TAMURA Corporation of America

Model

PAM250

250 Watts$_{max}$ output power

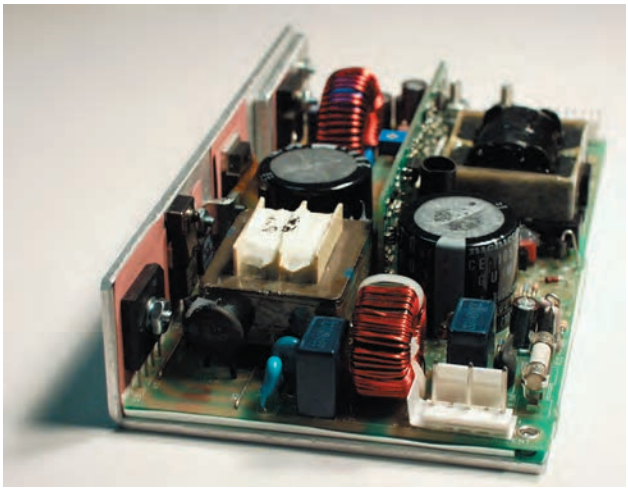
Power Factor Correction

Single Output

Switch Mode Power Supply

Medical Grade Certifications

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



Electrical Specifications

Input Voltage:	85-132/180-264 VAC, 47-63 Hz, 1 phase
Input Current:	<6A RMS @ 115 VAC @ full load <3A RMS @ 230 VAC @ full load
Inrush Current:	<35A, pk @ 265 VAC @ cold start <75A, pk @ 132 VAC @ cold start
Harmonic Distortion:	Meets EN61000-3-2 for Class A
EMI Filtering:	Meets CISPR 11 and 22 and FCC Part 15 Class B (conducted)
Input Protection:	Internal AC line fuse; 250 VAC, 8A
Output Power:	250W with 25CFM air; 130W Convection
Line Regulation:	± 0.3%
Load Regulation:	± 0.5%
PARD:	<1% or 50mV; 20MHz bandwidth
Hold-up Time:	16 ms @ full load (120 VAC)
Output Polarity:	Output is floating
Minimum Load:	0% of rated load
Transient Response:	3% for 25% load change @ 1A/µs; 50% duty cycle 50/60 Hz
Output Rise Time:	<100 ms (10% to 90%)
Current Limit:	105-130% of rated current; Hiccup
Remote Sense:	Compensates for up to 250mV of total cable drop
Remote On/Off:	Optional
Leakage Current:	< 300 µA
Thermal Shutdown	Standard
DC OK:	Standard; Open Collector
Turn-on Delay:	<1 second after application of AC Input
Stability:	<0.1% for 8 hours after 1/2-hour warm up
Isolation:	>20 MΩ @ 100 VDC between output terminals and chassis ground
AC Power Fail:	TTL_{LOW} logic "0" at least 2 ms before output drops 5%; Open collector
Overvoltage Protect:	Factory set, 125% ±5%, cycle AC to reset
Reverse Voltage:	Output has reverse voltage protection; Reverse current limited to 100% of output rating
Efficiency:	Up to 85%
MTBF:	MIL-STD-HDBK 217E >200,000 hours @ 25°C Highly Accelerated Life Testing

Available Voltage Outputs*

Voltage Codes	Voltages (Volts)	Continuous Current (Amps)
-4	**12.0**	**21**
-5	**15.0**	**17**
-6	**24.0**	**10.5**
-7	28.0	9.0
-8	36.0	7.2
-9	**48.0**	**5.5**

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

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

PART # STRUCTURE:

MODEL	-	***VOLTAGE CODE***	-	***OPTION CODES*** *(back)*
	-	***V1***	-	
PAM250	-	***X***	-	***ABC....***

Example: Part Number PAM250-6-OR= 250W Power Factor Corrected, 24V @ 10.5A with an OR-ring Diode and Remote On/Off.

See 3rd page for PAM250 CODE TABLE AND AVAILABLE OPTIONS.

TAMURA Corporation of America

Model

PAM250

Options (code)

12V@0.5A Aux./Fan Drive (A)
Fan Assembly (C)
PF Invert (F)
Single Wire Current Share ±5% (I)
Molex Connector (K)
OR-ing Diode (O)
Remote On/Off Invert (S)
Droop Current Share ±10% (B)
DC OK Invert (E)
Field-Configurable (G)
Square Current Limit (J)
Metric Mounting (M)
Remote On/Off (R)

Safety Compliance

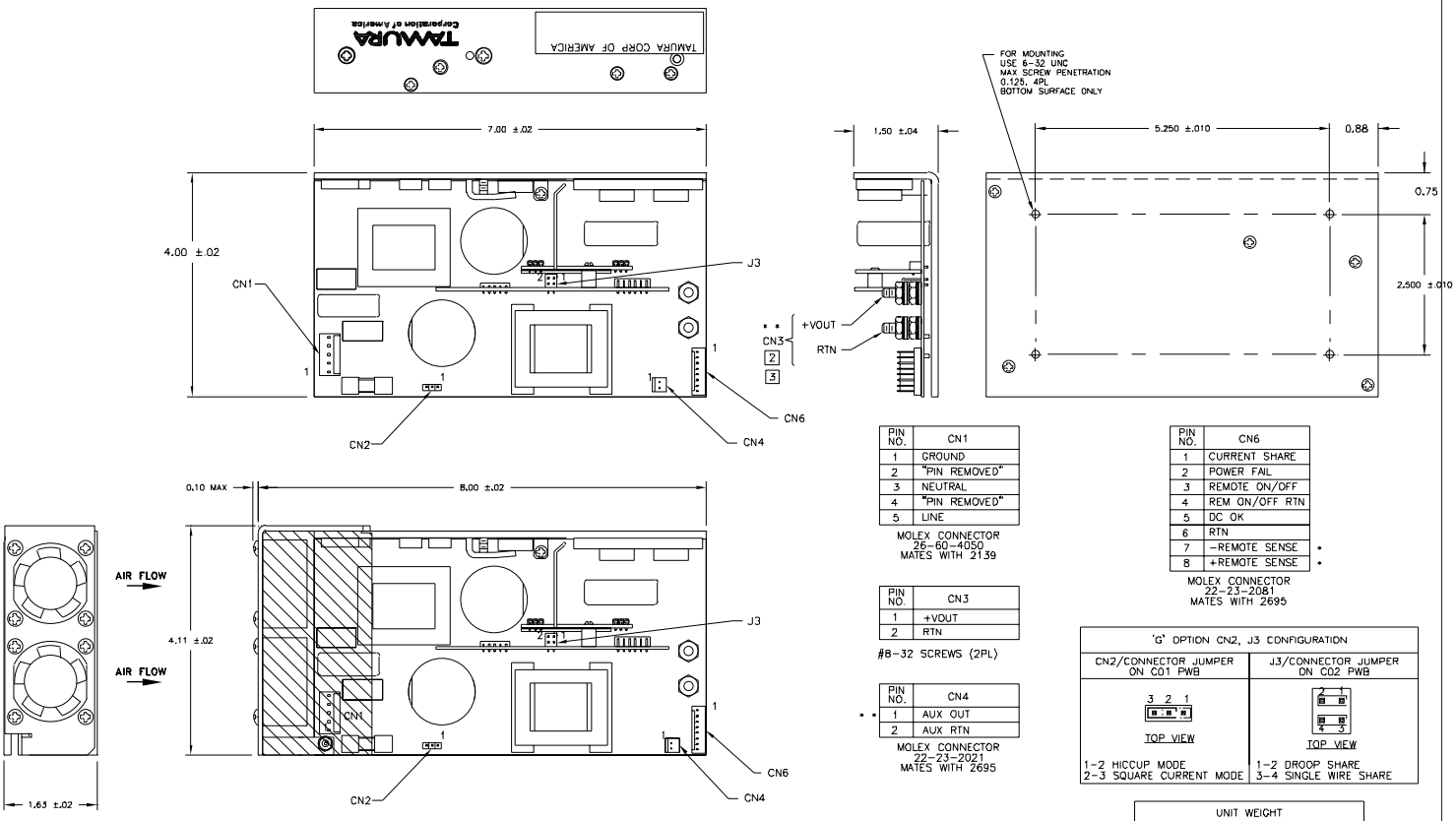
Recognition to UL60601-1
CSA C22.2 No. 601.1
BAUART Certification to EN60601-1
CB Test Report in Accordance with IEC60601-1
CE Decleration to Low Voltage Directive 2006/95/EC

Surge & ESD Test Levels

EN61000-4-5 Level 3
EN61000-3-2 for Class A
EN61000-4-4 Level 3
EN61000-4-2 Level 2
EN61000-4-2 Level 3 (Air Only)
EN61000-4-11
CISPR 11 and 22 FCC Part 15 Class B (conducted)

Physical Specifications

Dimensions: (HxWxL)	1.5" x 4.0" x 7"
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:	6561 40,000' storage



POWER SUPPLY WITH FAN OPTION

PIN NO.	CN1
1	GROUND
2	"PIN REMOVED"
3	NEUTRAL
4	"PIN REMOVED"
5	LINE

MOLEX CONNECTOR 26-60-4050 MATES WITH 21.39

PIN NO.	CN6
1	CURRENT SHARE
2	POWER FAIL
3	REMOTE ON/OFF
4	REM ON/OFF RTN
5	DC OK
6	RTN
7	-REMOTE SENSE *
8	+REMOTE SENSE *

MOLEX CONNECTOR 22-23-2081 MATES WITH 2695

PIN NO.	CN3
1	+VOUT
2	RTN

#8-32 SCREWS (2PL)

PIN NO.	CN4
1	AUX OUT
2	AUX RTN

MOLEX CONNECTOR 22-23-2021 MATES WITH 2695

'G' OPTION CN2, J3 CONFIGURATION

CN2/CONNECTOR JUMPER ON C01 PWB	J3/CONNECTOR JUMPER ON C02 PWB
3 2 1 TOP VIEW	2 1 4 3 TOP VIEW
1-2 HICCUP MODE 2-3 SQUARE CURRENT MODE	1-2 DROOP SHARE 3-4 SINGLE WIRE SHARE

UNIT WEIGHT
1.7 LBS (WITHOUT FAN OPTION)
1.8 LBS (WITH INSTALLED FAN OPTION)

[3] OPTIONAL-MOLEX CONNECTOR (OPTION 'K'-LIMITED TO 7A) MAY BE SPECIFIED FOR CN3 INSTEAD OF STANDARD OUTPUT STUDS.
[2] DO NOT EXCEED 17 INCH-LBS (MAX TORQUE) WHEN TIGHTENING TOP NUTS ON OUTPUT STUDS.
1. FOR CLARITY NOT ALL ITEMS ARE SHOWN IN EACH VIEW.

* WARNING: DAMAGE WILL OCCUR IF REMOTE SENSE LEADS (CN6-7 & CN6-8) ARE REVERSED OR USED WITH LOAD DISCONNECTED FROM OUTPUT (CN3).

* * NOTE: FOR PROPER REGULATION OF AUXILIARY OUTPUT, APPLY AT LEAST 10% OF RATED LOAD TO VOUT.

Item 40621 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**

FM 32227

PRODUCT CODE TABLE

RoHS

PAM250 Series Power Supply

Standard Models
PAS250-X-Y_1 …Y_n

Tailored Models
PAS250-60ZZZ

Custom Models
PAS250-61ZZZ

	Voltage and Current Ratings		Standard Options
X Codes	Volts	Amps	Y Code Descriptions
1	Not Available		A 12Vdc, 0.5A Auxiliary Output** B Droop Share* C Fan Assembly** E DCOK Invert F PF Invert G Field configurable options – B, I, and J I Single Wire Share* J Square Current Limit K Molex Connector, 7A max. (#8 stud standard) M Metric Mounting O ORing Diode R Remote On/Off (closed is OFF) S Remote On/Off Invert (open is OFF) *Includes Option J **Options A and C are not available together
2	Not Available		
3	Not Available		
4	12.0	21.0	
5	15.0	17.0	
6	24.0	10.5	
7	28.0	9.0	
8	36.0	7.2	
9	48.0	5.5	

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