

P R B X

POWERBOX **Medline 60**
OBJ07 Series
37.5-64W
Multiple Output
AC/DC Medical Switch Mode Power Supply

Features

BF Class insulation
Medical approval s
Compact size 2" x 4" x 1.18"
Single, dual and triple outputs
Wide-range input 90-264 VAC
Low earth leakage current
Level B emissions
RoHS compliant

Input

Input voltage	90-264 VAC
Input frequency	47-63 Hz
Input current	1.3 A (rms) for 100 VAC. 0.7 A (rms) for 240 VAC.
Earth leakage current	150 µA max. @ 264 VAC, 63 Hz.

Output

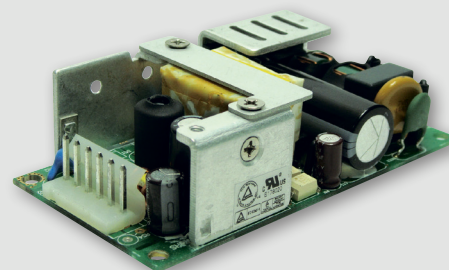
Output voltage/current	See rating chart.
Maximum output power	See rating chart.
Ripple and noise	100 mV peak to peak on 3.3 V & 5.0 V models, 1% peak to peak on other models.
Overvoltage protection	Provided on output #1 only; set at 112-132% of its nominal output voltage.
Overcurrent protection	All outputs protected to short circuit conditions.
Temperature coefficient	All outputs $\pm 0.04\%$ / maximum.
Transient response	Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500 µs after a 25% step load change.

Environmental

Operating temperature	-10°C to +70°C.
Storage temperature	-40°C to +85°C.
Relative humidity	5-95% non-condensing.
Derating	Derate from 100% at +50°C linearly to 50% at +70°C.

General

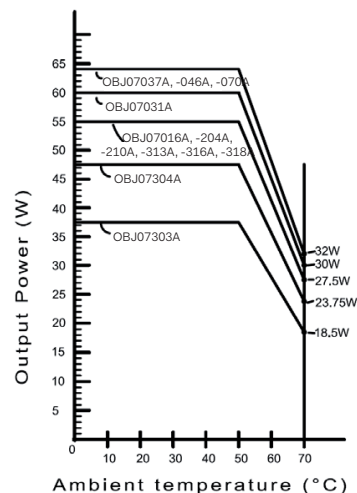
Switching frequency	62 K ± 5 KHz.
Efficiency	80-88% typical except OBJ07303A and OBJ07304A at 75% typical.
Hold-up time	12msec min at 110VAC.
Line regulation	$\pm 0.5\%$ max at full load.
Inrush current	30A @ 115VAC, or 60A @ 230VAC, at 25°C cold start.
Withstand voltage	4,000VAC from input to output (2 MOPP). 1,500VAC from input to ground (1 MOPP). 1,500VAC from output to ground.
MTBF	400,000 hours min at full load at 25°C ambient, calculated per MIL-HDBK-217F.



Standards

Safety standards	UL ES 60601-1, CSA C22.2 No. 60601-1 TÜV EN 60601-1.
EMC performance	IEC 60601-1-2:2014 (4th ed.).
EN55011	Class B conducted, Class B radiated.
FCC	Class B conducted, Class B radiated.
VCCI	Class B conducted, Class B radiated.
EN61000-3-2	Harmonic distortion Class A and D
EN61000-3-3	Line flicker.
EN61000-4-2	ESD, ± 15 KV air and ± 8 KV coupling plane.
EN61000-4-3	Radiated immunity, 10 V/m. Proximity test, 9V/m and 28V/m.
EN61000-4-4	Fast transient/burst, ± 2 KV.
EN61000-4-5	Surge, ± 1 KV diff., ± 2 KV com.
EN61000-4-6	Conducted immunity, 10 Vrms (0.15 – 80 MHz). 10 Vrms ISM Bands + Amateurs.
EN61000-4-8	Magnetic field immunity, 30A/m.
EN61000-4-11	Voltage dips: 100% drop, 0.5 periods. 100% dip, 1 period. 30% dip, 25/30 periods. Interruptions: 100% drop, 5 seconds.

Derating Curve



POWERBOX **Medline 60**
OBJ07 Series
37.5-64W
Multiple Output
AC/DC Medical Switch Mode Power Supply

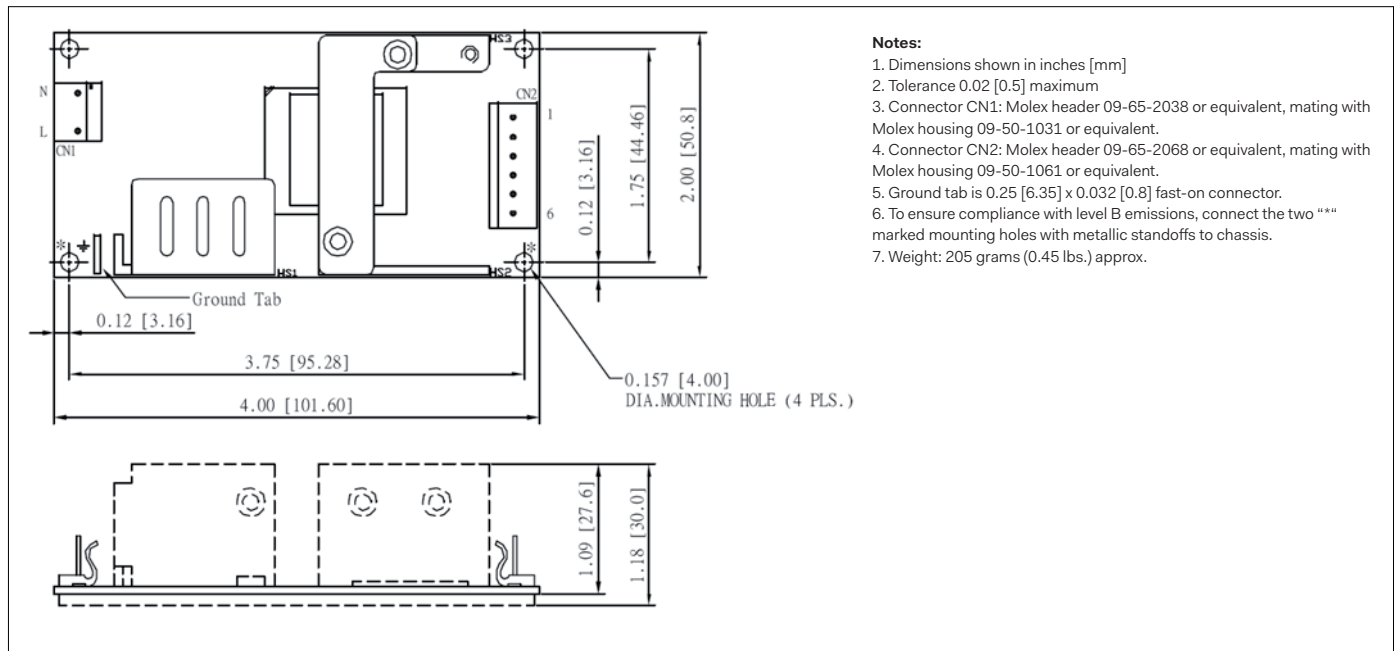
Model ¹⁾ Number	Output #1					Output #2				Output 3#				Max
	V1	Min	Max Current	Max Current	Tol.	V2	Min	Max	Tol	V3	Min	Max	Tol	Total
		Current	At Conv.	At 5 CFM ²⁾			Current	Current			Current	Current		Power
OBJ07016A	5 V	0 A	11.0 A	(N/A)	±2%	(N/A)				(N/A)				55 W
OBJ07031A	12 V	0 A	5.0 A	(N/A)	±2%	(N/A)				(N/A)				60 W
OBJ07037A	15 V	0 A	4.3 A	(N/A)	±2%	(N/A)				(N/A)				64 W
OBJ07046A	24 V	0 A	2.7 A	(N/A)	±2%	(N/A)				(N/A)				64 W
OBJ07070A	48 V	0 A	1.35 A	(N/A)	±2%	(N/A)				(N/A)				64 W
OBJ07204A	+5 V	0.5 A	6.0 A	8 A	±3%	+12 V	0.1 A	3.0 A	±5%	(N/A)				55 W
OBJ07210A	+5 V	0.5 A	6.0 A	8 A	±3%	+24 V	0.1 A	1.5 A	±5%	(N/A)				55 W
OBJ07313A	+5 V	0.5 A	6.0 A	8 A	±3%	+12 V	0.1 A	3.0 A	±5%	-12 V	0 A	0.5 A	±4%	55 W
OBJ07303A	+3.3 V	0.8 A	6.0 A	8 A	±3%	+5.2 V	0.1 A	3.0 A	±5%	+12 V	0 A	0.5 A	±4%	37.5 W
OBJ07304A	+5 V	0.5 A	6.0 A	8 A	±3%	+3.3 V	0 A	1.5 A	±5%	+12 V	0 A	0.5 A	±4%	37.5 W ²⁾
OBJ07316A	+5 V	0.5 A	6.0 A	8 A	±3%	+15 V	0.1 A	2.4 A	±5%	-15 V	0 A	0.5 A	±4%	55 W
OBJ07318A	+5 V	0.5 A	6.0 A	8 A	±3%	+24 V	0.1 A	1.5 A	±5%	-12 V	0 A	0.5 A	±4%	55 W

Notes:

1. Safety approvals are for PCB form only. To order unit with cover fitted, change suffix "A" to "C".
2. Maximum current of output #1 of multi-output models can be 8 A at 5 CFM forced air provided by user.
3. It is rated at 37.5 W maximum at convection cooling or 47.5 W maximum at 5 CFM forced air cooling by user.
4. The output voltages of a multiple output model may go outside of the stated tolerance when an output load current is out of stated limits. All models may be operated at no-load without damage.

5. 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 μ F tantalum capacitor in parallel with a 0.1 μ F ceramic capacitor across the output.
6. Option available for fixed installations, fuse in Neutral removed, contact Powerbox for details.

Mechanical

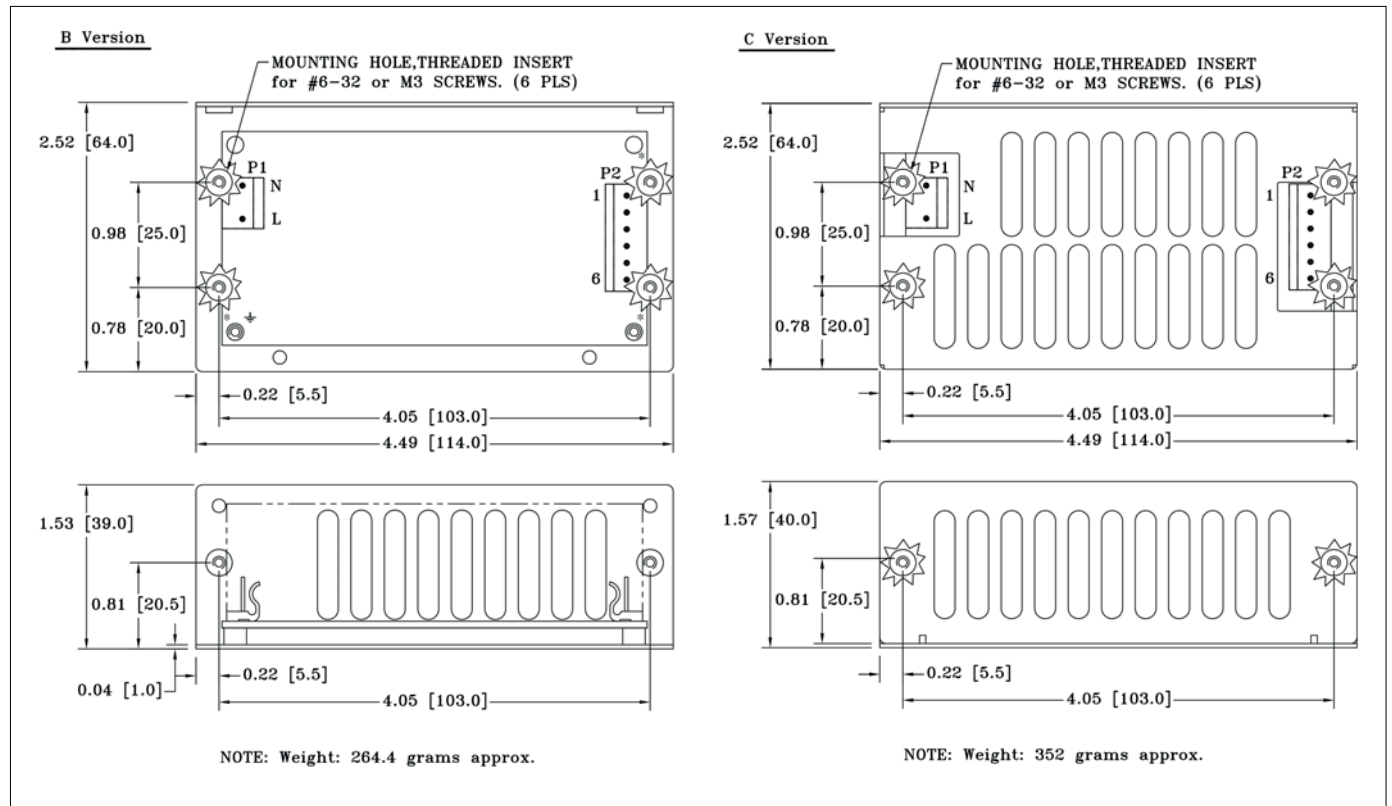


Pin Connection

Pin	Model	1	2	3	4	5	6
OBJ07016A	OBJ07031A	OBJ07037A	+V1	+V1	V1 Return	V1 Return	N.C.
OBJ07046A	OBJ07070A						
OBJ07204A	OBJ07210A		V1	V1	Common Return	Common Return	N.C.
OBJ07316A	OBJ07318A		V1	V1	Common Return	Common Return	V3
OBJ07313A	OBJ07303A	OBJ07304A	V1	V1	Common Return	Common Return	V3

POWERBOX **Medline 60**
 OBJ07 Series
 37.5-64W
 Multiple Output
 AC/DC Medical Switch Mode Power Supply

Mechanical



Specifications are subject to change without notice.