

PM202 Series

150 WATTS - AC/DC SINGLE OUTPUT

MEDICAL

FEATURES

- 3 x 5 inch footprint with 1.5 inch low profile
- 100-240 VAC input with active PFC
- Less than 220 μ A leakage current
- Meet EN55011 /55022 and FCC Class B
- Power Factor 0.98 typical
- Short-circuit protection
- Power Fail Detect (PFD) signal
- Inhibit - TTL high t o disable output
- Compliant with RoHS requirements
- Efficiency greater than 87%



SPECIFICATIONS

INPUT	
Input voltage	90-264 VAC
Frequency	47-63 Hz
Inrush current	20 A @ 115 VAC or 40 A @ 230 VAC, at 25°C cold start
Input current	2.5 A (rms) for 115 VAC 1.25 A (rms) for 230 VAC
Earth leakage current	220 μ A max. @ 264 VAC, 63 Hz 100 μ A max. @ 264 VAC, 63 Hz
Isolation	Input – Output: 4000VAC Input – Case:1500VAC Output – Case: 500VAC
OUTPUT	
Output voltage	See table
Output current	See table
Output voltage adjustment	V1 \pm 10%
Ripple & noise	1% peak to peak maximum
Line regulation	\pm 0.2% maximum at full load
Load regulation	See table
Transient response	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 μ s after a 25% step load change
Overvoltage protection	Set at 112-140% of its nominal output voltage
Overcurrent protection	All outputs protected to short circuit conditions
Temperature coefficient	All outputs \pm 0.04% /°C maximum
Holdup time	10 ms minimum at 110 VAC

OPERATING	
MTBF	300,000 hours at full load at 25°C ambient temperature, calculated per MIL-HDBK-217F
Efficiency	87% minimum on all models
Switching frequency	100 KHz (typical)

ENVIRONMENTAL	
Operating temperature	0°C to 70°C
Derating	Derate from 100% at +50°C linearly to 50% at +70°C
Storage temperature	-40°C to 85°C
Relative humidity	5%–95% non-condensing

STANDARDS AND APPROVALS	
Safety standards	UL 60601-1, CSA C22.2 No. 601.1, TÜV EN 60601-1, UL 60950-1, CSA C22.2 No. 60950-1, TÜV EN 60950-1
C-Tick	AS/NZS CISPR11 Group 1, Class A
EMC standards	IEC60601-1-2, EN55011 / EN55022 and FCC, VCCI: Class B conducted . class B radiated
Immunity standards	EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11

MECHANICAL	
Dimensions	127x76x38mm
Weight	390g

PM202 Series

150 WATTS - AC/DC SINGLE OUTPUT

OUTPUT VOLTAGE/CURRENT RATING CHART

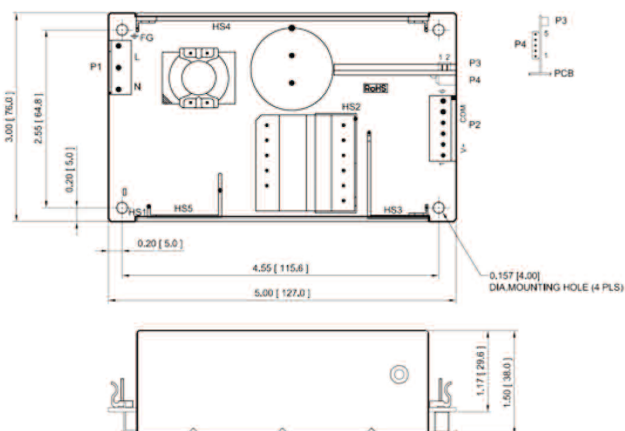
MODEL ⁽¹⁾	V1	MIN. CURRENT	OUTPUT				EFFICIENCY (TYPICAL)		
			MAX. CURRENT AT CONVECTION	MAX. CURRENT AT 5.3 CFM ⁽²⁾	TOL.	RIPPLE & NOISE ⁽³⁾	MAX. POWER ⁽²⁾	@ 150 W 115/230 VAC	@ 200 W 115/230 VAC
PM202-12B	12 V	0 A	12.50 A	16.67 A	±2%	120 mV	150 W/200 W	88/91%	88/90%
PM202-13B	15 V	0 A	10.00 A	13.34 A	±2%	150 mV	150 W/200 W	88/91%	88/91%
PM202-13-1B	18 V	0 A	8.34 A	11.12 A	±2%	180 mV	150 W/200 W	88/91%	88/91%
PM202-14B	24 V	0 A	6.25 A	8.34 A	±2%	240 mV	150 W/200 W	88/91%	88/91%
PM202-15B	28 V	0 A	5.36 A	7.15 A	±2%	280 mV	150 W/200 W	88/91%	88/91%
PM202-17B	36 V	0 A	4.17 A	5.56 A	±2%	360 mV	150 W/200 W	88/91%	88/91%
PM202-18B	48 V	0 A	3.13 A	4.17 A	±2%	480 mV	150 W/200 W	89/92%	89/92%

NOTES:

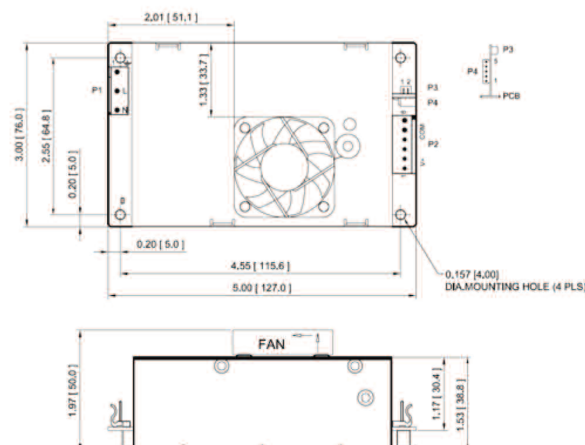
- Suffix "B" in model numbers denotes U-bracket form. Change suffix "B" to "C" for enclosed form with cover-and-fan assembly, e.g. PM202-14C
- 150 W without moving air or 200 W with 5.3 CFM forced air provided by user for "B" version, 200 W for "C" version with cover-and-fan assembly. The adequacy of cooling air is judged by the measured core temperature of transformer T1 below 75°C at 25°C ambient, or below 100°C at 50°C ambient.
- Ripple and noise is maximum peak-to-peak voltage value measured at output within 20 MHz bandwidth, at rated line voltage and output load ranges, and with a 10 µF tantalum capacitor in parallel with a 0.1 µF ceramic capacitor across the output.

MECHANICAL SPECIFICATIONS

U-BRACKET FORM



ENCLOSED FORM



NOTES:

- Dimensions shown in inches [mm]
- Tolerance 0.02 [0.5] maximum
- Input connector P1: Molex header 09-65-2058 or equivalent, mating with Molex housing 09-50-1051 or equivalent.
- Output connector P2: Molex header 09-65-2068 or equivalent, mating with Molex housing 09-50-1061 or equivalent.
- Fan connector P3: Molex header 53048-0210 or equivalent, mating with Molex housing 51021-0200 or equivalent.
- Connectors P4: Molex header 22-05-7055 or equivalent, mating with Molex housing 50-37-5053 or equivalent.
- Weight: 390 grams (0.86 lbs.) approx. for U-bracket form, 440 grams (0.97 lbs.) for enclosed form
- Fixing of units to end equipment is through standoffs and the four mounting holes in PCB.
- Ground tab is 0.25 [6.35] × 0.032 [0.8] fast-on connector.

MODEL/PIN	P1					P2					
	1	2	3	4	5	1	2	3	4	5	6
PM202-12B											
PM202-13B											
PM202-13-1B	Ground	Void	Live	Void	Meitral		+V1				Common Return
PM202-14B											

MODEL/PIN	P3		P4				
	1	2	1	2	3	4	5
PM202-12B							
PM202-13B							
PM202-13-1B	+12V Fan	Common Return	-Sense	+Sense	PFD	Inhib	Common Return
PM202-14B							