



# 400W True Sine Wave DC-AC Power Inverter

# TS-400 series



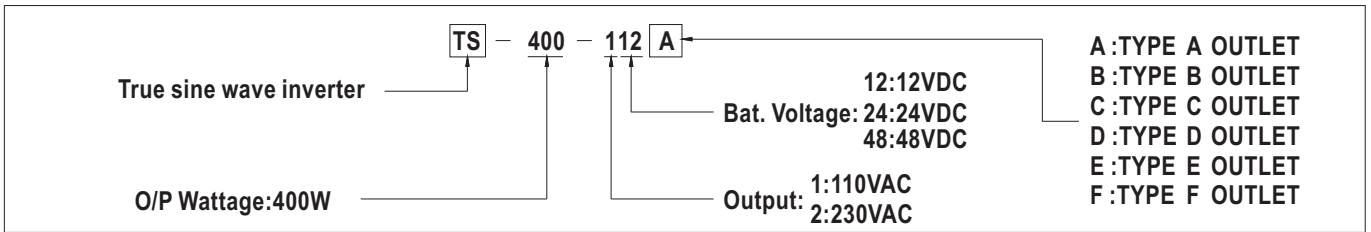
### ■ Features :

- True sine wave output (THD<3%)
- High surge power up to 800W
- High efficiency up to 88.5%
- Thermostatically controlled cooling fan
- Built-in remote ON-OFF control
- Front panel indicator for operation status
- Power ON-OFF switch
- Protections: Bat. low alarm / Bat. low shutdown / Over voltage / Over temp. / Output short / Input reverse polarity / Overload
- Application : Home appliance, power tools, office and portable equipment, vehicle and yacht ...etc.
- 3 years warranty



### SPECIFICATION

MODEL	TS-400-112□	TS-400-124□	TS-400-148□	TS-400-212□	TS-400-224□	TS-400-248□		
OUTPUT	RATED POWER						400W	
	MAXIMUM OUTPUT POWER						460W for 180 sec. / 600W for 10 sec. / surge power 800W for 30 cycles(typ.)	
	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						60±0.1Hz 50/60Hz selectable by setting button	
	WAVEFORM <small>Note.2</small>						True sine wave (THD<3%)	
	AC REGULATION <small>Note.2</small>						±3.0% at rated input voltage	
FRONT PANEL INDICATOR						Operation status ; Green : normal, Orange(flashing) : remote control OFF, Red : abnormal		
INPUT	BAT. VOLTAGE		12V	24V	48V	12V	24V	48V
	VOLTAGE RANGE (Typ.) <small>Note.3</small>		10.5 ~ 15VDC	21 ~ 30VDC	42 ~ 60VDC	10.5 ~ 15VDC	21 ~ 30VDC	42 ~ 60VDC
	DC CURRENT (Typ.)		40A	20A	10A	40A	20A	10A
	NO LOAD CURRENT DRAW (Typ.)		1.25A	0.63A	0.32A	1.25A	0.63A	0.32A
	OFF MODE CURRENT DRAW		≤1mA					
	EFFICIENCY (Typ.) <small>Note.1</small>		84.5%	86%	87%	86%	87.5%	88.5%
	BATTERY TYPES		Open & sealed Lead Acid					
BATTERY INPUT PROTECTION	FUSE		40A*2	40A*1	20A*1	40A*2	40A*1	20A*1
	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%
	BAT. POLARITY		By internal fuse open					
OUTPUT PROTECTION	OVER TEMPERATURE		85°C ± 5°C	75°C ± 5°C	70°C ± 5°C	85°C ± 5°C	75°C ± 5°C	70°C ± 5°C
			Protection type : Shut down o/p voltage, re-power on to recover; by internal RTH1 detect 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% ~ 150% load for 10 sec.					
			Protection type : Shut down o/p voltage, re-power on to recover					
GFCI PROTECTION		Optional (Only type F)				None		
FUNCTION	REMOTE CONTROL		Open : Normal work ; Short : Remote off					
ENVIRONMENT	WORKING TEMP.		-10 ~ +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		EAC TP TC 004, Design refer to UL458		EAC TP TC 004			
	LVD		None			EN60950-1		
	WITHSTAND VOLTAGE		Bat. I/P - AC O/P:3.0KVAC AC O/P - FG:1.5KVAC					
	ISOLATION RESISTANCE		Bat. I/P-AC O/P, AC O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH					
	EMC EMISSION		Compliance to FCC class A, EAC TP TC 020			Compliance to EN55032 class A, 72/ 245/ CEE, 95/ 54/ CE, E-Mark, EAC TP TC 020		
	EMC IMMUNITY		Compliance to EAC TP TC 020			Compliance to EN61000-4-2,3,8, EAC TP TC 020		
OTHERS	MTBF		104.7K hrs min. MIL-HDBK-217F (25°C)					
	DIMENSION		205*158*67mm (L*W*H)					
	PACKING		1.73Kg; 6pcs/11.4Kg/1.55CUFT					
NOTE	1.Efficiency is tested by 300W, linear load at 13V/26V/52V input voltage. 2.AC regulation and THD are tested by 400W, linear load at 13V/26V/52V input voltage. 3.The tolerance of each voltage value by models is:112/212→±0.5V;124/224→±1V;148/248→±2V. 4.All parameters not specified above are measured at rated load, 25°C of ambient temperature and set to factory setting. 5.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).							



■ AC Output Receptacles (optional)

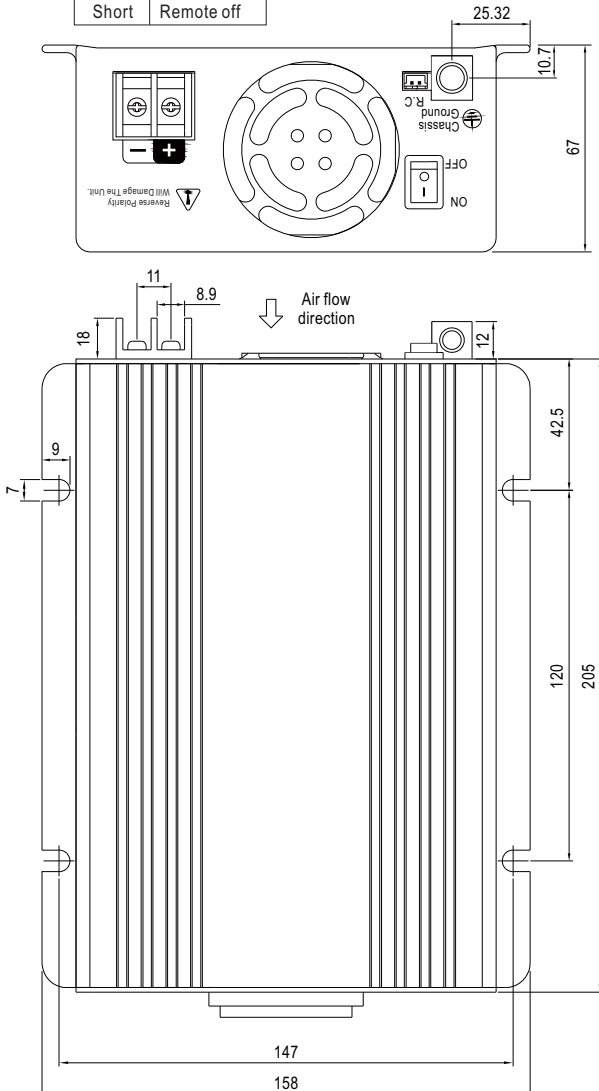
Receptacle type						
	TYPE-A	TYPE-B	TYPE-C	TYPE-D	TYPE-E	TYPE-F
Country	USA	EUROPE	AUSTRALIA	U.K	JAPAN	GFCI
Certificate	FC	E13 CE	E13 CE	E13 CE	FC	FC

■ Mechanical Specification

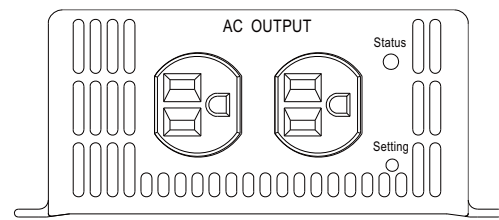
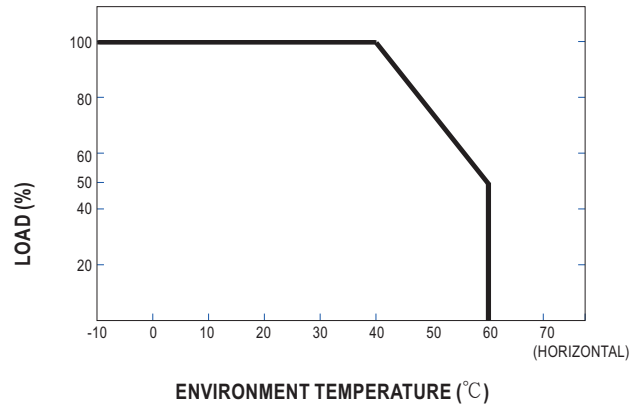
R.C Connector : JST B-XH or equivalent

Open	Normal work
Short	Remote off

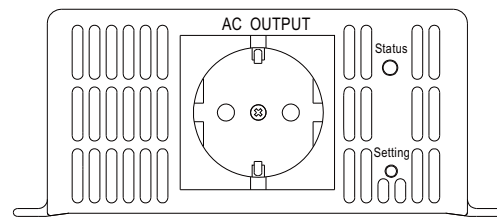
Unit:mm



■ Derating Curve



Type-A



Type-B