CINT1200

200W Single Output
Industrial Series

Features

- 3” x 5” x 1.3” Package
- 200W with 100LFM Air
- 180W Convection Cooled
- Class B Conducted EMI
- Fits 1U Applications
- Universal Input 90-264 Vac
- Approved to CSA/EN/IEC/UL60950-1, 2nd Edition
- Efficiency 90% typical
- 3 Year Warranty
- RoHS Compliant

Description

A power-packed, highly efficient AC to DC power supply designed for industrial and ITE applications. These models provide 180 Watts convection cooled, 200 Watts with moving air. The small heat footprint allows simple thermal design of systems which use this product. All models are CE marked to low voltage directive and approved to ITE standards of EN60950-1, 2nd edition.

Model Selection

Model Number	Volts	Output Current w/100LFM air	Output Current Convection*	Minimum Load	Ripple & Noise**	Total Regulation	OVP Threshold***
CINT1200A1275K01	12V	16.7A	15.0A	0A	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.

General Specifications

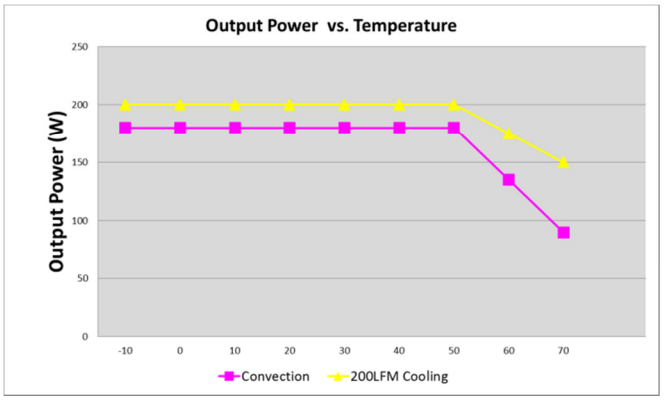
AC Input	100-240Vac, ±10%, 47-63Hz, 1∅ 120–370Vdc	**Turn On Time**	Less than 3 sec. @115Vac, Full Load
Input Current	115Vac: 1.8A, 230Vac: 0.9A	**Hold-up Time**	16mS at 200W, 120Vac/60Hz

Specifications (continued)

Inrush Current	264Vac, cold start: will not exceed 55A	**Overtemperature Protection**	Sensing transformer temperature, 165℃ at full load, latching type, requires input power recycling to reset.
Input Fuses	F1, F2: 3.15A, 250Vac fuses provided on all models	**Overload Protection**	120 to 150% of rating, Hiccup Mode
Earth Leakage Current	<500µA@264Vac, 60Hz, NC; <1mA SFC	**Short Circuit Protection**	Hiccup Mode, auto recovery.
Efficiency	88% typical	**Overvoltage Protection**	OVP latch, see models chart for trip range.
Output Power	200W continuous, with 100 lfm airflow, 180W convection cooled – See chart for specific voltage model ratings.	**Switching Frequency**	PFC: Fixed, 65kHz Main Converter: Variable 35-200kHz, 65-70kHz at full load.
Transient Response	500µS typical, return to 0.5% of nominal, 50% load step. Δi/Δt: <0.2A/µS. Max Voltage Deviation = 3%	**Isolation**	Input-Output: 4000Vac Input-Ground: 1800Vac Output-Ground: 1500Vac
Ripple and Noise	0.5%rms, 1% pk-pk, see chart.	**Operating Temperature**	-10℃ to +70℃ Start Up at -40℃, full load
Output Voltage	See chart	**Temperature Derating**	Derate output power linearly above 50℃ to 50% at 70℃
Voltage Adjustability	Fixed Output	**Storage Temperature**	-40℃ to +85℃
Minimum Load	Not required	**Altitude**	Operating: -500 to 10,000 ft. Non-operating: -500 to 40,000 ft.
Total Regulation	+/- 3% combined line, load and initial setting.	**Relative Humidity**	5% to 95%, non-condensing
Vibration	Operating: 0.003g²/Hz, 1.5grms overall, 3 axes, 10 min/axis Non-Operating: 0.026g²/Hz, 5.0grms overall, 3 axes, 1 hr/axis	**Shock**	Operating: Half-sine, 20gpk, 10ms, 3 axes, 6 shocks total Non-Operating: Half-sine, 40 gpk, 10 ms, 3 axes, 6 shocks total
Dimensions	W: 3.0” x L: 5.0” x H: 1.3”	**Safety Standards**	EN/CSA/UL/IEC 60950-1, 2nd Edition
Weight	325g	**MTBF**	401,000 hours, 25°C, 110Vac

Output vs. Temperature Derating Curve

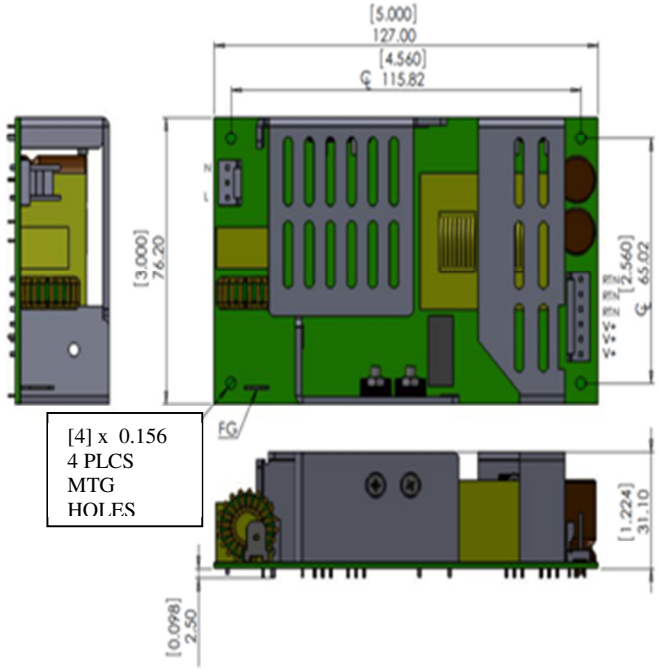
180W convection cooled and 200W continuous with 100 LFM airflow, derate output power to 50% at 70°C.



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	EN61000-3-3, 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 (FG)	DC Output Connector J300	
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	

Mouser Electronics

Authorized Distributor

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SL Power:

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