

Medline 200 Series

150-200 WATTS SINGLE & MULTIPLE OUTPUT AC/DC MEDICAL

Features

- Low safety ground leakage current
- Wide input range 90 to 260VAC
- Input surge current protection
- Overvoltage protection
- Overcurrent protection
- Power fail detection (PFD) signal
- Optional cover and fan assembly
- 100% burn-in at full rated load
- Remote inhibit - TTL high disables output
- Short circuit protection



Specifications

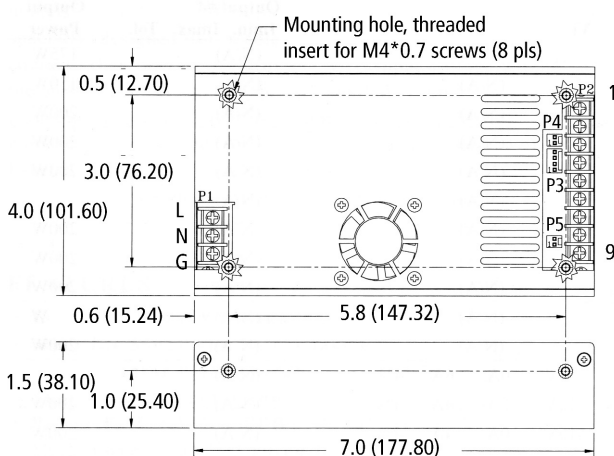
INPUT

Voltage range	90-260VAC
Frequency	47-63Hz.
Input Current	3.2A (rms) at 115VAC 1.6A (rms) at 230VAC
Leakage current	90µA max at 115VAC, 60Hz 150A max at 230VAC, 50Hz
Inrush Current	20A @ 115V or 40A at 230V at 25°C and cold start
Isolation	Input – Output: 4000VAC Input – Ground: 1500VAC Output – Ground: 500VAC

OUTPUT

Power	200W
Voltage	See table
Current	See table
Ripple & Noise	2% p-p max
Overvoltage protection	Provided on output #1 only, set at 112-132% of its nominal output voltage
Overcurrent Protection	The output protected to short circuit conditions
Temperature coefficient	0.04%/°C all outputs
Transient response	Max excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change

Technical Illustration



PFD signal	TTL logic high for normal operation and TTL logic low upon loss of input power. This signal appears at least 1ms prior to +5V output dropping 5% below its nominal value. This signal also provides a minimum delay of 100ms after +5V is within regulation
Efficiency	70% min on all models
Hold up time	20ms min at 110VAC
Line regulation	± 0.5% max at full load

ENVIRONMENTAL

Operating Temperature	0°C to 70°C
Storage temperature	-40°C to +85°C
Humidity	5% to 95% non-condensing
Derating	Derate from 100% at +50°C linearly to 50% at +70°C.
Cooling	25CFM forced air, provided on "C" version, to be provided for "B" version by user

GENERAL

Switching frequency	88-112kHz.
MTBF	350,000 hours at full load 25°C ambient , calculated per MIL-HDBK-217F

STANDARDS AND APPROVALS

Safety standards	IEC60601-1 TUV EN60601-1, EN60601-1
C-Tick	AS/NZS CISPR11 Group 1, Class A
EMC standards	EN55011 Class B, FCC Class B, VCI, EN61000-3-2, -3, EN60001-4-2, -3, -4, -5, -6, -8, -11

MECHANICAL

Dimensions	See drawing
Weight	0.82kg for "B" version 0.96kg for version "C" version

Notes:

1. Dimensions shown in inches (mm)
2. Tolerance 0.02 (0.5) maximum
3. Input connector P1 is Dinkle DT-35-B01W-09 screws are M3, nickle plated
4. Connector P3 mates with Molex housing 22-01-1043 and Molex 40445 series crimp terminal
5. Connector P4/P5 mates with Molex housing 22-01-1023 and Molex 40445 series crimp terminal
6. P4 is for DC fan rated 24V/0.2A (models PM201/27), or 5V/0.38A (models PM201-40-3), and 12V/0.2A (other models, Pin1 +V and Pin2 COM)
7. Weight:
0.82 Kgs (1.83 Lbs) approx for "B" version
0.96 Kgs (2.14 Lbs) approx for "C" version

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Selection Table

MODEL NUMBER	OUTPUT #1				OUTPUT #2				OUTPUT #3				OUTPUT #4				MAX. OUTPUT POWER
	VNOM	IMIN	IMAX	TOL	VNOM	IMIN	IMAX	TOL	VNOM	IMIN	IMAX	TOL	VNOM	IMIN	IMAX	TOL	
OBN01016	5.1V	0A	35A	2%													175W
OBN01013	3.3V	0A	46A	3%													150W
OBN01037	12V	0A	16.7A	2%													200W
OBN01046	15V	0A	13.4A	2%													200W
OBN01055	24V	0A	8.4A	2%													200W
OBN01070	30V	0A	6.7A	2%													200W
OBN01204	48V	0A	4.2A	2%													200W
OBN01207	+5.1V	3.0A	30A	2%	+12V	0A	8A	4%									200W
OBN01210	+5.1V	3.0A	30A	2%	+15V	0A	6A	4%									200W
OBN012A5	+5.1V	3.0A	30A	2%	+24V	0A	4A	4%									200W
OBN01310	+12V	1.0A	8A	2%	+24V	0A	4A	4%									200W
OBN01313	+5.1V	3.0A	30A	2%	+12V	0A	8A	4%	-5V	0A	6A	4%					200W
OBN01316	+5.1V	3.0A	30A	2%	+12V	0A	8A	4%	-12V	0A	4A	4%					200W
OBN01315	+5.1V	3.0A	30A	2%	+15V	0A	6A	4%	-15V	0A	4A	4%					200W
OBN01319	+5.1V	3.0A	30A	2%	+15V	0A	6A	4%	-12V	0A	4A	4%					200W
OBN01404	+5.1V	3.0A	30A	2%	+12V	0A	8A	4%	-24V	0A	4A	4%					200W
OBN01403	+5.1V	3.0A	30A	2%	+12V	0A	8A	4%	-12V	0A	4A	4%	5V	0A	6A	4%	200W
OBN01407	+5.1V	3.0A	30A	2%	+15V	0A	6A	4%	-15V	0A	4A	4%	24V	0A	4A	4%	200W
OBN01410	+5.1V	3.0A	30A	2%	+12V	0A	8A	4%	-12V	0A	4A	4%	12V	0A	4A	4%	200W
OBN01420	+5.1V	3.0A	30A	2%	+12V	0A	8A	4%	-15V	0A	4A	4%	15V	0A	4A	4%	200W
OBN01413	+3.3V	3.0A	30A	3%	+5.1V	0A	8A	4%	-12V	0A	4A	4%	12V	0A	4A	4%	175W

- NOTES: (1) Add suffix "B" for U-bracket format and "C" for enclosed format.
 (2) Peak current is 12A on +12V, 9A on +15V and 6A on +24V.
 (3) Output #4 is floating. It can be connected externally for positive or negative output.
 (4) 200 watts for "C" version with a cover and fan assembly 100 watts for "B" version without moving air (maximum current of output #1 & #2 derated to 50%), or 200 watts with 25 CFM forced air provided by user.
 (5) When the remote Sense facility is not used, +Sense must be connected to +V, and -Sense to Return, on P2 connector.
 (6) All models may be operated at no-load. At no-load, output voltage tolerance increases to 10%.

Pin Chart

CONNECTOR	P1						P2						P3						P4					
MODEL/PIN	1	2	3	4	5	6	7	8	9	1	2	3	4	1	2	7	8	9	1	2	3	4	1	2
OBN01016	OBN01013																							
OBN01031	OBNOPM201-13						-Sense						RET.						RET.					
OBN01046	OBN01055																		Output #1					
OBN01070																								
OBN01204	OBN01207						Output #1						Output #1						COM					
OBN01210																			RET.					
OBN01310	OBN01313						Output #1						Output #1						COM					
OBN01316	OBN01315																		RET.					
OBN01319							Output #1						Output #1						COM					
																			RET.					
OBN01404	OBN01403						Output #1						Output #1						COM					
OBN01407	OBN01410																		RET.					
OBN01420	OBN01413																		RET.					