



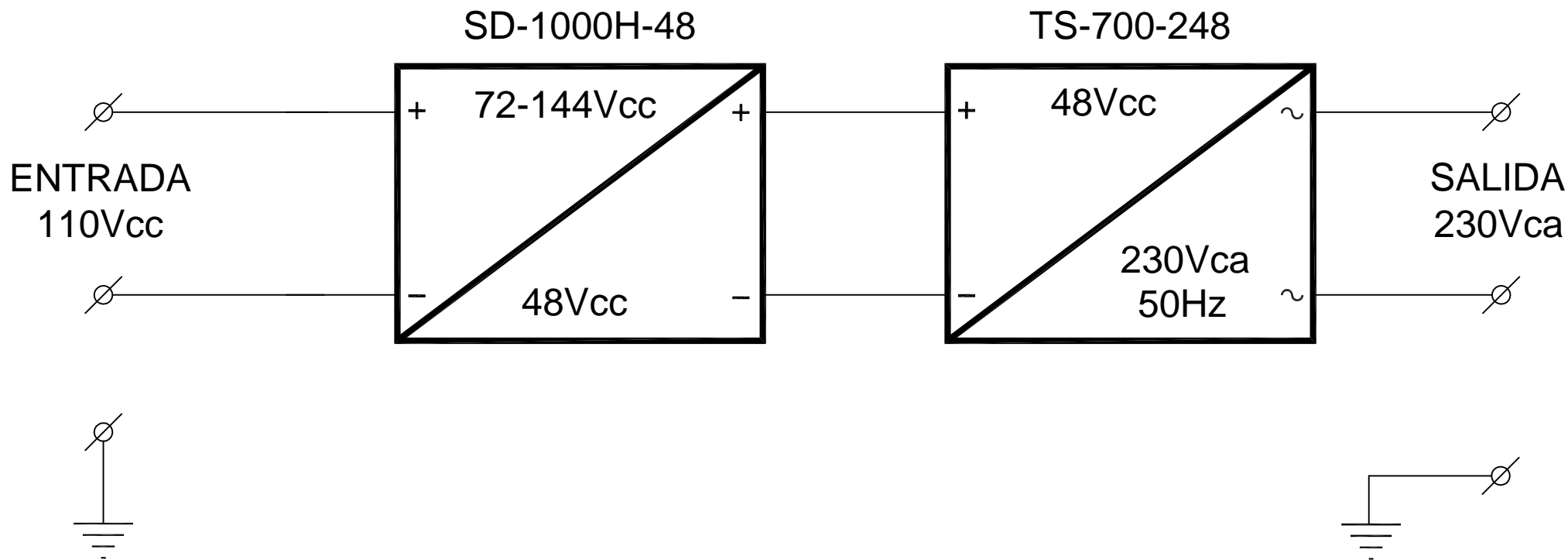
## INVERSOR SENOIDAL

MODELO AMV OND700-110-CT

Ve 110 Vcc (72 ~ 144 Vcc) / Vs 230 Vca 700W

430 x 364 x 83mm



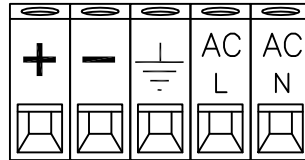


|                       |           |       |                |  |
|-----------------------|-----------|-------|----------------|--|
| ESCALA:               | MATERIAL: |       | ACABADO:       |  |
| APROBO                | FECHA     | FIRMA |                |  |
| DIBUJO                | 22/7/2016 | IVÁN  |                |  |
| AUTORIZO              |           |       |                |  |
| FECHA                 |           |       |                |  |
| EDICION               | 1         |       |                |  |
| CODIGO: 30OND700110CT |           |       | NUMERO: 300198 |  |

DIAGRAMA EN BLOQUES DE  
OND700-110-CT

BORNES SITUADOS EN EL TRASERO DE LA CAJA

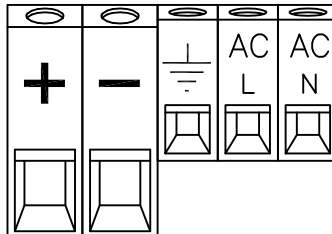
# AMV OND200/400-XX-CX



ENTRADA  
V<sub>CC</sub>


SALIDA  
230V<sub>ca</sub>  
50Hz

# AMV OND700-XX-CX



ENTRADA  
V<sub>CC</sub>

SALIDA  
230V<sub>ca</sub>  
50Hz

|          |           |         |   |   |          |  |  |  |  |                         |
|----------|-----------|---------|---|---|----------|--|--|--|--|-------------------------|
| ESCALA:  | MATERIAL: |         |   |   | ACABADO: |  |  |  |  |                         |
| APROBO   | FECHA     | FIRMA   |   |  |          |  |  | CONEXION ENTRADA-SALIDA<br>EQUIPO AMV OND200/400/700-XX-CX |  |                         |
| DIBUJO   | 2/2/16    | IVÁN    |   |   |          |  |  |  |  |                         |
| AUTORIZO |           |         |   |   |          |  |  |  |  |                         |
| FECHA    | 3/3/16    | 25/7/16 |   |   |          |  |  |  |  |                         |
| EDICION  | 1         | 2       | 3 |   |          |  |  |  |  | CODIGO: 50AMVOND70048C2 |

# 1000W Single Output DC-DC Converter

# SD-1000 series



### ■ Features :

- Protections: Short circuit / Overload / Over voltage / Over temperature
- 2000VAC I/O Isolation
- Forced air cooling by built-in DC fan with fan speed control
- High power density 10.7w/inch<sup>3</sup>
- 1U low profile 41mm
- SD-1000L type input voltage design refer to LVD
- Output OK Signal
- Built-in remote ON-OFF control
- Built-in remote sense function



### SPECIFICATION

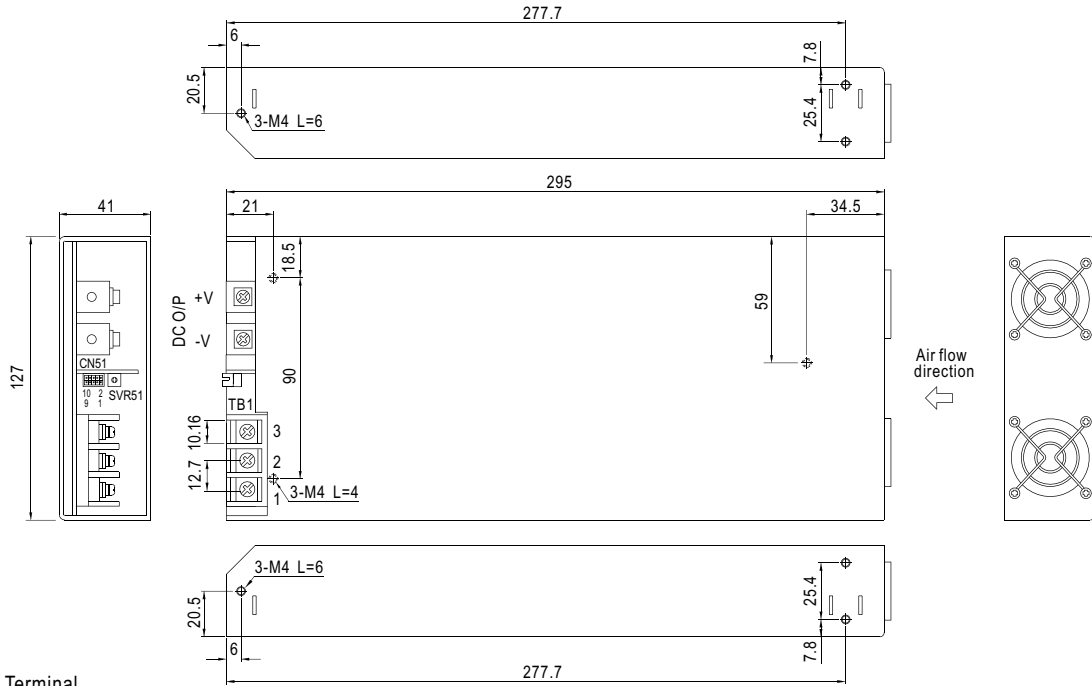
| MODEL                 | SD-1000L-12  | SD-1000L-24  | SD-1000L-48  | SD-1000H-12 | SD-1000H-24 | SD-1000H-48  |          |
|-----------------------|--|--|--------------|-------------|-------------|--------------|----------|
| OUTPUT                | DC VOLTAGE   | 12V  | 24V          | 48V         | 12V         | 24V          | 48V      |
|                       | RATED CURRENT  | 60A  | 40A          | 21A         | 60A         | 40A          | 21A      |
|                       | CURRENT RANGE  | 0 ~ 60A  | 0 ~ 40A      | 0 ~ 21A     | 0 ~ 60A     | 0 ~ 40A      | 0 ~ 21A  |
|                       | RATED POWER  | 720W   | 960W         | 1008W       | 720W        | 960W         | 1008W    |
|                       | RIPPLE & NOISE (max.) Note.2   | 150mVp-p   | 150mVp-p     | 150mVp-p    | 150mVp-p    | 150mVp-p     | 150mVp-p |
|                       | VOLTAGE ADJ. RANGE   | 11 ~ 15V   | 23 ~ 30V     | 46 ~ 60V    | 11 ~ 15V    | 23 ~ 30V     | 46 ~ 60V |
|                       | VOLTAGE TOLERANCE Note.3   | ±1.0%  | ±1.0%        | ±1.0%       | ±1.0%       | ±1.0%        | ±1.0%    |
|                       | LINE REGULATION  | ±0.5%  | ±0.5%        | ±0.5%       | ±0.5%       | ±0.5%        | ±0.5%    |
|                       | LOAD REGULATION  | ±0.5%  | ±0.5%        | ±0.5%       | ±0.5%       | ±0.5%        | ±0.5%    |
| SETUP, RISE TIME      | 500ms, 50ms at full load   |  |              |             |             |              |          |
| INPUT                 | VOLTAGE RANGE Note.5   | 19 ~ 72VDC   |              |             | 72 ~ 144VDC |              |          |
|                       | EFFICIENCY (Typ.)  | 84%  | 88%          | 90%         | 85%         | 89%          | 91%      |
|                       | DC CURRENT (Typ.)  | 23.5A/48VDC  |              |             | 11.6A/96VDC |              |          |
|                       | INRUSH CURRENT (Typ.)  | -----  |              |             | 100A/96VDC  |              |          |
| PROTECTION            | OVERLOAD   | 105 ~ 125% rated output power<br>Protection type : Constant current limiting, unit will shut down o/p voltage about 5sec. Re-power on to recover   |              |             |             |              |          |
|                       | OVER VOLTAGE   | 16 ~ 19V   | 30.8 ~ 35.2V | 62 ~ 68V    | 16 ~ 19V    | 30.8 ~ 35.2V | 62 ~ 68V |
|                       | OVER TEMPERATURE   | 85°C ±5°C (TSW2) detect on heatsink of O/P diode; 75°C ±5°C (TSW1) detect on heatsink of power transistor<br>Protection type : Shut down o/p voltage, recovers automatically after temperature goes down |              |             |             |              |          |
| FUNCTION              | REMOTE ON/OFF CONTROL  | Please refer to function manual  |              |             |             |              |          |
|                       | OUTPUT OK SIGNAL   | Open collector signal low when PSU turns on, Max. sink current : 10mA  |              |             |             |              |          |
| ENVIRONMENT           | WORKING TEMP.  | -20 ~ +60°C (Refer to output load derating curve)  |              |             |             |              |          |
|                       | WORKING HUMIDITY   | 20 ~ 90% RH non-condensing   |              |             |             |              |          |
|                       | STORAGE TEMP., HUMIDITY  | -40 ~ +85°C, 10 ~ 95% RH   |              |             |             |              |          |
|                       | TEMP. COEFFICIENT  | ±0.02%/°C (0 ~ 50°C)   |              |             |             |              |          |
|                       | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes   |              |             |             |              |          |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS   | IEC60950-1 CB approved by TUV  |              |             |             |              |          |
|                       | WITHSTAND VOLTAGE  | I/P-O/P:2KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC  |              |             |             |              |          |
|                       | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC 25°C 70%RH  |              |             |             |              |          |
|                       | EMI CONDUCTION & RADIATION   | Compliance to EN55022 (CISPR22)  |              |             |             |              |          |
|                       | EMS IMMUNITY   | Compliance to EN61000-4-2,3,4,6,8; ENV50204, light industry level, criteria A  |              |             |             |              |          |
| OTHERS                | MTBF   | 32K hrs min. MIL-HDBK-217F (25°C)  |              |             |             |              |          |
|                       | DIMENSION  | 295*127*41mm (L*W*H)   |              |             |             |              |          |
|                       | PACKING  | 1.94Kg; 6pcs/12.6Kg/0.99CUFT   |              |             |             |              |          |
| NOTE                  | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 48,96VDC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</li> <li>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</li> </ol> |  |              |             |             |              |          |

# 1000W Single Output DC-DC Converter

# SD-1000 series

## Mechanical Specification

Case No. 952B Unit:mm



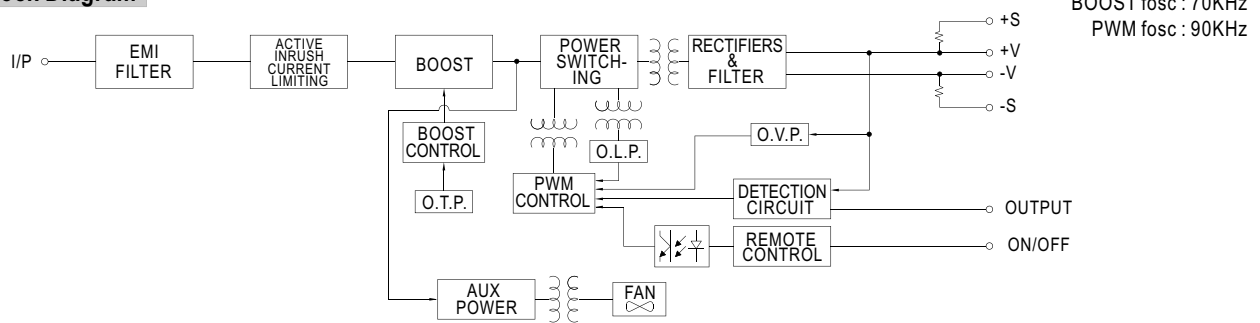
DC Input Terminal  
Pin No. Assignment

| Pin No. | Assignment  |
|---------|-------------|
| 1       | DC INPUT V+ |
| 2       | DC INPUT V- |
| 3       | FG $\equiv$ |

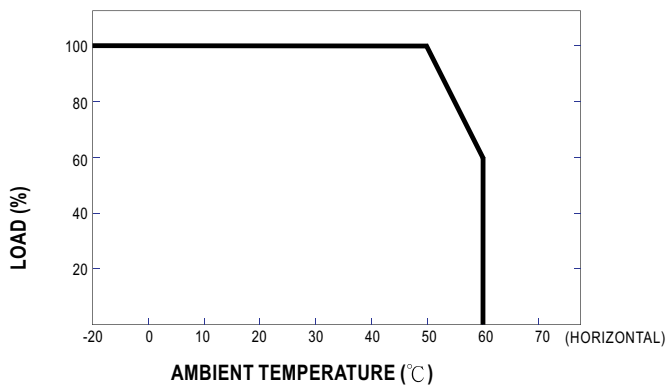
Control pin number assignment (CN51) : JST B10B-PHDSS or equivalent

| Pin No. | Assignment | Pin No. | Assignment | Pin No. | Assignment | Mating Housing                 | Terminal                            |
|---------|------------|---------|------------|---------|------------|--------------------------------|-------------------------------------|
| 1       | +S         | 5       | AUX        | 9       | RCG        | JST PHDR-10VS<br>or equivalent | JST SPHD-002T-P0.5<br>or equivalent |
| 2       | -S         | 6       | AUXG       | 10      | NC         |                                |                                     |
| 3       | OUTPUT OK  | 7       | RC1        |         |            |                                |                                     |
| 4       | GND        | 8       | RC2        |         |            |                                |                                     |

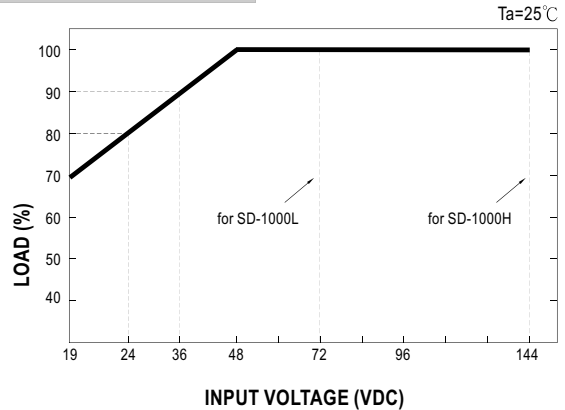
## Block Diagram



## Derating Curve



## Static Characteristics



■ **Function Description of CN51**

| Pin No. | Function | Description   |
|---------|----------|---|
| 1       | +S       | Positive sensing. The +S signal should be connected to the positive terminal of the load. The +S and -S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V. |
| 2       | -S       | Negative sensing. The -S signal should be connected to the negative terminal of the load. The -S and +S leads should be twisted in pair to minimize noise pick-up effect. The maximum line drop compensation is 0.5V. |
| 3       | O/P OK   | Open collector signal, referenced to pin4(GND). Low when PSU turns on. The maximum sink current is 10mA and the maximum external voltage is 13V.  |
| 4       | GND      | These pins connect to the negative terminal (-V).   |
| 5       | AUX      | Auxiliary voltage output, 10.8~13.2V referenced to pin6(AUXG).The maximum load current is 0.25A.  |
| 6       | AUXG     | Auxiliary voltage output ground. The signal return is isolated from the output terminals(+V & -V).  |
| 7       | RC1      | Remote ON/OFF   |
| 8       | RC2      | Remote ON/OFF   |
| 9       | RCG      | Remote ON/OFF ground  |
| 10      | NC       | No connection   |

■ **Function Manual**

**1.Remote ON/OFF**

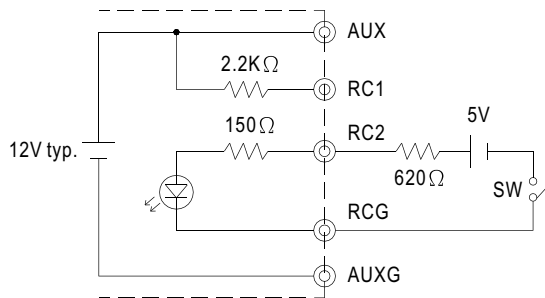
- (1)Remote ON/OFF control becomes available by applying voltage in CN51
- (2)Table 1.1 shows the specification of Remote ON/OFF function
- (3)Fig.1.2 shows the example to connect Remote ON/OFF control function

Table 1.1 Specification of Remote ON/OFF

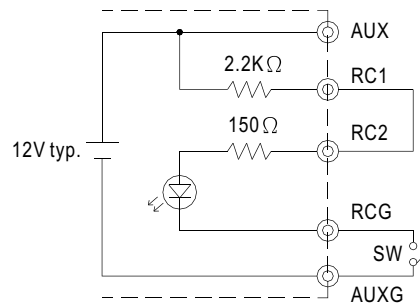
| Connection Method | Fig. 1.2(A) | Fig. 1.2(B) | Fig. 1.2(C) |
|-------------------|-------------|-------------|-------------|
| SW Logic          | Output on   | SW Open     | SW Close    |
|                   | Output off  | SW Close    | SW Open     |

Fig.1.2 Examples of connecting remote ON/OFF

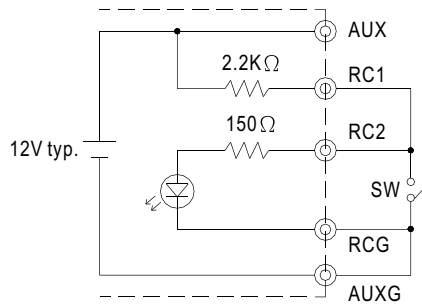
(A)Using external voltage source



(B)Using internal 12V auxiliary output



(C)Using internal 12V auxiliary output



## 2. Output OK signal

"Output OK" is an open collector signal. It indicates the output status of the PSU. It can operate in two ways : One is sinking current from external signal ; the other is sending out a voltage signal.

### 2-1 Sink current :

The maximum sink current is 10mA and the maximum external voltage is 13V.

### 2-2 Voltage signal :

| Between O/P OK(pin3) and GND(pin4) | Output Status |
|------------------------------------|---------------|
| 0 ~ 0.5V                           | ON            |
| 12 ~ 13V                           | OFF           |

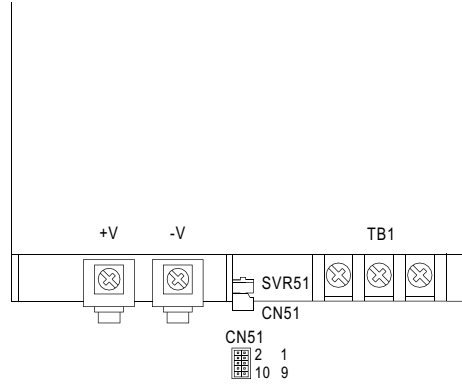
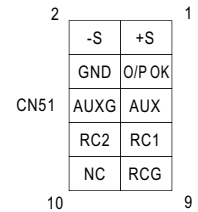


Fig 2.1



## 3. Remote Sense

The remote sensing compensates voltage drop on the load wiring up to 0.5V.

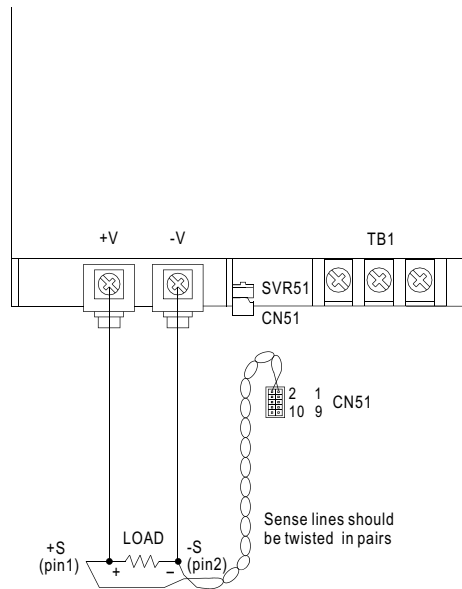
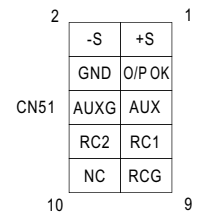


Fig 3.1





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

# TS-700 series



### ■ Features :

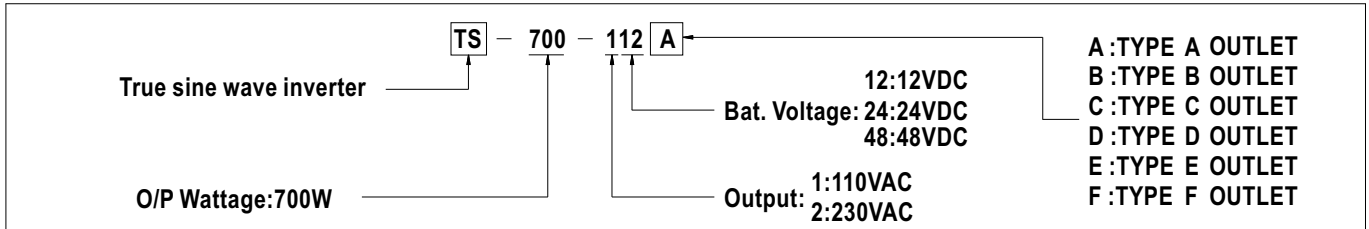
- True sine wave output (THD<3%)
- High surge power up to 1400W
- High efficiency up to 91%
- Power ON-OFF switch
- Standby saving mode can be selectable
- Front panel indicator for operation status
- Built-in fan ON-OFF control function
- Protections: Bat. low alarm / Bat. low shutdown / Over voltage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



### 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   |             |  | 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 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.) 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.) <sup>Note.3</sup>   |             | 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.) <sup>Note.1</sup>  |             | 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   |             |  | OVER TEMPERATURE  |             |              |            |            |
|   | 80°C ± 5°C   |             |  | 75°C ± 5°C  |             |              |            |            |
|   | 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. <sup>Note.4</sup>  |             | 0 ~ +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  |             |  |   |             |              |            |            |
|   | VIBRATION 10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes   |             |  |   |             |              |            |            |
| SAFETY & EMC  | SAFETY STANDARDS   |             |  | SAFETY STANDARDS  |             |              |            |            |
|   | Design refer to UL458  |             |  | None  |             |              |            |            |
|   | LVD  |             |  | 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°C / 70% RH   |             |  |   |             |              |            |            |
| EMI CONDUCTION&RADIATION  |  |             |  | EMI CONDUCTION&RADIATION  |             |              |            |            |
| Compliance to FCC class A   |  |             |  | Compliance to EN55022 class A, 72/ 245/ CEE, 95/ 54/ CE, E-Mark |             |              |            |            |
| EMS IMMUNITY None Compliance to EN61000-4-2,3,8 ENV50204  |  |             |  |   |             |              |            |            |
| OTHERS  | MTBF 74.4K hrs min. MIL-HDBK-217F (25°C)   |             |  |   |             |              |            |            |
|   | DIMENSION 295*184*70mm (L*W*H)   |             |  |   |             |              |            |            |
|   | PACKING 3.8Kg; 2pcs/8.6Kg/1.02CUFT   |             |  |   |             |              |            |            |
| 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°C of ambient temperature.<br>3.Output derating capacity referenced by curve 1.<br>4.Output derating capacity referenced by curve 2. |             |  |   |             |              |            |            |

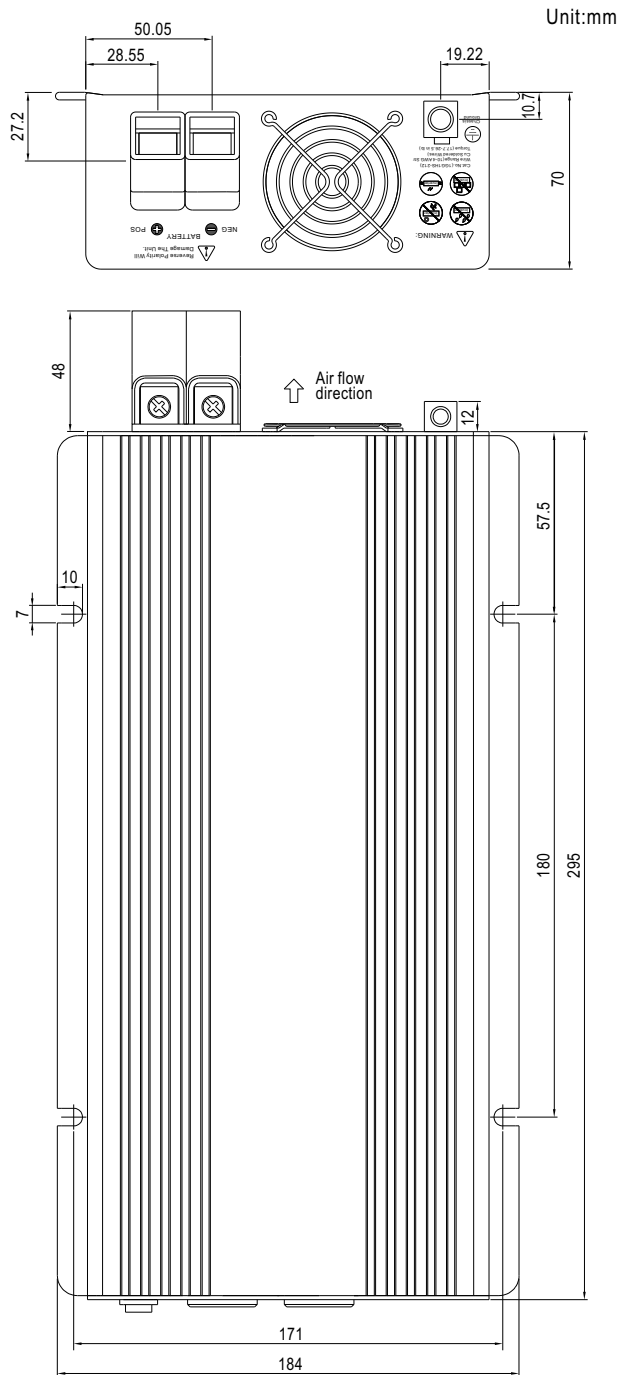




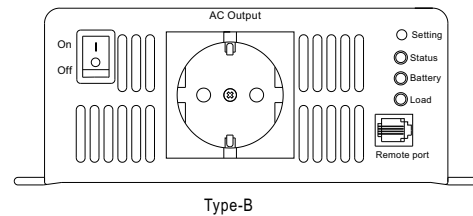
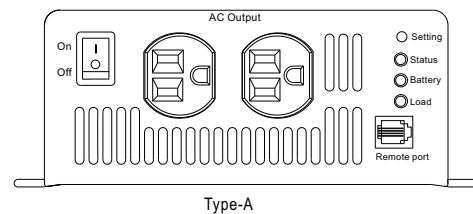
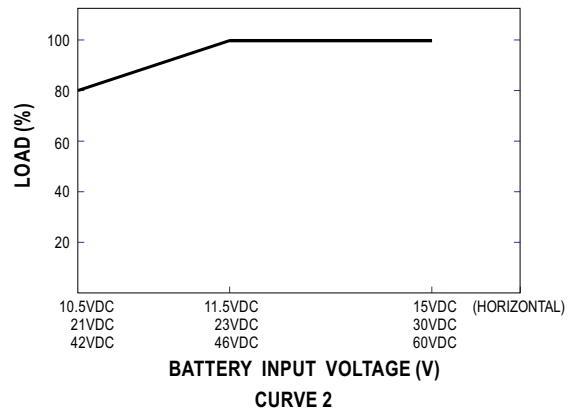
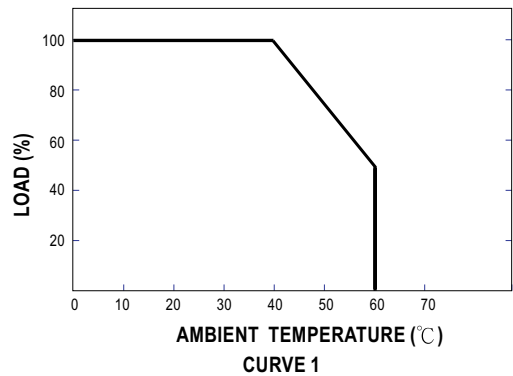
**AC Output Receptacles (optional)**

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

**Mechanical Specification**



**Derating Curve**





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TFNO 985 319171 FAX 985 346795  
Email: [amv@amvelectronica.com](mailto:amv@amvelectronica.com)

[www.amvelectronica.com](http://www.amvelectronica.com)

# GARANTIA

TODOS LOS EQUIPOS FABRICADOS POR **AMV ELECTRÓNICA** SALEN DE NUESTROS TALLERES AJUSTADOS, NUMERADOS Y CON DOCUMENTACIÓN TÉCNICA, **SIENDO LA GARANTIA TOTAL DE 2 AÑOS.**

LA GARANTÍA CUBRE LAS SITUACIONES DE DAÑO INTRÍNSECO, Y NO LAS PROVOCADAS POR CAUSAS EXTERNAS O LA MANIPULACIÓN POR PARTE DEL USUARIO.

LA GARANTÍA SE ENTIENDE EN NUESTROS TALLERES, SIENDO POR CUENTA DEL USUARIO LOS COSTES DEL TRANSPORTE.

**AMV ELECTRONICA**

## TELEFONOS & E-MAIL DE CONTACTO

| DEPARTAMENTO                   | RESPONSABLE     | Teléfono          | e-MAIL   |
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