM Note.8	True sine wave (THD<3%)						
	AC REGULATION (Typ.)	±3%						
	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	12V	24V	48V	12V	24V	48V	
	VOLTAGE RANGE (Typ.) Note.3,6	10.5 ~ 15VDC	21 ~ 30VDC	42 ~ 60VDC	10.5 ~ 15VDC	21 ~ 30VDC	42 ~ 60VDC	
	DC CURRENT (Typ.) Note.4		150A	75A	300A	150A	75A	
	(• , ,	≤10W @ standby saving mode						
	OFF MODE CURRENT DRAW (Typ.)							
	EFFICIENCY (Typ.) Note.1		90%	91%	89%	91%	92%	
	BATTERY TYPES	Open & sealed lead	1	0.170	0070	0170	0270	
	FUSE	40A*12	40A*6	20A*6	40A*12	40A*6	20A*6	
BATTERY INPUT PROTECTION	BAT. LOW ALARM Note.6		22.5V	45V	11.3V	22.5V	45V	
	BAT. LOW SHUTDOWN Note.6		21V	42V	10.5V	21V	42V	
	REVERSE POLARITY	By internal fuse oper		72 V	10.0 V	214	12 V	
	REVEROET OLARITT	90°C ± 5°C	85°C ± 5°C	85°C ± 5°C	80°C ± 5°C	75°C ± 5°C	75°C ± 5°C	
OUTPUT PROTECTION	OVER TEMPERATURE		1	1	00 C T 3 C	13 C ± 3 C	13 C ± 3 C	
	OUTDUT SHOPT	Protection type: Shut down o/p voltage, re-power on to recover						
	OUTPUT SHORT	Protection type: Shut down o/p voltage, re-power on to recover						
	OVER LOAD (Typ.)	105 ~ 115% load for 180 sec., 115% ~ 150% load for 10 sec.						
	OLD OLUT DDE AKED	Protection type: Shut down o/p voltage, re-power on to recover						
	CIRCUIT BREAKER	AC output: 40A, AC receptacle:15A			AC output: 20A, AC receptacle: 15A			
	GFCI PROCTECTION	Optional (Only type F)			None			
ENVIRONMENT	WORKING TEMP. Note.2							
	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 Type G), 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 Compliance to FCC class A, EAC TP TC 020 Compliance to BS EN/EN55032 class A, 72/ 245/ CEE, 95/ 54/ CE, E-Mark, EAC TP TC 020						
	EMC EMISSION		·		Compliance to BS EN/EN55032 class A, 72/ 245/ CEE, 95/ 54/ CE, E-Mark, EAC TP TC 020 Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, EAC TP TC 020			
	EMC IMMUNITY	Compliance to EAC		0.4	· ·			
AC	CHARGE CURRENT (Typ.)	25A	12A	6A	25A	12A	6A	
CHARGER		14.3V	28.5V	57V	14.3V	28.5V	57V	
SOLAR	MAX OPEN CIRCUIT VOLTAGE		45V	75V	25V	45V	75V	
PANEL	SHORT CIRCUIT CURRENT (max.)							
OTHERS		RJ11 -RS232						
	DIMENSION	466.8*283.5*100mm (L*W*H)						
	PACKING	12.9Kg; 1pcs/14Kg/1.49CUFT						
NOTE	 1.Efficiency is tested by 2100W, linear load at 13V, 26V, 52V input voltage. 2.Output derating capacity referenced by curve 1. 3.Input derating capacity referenced by curve 2. 4.DC current is tested by 3000W, linear load at 12V, 24V, 48V input voltage. 5.All parameters not specified above are measured at rated load, 25°C of ambient temperature and set to factory setting. 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-3000 and computer for software monitoring. 8.THD is tested by 3000W, linear load at 13,26,52V input voltage. 9.Please do not turn on the inverter before start the engine if inverter connect to vehicle's battery directly. 10.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). 11.Type F for 60Hz only. ※ Product Liability Disclaimer: For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx 							
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