

# MINT1065D

65W Single Output Series

Medical, 3<sup>rd</sup> Edition Certified Universal Input Power Supply



3 Year Warranty

- 65W Convection Cooled AC-DC Power Supply
- Universal Input 90-264 VAC
- Class I or Class II input versions
- Less 0.5W No Load Power Dissipation
- Rugged EMC Compliant Design
- 2" x 4" x 1.2" Package
- ANSI AAMI ES/CSA/EN/IEC 60601-1, 3rd Edition Certified
- Meets Efficiency Level IV Efficiency
- CE Compliant (LVD, RoHS)



## Specifications

All Specifications are typical at nominal input, full load at 25°C unless otherwise stated.

<b>AC Input</b> 100-240VAC +/- 10%, 47-63 Hz single phase.	<b>Turn On Time</b> Less than 1 second under all rated load conditions.
<b>Input Current</b> 115VAC: 0.7A, 230VAC: 1.5A.	<b>Hold-up Time</b> <17 ms at 65W, nominal input (120VAC).
<b>Inrush Current</b> The inrush at 264VAC, at a cold start, will not exceed 40A.	<b>Overvoltage Protection</b> Built-in
<b>Input Fuses</b> F1, F2: 2.5A, 250VAC fuses provided on all models.	<b>Overload Protection</b> Hiccup Mode
<b>Efficiency</b> Up to 90% typical.	<b>Short Circuit Protection</b> Hiccup Mode
<b>Earth Leakage Current</b> <300µA @ 264Vac, 60Hz, normal; <500µA SFC. Touch Current is <100µA NC, <500µA SFC @ 264Vac, 60Hz, measured from output to ground	<b>Isolation</b> Input-Output: 4000Vac/2 MOOP Input-Ground: 1500Vac/1 MOOP
<b>Output Power</b> 65W continuous.	<b>Medical Safety Standards</b> ANSI AAMI ES/CSA/EN/IEC 60601-1, 3rd Edition
<b>Ripple and Noise</b> 1% pk-pk max., 20MHz BW, differential mode. Measured with noise probe directly across output terminals.	<b>Switching Frequency</b> Variable 50-75kHz typical.
<b>Output Voltage</b> See chart.	<b>Operating Temperature</b> 0° to 70°C (derate from full rated power above 40°C).
<b>Voltage Adjustability</b> Voltage pre-set by fixed resistance.	<b>Cooling</b> Convection
<b>Minimum Load</b> Not required.	<b>Output Power Derating</b> See derating chart
<b>Total Regulation</b> +/- 2%. See chart.	<b>Storage Temperature</b> -40 to +85°C.
<b>Transient Response</b> 500µs max., 50% load step, typical.	<b>Relative Humidity</b> 5% to 95%, non-condensing

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Model Number	Output Parameters					Total Regulation	OVP Threshold
	Volts (V)	Output Current Open Frame	Output Current w/cover	Ripple & Noise			
MINT1065D1275K01	12V	5.25A	4.00A	120mV		±2%	15.0 ± 1.5V
MINT1065D1375K01	13.2V	4.80A	3.63A	140mV		±2%	16.0 ± 1.5V
MINT1065D1575K01	15V	4.33A	3.20A	150mV		±2%	18.0 ± 1.5V
MINT1065D1875K01	18V	3.50A	2.66A	180mV		±2%	21.0 ± 2.0V
MINT1055D2075K01	20V	3.25A	2.40A	200mV		±2%	23.0 ± 2.0V
MINT1065D2475K01	24V	2.70A	2.00A	240mV		±2%	27.0 ± 2.0V
MINT1065D4875K01	48V	1.35A	1.00A	480mV		±2%	55.0 ± 4.0V

## Specifications (continued)

<b>Vibration</b> Operating: 0.003 g <sup>2</sup> /Hz, 1.5 g <sub>rms</sub> overall, 3 axes, 10 min. / axis Non-Operating: 0.026 g <sup>2</sup> /Hz, 5.0 g <sub>rms</sub> overall, 3 axes, 1 hr. / axis	<b>Shock</b> Operating: Half-sine, 20 g <sub>pk</sub> , 10 ms, 3 axes, 6 shocks total Non-Operating: Half-sine, 40 g <sub>pk</sub> , 10 ms, 3 axes, 6 shocks total
<b>Pollution Degree</b> 2	<b>Overvoltage Category</b> OVCII (2500V for Mains), OVCI (1500V for Secondary)
<b>Dimensions</b> W 2.0" x L 4.0" x H 1.17". See outline drawing.	<b>Operating Altitude</b> Up to 4000m.
<b>Weight</b> 150 grams	<b>Non-operating Altitude</b> -500 to 40,000 ft.

## EMI/EMC Compliance

Conducted Emissions	EN55011 Class B, FCC Part 15, Class B.
Radiated Emissions	EN55011 Class A, FCC Part 15, Class A.
Static Discharge Immunity	EN61000-4-2, 6kV Contact Discharge, 8kV air discharge
Radiated RF Immunity	EN61000-4-3, 3V/m.
EFT/Burst Immunity	EN61000-4-4, 2kV/5kHz..
Line Surge Immunity	EN61000-4-5, 1kV differential, 2kV common-mode
Conducted RF Immunity	EN61000-4-6, 3Vrms
Power Frequency Magnetic Field Immunity	EN61000-4-8, 3A/m
Voltage Dip Immunity	EN61000-4-11 240VAC, 0%/0.5 cycle, 40%/5cycles, 70%/25 cycles

## Model Number Key

MINT 1 065 X 12 75 K 01

<b>Model:</b>	"01" = Standard Model, 02 and higher indicates a modified model.
<b>Input Connector:</b>	"K" = 3 pin Header (class I input); "C" = 2 pin Header (class II input).
<b>Output Connector:</b>	"75" = Output Connector, 4 pin header. Other options available, consult factory.
<b>Output Voltage:</b>	"12" = 12V, "24" = 24V, etc.
<b>Configuration:</b>	"D" = EN60601-1 3rd Edition Certified, "C" = Optional chassis & cover (class I only).
<b>Output Power:</b>	"065" = 65W
<b># of Outputs:</b>	"1" = Single output
<b>Product Family:</b>	"M" = Medical, "I" = Internal, "NT" = New Technology

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## Mechanical Drawings and Connector Information

### MINT1065 Series Connectors

#### INPUT:

J1 AMP P/N 641937-1

PIN 1) AC LINE

PIN 2) AC NEUTRAL

#### OUTPUT:

J2 AMP P/N 640445-4

PIN 1) +Vout PIN 3) -Vout

PIN 2) +Vout PIN 4) -Vout

#### MATING CONNECTORS:

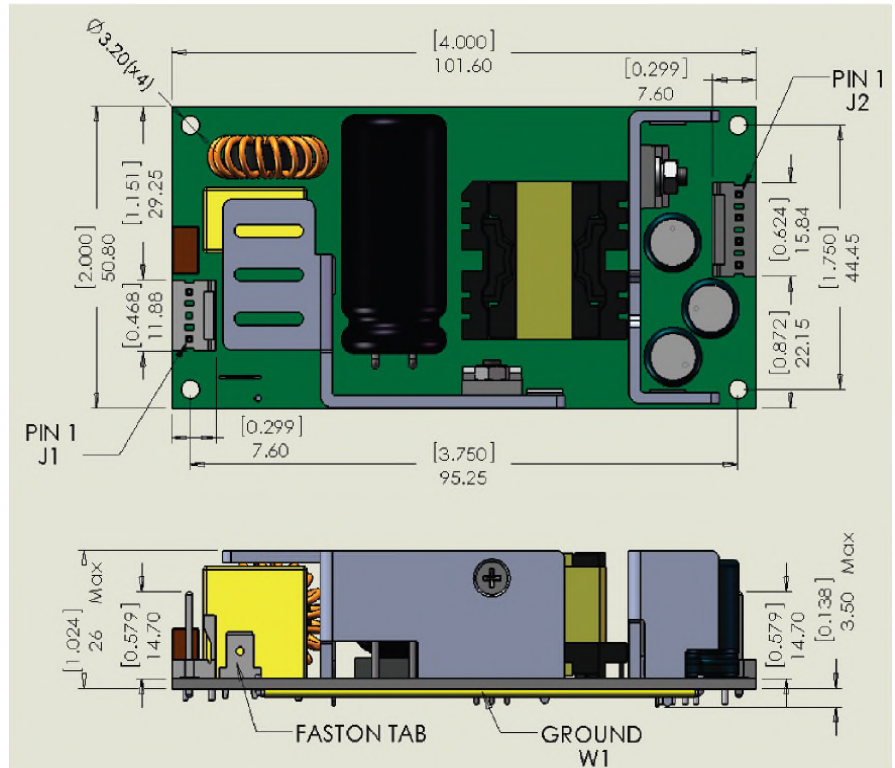
P1 Molex 09-50-3031

P2 Molex 09-50-3041

Pins: Molex 08-50-0105

#### GND CONNECTION (Class I version)

0.187" FASTON TAB



## Output Power Derating Curve

