

IEC62368-1 BS EN/EN62368-1 (for 112/124 type GFCI only)

Please refer to page 3 for more details.

■ Features

- Compact size and light weight
- True sine wave output (THD<3%)
- High surge power up to 1500W
- Temperature controlled cooling fan
- AC output voltage and frequency selectable by DIP S.W
- No load dissipation <1.5W at standby saving mode
- -25°C~+70°C wide operating temperature
- Power ON-OFF remote control
- Front panel indicator for operation status
- Protections :

Input : Reverse polarity / DC low alarm / DC low shutdown / Over voltage

Output : Short circuit / Overload / Over temp.

- Battery over discharge protection(Low voltage disconnect)

- Suitable for lead-acid or li-ion batteries

- Remote controller

(IRC1, IRC2, IRC3 accessory sold separately, please refer to: <https://www.meanwell.com/webapp/product/search.aspx?prod=IRC1>)

- Support RS-232 communication(Communication cable order No.: DS-RJ11-RS232, sold separately)

- [Carry handle accessory available](#)(Order NO.: DS-Carry handle, sold separately)

- Conformal coating

- 3 years warranty

■ Applications

- Home and office appliance
- Power tools
- Portable equipment
- Vehicle
- Yacht
- Off-grid solar power system
- Wireless network
- Telecom or datacom system

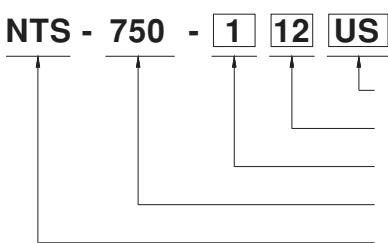
■ GTIN CODE

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

■ Description

NTS-750 is a 750W highly reliable off-grid true sine wave DC-AC power inverter. Its key features include: digital design with MCU control, streamlined control circuitry that quickly responds to environmental changes and improves reliability, high quality fan with low acoustic noise, 1500W peak power, adjustable AC output voltage and frequency, -25~+70°C wide operating temperature range, complete protection features, and etc. combined with batteries, the NTS-750 is suitable for use in residential, commercial, marine, automobile, mine, construction site, and remote areas with no access to utility power, and the output can be used to power fans, TV, radio, phone charger, PC/laptop, lighting, electromechanical tool, communication equipment, power distribution cabinet, outdoor camping equipment, marine AC power, factory equipment, and etc.

■ Model Encoding



AC output socket (Type US, EU, CN, AU, UK, UN, GFCI outlet)

DC input voltage (12: 12Vdc, 24: 24Vdc, 48: 48Vdc)

AC output voltage (1: 100/110/115/120Vac, 2:200/220/230/240Vac)

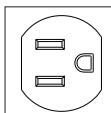
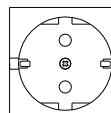
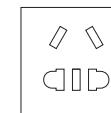
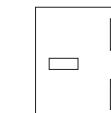
Rated wattage

Series name

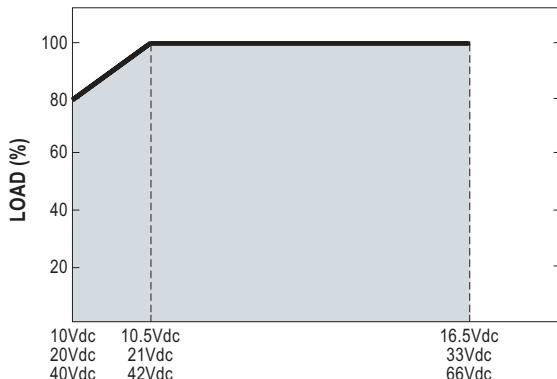
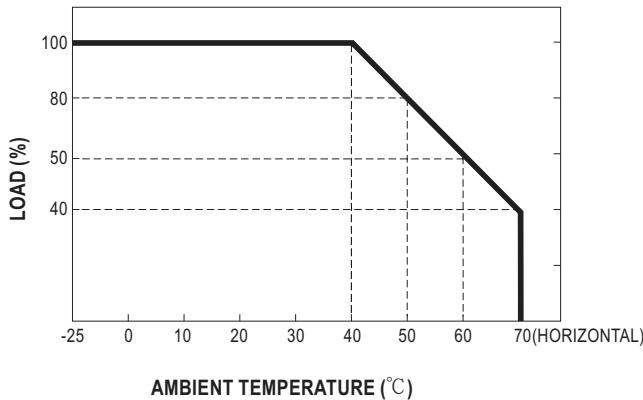
SPECIFICATION

MODEL NO.		NTS-750-112	NTS-750-124	NTS-750-148	NTS-750-212	NTS-750-224	NTS-750-248										
		□ = US, GFCI, UN		□ = EU, CN, AU, UK, UN													
AC OUTPUT	RATED POWER(Continuous)	750W															
	OVER RATED POWER(3 Min.)	862W															
	PEAK POWER(10 Sec.)	1125W															
	SURGE POWER(30 Cycles)	1500W															
	AC VOLTAGE	Default setting set at 110VAC		Default setting set at 230VAC													
		100 / 110 / 115 / 120Vac selectable by DIP S.W		200 / 220 / 230 / 240Vac selectable by DIP S.W													
	FREQUENCY	Default setting set at 60Hz ± 0.1Hz		Default setting set at 50Hz ± 0.1Hz													
		50/60Hz selectable by DIP S.W		50/60Hz selectable by DIP S.W													
	WAVEFORM	Note.1	True sine wave (THD<3%)														
	AC REGULATION		±3.0% at rated output voltage														
DC INPUT	FRONT PANEL LED	Please see page5															
	DC VOLTAGE	12V	24V	48V	12V	24V	48V										
	VOLTAGE RANGE (Typ.)	10 ~ 16.5Vdc	20 ~ 33Vdc	40 ~ 66Vdc	10 ~ 16.5Vdc	20 ~ 33Vdc	40 ~ 66Vdc										
	DC CURRENT (Typ.)	75A	38A	19A	75A	38A	19A										
	NO LOAD DISSIPATION (Typ.)	10W	10W	12W	10W	10W	12W										
		Default disable, ≤ 1.2W ~ 1.5W by models @ auto detect AC output load ≤ 10W will be changed to saving mode															
	OFF MODE CURRENT DRAW	1.2W	1.4W	1.5W	1.2W	1.4W	1.5W										
		≤1mA															
	EFFICIENCY (Typ.)	Note.1	89%	90%	91%	90%	93%										
	BATTERY TYPES	Lead Acid or Li-ion															
PROTECTION	DC INPUT	FUSE (Internal)	40A*3	40A*2	25A*2	40A*3	40A*2										
		LOW	ALARM	11 ± 0.3Vdc	22 ± 0.5Vdc	44 ± 1Vdc	11 ± 0.3Vdc										
		SHUTDOWN	10 ± 0.3Vdc	20 ± 0.5Vdc	40 ± 1Vdc	10 ± 0.3Vdc	20 ± 0.5Vdc										
		RESTART	12.5 ± 0.3Vdc	25 ± 0.5Vdc	50 ± 1Vdc	12.5 ± 0.3Vdc	25 ± 0.5Vdc										
		HIGH	ALARM	15.5 ± 0.3Vdc	31 ± 0.5Vdc	62 ± 1Vdc	15.5 ± 0.3Vdc										
		SHUTDOWN	16.5 ± 0.3Vdc	33 ± 0.5Vdc	66 ± 1Vdc	16.5 ± 0.3Vdc	33 ± 0.5Vdc										
	AC OUTPUT	RESTART	15 ± 0.3Vdc	30 ± 0.5Vdc	60 ± 1Vdc	15 ± 0.3Vdc	30 ± 0.5Vdc										
		BAT. POLARITY	By internal fuse open														
		OVER TEMPERATURE	Protection type : Shut down o/p voltage, re-power on to recover(except 112/124GFCI) Shut down o/p voltage, recovers automatically after temperature goes down(for 112/124GFCI)														
		OUTPUT SHORT	Protection type : Shut down o/p voltage, re-power on to recover														
FUNCTION	RS-232 COMMUNICATION	OVER LOAD (Typ.)	105 ~ 115% load for 180 sec., 115% ~ 150% load for 10 sec.														
		GFCI PROTECTION	Protection type : Shut down o/p voltage, re-power on to recover														
	REMOTE CONTROL	UL458 (Only for "GFCI" AC socket, by request)	None														
		ACCESSORY	Power ON-OFF remote control by front panel dry contact connector (by RELAY), Open : Normal work ; Short : Remote off														
	RS-232 COMMUNICATION		Remote controller sold separately, Order No.: IRC1,IRC2,IRC3														
	ENVIRONMENT	WORKING TEMP.	-25 ~ +70 °C (Refer to "Derating curve")														
		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 (Note.4)	EMC EMISSION	SAFETY STANDARDS	CB IEC62368-1, Dekra BS EN/EN62368-1, UL458, E13, EAC TP TC 004 approved; Design refer to AS/NZS 62368.1 (Please refer to next page "AC output socket" table for more details)														
		WITHSTAND VOLTAGE	DC I/P - AC O/P:3.0KVac AC O/P - FG:1.5KVac														
		Parameter	Standard				Test Level / Note										
		Radiated	FCC for 112,124,148 only(expect for Type-UN)				Class A										
		Harmonic Current	BS EN/EN55032(CISPR32) for 212,224,248 only(expect for Type-UN)				Class A										
	EMC IMMUNITY	Voltage Flicker	BS EN/EN61000-3-3				-----										
		Parameter	Standard				Test Level / Note										
		ESD	BS EN/EN61000-4-2				Level 3, 8KV air ; Level 2, 4KV contact										
		Radiated	BS EN/EN61000-4-3				Level 2, 3V/m										
		Magnetic Field	BS EN/EN61000-4-8				Level 1, 1A/m										
OTHERS	MTBF	715.7K hrs min. Telcordia TR/SR-332 (Bellcore) ; 78K hrs min. MIL-HDBK-217F (25°C)															
	DIMENSION	270*158*76mm (L*W*H)															
	PACKING	2.3Kg; 4pcs/ 10.2Kg/ 1.9CUFT															
NOTE	1. Efficiency, AC regulation and THD are tested by 600W, linear load at 12.5Vdc/25Vdc/50Vdc input voltage. 2. All parameters not specified above are measured at rated load, 25°C of ambient temperature and set to factory setting. 3. Internal pre-start circuit, the setup time is 8s. 4. The power supply is considered as an independent unit, but the final equipment still need to re-confirm that the whole system complies with the EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)																
	※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx																

■ AC Output Socket

MODEL NO.	NTS-750-112	NTS-750-124	NTS-750-148	NTS-750-212	NTS-750-224	NTS-750-248
Socket type						
	TYPE-US	TYPE-GFCI	TYPE-UN	TYPE-EU	TYPE-CN	TYPE-UK
	In Stock	By request	In Stock	In Stock	In Stock	By request
Country	USA	USA	UNIVERSAL	EUROPE	CHINA	U.K
Certificate	CB FC  <small>(Except for 48V input)</small>	CB FC 	None	CB    	CB    	 

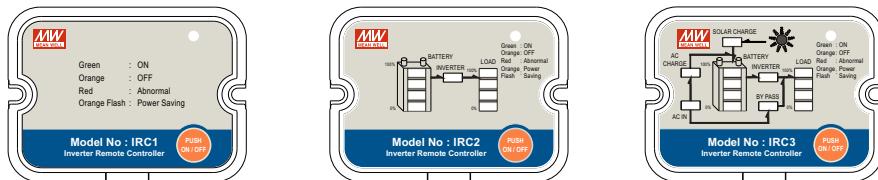
■ DERATING CURVE



■ IRC1/2/3 Remote Controller (Accessory sold separately)

- IRC1/IRC2/IRC3 is the monitoring and control unit.
- IRC1/IRC2/IRC3 can decode the RS-232 signals sent by the inverter series and display through digital meters.

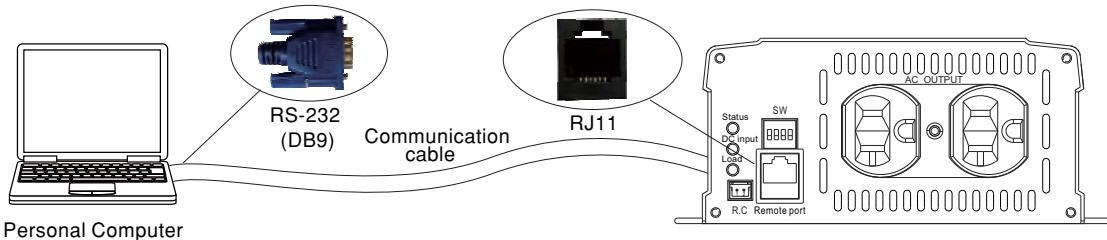
Note: Part of the control signals will not function properly due to different compliance of each model.



※ Please refer to for more detail: <https://www.meanwell.com/webapp/product/search.aspx?prod=IRC1>

■ Support RS-232 Communication

- The internal data of single NTS-750 can read through RS-232.



※ Please refer to for more detail: <http://www.meanwell.com/manual.html>

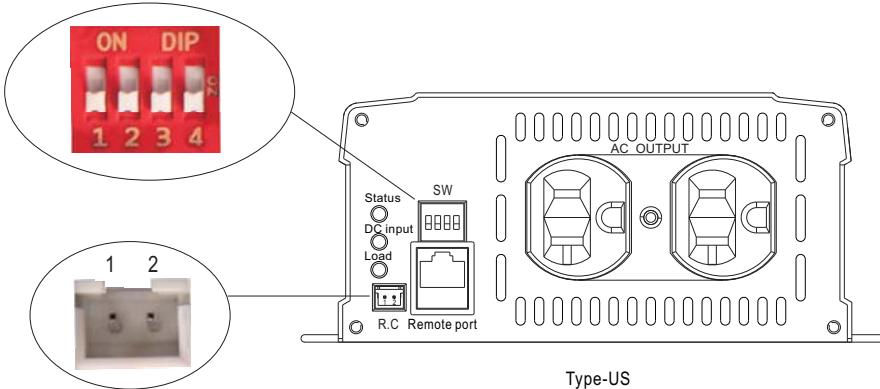
※ RJ11-RS232 Communication cable should be ordered separately, Order No.: DS-RJ11-RS232

■ Remote ON-OFF Control (Built-in)

Remote ON-OFF	AC Output Status
Open	power inverter ON
Short	power inverter OFF

■ AC Output Voltage, Frequency, Power saving mode selectable by DIP SW

Output voltage and frequency setting factory settings are either 110Vac/60Hz or 230Vac/50Hz, users are able to adjust the voltage and frequency, through the DIP switch of position 1,2,3,4 on the panel.



AC Output Voltage, Frequency, Power saving mode selectable by DIP SW

SW1	SW2	SW3	SW4
OFF	OFF : 100Vac or 200Vac	ON : 50Hz	ON : Saving mode
OFF	ON : 110Vac or 220Vac		
ON	OFF : 115Vac or 230Vac	OFF: 60Hz	OFF: Non-Saving mode
ON	ON : 120Vac or 240Vac		

■ LED STATUS

Normal work:

Status	Green	Orange	Red
	 Inverter OK	 Remote off  Saving mode	 Abnormal Status (See below table)

DC Input	Green	Orange	Red
	 12.5~15.5Vdc  25~31Vdc  50~62Vdc	 11~12.5Vdc  22~25Vdc  44~50Vdc	 <11Vdc or >15.5Vdc  <22Vdc or >31Vdc  <44Vdc or >62Vdc

Load	Green	Orange	Red
	 <40% load	 40~80% load	 >80% load

Abnormal status :

LED Indicator	Abnormal Indication
Status 	
DC Input 	Output overload or AC output short circuit
Load 	
Status 	
DC Input 	Abnormal DC voltage
Load 	
Status 	
DC Input 	Over temperature or Fan lock
Load 	
Status 	
DC Input 	Inverter fail
Load 	

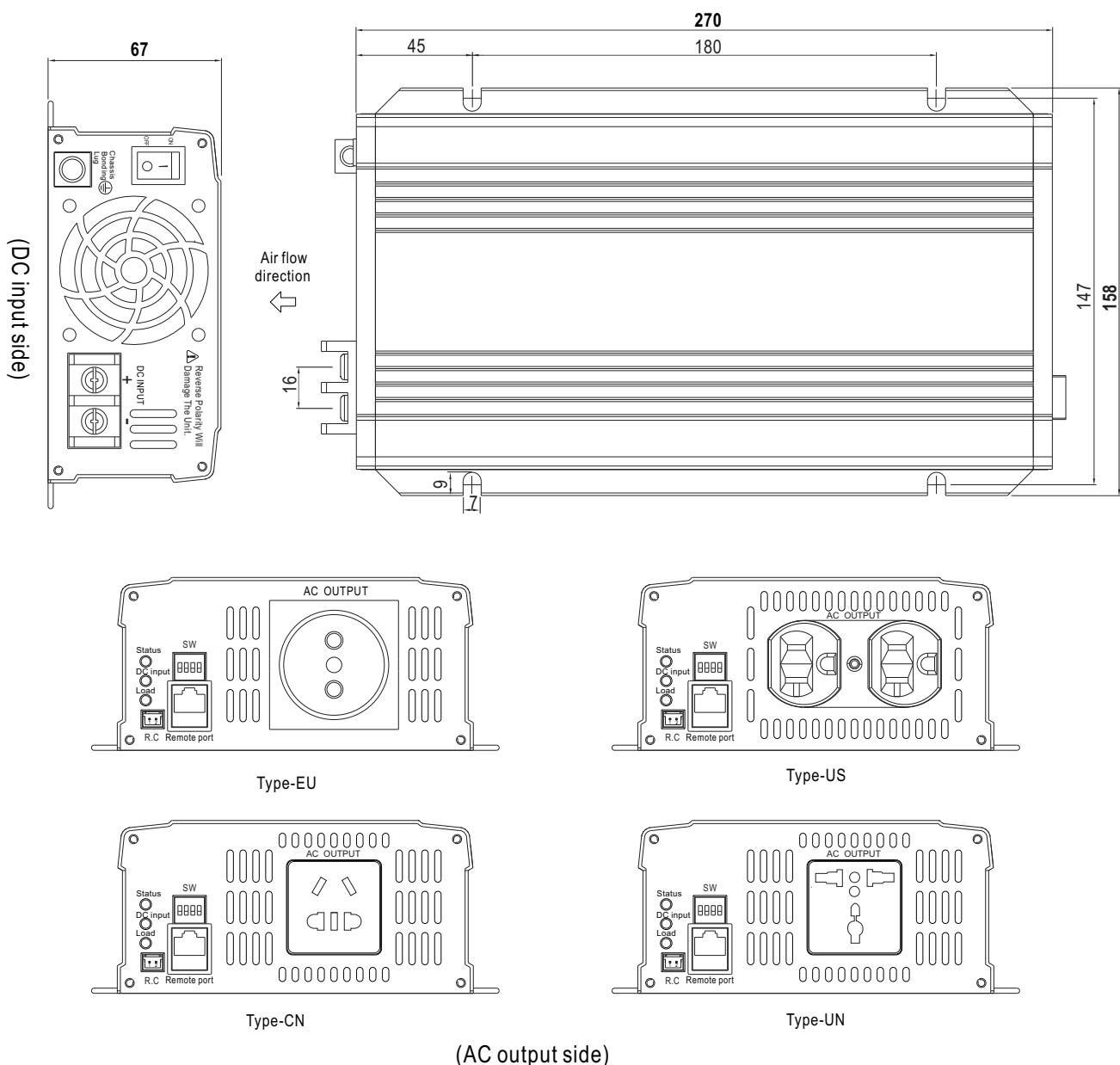
 Light

 Light off

 Flash

■ MECHANICAL SPECIFICATION

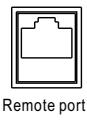
Unit:mm



R.C Connector : JST B-XH or equivalent

Remote Control	Mating Housing	Terminal
Pin 1,2 Open: Normal work	JSTXHP or equivalent	JST SXH-001T or equivalent
Pin 1,2 Short: Remote off		

Remote port connector (RJ11)



Assignment	Rx	GND	Tx
Remote port	2	3	4
DB9	3	5	2

■ Accessory List

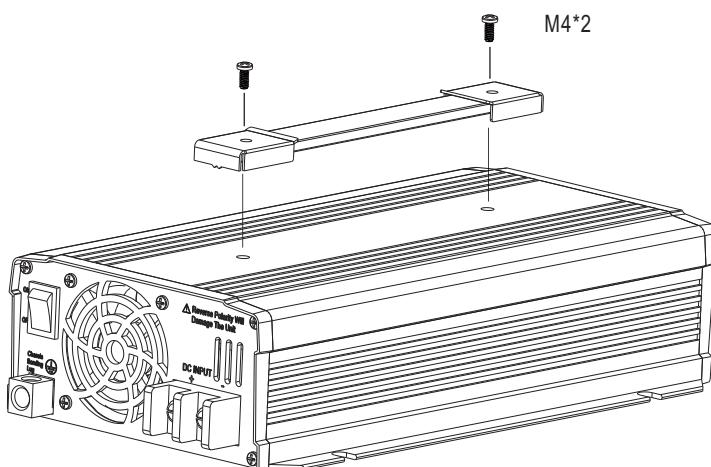
※ Communication cable (Optional accessory, Power inverter and Communication cable should ordered separately)

MW's Order No.	Item	Quantity
DS-RJ11-RS232		1

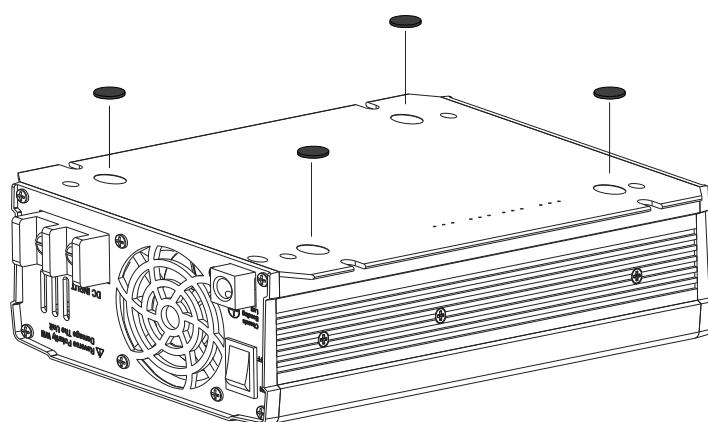
※ Carry handle (Optional accessory, Power inverter and Pull handle should ordered separately)

MW's Order No.	Item	Quantity
DS-Carry Handle	① Handle	1
	② Foot pad	4
	③ Screw	2

① Handle



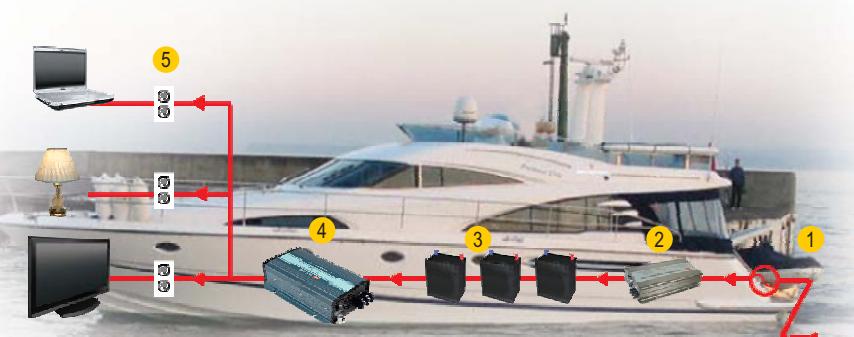
② Foot pad



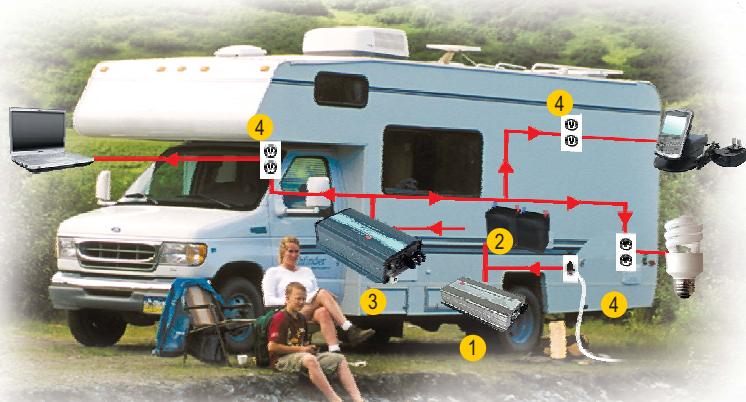
■ TYPICAL APPLICATION



- 1 Battery Bank
- 2 Off-Grid DC/AC Solar Inverter (NTS series)
- 3 AC Outlet



- 1 Utility Input (Shore)
- 2 AC/DC Battery Charger (PB/NPB/NPP series)
- 3 Battery Bank
- 4 Off-Grid DC/AC Power Inverter (NTS series)
- 5 AC Outlet



- 1 AC/DC Battery Charger (PB/NPB/NPP series)
- 2 Battery Bank
- 3 Off-Grid DC/AC Inverter (NTS series)
- 4 AC Outlet

■ INSTALLATION MANUAL

Please refer to : <http://www.meanwell.com/manual.html>