



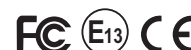
## 700W True Sine Wave DC-AC Power Inverter

## TS-700 series



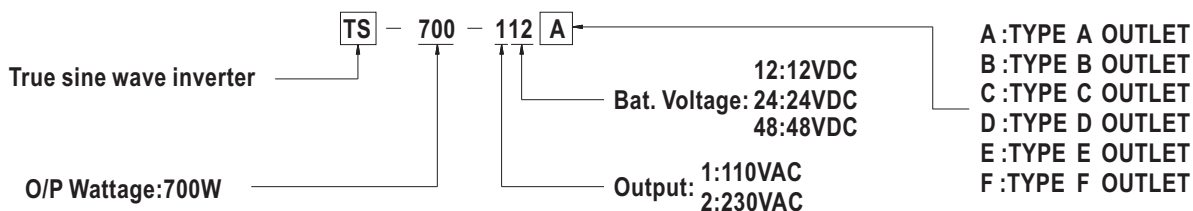
### ■ Features :

- True sine wave output (THD<3%)
- High surge power up to 1400W
- High efficiency up to 91%
- Power ON-OFF switch
- Standby saving mode can be selectable
- Front panel indicator for operation status
- Built-in fan ON-OFF control function
- Protections: Bat. low alarm / Bat. low shutdown / Over voltage / Over temp. / Output short / Reverse polarity / Overload
- Application : Home appliance, power tools, office and portable equipment, vehicle and yacht ...etc.
- 3 years warranty

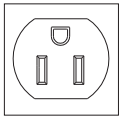
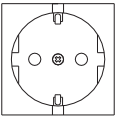
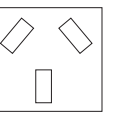
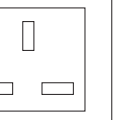
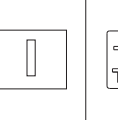
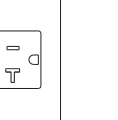


### SPECIFICATION

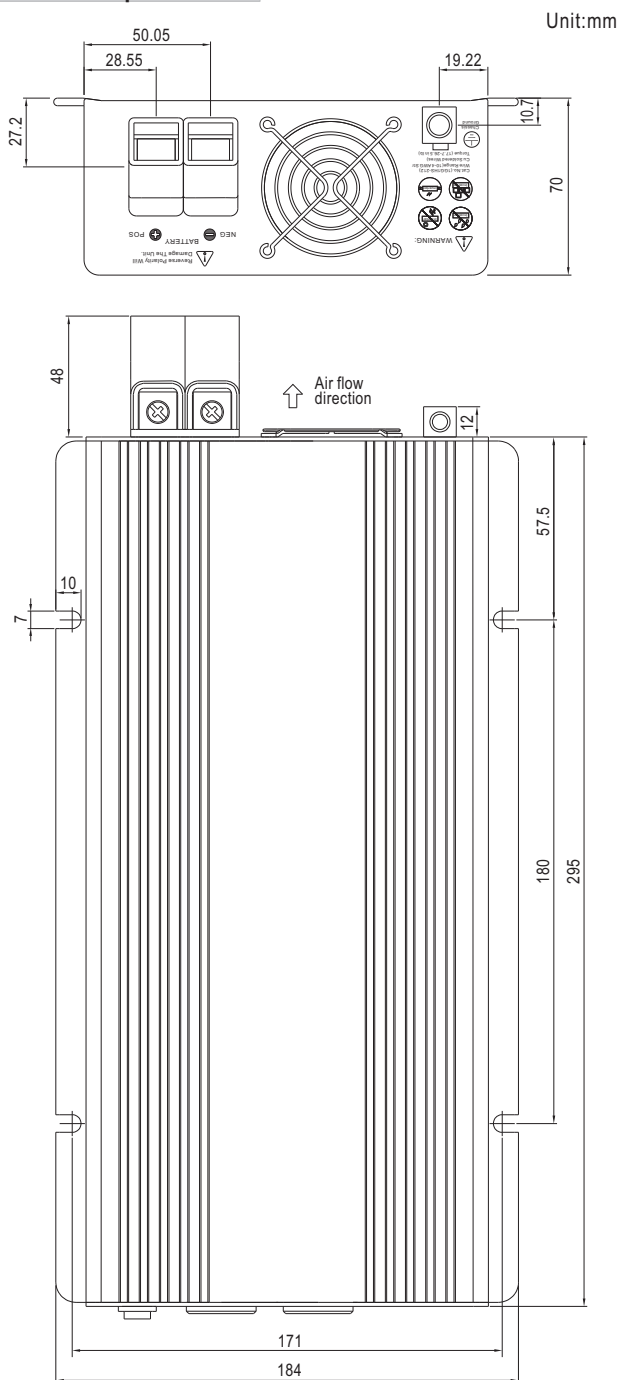
| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                  | TS-700-112□                                                                                                         | TS-700-124□ | TS-700-148□ | TS-700-212□                                                                                | TS-700-224□ | TS-700-248□ |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------------------------------------------------------------------------------------|-------------|-------------|
| OUTPUT                   | RATED POWER (Typ.)                                                                                                                                                                                                                                                                                                                                                               | 700W                                                                                                                |             |             |                                                                                            |             |             |
|                          | MAXIMUM OUTPUT POWER (Typ.)                                                                                                                                                                                                                                                                                                                                                      | 800W for 180 sec. / 1050W for 10 sec. / surge power 1400W for 30 cycles                                             |             |             |                                                                                            |             |             |
|                          | AC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                       | Factory setting set at 110VAC<br>100 / 110 / 115 / 120VAC selectable by setting button S.W                          |             |             | Factory setting set at 230VAC<br>200 / 220 / 230 / 240VAC selectable by setting button S.W |             |             |
|                          | FREQUENCY                                                                                                                                                                                                                                                                                                                                                                        | 60±0.1Hz 50/60Hz selectable by setting button S.W                                                                   |             |             | 50±0.1Hz 50/60Hz selectable by setting button S.W                                          |             |             |
|                          | WAVEFORM                                                                                                                                                                                                                                                                                                                                                                         | True sine wave (THD<3%) at rated input voltage                                                                      |             |             |                                                                                            |             |             |
|                          | AC REGULATION (Typ.)                                                                                                                                                                                                                                                                                                                                                             | ±3.0%                                                                                                               |             |             |                                                                                            |             |             |
|                          | 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.) <small>Note.3,5</small>                                                                                                                                                                                                                                                                                                                                     | 10.5 ~ 15VDC                                                                                                        | 21 ~ 30VDC  | 42 ~ 60VDC  | 10.5 ~ 15VDC                                                                               | 21 ~ 30VDC  | 42 ~ 60VDC  |
|                          | DC CURRENT (Typ.)                                                                                                                                                                                                                                                                                                                                                                | 75A                                                                                                                 | 38A         | 19A         | 75A                                                                                        | 38A         | 19A         |
|                          | NO LOAD DISSIPATION                                                                                                                                                                                                                                                                                                                                                              | ≤6W @ standby saving mode                                                                                           |             |             |                                                                                            |             |             |
|                          | OFF MODE CURRENT DRAW                                                                                                                                                                                                                                                                                                                                                            | ≤1mA                                                                                                                |             |             |                                                                                            |             |             |
|                          | EFFICIENCY (Typ.) <small>Note.1</small>                                                                                                                                                                                                                                                                                                                                          | 86%                                                                                                                 | 88%         | 89%         | 89%                                                                                        | 90%         | 91%         |
|                          | BATTERY TYPES                                                                                                                                                                                                                                                                                                                                                                    | Open & sealed Lead Acid                                                                                             |             |             |                                                                                            |             |             |
| BATTERY INPUT PROTECTION | FUSE                                                                                                                                                                                                                                                                                                                                                                             | 40A*3                                                                                                               | 30A*2       | 20A*2       | 40A*3                                                                                      | 30A*2       | 20A*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%       |
|                          | BAT. POLARITY                                                                                                                                                                                                                                                                                                                                                                    | By internal fuse open                                                                                               |             |             |                                                                                            |             |             |
| OUTPUT PROTECTION        | OVER TEMPERATURE                                                                                                                                                                                                                                                                                                                                                                 | 80℃±5℃                                                                                                              |             |             | 75℃±5℃                                                                                     |             |             |
|                          |                                                                                                                                                                                                                                                                                                                                                                                  | Protection type : Shut down o/p voltage, re-power on to recover; by internal RTH3 detect on heatsink of power diode |             |             |                                                                                            |             |             |
|                          | 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                                                                                       |             |             |
| ENVIRONMENT              | WORKING TEMP. <small>Note.4</small>                                                                                                                                                                                                                                                                                                                                              | 0 ~ +40℃ @ 100% load ; +60℃ @ 50% load                                                                              |             |             |                                                                                            |             |             |
|                          | WORKING HUMIDITY                                                                                                                                                                                                                                                                                                                                                                 | 20% ~ 90% RH non-condensing                                                                                         |             |             |                                                                                            |             |             |
|                          | STORAGE TEMP., HUMIDITY                                                                                                                                                                                                                                                                                                                                                          | -30 ~ +70℃ / -22 ~ +158°F, 10 ~ 95% RH                                                                              |             |             |                                                                                            |             |             |
|                          | VIBRATION                                                                                                                                                                                                                                                                                                                                                                        | 10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes                                                        |             |             |                                                                                            |             |             |
| SAFETY & EMC             | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                 | Design refer to UL458                                                                                               |             | None        |                                                                                            |             |             |
|                          | LVD                                                                                                                                                                                                                                                                                                                                                                              | None                                                                                                                |             |             | EN60950-1                                                                                  |             |             |
|                          | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                | Bat I/P - AC O/P:3.0KVAC AC O/P - FG:1.5KVAC                                                                        |             |             |                                                                                            |             |             |
|                          | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                             | AC O/P-FG , Bat I/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                                            |             |             |                                                                                            |             |             |
|                          | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                     | Compliance to FCC class A                                                                                           |             |             | Compliance to EN55022 class A, 72/ 245/ CEE, 95/ 54/ CE, E-Mark                            |             |             |
|                          | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                     | None                                                                                                                |             |             | Compliance to EN61000-4-2,3,8                                                              |             |             |
|                          |                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                     |             |             |                                                                                            |             |             |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                             | 74.4K hrs min. MIL-HDBK-217F (25℃)                                                                                  |             |             |                                                                                            |             |             |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                        | 295*184*70mm (L*W*H)                                                                                                |             |             |                                                                                            |             |             |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                          | 3.8Kg; 2pcs/8.6Kg/1.27CUFT                                                                                          |             |             |                                                                                            |             |             |
| NOTE                     | 1.Efficiency is tested by 530W, linear load at 13V, 26V, 52V input voltage.<br>2.All parameters not specified above are measured at rated load, 25℃ of ambient temperature.<br>3.Input derating capacity referenced by curve 2.<br>4.Output derating capacity referenced by curve 1.<br>5.The tolerance of each voltage value by models is:112/212→±0.5V;124/224→±1V;148/248→±2V |                                                                                                                     |             |             |                                                                                            |             |             |



### 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



### Derating Curve

