

## Excellent Integrated System Limited

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[SL Power Electronics - Manufacturer of Condor/Ault Brands  
MINT1022A0505I01](#)

For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

# MINT1022

## 22 Watt Single Output Series



### Medical - Universal Input Power Supply

- 90-264 VAC Input
- Overvoltage and Short Circuit Protection
- Compact Size, Low Profile 2.0" x 3.5" x 0.67"
- Approved to UL, CSA and EN Standards
- CE Compliant (LVD, EMC, RoHS)
- Low Standby Power Loss (<0.5 W)



#### International Safety Standard Approvals



### Specifications

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

#### Output Specifications

Output Power	Natural Convection	22 Watts continuous, 24 W peak for 60 seconds, 10% duty cycle
Minimum Load		Not required
Total Regulation	(Line and Load)	1.5%, see table
Rise Time	At turn-on	100 ms max.
Transient Response	50% step load, 0.2A/μs	4% max. dev., 1.5 msec max. recovery to 0.5%
Temperature Coefficient		+/-0.03%/° C typical
Overvoltage Protection		Standard - See chart
Voltage Adjustability		Factory set with fixed resistors to maximize reliability

#### Input Specifications

Voltage	Universal Input	90-240VAC (Nominal 100-240VAC)
Frequency		47-63Hz
Input Surge Current	Thermistor limited	32A max.
Earth leakage current	264V, 60Hz	125 μA max. (200 μA single fault)
Input Current	120VAC 230VAC	0.45A 0.25A
Input Fuse	F1	2.0 A

#### Environmental Specifications

Thermal Performance	Operating ambient (see ratings chart)	0-70° C
	Non-operating	-40 to +85° C
	50-70° C ambient	Full load. See table. derate to 50%
Relative Humidity	Non-condensing	0-95% RH
Maximum Altitude	Operating /non-operating	10,000 ft./40,000 ft. max.
Vibration	5Hz-500Hz	2.5 g rms
Shock	Per MIL-STD-810E	516.4 part IV

#### General Specifications

Hold-up Time	120VAC, 60Hz	15ms min. at 22W output
Efficiency	120VAC, 22W output	70-80% typical depending on output voltage
Switching Frequency	Fixed	15 to 100kHz, varies with line and load
Safety Approvals	Medical	UL/EN/IEC 60601-1 CSA22.2 No.601
Maximum Weight		100 Grams (0.20 lbs)
MTBF	25° C, ground benign, Telcordia	300,000 hours
Overload and short circuit protection	Fully protected	Cycling type power limit

# MINT1022

## 22 Watt Single Output Series

### Medical - Universal Input Power Supply

Medical Model	Voltage Output	Output Current	Total Regulation	Initial Setpoint Tolerance	Ripple/Noise	OVP Setpoint
MINT1022A0505I01	5V	4.40A	+/-1.5%	+/-2.5%	100mV	6.2+/-0.6V
MINT1022A1205I01	12V	1.83A	+/-1.5%	+/-2.5%	120mV	14.1+/-1.1V
MINT1022A2405I01	24V	0.92A	+/-1.5%	+/-2.5%	240mV	28+/-2.5V

**Notes**

1. Other output voltages available by special order
2. Regulation from initial setpoint for 50% load change from 50% to 0% or 100%
3. Peak output rating is 24 Watts for 1 minute
4. 20MHz Bandwidth scope, differential mode. Measured with scope probe directly across output terminals of the power supply with load terminated with 0.1  $\mu$ F
5. Heatsink temperatures should not be allowed to exceed 90° C
6. Installation data is online at www.slpower.com

#### Condor Part Number Key

M	I	N	T	1	022	A	05	05	I	01
Medical	Internal	Standard Product	Factory Designation	No. of Outputs	Output Wattage	Initial Design of the Product	Output Voltage	Output Connector	Input Connector	Standard Configuration

#### General Specifications (continued from p. 1)

**EMC Information**

Conducted emissions	EN55011	Level B
Radiated emissions	EN55011	Level B
Line freq. harmonics	EN61000-3-2	Complies
Voltage fluctuations	EN61000-3-3	Complies
ESD Contact	EN61000-4-2	6 kV contact
ESD Air	EN61000-4-2	8 kV air
Radiated immunity	EN61000-4-3	3 V/m
Fast Transients (EFT)	EN61000-4-4	2 kV/5 kHz
Line surge immunity	EN61000-4-5	1 kV diff / 2 kV common mode
Conducted immunity	EN61000-4-6	3 Vrms
Power freq. mag. field	EN61000-4-8	3 A/m
Voltage dip immunity	EN61000-4-11	Consult Factory

#### Mechanical Notes

<b>INPUT</b>	<b>J1 MOLEX 22-43-8040</b>	
	PIN 1 AC LINE	
	PIN 4 AC NEUTRAL	
<b>GROUND</b>	SOLDER HOLE ON BOARD	
<b>OUTPUT</b>	<b>J2 MOLEX 22-43-8040</b>	
	PIN 1 OUTPUT 1	
	PIN 2 OUTPUT 1	
	PIN 3 COMMON	
	PIN 4 COMMON	
<b>MATING CONNECTOR (MOLEX)</b>		
INPUT	HOUSING 50-37-5043	CONTACTS 08-70-1040
OUTPUT	HOUSING 50-37-5043	CONTACTS 08-70-1040

