

### **TAMURÁ** Corporation of America

### Model

### **Miniature Switch Mode Power Supply**

## **AAD130**

130 Watts output power

**Power Factor Correction** 

Parallel/Redundant Operation

Up to 88% Efficiency

#### **Electrical Specifications**

Input Voltage: 90-264 VAC, 47-63 Hz

Input Current: <2A RMS @ 115 VAC @ full load

<1A RMS @ 230 VAC @ full load

Inrush Current: <35A, pk @ 132 VAC @ cold start

<75A, pk @ 264 VAC @ cold start

Power Factor: >0.98 @ full load @ 115/230VAC input

Harmonic Distortion: Meets EN61000-3-2

EMI Filtering: Meets CISPR 11 and 22 and FCC Part 15

Class B (conducted)

Input Protection: Internal AC line fuse; 250 VAC, 4.0A

Surge Withstand: Meets EN61000-4

Output Power: 130W with 15CFM air; 80W Convection

cooled (consult factory for current ratings)

Line Regulation: ± 0.3%

Load Regulation: ± 1% for V1 and V2

± 5% for V3 and V4

PARD: Greater of 1% or 50mV

20MHz bandwidth

Hold-up Time: >20 ms @ full load

Turn-on Delay: <2 seconds

Output Polarity: See Voltage Chart

Minimum Load: >0.5A for V1 and V2

>0.1A for V3 and V4

Transient Response: Greater of 150mV or 3% for 25%

load change @ 1A/µs (V1 and V2)

Output Rise Time: <100 ms (10% to 90%)

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



Remote Sense: Standard on V1 and V2

Up to 400mV of cable drop

AC Power Fail: TTL<sub>LOW</sub> logic "0" at least 5 ms before DC

output drops 5% (without signal jitter). <10mA sink current for Power Fail "0". <1mA source current for Power Fail "1".

Overshoot/Undershoot: <5% overshoot with remote sense at output

terminals

Current Share (option): Load currents of V1 and V2 for similar units

 $\mbox{can be shared } @ < \pm 5\% \mbox{ of total load}$  Overvoltage Protect: Factory set, 125%  $\pm 5\%$  on V1 and V2

cycle AC to reset

Short Circuit Protection: All outputs are auto recovery

Reverse Voltage: Reverse current up to rated outputs

Case Power Protection: Standard operation interrupt (hiccup mode)

Efficiency: Up to 88%

MTBF: MIL-STD-HDBK 217E
>200,000 hours @ 25°C
Highly Accelerated Life Testing

#### Available Voltage Outputs\*

Voltage Codes	V1 Voltages (Volts)	V1 Currents (Amps)	V2 Voltages (Volts)	V2 Currents (Amps)	V3 Voltages (Volts)	V3 Currents (Amps)	V4 ** Voltages (Volts)	V4 Currents (Amps)
-1	+1.8	14	+1.8	16	+1.8	1.5	-1.8	1.5
-2	+3.3	14	+3.3	16	+3.3	1.5	-3.3	1.5
-3	+5	14	+5	14	+5	1.5	-5	1.5
-4			+12	5	+12	1.5	-12	1.5
-5					+15	1.5	-15	1.5
-6					+24	1.5	-24	1.5

<sup>\*</sup> Consult factory for other voltages and OEM quantities.

### PART # STRUCTURE:

MODEL - VOLTAGE CODE - OPTION CODES (See sheet 2)
- V1 V2 V3 V4 -

AAD130 - X X X X - ABC....

Example: Part Number  $\underline{AAD130-3244-AM} = 130W$  Power Factor Corrected, (V1) +5V @ 14A, (V2) +3.3V @ 16A, (V3) +12V @ 1.5A and (V4) -12V @ 1.5A with Current Sharing and Metric Mounting.

<sup>\*\*</sup> Standard Polarity for V4 is negative (-). V4 is available with positive polarity as a Tailored or Custom model. Note: Standard models are 3244, 3255, 3264, 3404 and 3464



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### Options (code)

#6-32 PEM Nut (Standard) Current Sharing (A) PF Invert (B) Thru-Hole Mounting (C) Metric Mounting (M) PF Open Collector (O)

Input and Options with Gold Pins (G) Molex Output Connector with Gold Pins (J) Molex Connectors with Standard Pins (K)

#### **Compliance**

AC INPUT -

MOLEX CONNECTOR 26-60-4030 (CENTER PIN REMOVED) MATES WITH 2139

EN61000-4-5 Level 3 EN61000-4-2 Level 2

EN61000-3-2 EN61000-4-2 Level 3 (Air Only)

EN61000-4-11



### **Certifications**

Altitude:

MOLEX CONNECTOR 22-23-2081 MATES WITH

DC OUTPUT \* \*

UL60950 CSA C22.2 No. 60950-00 IEC60950 EN60950: 2000 CE Declaration to Low Voltage Directive 72/73/EEC

### **Physical Specifications**

1.25" x 3.14" x 5" Dimensions: (HxWxL)

Operating Temp: 0 to 50°C; rated power to 50°C

with 15CFM air

Relative Humidity: 5% to 90%, non-condensing

Storage: -50 to 85°C/20-90% RH

10,000' operating;

40,000' storage



MOLEX CONNECTOR 26-60-4030 CENTER PIN REMOVED

PIN NO.	CN2		
1	V3	*	*
2	V2	*	*
3	RTN		
4	RTN		
5	V1	*	*
6	V4	*	*

*
*
. *

MOLEX CONNECTOR 22-23-2081

UNIT	WEIGHT
0.7	72 LBS

DAMAGE WILL OCCUR IF REMOTE SENSE LEADS ARE REVERSED OR USED WITH LOAD DISCONNECTED FROM RESPECTIVE OUTPUTS.

FOR PROPER REGULATION MINIMUM LOADS ARE REQUIRED. 0.5A FOR V1 AND V2. 0.1A FOR V3 AND V4

2 OPTIONAL - MOLEX CONNECTOR LIMITED TO 7A FOR V1, V2 OUTPUT

OPTIONAL- #6 CLEARANCE HOLE PROVIDED THROUGH THE BOARD AND CHASSIS FOR TOP SIDE MOUNTING OF POWER SUPPLY. NOTES: UNLESS OTHERWISE SPECIFIED.

### EN61000-4-4 Level 3 CISPR 11 and 22 FCC Part 15 Class B (conducted)

CHASSIS GROUND — TERM QK DISCONN (.250)	5.00 ±.02 [127.0 ±0.51]	R GA WIRE [2] JE-4 IN/LBS
1.25 ±.02 [31.75 ±0.51]		
0.225 [5.715]—	6-32 OPTION	UNC MTG (4PL) STANDARD NAL []
3.14 ±.02 [79.76 ±0.51]	© 0 2.550 [64.	.770]
		* WARNING:
ваттом мои	NTING SURFACE295	[7.493] * * <u>NOTE:</u>

T2

V1 ADJ

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1.25 ±.02 [31.75 ±0.51] REF

(3)

