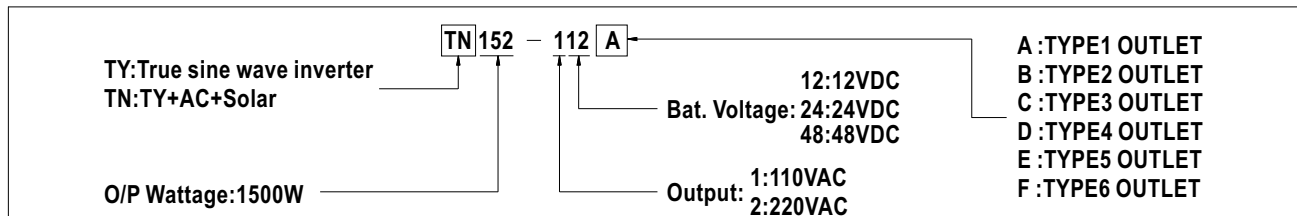




#### ■ Features :

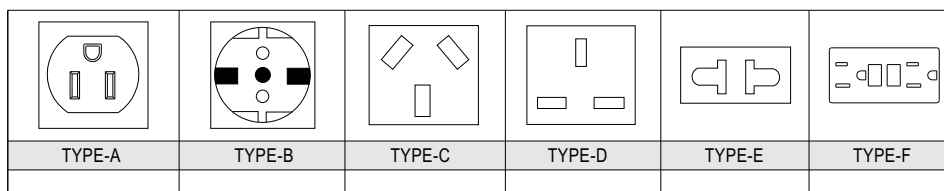
- True sine wave output (THD<3%)
- Power ON-OFF switch
- Saving mode setted by controller
- RS-232 Interface / Remote Controls Port
- LED panel indication power status
- Thermostatically Controlled Cooling Fan
- Protections: Bat. Low alarm/Bat. Low shutdown/Over voltage/Over temp./Output short/Input polarity reverse/Over load.
- Home appliance, Power tools, Office and Portable equipment, Vehicle and Yacht ...etc.
- Approvals: UL458/ e13/ CE/ FCC
- 2 years warranty



#### SPECIFICATION

| MODEL             |                                                                                                                                                        | TN152-112□                                                               | TN152-124□ | TN152-148□ | TN152-212□                                                                 | TN152-224□ | TN152-248□ |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------|------------|----------------------------------------------------------------------------|------------|------------|
| OUTPUT            | RATED POWER (Typ.)                                                                                                                                     | 1500W                                                                    |            |            |                                                                            |            |            |
|                   | AC RATED VOLTAGE                                                                                                                                       | 110V                                                                     |            |            | 220V                                                                       |            |            |
|                   | AC VOLTAGE                                                                                                                                             | 100 / 110 / 115 / 120 selectable by controller                           |            |            | 200 / 220 / 230 / 240 selectable by controller                             |            |            |
|                   | MAXIMUM OUTPUT POWER (3 MIN.)                                                                                                                          | 1725W                                                                    |            |            |                                                                            |            |            |
|                   | WAVEFORM                                                                                                                                               | True sine wave (THD<3%) at rated input voltage                           |            |            |                                                                            |            |            |
|                   | FREQUENCY                                                                                                                                              | 50/60±1Hz                                                                |            |            |                                                                            |            |            |
|                   | AC REGULATION (Typ.)                                                                                                                                   | ±3.0% at rated input voltage                                             |            |            |                                                                            |            |            |
|                   | TRANSFER TIME                                                                                                                                          | 4 ~ 10ms inverter→ by pass                                               |            |            |                                                                            |            |            |
|                   | SAVING MODE TO NORMAL                                                                                                                                  | ≤ 3s (5 ~ 25W)                                                           |            |            |                                                                            |            |            |
|                   | LED INDICATOR                                                                                                                                          | O.T.P, O.L.P and Saving mode status                                      |            |            |                                                                            |            |            |
| INPUT             | DC CURRENT (Typ.)                                                                                                                                      | 150A                                                                     | 75A        | 40A        | 150A                                                                       | 75A        | 40A        |
|                   | NO LOAD DISSIPATION                                                                                                                                    | ≤ 15W @ saving mode                                                      |            |            |                                                                            |            |            |
|                   | OFF MODE DRAW CURRENT                                                                                                                                  | ≤ 1mA                                                                    |            |            |                                                                            |            |            |
|                   | BAT. VOLTAGE                                                                                                                                           | 12V                                                                      | 24V        | 48V        | 12V                                                                        | 24V        | 48V        |
|                   | VOLTAGE RANGE     Note.1                                                                                                                               | 10.5 ~ 15VDC                                                             | 21 ~ 30VDC | 42 ~ 60VDC | 10.5 ~ 15VDC                                                               | 21 ~ 30VDC | 42 ~ 60VDC |
|                   | EFFICIENCY (Typ.)     Note.2                                                                                                                           | 87%                                                                      | 90%        | 90%        | 89%                                                                        | 92%        | 91%        |
| INPUT PROTECTION  | FUSE                                                                                                                                                   | 40A*5                                                                    | 30A*3      | 30A*2      | 40A*5                                                                      | 30A*3      | 30A*2      |
|                   | BAT. LOW ALARM                                                                                                                                         | 10.5±0.5V                                                                | 21±1V      | 42±2V      | 10.5±0.5V                                                                  | 21±1V      | 42±2V      |
|                   | BAT. LOW SHUTDOWN                                                                                                                                      | 10±0.5V                                                                  | 20±1V      | 40±2V      | 10±0.5V                                                                    | 20±1V      | 40±2V      |
|                   | BAT. POLARITY                                                                                                                                          | By internal fuse                                                         |            |            |                                                                            |            |            |
|                   | BAT. OVER VOLTAGE                                                                                                                                      | >15.5±0.5V                                                               | >31±1V     | >62±2V     | >15.5±0.5V                                                                 | >31±1V     | >62±2V     |
|                   |                                                                                                                                                        | Recovery within 12.7V ~ 14.5V±5% at rated input voltage                  |            |            |                                                                            |            |            |
| OUTPUT PROTECTION | OVER TEMPERATURE                                                                                                                                       | 40 ~ 45℃ at full load, Reset: re-power on                                |            |            |                                                                            |            |            |
|                   | OUTPUT SHORT                                                                                                                                           | Shut-off , Reset: re-power on                                            |            |            |                                                                            |            |            |
|                   | OVER LOAD (INVERTER)                                                                                                                                   | 100 ~ 117% ±5% load 180sec, Shut down re-power on                        |            |            |                                                                            |            |            |
|                   | OVER LOAD (AC LINE)                                                                                                                                    | Circuit breaker protection                                               |            |            |                                                                            |            |            |
|                   | GFCI PROTECTION                                                                                                                                        | Optional (Only type 6)                                                   |            |            | None                                                                       |            |            |
|                   | WORKING TEMP.     Note.3                                                                                                                               | -10 ~ +60℃                                                               |            |            |                                                                            |            |            |
| ENVIRONMENT       | WORKING HUMIDITY                                                                                                                                       | 20% ~ 90% RH non-condensing                                              |            |            |                                                                            |            |            |
|                   | STORAGE TEMP., HUMIDITY                                                                                                                                | -30 ~ +70℃ / -22 ~ +158°F, 10 ~ 95% RH                                   |            |            |                                                                            |            |            |
|                   | SAFETY STANDARDS                                                                                                                                       | UL458                                                                    |            |            | EN60950                                                                    |            |            |
| SAFETY & EMC      | ISOLATION RESISTANCE                                                                                                                                   | I/P-O/P:100M Ohms / 500VDC                                               |            |            |                                                                            |            |            |
|                   | EMI CONDUCTION&RADIATION                                                                                                                               | Compliance to FCC class A                                                |            |            | Compliance to EN55022 class B, 72/ 245/ CEE, 95/ 54/ CE, e-Mark e13-020932 |            |            |
|                   | EMS IMMUNITY                                                                                                                                           | -----                                                                    |            |            | Compliance to EN61000-4-2,3, ENV50204                                      |            |            |
|                   | LVD                                                                                                                                                    | -----                                                                    |            |            | Compliance to EN60950                                                      |            |            |
|                   | MTBF                                                                                                                                                   | 8.5Khrs min. MIL-HDBK-217F(25℃)                                          |            |            |                                                                            |            |            |
| OTHERS            | DIMENSION                                                                                                                                              | 420*220*88mm (L*W*H)                                                     |            |            |                                                                            |            |            |
|                   | PACKING                                                                                                                                                | 6.85Kg; 2pcs/14.7Kg/1.89CUFT                                             |            |            |                                                                            |            |            |
|                   | SAVING POWER SETTABLE                                                                                                                                  | Low load power below 15 wattage settted saving mode status by controller |            |            |                                                                            |            |            |
|                   | COOLING                                                                                                                                                | By fan                                                                   |            |            |                                                                            |            |            |
| NOTE              | 1.Output Derating capacity referenced by curve 1.<br>2.Efficiency is tested by 1000W linear load.<br>3.Output Derating capacity referenced by curve 2. |                                                                          |            |            |                                                                            |            |            |

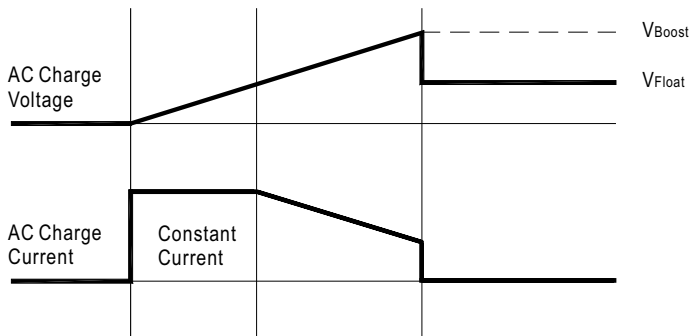
#### ■ AC Output Receptacles (optional)



## ELECTRICAL SPECIFICATIONS OF CHARGER

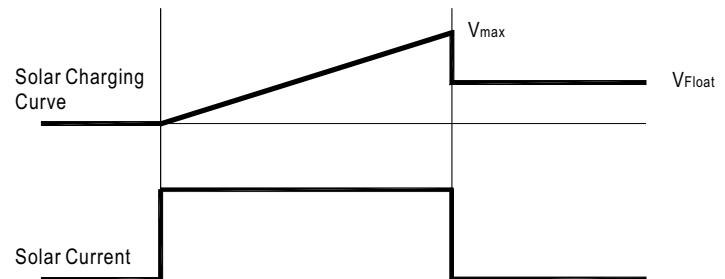
| MODEL         |                          | TN152-112                 | TN152-124  | TN152-148  | TN152-212    | TN152-224  | TN152-248  |
|---------------|--------------------------|---------------------------|------------|------------|--------------|------------|------------|
| AC CHARGER    | INPUT VOLTAGE (Typ.)     | 90 ~ 130VAC               |            |            | 180 ~ 260VAC |            |            |
|               | FREQUENCY                | 47 / 63Hz                 |            |            |              |            |            |
|               | CHARGE CURRENT           | 5.5A±0.5A                 | 2.7A±0.4A  | 1.35A±0.2A | 5.5A±0.5A    | 2.7A±0.4A  | 1.35A±0.2A |
|               | BATTERY TYPES            | Open & sealed Lead Acid   |            |            |              |            |            |
|               | BOOST CHARGE VOLTAGE     | 14.5V±0.5V                | 29V±1V     | 58V±2V     | 14.5V±0.5V   | 29V±1V     | 58V±2V     |
|               | FLOAT CHARGE VOLTAGE     | 12 ~ 13.6V                | 24 ~ 27.2V | 48 ~ 54.4V | 12 ~ 13.6V   | 24 ~ 27.2V | 48 ~ 54.4V |
|               | SHORT CIRCUIT PROTECTION | Constant current limiting |            |            |              |            |            |
| SOLAR CHARGER | MAX OPEN CIRCUIT VOLTAGE | 25V                       | 45V        | 75V        | 25V          | 45V        | 75V        |
|               | EFFICIENCY (Typ.)        | 99%                       |            |            |              |            |            |
|               | CHARGE CURRENT (max.)    | 30A                       |            |            |              |            |            |
|               | BATTERY TYPES            | Open & sealed Lead Acid   |            |            |              |            |            |
|               | Vmax CHARGE VOLTAGE      | 14.5±0.5V                 | 29V±1V     | 58±2V      | 14.5±0.5V    | 29±1V      | 58±2V      |
|               | FLOAT CHARGE VOLTAGE     | 12 ~ 13.6V                | 24 ~ 27.2V | 48 ~ 54.4V | 12 ~ 13.6V   | 24 ~ 27.2V | 48 ~ 54.4V |

### AC Charging Curve



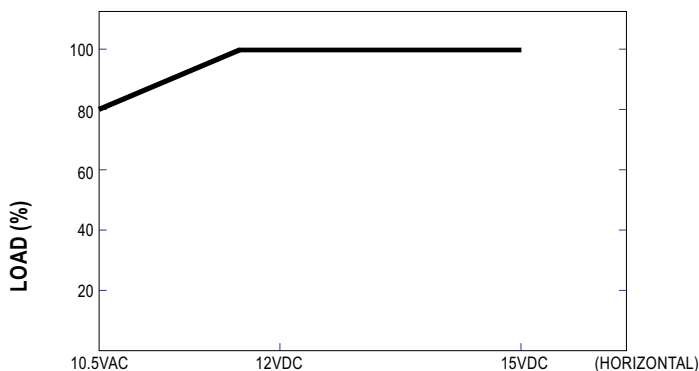
| Model  | 112<br>212 | 124<br>224 | 148<br>248 |
|--------|------------|------------|------------|
| VBoost | 14.5±0.5V  | 29±1V      | 58±2V      |
| VFloat | 12 ~ 13.6V | 24 ~ 27.2V | 48 ~ 54.4V |

### Solar Charging Curve



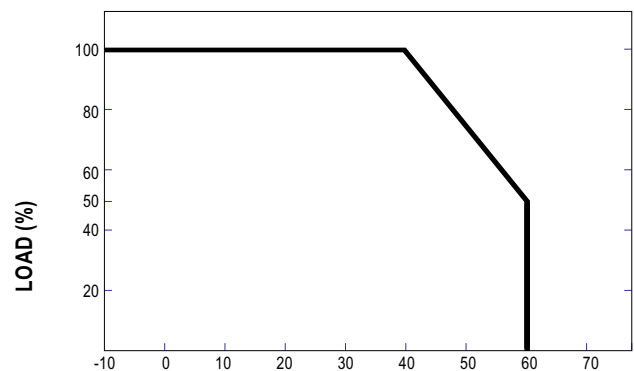
| Model  | 112<br>212 | 124<br>224 | 148<br>248 |
|--------|------------|------------|------------|
| Vmax   | 14.5±0.5V  | 29±1V      | 58±2V      |
| VFloat | 12 ~ 13.6V | 24 ~ 27.2V | 48 ~ 54.4V |

### Output Derating and Curve



INPUT VOLTAGE (V)

CURE 1

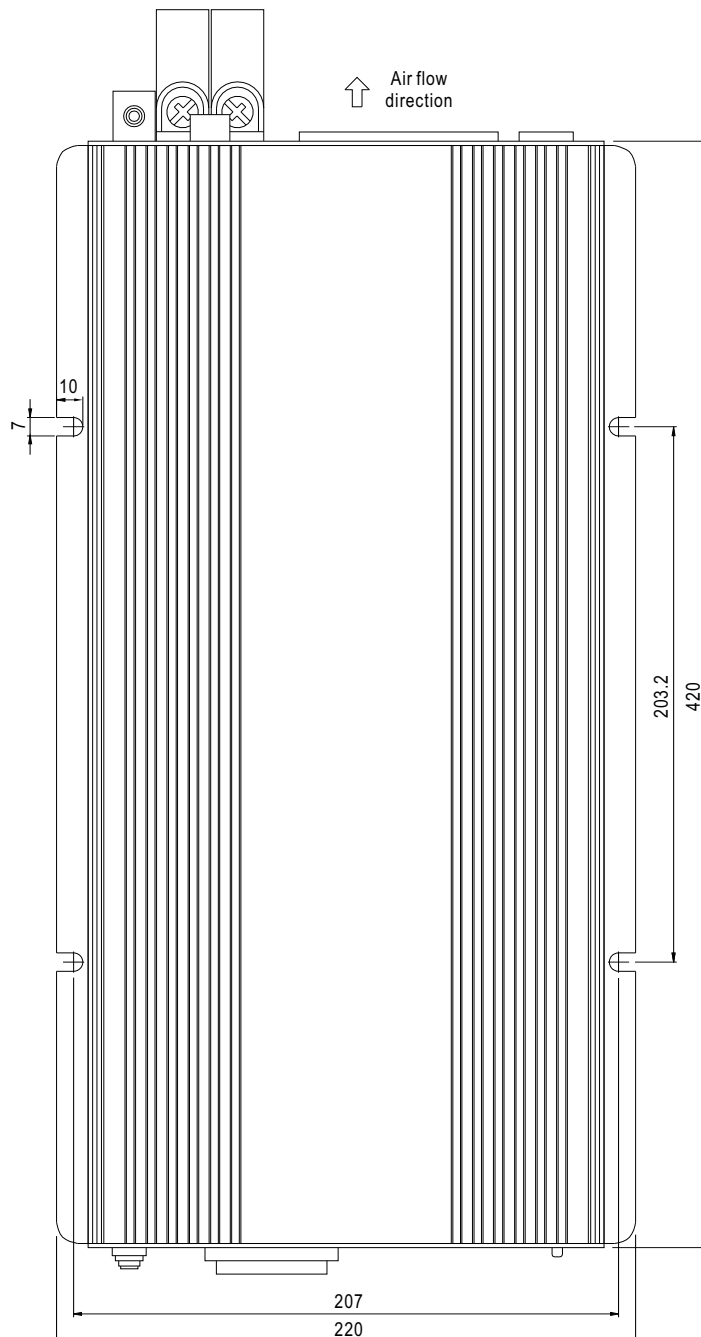
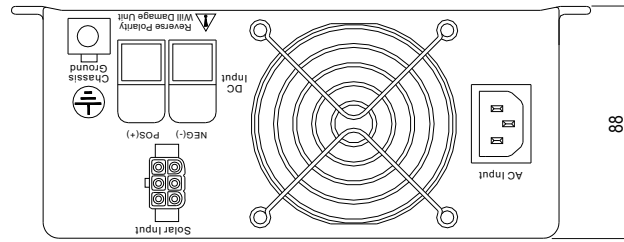


ENVIRONMENT TEMPERATURE (°C)

CURE 2

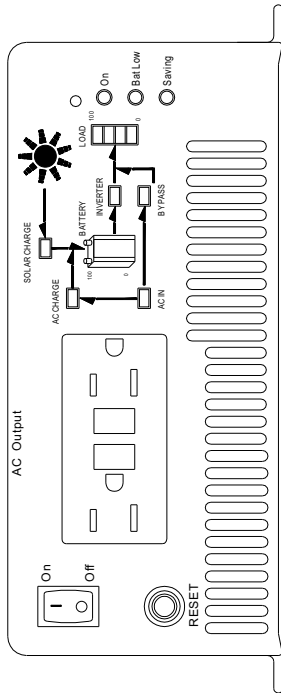
## Mechanical Specification

Unit:mm

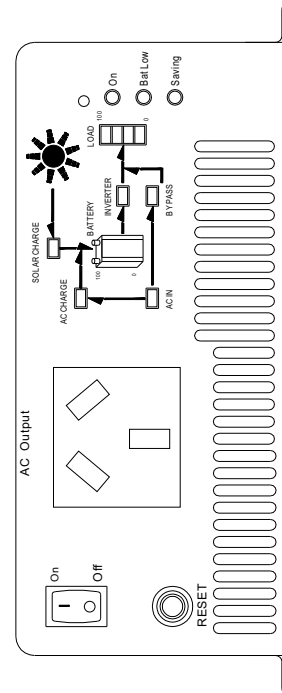


## Mechanical Specification

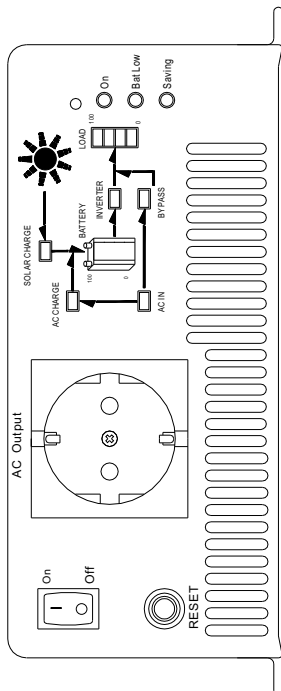
Unit:mm



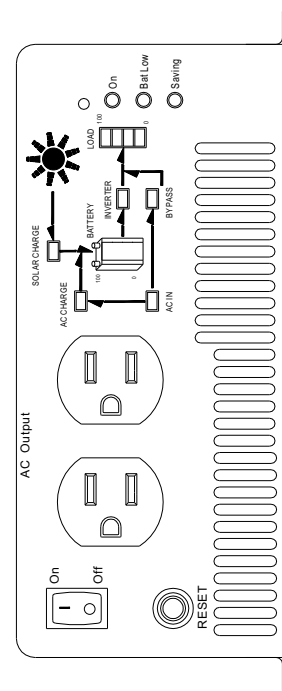
USA



AUSTRALIA



EUROPE



USA