TAMURA Corporation of America

Model

AAD130SD

Miniature Switch Mode Power Supply

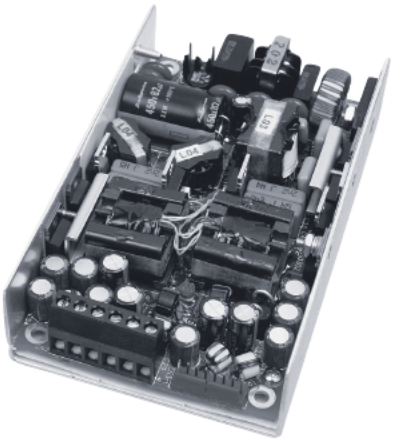
H.A.L.T. TESTED — Highly Accelerated Life Testing

130 Watts output power

Power Factor Correction

Parallel/Redundant Operation

Up to 90% 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
Output Power:	Up to 144W with 15CFM air; 80W Convection cooled (consult factory for current ratings)
Line Regulation:	± 0.3%
Load Regulation:	± 1% for V1 and V2
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:	7W (Single Output) 3.5W each (Dual Output)
Transient Response:	Greater of 150mV or 3% for 25% load change @ 1A/µs (V1 and V2)
Output Rise Time:	<250 ms (10% to 90%)
Remote Sense:	Standard on V1 and V2 Up to 400mV of cable drop
AC Power Fail:	TTL_{LOW} 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 can be shared @ <±5% of total load
Overvoltage Protect:	Factory set, 125% ±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 90%
MTBF:	MIL-STD-HDBK 217E >200,000 hours @ 25°C Highly Accelerated Life Testing

Available Voltage Outputs*

Dual Output Voltage Codes	Dual Output V1 Voltages (Volts)	Dual Output V1 Currents (Amps)	Dual Output V2 Voltages (Volts)	Dual Output V2 Currents (Amps)
-2	3.3	16	3.3	16
-3	5	14	5	14
-4	12	6	12	6
-5	15	5	15	5
-6	24	3	24	3
-7	28	2.5	28	2.5
-8	36	2	36	2
-9	48	1.5	48	1.5

Single Output Voltage Codes	Single Output V1 Voltages (Volts)	Single Output V1 Currents (Amps)
-20	3.3	32
-30	**5**	**26**
-40	**12**	**12**
-50	15	9
-60	**24**	**6**
-70	28	5
-80	36	4
-90	**48**	**3**

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

*Note: Standard Dual Output Models are **-34** and **-46***

*Note: Standard Single Output Models are shown **bold***

PART # STRUCTURE:

MODEL	-	VOLTAGE CODE	-	OPTION CODES *(See back)*
	-	V1	-	
AAD130SD	-	X X	-	ABC....

Example1: Part Number AAD130SD-56-AC = 130W Dual Output, Power Factor Corrected, 15V @ 5A and 24V @ 3A with Current Sharing and a Thruhole Chassis.

Example2: Part Number AAD130SD-30-BM = 130W Single Output, Power Factor Corrected, 5V @ 26A with PF Invert and Metric Mounting.

See 3rd page for AAD130SD CODE TABLE AND AVAILABLE OPTIONS.

TAMURA Corporation of America

Model

AAD130SD

RoHS COMPLIANT

Options (code)

#6-32 PEM Nut (Standard)
Current Sharing (A)
PF Invert (B)
Thru-Hole Mounting (C)
Metric Moun ing (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)

Safety Compliance

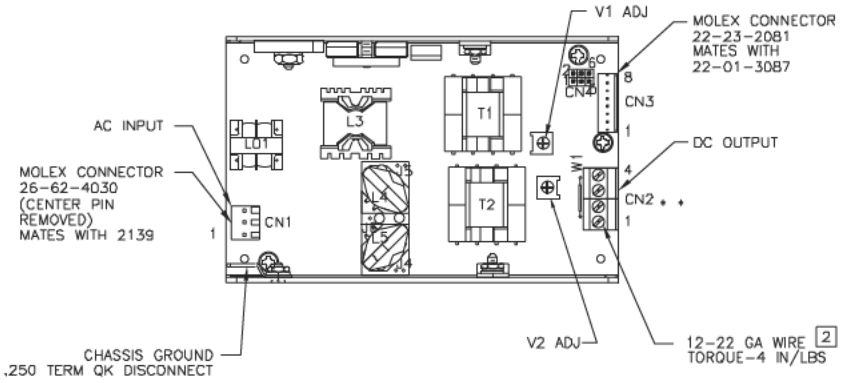
IEC / EN / UL / CSA 60950-1
CE Declaration to Low Voltage Directive 2006/95/EC and RoHS Direc ive 2011/65/EU

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 47 CFR 15 subpt B

Physical Specifications

Dimensions: (HxWxL)	1.25" x 3.14" x 5"
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
Altitude:	6561 40,000' storage



PIN NO.	CN1
1	AC LINE
2	
3	NEUTRAL

MOLEX CONNECTOR 26-60-4030 CENTER PIN REMOVED

	PIN NO.	CN2	
***	1	V2	**
	2	RTN	
	3	RTN	
***	4	V1	**

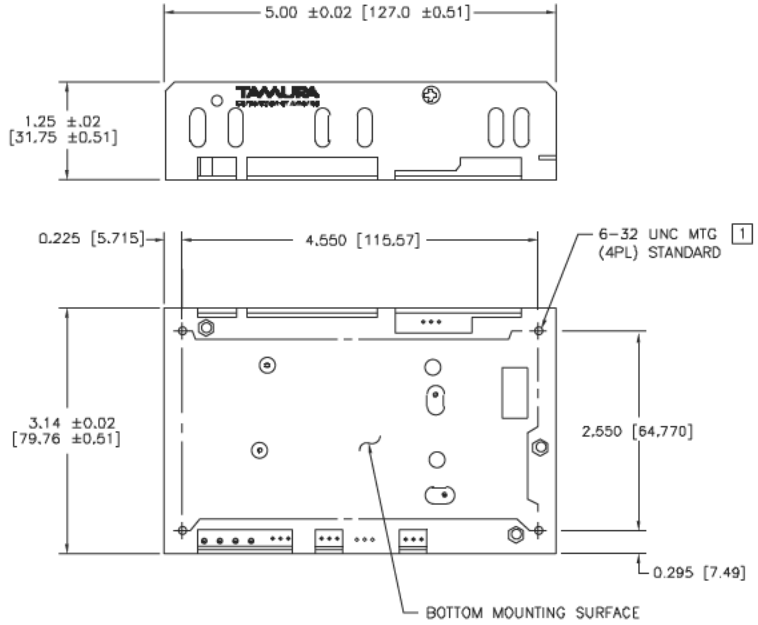
FOR 12-22 GA WIRE TORQUE-4 IN/LBS

PIN NO.	CN3	
1	V2 CURRENT SHARE	
2	V1 CURRENT SHARE	
3	POWER FAIL	
4	RTN	
5	V1 -REMOTE SENSE	*
6	V1 +REMOTE SENSE	*
7	V2 +REMOTE SENSE	*
8	V2 -REMOTE SENSE	*

PIN 1 & PIN 2 ARE CONNECTED INTERNALLY
PIN 5 & PIN 8 ARE CONNECTED INTERNALLY
** FOR SINGLE OUTPUT MODELS
PIN 6 & PIN 7 ARE CONNECTED INTERNALLY

MOLEX CONNECTOR 22-23-2081

UNIT WEIGHT
0.72 LBS



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

* * NOTE: TO INSURE PROPER REGULATION, UNIT REQUIRES A MINIMUM LOAD OF 7 WATTS FOR SINGLE OUTPUT MODELS AND 3.5 WATTS ON EACH OUTPUT FOR DUAL OUTPUT MODELS.

*** NOTE: V1 AND V2 ARE CONNECTED INTERNALLY FOR SINGLE OUTPUT MODELS

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

1 OPTIONAL- #6 CLEARANCE HOLE PROVIDED THRDUGH THE BOARD AND CHASSIS FOR TOP SIDE MOUNTING OF POWER SUPPLY.

NOTES: UNLESS OTHERWISE SPECIFIED

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ISO 9001

ANSI-RAB QMS ACCREDITED REGISTERED
FM 32227

PRODUCT CODE TABLE

RoHS

I. AAD130SD Configured For Single Output

Standard Models
AAD130SD-V W-YYYY

Tailored Models
AAD130SD- 60ZZZ

Custom Models
AAD130SD-61ZZZ

	Voltage and Current Ratings		Standard Options
V W Codes	**Volts**	**Amps**	**Y Code Description**
10	Not Available	Not Available	A Current Sharing B PF Invert C Through Hole Mounting* G = Input and Option Connectors with Gold Pins J = Molex Output Connector with Gold Pins** K = Molex Output Connector with Standard Pins** M = Metric Mounting* O = PF Open Collector *Pemnut chassis mounting is standard **14A MAX current
20	3.3	32.0	
30	5.0	26.0	
40	12.0	12.0	
50	15.0	9.5	
60	24.0	6.0	
70	28.0	5.0	
80	36.0	4.0	
90	48.0	3.0	

Tailored Units
(no safety changes)

60ZZZ, where ZZZ = Factory Assigned Number.
Harnesses Added, Special test data, Etc

Custom Units
(safety critical changes)

61ZZZ, where ZZZ = Factory Assigned Number

PRODUCT CODE TABLE

RoHS

II. AAD130SD Configured For Dual Output

Standard Models
AAD130SD-V W-YYYY

Tailored Models
AAD130SD-60ZZZ

Custom Models
AAD130SD-61ZZZ

	Voltage and Current Ratings				Standard Options
V and W Codes	V Channel (V1)		W Channel (V2)		Y Code Description
	Volts	Amps	Volts	Amps	
1	Not Available		Not Available		A Current Sharing B PF Invert C Through Hole Mounting* G = Input and Option Connectors with Gold Pins J = Molex Output Connector with Gold Pins** K = Molex Output Connector with Standard Pins** M = Metric Mounting* O = PF Open Collector *Pemnut chassis mounting is standard **7A MAX current for V1, V2 outputs
2	3.3	16	3.3	16	
3	5.0	14	5.0	14	
4	12.0	6	12.0	6	
5	15.0	5	15.0	5	
6	24.0	3	24.0	3	
7	28.0	2.5	28.0	2.5	
8	36.0	2	36.0	2	
9	48.0	1.5	48.0	1.5	

Tailored Units
(no safety changes)

60ZZZ, where ZZZ = Factory Assigned Number.
Harnesses Added, Special test data, Etc.

Custom Units
(safety critical changes)

61ZZZ, where ZZZ = Factory Assigned Number