TAMURA Corporation of America

Switch Mode Power Supply

Model

# AAD600S

600 Watts$_{max}$ output power

Power Factor Correction

Single Output

H.A.L.T. TESTED — Highly Accelerated Life Testing


## Electrical Specifications

| | |
|---|---|
| Input Voltage: | 85-264 VAC, 47-63 Hz |
| Input Current: | <6.5A RMS @ 115 VAC @ full load<br><3.5A RMS @ 230 VAC @ full load<br>9.0A RMS @ 85 VAC @ full load |
| Inrush Current: | <20A, pk @ 110 VAC, active soft start<br><40A, pk @ 220 VAC, active soft start<br>(Active independant of cold or warm start) |
| Power Factor: | >0.99 @ full load @ 230VAC input |
| Harmonic Distortion: | Meets IEC1000-3-2 |
| EMI Filtering: | Meets CISPR 11 and 22 and FCC Part 15 Class B (conducted) |
| Input Protection: | Internal AC line fuse; 250 VAC, 10A |
| Output Power: | Up to 600W continuous |
| Line Regulation: | ± 0.1% |
| Load Regulation: | ±0.25% |
| PARD: | <1% or 250mV<br>20MHz bandwidth |
| Hold-up Time: | >16 ms @ full load |
| Output Polarity: | Output is floating |
| Minimum Load: | None |
| Transient Response: | 2% for 25% load change @ 1A/µs |
| Output Rise Time: | <100 ms (10% to 90%) |
| Remote Sense: | Standard |
| Current Share: | Within 5% |
| Remote On/Off: | Ground or $TTL_{LOW}$ = OFF<br>Open or $TTL_{HIGH}$ = ON |
| AC Power Fail: | $TTL_{LOW}$ logic "0" at least 2 ms before DC output drops 5% (without signal jitter). Open collector. |
| DC OK: | Open collector when output voltage is above 95% of rated |
| Overcurrent/Short Circuit: | Square current limit; 105-130% of rated |
| Overvoltage Protection: | Factory set, 125% ±5%<br>cycle AC to reset |
| Reverse Voltage: | Reverse current up to rated outputs |
| Thermal Protection: | Auto off; auto reset upon cool down |
| Efficiency: | Up to 92% |
| MTBF: | MIL-STD-HDBK 217E<br>200,000 hours @ 25°C, ground benign, Highly Accelerated Life Testing |

## Available Voltage Outputs*

| Voltage Codes | Voltages (Volts) | Continuous Current (Amps) |
|---|---|---|
| **-4** | **12** | **42** |
| -5 | 15 | 36 |
| **-6** | **24** | **23** |
| -7 | 28 | 20 |
| -8 | 36 | 16 |
| **-9** | **48** | **12.5** |

** Consult factory for other voltages and OEM quantities.*

*Note: Standard models are shown* ***bold***

***PART # STRUCTURE:***

***MODEL - VOLTAGE CODE - OPTION CODES*** *(See back)*

***- V1 -***

***AAD600S - X - ABC....***

***Example: Part Number AAD600S-8-CF = 600W Power Factor Corrected, 36V @ 16A with sealed pots and overcurrent foldback mode.***

***SEE 3rd PAGE FOR THE AAD600S CODE TABLE AND AVAILABLE OPTIONS.***

TAMURA Corporation of America

Model

# AAD600S

## Options (code)

| | |
|---|---|
| DC OK Invert (U) | PF Invert (B) |
| Metric Mounting (M) | Remote On/Off Invert (S) |
| OR-ing Diodes (O) | Overcurrent Hiccup Mode (D) |
| Droop Current Share (A) | Overcurrent Latch-off Mode (E) |
| Gold Plated Signal Connector (G) | Overcurrent Foldback Mode (F) |
| Sealed Pots (C) | Standby Power (5VDC @ 1A) (P)** |

***Voltage available as long as AC input is present*

## Safety Compliance

IEC / EN / UL / CSA 60950-1
CE Declaration to Low Voltage Directive 2006/95/EC and RoHS Directive 2011/65/EU

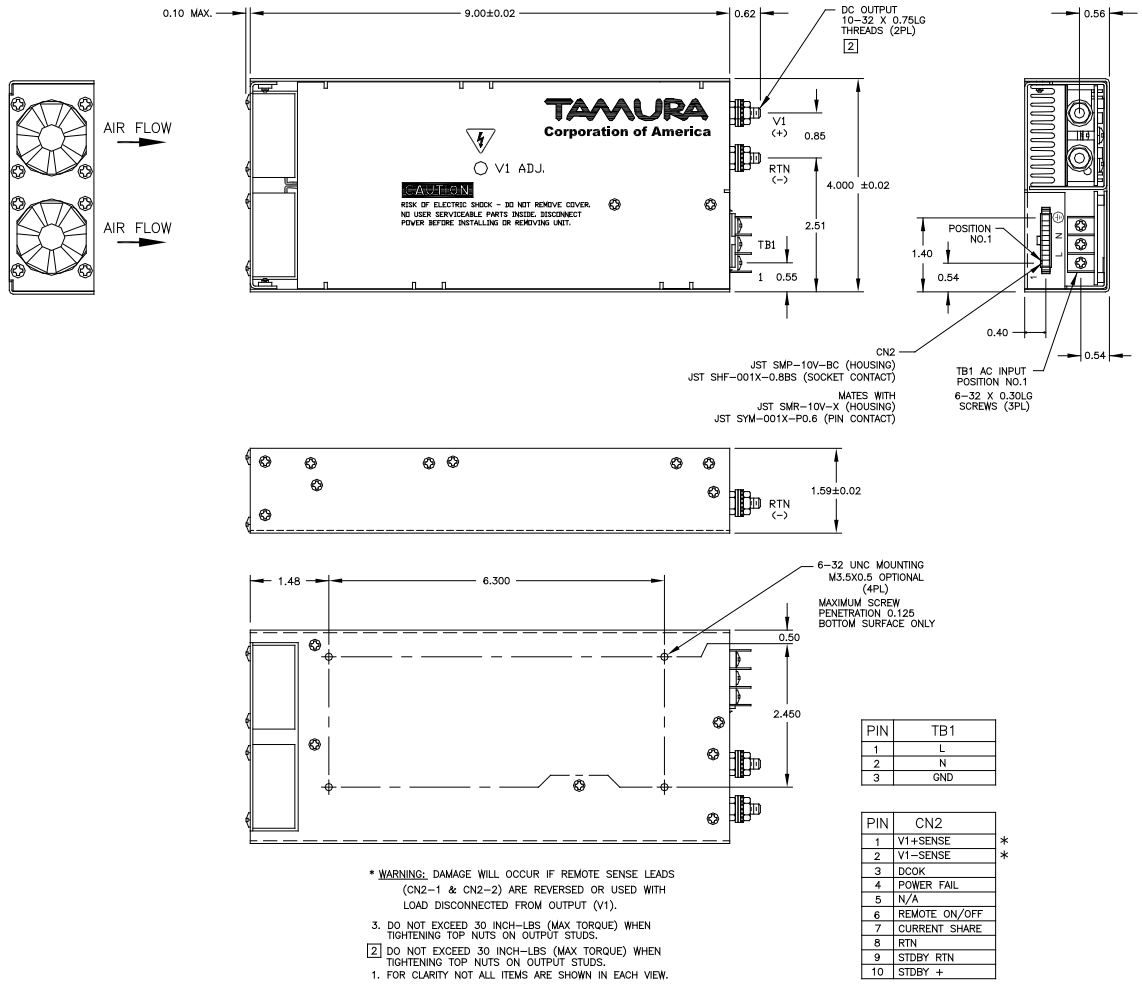
## Surge & ESD Test Levels

| | |
|---|---|
| EN61000-4-5 Level 3 | EN61000-4-2 Level 2 |
| EN61000-3-2 | EN61000-4-2 Level 3 (Air Only) |
| EN61000-4-4 Level 3 | EN61000-4-11 |

Meets Class B conducted limits per CISPR 11/22 and CFR 15 subpt B

## Physical Specifications

| | |
|---|---|
| Dimensions: (HxWxL) | 1.59" x 4" x 9" |
| Operating Temp: | 0 to 70°C; rated power to 50°C derate linearly to 50% at 70°C. |
| Relative Humidity: | 5% to 90%, non-condensing |
| Storage: | -50 to 85°C/20-90% RH |
| Altitude: | 6,561' operating; 40,000' storage |




| PIN | TB1 |
|---|---|
| 1 | L |
| 2 | N |
| 3 | GND |

| PIN | CN2 | |
|---|---|---|
| 1 | V1+SENSE | * |
| 2 | V1-SENSE | * |
| 3 | DCOK | |
| 4 | POWER FAIL | |
| 5 | N/A | |
| 6 | REMOTE ON/OFF | |
| 7 | CURRENT SHARE | |
| 8 | RTN | |
| 9 | STDBY RTN | |
| 10 | STDBY + | |

* WARNING: DAMAGE WILL OCCUR IF REMOTE SENSE LEADS (CN2-1 & CN2-2) ARE REVERSED OR USED WITH LOAD DISCONNECTED FROM OUTPUT (V1).

3. DO NOT EXCEED 30 INCH-LBS (MAX TORQUE) WHEN TIGHTENING TOP NUTS ON OUTPUT STUDS.

[2] DO NOT EXCEED 30 INCH-LBS (MAX TORQUE) WHEN TIGHTENING TOP NUTS ON OUTPUT STUDS.

1. FOR CLARITY NOT ALL ITEMS ARE SHOWN IN EACH VIEW.



Item 40619 Rev A

TAMURA CORPORATION OF AMERICA
1040 South Andreasen Drive, STE. 100 Escondido, CA 92029-1951
(951) 699-1270 / Fax: (951) 676-9482
**(800) 472-6624** **www.tamuracorp.com**

ISO 9001

ANSI-RAB QMS ACCREDITED BSI REGISTERED
FM 32227

# PRODUCT CODE TABLE

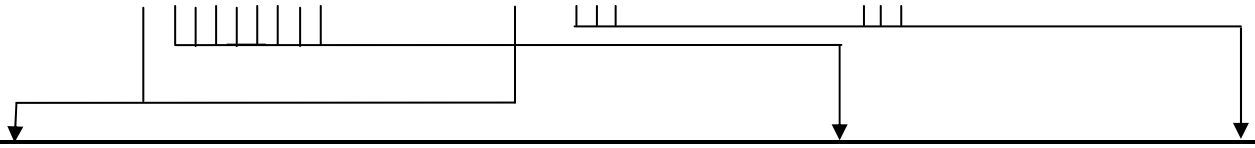
RoHS

## AAD600S Series Part Number Code Table

Standard Models AAD600S-X-YYYYYY

Tailored Models AAD600S-X-60ZZZ

Custom Models AAD600S-61ZZZ



| P/N Codes | Output Voltage and Current Codes | | Standard Options |
|---|---|---|---|
| DC Output Voltage Code | "X" Channel (V1) Volts | Amps | "Y" Code Description |
| 4 | 12.0 | 42.0 | A Droop Current Share<br>B PF Invert<br>C Sealed pot<br>D OCP Hicc-up Mode<br>E OCP latch off mode<br>F OCP fold back mode<br>G Gold plated signal connector<br>M Metric Mounting<br>O OR-ing Diode<br>P 5Vdc, 1A Standby Output<br>S Remote On/Off Invert (Open is off)<br>U DCOK Invert |
| 5 | 15.0 | 36.0 | |
| 6 | 24.0 | 23.0 | |
| 7 | 28.0 | 20.0 | |
| 8 | 36.0 | 16.0 | |
| 9 | 48.0 | 12.5 | |
| | | | Tailored Units (no safety changes: omit "X" code for non-standard output)<br>---<br>"60ZZZ" : "Z" – Factory Assigned P/N<br>Harnesses Added,<br>Special test data …<br>ETC…. |
| | | | Custom Units<br>(safety critical changes)<br>---<br>"61ZZZ" : "Z" – Factory Assigned P/N<br>ETC….. |