







Industrial

CE Rons

### **FEATURES AND BENEFITS**

3" x 5" x 1.3" Package
200W with 100LFM Air
180W Convection Cooled
Fits 1U Applications
Class B Conducted EMI

Approved to EN/CSA/IEC/UL62368-1
Efficiency 90% Typical
3 Years Warranty
Universal Input 90-264 VAC
RoHS Compliant

#### **MODEL SELECTION**

Model Number	Volts	Output C w/100LFM air	urrent Convection*	Minimum Load	Ripple & Noise**	Total Regulation	OVP Threshold***
CINT1200A1275K01	12V	16.7A	15.0A	AO	120mV pk-pk	±3%	14.0 ± 1.1V
CINT1200A1575K01	15V	13.3A	12.0A	0A	150mV pk-pk	±3%	18.5 ± 1.2V
CINT1200A1875K01	18V	11.1A	10.0A	0A	180mV pk-pk	±3%	21.5 ± 2.0V
CINT1200A2475K01	24V	8.33A	7.50A	0A	240mV pk-pk	±3%	29.0 ± 2.5V
CINT1200A2875K01	28V	7.14A	6.40A	0A	280mV pk-pk	±3%	33.5 ± 2.5V
CINT1200A3275K01	32V	6.25A	5.62A	0A	320mV pk-pk	±3%	36.0 ± 3.0V
CINT1200A3675K01	36V	5.55A	5.00A	0A	360mV pk-pk	±3%	41.0 ± 3.0V
CINT1200A4875K01	48V	4.17A	3.75A	0A	480mV pk-pk	±3%	56.0 ± 3.0V

Notes : \* Total convection power is 180 Watts.

\*\* Measured with noise probe directly across output terminals, and load terminated with 0.1µF ceramic and 10µF low ESR capacitors.

INPUT	
AC Input	100-240VAC, ±10%, 47-63Hz, 1Ø 120-370V DC
Input Current	115VAC: 1.8A, 230VAC: 0.9A
Inrush Current	264VAC, Cold start: will not exceed 55A
Input Fuses	F1, F2: 3.15A, 250VAC fuses provided on all models
Earth Leakage Current	<500μA @ 264VAC, 60Hz, NC; <1mA SFC
Efficiency	88% typical

### **ISOLATION SPECIFICATIONS**

Isolation	Input-Output: 4,000VAC Input-Ground: 1,800VAC Output-Ground: 1,500VAC
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OUTPUT	
Hold-up Time	16ms at 200W, 120VAC/60Hz
Turn On Time	Less than 3sec @ 115VAC, Full Load
Switching Frequency	PFC: Fixed, 65kHz Main Converter: Variable 35-200kHz, 65-70kHz at full load
Output Power	200W continuous, with 100 lfm airflow, 180W convection cooled - See chart for specific voltage model ratings
Output Voltage	See chart
Ripple and Noise	0.5%rms, 1% pk-pk, see chart
Transient Response	500µS typical, Return to 0.5% of nominal, 50% load step Di/Dt: <0.2A/µS. Max voltage deviation = 3%
Voltage Adjustability	Fixed Output
Minimum Load	Not required

+/- 3% combined line, load and initial setting

**Total Regulation** 





#### PROTECTION

Overtemperature Protection	Sensing transformer temperature, 165°C at full load, latching type, requires input power recycling to reset
Overload Protection	120 to 150% of rating, Hiccup mode
Short Circuit Protection	Hiccup mode, Auto recovery
Overvoltage Protection	OVP latch, see models chart for trip range

#### SAFETY

Safety Standards EN/CSA/IEC/UL62368-1   Operating: Half-sine, 20gpk, 10ms, 3 axes, 6 shocks total		
6 shocks total	Safety Standards	EN/CSA/IEC/UL62368-1
Non-operating: Half-sine, 40 gpk, 10ms, 3 axes, 6 shocks total	Shock	6 shocks total Non-operating: Half-sine, 40 gpk, 10ms, 3 axes,

RELIABILITY



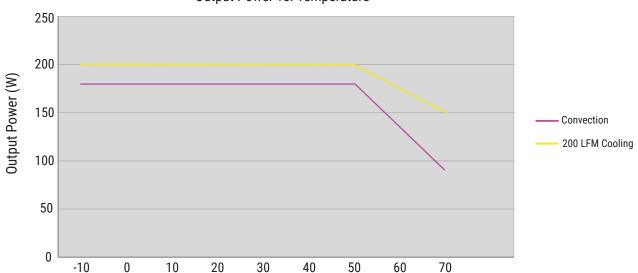
401,000 hours, 25°C, 110VAC

### **ENVIRONMENT**

Operating Temperature	-10°C to +70°C Start up at -40°C, Full load
Temperature Derating	Derate output power linearly above 50°C to 50% at 70°C
Storage Temperature	-40°C to +85°C
Altitude	Operating: -500 to 10,000 ft Non-operating: -500 to 40,000 ft
Relative Humidity	5% to 95%, Non-condensing
Vibration	Operating: 0.003g²/Hz, 1.5grms overall, 3axes, 10 min/axis Non-operating: 0.026g²/Hz, 5.0grms overall, 3 axes, 1 hr/axis
Dimensions	W: 3.0" x L: 5.0" x H: 1.3"
Weight	325g

# DERATING CURVE

180W convection cooled and 200W continuous with 100 LFM airflow, derate output power to 50% at 70°C.



#### Output Power vs. Temperature

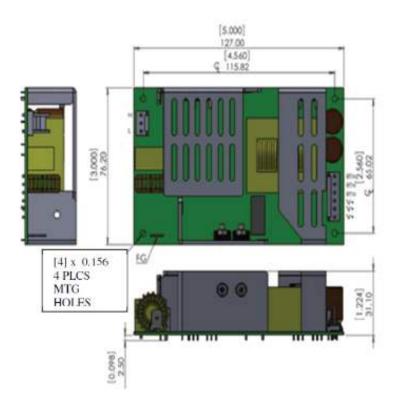




# **EMI/EMC COMPLIANCE**

Conducted Emissions	EN55011/22 Class B, FCC Part 15, Subpart B, Class B
Radiated Emissions	EN55011/22 Class A, FCC Part 15, Subpart B, Class A w/6db margin
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, 100%, 10ms; 30%, 275ms; 60%, 100ms Performance Criteria A, A, & A at 70% load
Line Harmonic Emissions	EN61000-3-2, Class A, B, C, & D
Flicker Test	IEN61000-3-3, Complies (dmax<6%)

### **MECHANICAL DRAWING**



Notes: 1. All dimensions in inches (mm), tolerance is +/-0.000".

2. Mounting holes should be grounded for EMI purposes.

3. FG is safety ground connection.

4. The power supply requires mounting on metal standoffs 0.20" (5mm) in height, min.





# **CONNECTOR INFORMATION**

Input Connector J100	Ground Connector G1	DC Output Connector J2
PIN 1) AC LINE PIN 2) EMPTY PIN 3) AC NEUTRAL	0.25" FASTON TAB	Term. 1,2,3: RTN Term. 4,5,6: +Vout
Mating Connector: AMP Molex 640250-3 Pins: 640252-2	Mating Connector: Molex 190020001	Mating Connector: AMP 640250-6 Pins: 640252-2

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