

# Medline 300 Series

200-300 WATTS SINGLE & MULTIPLE OUTPUT AC/DC MEDICAL

## Features

- EN61000-3-2 class A and D compliant.
- Power factor 0.98 typical.
- Remote sense on output 1 and output 2.
- Overvoltage protection.
- Overcurrent protection.
- Power fail detection (PFD) signal.
- 100% burn-in at full rated load.
- Remote inhibit - TTL high disables output.
- Short circuit protection



## Specifications

### INPUT

Input Voltage	90-264Vac
Frequency	47Hz-63Hz
Input Current	4.7A (rms) for 115Vac 2.2A (rms) for 230Vac
Leakage current	90µA max. at 115Vac. 60Hz 150µA max. at 230Vac. 50Hz
Isolation	Input – Output: 4000VAC Input – Ground: 1500VAC Output – Ground: 500VAC
Inrush Current	30A at 115V or 80A at 230V at 25°C and cold start

### OUTPUT

Power	See table
Voltage	See table
Ripple & Noise	2% peak to peak max
Overvoltage Protection	Provided on output #1 only. Set at 115%–140% of nominal output voltage
Overcurrent Protection	All outputs protected for short circuit conditions
Temperature Coefficient	All outputs ±0.04% per °C
Transient Response	Max. excursion of 4% or better on all models, recovering to 1% of final value within 500µs after a 25% step load change
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
Remote inhibit	Requires an external TTL high level signal to inhibit outputs for standard models
Line Regulation	±0.2% maximum at full load
Holdup Time	Typically 12ms at 110VAC

## OPERATING

MTBF	350,000 hrs @ 25°C
Efficiency	70% minimum.

## 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
Humidity	5%–95% non-condensing
Cooling	35 CFM forced air, provided on "C" version, to be provided for "B" version by user

## STANDARDS AND APPROVALS

Safety standards	UL60601-1, TUV EN60601-1
C-Tick	AS/NZS CISPR11 Group 1, Class A
EMC standards	EN55011 Class B, FCC Class B, EN61000-3-2, -3, EN61000-4-2, -3, -4, -5, -6, -8, -11

## MECHANICAL

Dimensions	177.8x101.6x38.1mm
Weight	0.82Kgs for "B" version. 0.96Kgs for "C" version.

# Medline 300 Series

200-300 WATTS SINGLE & MULTIPLE OUTPUT AC/DC MEDICAL

## 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	POWER
OBP02013	3.3V	0A	60A	3%													200W
OBP02016	5.1V	0A	60A	2%													300W
OBP02031	12V	0A	25A	2%													300W
OBP02037	15V	0A	20A	2%													300W
OBP02046	24V	0A	12.5A	2%													300W
OBP02055	30V	0A	10A	2%													300W
OBP02170	48V	0A	6.3A	2%													300W
OBP02403	+3.3V	3.0A	35A	3%	5.1V	2.0A	22A	2%	12V	0A	4A	4%	12V	0A	4A	4%	250W
OBP02404	+5.1V	2.0A	35A	2%	12V	1.0A	10A	2%	12V	0A	4A	4%	5.1V	0A	4A	4%	300W
OBP02407	+5.1V	2.0A	35A	2%	15V	0.8A	8A	2%	15V	0A	4A	4%	24V	0A	2.5A	4%	300W
OBP02410	+5.1V	2.0A	35A	2%	12V	1.0A	10A	2%	12V	0A	4A	4%	12V	0A	4A	4%	300W
OBP02413	+5.1V	2.0A	35A	2%	12V	1.0A	10A	2%	12V	0A	4A	4%	24V	0A	2.5A	4%	300W
OBP02418	+5.1V	2.0A	35A	2%	12V	1.0A	10A	2%	12V	0A	4A	4%	15V	0A	4A	4%	300W
OBP02419	+5.1V	2.0A	35A	3%	24V	0.5A	5A	2%	12V	0A	4A	4%	12V	0A	4A	4%	300W
OBP02424	+5.1V	2.0A	35A	2%	24V	0.5A	5A	2%	5.1V	0A	4A	4%	15V	0A	4A	4%	300W
OBP02427	+5.1V	2.0A	35A	2%	12V	1.0A	10A	2%	5.1V	0A	4A	4%	24V	0A	2.5A	4%	300W
OBP02430	24V	0.5A	6.3A	2%	12V	1.0A	10A	2%	5.1V	0A	4A	4%	12V	0A	4A	4%	300W
OBP02433	24V	0.5A	6.3A	2%	12V	1.0A	10A	2%	5.1V	0A	4A	4%	24V	0A	2.5A	4%	300W
OBP02436	24V	0.5A	6.3A	2%	12V	1.0A	10A	2%	12V	0A	4A	4%	12V	0A	4A	4%	300W
OBP02439	24V	0.5A	6.3A	3%	24V	0.5A	5A	2%	5.1V	0A	4A	4%	15V	0A	4A	4%	300W
OBP02442	24V	0.5A	6.3A	2%	24V	0.5A	5A	2%	12V	0A	4A	4%	12V	0A	4A	4%	300W

- NOTES: (1) Add suffix "B" for U-bracket format and "C" for enclosed format.  
 (2) All outputs are floating. It can be connected externally for positive or negative output.  
 (3) Output 1 and 2 can be adjusted within  $\pm 5\%$  of their nominal voltage.  
 (4) Output 3 and 4 can be adjusted within  $\pm 15\%$  of their nominal voltage.  
 (5) 300 watts for "C" version with a cover and fan assembly 150 watts for "B" version without moving air (maximum current of output #1 & #2 derated to 50%), or 300 watts with 25 CFM forced air provided by user.  
 (6) PM300-10-3 is rated 200 watts with 35 CFM forced air cooling or 100 watts convection cooled. PM300-40-3 is rated 250 watts with 35 CFM forced air cooling (maximum current of output 1 & 2 derated to 50%) or 125 watts convection cooled.  
 (7) Single output models may be operated at no-load. At no-load, output voltage tolerance increases to 10%.

## Pin Connection

MODEL/PIN	CONNECTOR P1(AC)			P2	P3	P4	P5	P6
	1	2	3					
OBP02013								
OBP02031								
OBP02046								
OBP02070								
OBP02016								
OBP02037	Live	Neutral	Ground	OUTPUT	OUTPUT #1	OUTPUT #1	OUTPUT #1	OUTPUT #1
OBP02055								#1 RET

MODEL/PIN	CONNECTOR P4									
	1	2	3	4	5	6	7	8	9	10
OBP02013										
OBP02031										
OBP02046										
OBP02070										
OBP02016										
OBP02037	SIGNAL	+S	-S	PFD	INHIBIT	N.C.	N.C.	N.C.	OV	12V
OBP02055	GROUND	(Vo1)	(Vo1)						(FAN)	(FAN)

# Medline 300 Series

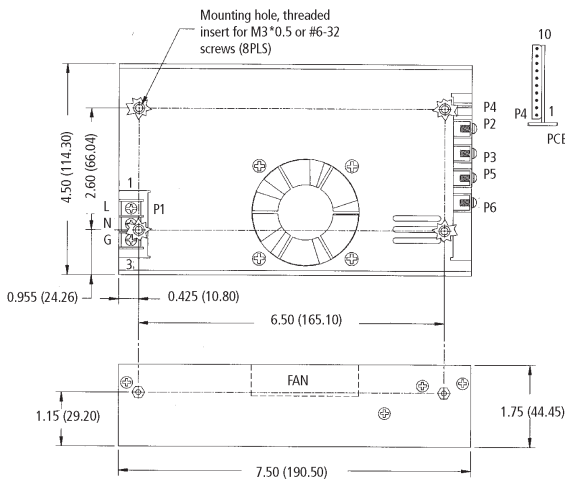
200-300 WATTS SINGLE & MULTIPLE OUTPUT AC/DC MEDICAL

## Pin Connection ctnd

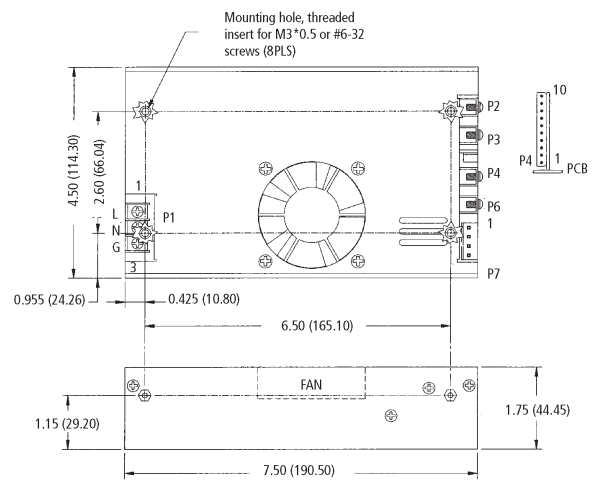
MODEL/PIN	P1(AC)			P2	P3	P5	P6	P7				
	1	2	3					1	2	3	4	
OBP02403	OBP02404											
OBP02407	OBP02410											
OBP02413	OBP02418											
OBP02419	OBP02424											
OBP02427	OBP02430											
OBP02433	OBP02436											
OBP02439	OBP02442											
		Live	Neutral	Ground	OUTPUT #1	OUTPUT #1 RET	OUTPUT #2	OUTPUT #2 RET	OUTPUT #3	OUTPUT #3 RET	OUTPUT #4	OUTPUT #4 RET

MODEL/PIN	CONNECTOR P4									
	1	2	3	4	5	6	7	8	9	10
OBP02403	OBP02404									
OBP02407	OBP02410									
OBP02413	OBP02418									
OBP02419	OBP02424									
OBP02427	OBP02430									
OBP02433	OBP02436									
OBP02439	OBP02442									
	SIGNAL GROUND	+S (Vo1)	-S (Vo1)	PFD	INHIBIT	N.C.	N.C.	N.C.	OV (FAN)	12V (FAN)

## Technical Illustration



**SINGLE**



**MULTIPLE**

**Note:**

- Dimensions shown in inches (mm)
- Tolerance 0.02 (0.5) maximum
- Input connector P1 is DT-35-B01W-03 screws are M3, Nickel plated
- Connector P4 mates with Molex housing 50-37-5103 and pins 5263
- Connectors P2, P3, P5 and P6: M3\*0.5 screw connections
- 12V (P4) is for DC fan rated 12V/0.1A
- Weight 1.20 Kgs approx

**Note:**

- Dimensions shown in inches (mm)
- Tolerance 0.02 (0.5) maximum
- Input connector P1 Dinkle is DT-35-B01W-03 screws are M3, Nickel plated
- Connector P4 mates with Molex housing 50-37-5103 and pins 5263
- Connectors P2, P3, P5 and P6: M3\*0.5 screw connections
- Output connector P7 mates Molex housing 09-50-3041 and Molex 2878 series crimp terminal
- 12V (P4) is for DC fan rated 12V/0.1A
- Weight 1.20 Kgs approx