

CINT1175

175W Single Output Series

Industrial & ITE Power Supply



3 Year Warranty

- 2" x 4" x 1.3" Package
- For 1U Applications
- 175W w/air, 120W convection cooled
- Universal Input 90-264 VAC
- Average Efficiency meets Level V Requirements
- Approved to CSA/EN/IEC/UL60950, 2nd Edition
- 12V fan output
- Efficiency 90% typical at Full Load
- **CE** Compliant (LVD, RoHS)

International Safety Agency Approvals



CONDOR™

Specifications

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

AC Input	100-240Vac +/- 10%, 47-63 Hz single phase 120-370 Vdc	Turn On Time	Less than 2 sec. @115Vac (inversely proportional to input voltage and thermistor temperature)
Input Current	115Vac: 2A, 230Vac: 1A	Hold-up Time	16mSec typical at 120W output load
Inrush Current	264Vac, cold start: will not exceed 50A	Signals	AC Power Fail, DC OK, and Inhibit
Input Fuses	F1, F2: 4A, 250VAC fuses provided on all models	Overload Protection	Hiccup Mode Type
Earth Leakage Current	<750µA@264Vac, 60Hz, NC	Short Circuit Protection	Provided – No damage to unit
Efficiency	90% typical at 115V	Switching Frequency	PFC: 65kHz typical
Output Power	175W continuous, with 200 lfm airflow, 120W convection cooled – See chart for specific voltage model ratings	Overvoltage Protection	OVP firing reduces output voltage to <50% of nominal in <50ms. See chart for trip range
Transient Response	50% load step. $\Delta i/\Delta t < 0.2A/\mu S$ Max Volt Deviation = 3%	Isolation	Input-Output: 4000Vac Input-Ground: 1800Vac, Output-Ground: 1500Vac
Ripple and Noise	See chart	Operating Temperature	-10 to +70°C (Start Up at -40C/ full load Derate output power to 50% at 70°C
Output Voltage	See chart	Storage Temperature	-40 to +85°C
Voltage Adjustability	+/-5% from nominal	Operating Altitude	-500 to 10,000 ft
Minimum Load	Not required	Non-operating Altitude	-500 to 40,000 ft
Total Regulation	+/- 3%. See chart	Relative Humidity	5% to 95%, non-condensing
Vibration	Operating: 0.003g ² /Hz, 1.5g _{rms} overall, 3 axes, 10 min/axis Non-Operating: 0.026 g ² /Hz, 5.0g _{rms} overall, 3 axes, 1 hr/axis	Shock	Operating: Half-sine, 20 g _{pk} , 10 ms, 3 axes, 6 shocks total Non-Operating: Half-sine, 40 g _{pk} , 10 ms, 3 axes, 6 shocks total
Dimensions	W: 2.0" x L: 4.0" x H: 1.3". Weight: 210g	ITE Safety Standards	EN/CSA/UL/IEC 60950-1, 2nd Edition

Auxiliary Signals

AC Power Fail:	During normal operation, stays HIGH. Signal goes LOW with 5mS warning before loss of DC output after AC failure	DC OK:	Open collector logic signal goes and stays HIGH 100mS to 500 mS after main output reaches regulation
Inhibit:	Connect inhibit pin to output common to inhibit the DC output		

Model Number Key

CINT 1 175 A 12 06 K 01

Model:	"01" = Standard Model, 02 and higher indicates a modified model.
Input Connector:	"K" = 3 pin Header
Output Connector:	"06" = 6 pin header for output connector. Other options available, consult factory.
Output Voltage:	"12" = 12V, "24" = 24V, etc.
Configuration:	"A" = First Generation
Output Power:	"175" = 175W
# of Outputs:	"1" = Single output
Product Family:	"C" = Industrial/ITE, "I" = Internal, "NT" = New Technology

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Output Parameters

Model Number	Volts (V)	Output Current Convection	Output Current with 200LFM	Fan Output (see Note 1)	Ripple & Noise (see Note 2)	Total Regulation	OVP Threshold (see note 3)
CINT1175A1206K01	12 V	11.7 A	14.6 A	12V/0.4A	0.5%RMS, 1.2% pk-pk	±3%	14.0 ± 1.1V
CINT1175A1506K01	15 V	9.3 A	11.7 A	12V/0.4A	0.5%RMS, 1% pk-pk	±3%	18.5 ± 1.5V
CINT1175A2406K01	24 V	5.8 A	7.3 A	12V/0.4A	0.5%RMS, 1% pk-pk	±3%	28.0 ± 2.5V
CINT1175A4806K01	48 V	2.9 A	3.6 A	12V/0.4A	0.5%RMS, 1% pk-pk	±3%	55.0 ± 4.0V
CINT1175A5606K01	56 V	2.5 A	3.1 A	12V/0.4A	0.5%RMS, 1% pk-pk	±3%	59.0 ± 1.0V

Notes: 1. Total convection power is 120 Watts.
2. Measured with noise probe directly across output terminals, and load terminated with 0.1µF ceramic and 10µF low ESR capacitors.
3. Output adjustment on 56V model will not exceed 56.2 volts.

EMI/EMC Compliance

Conducted Emissions	EN55011/22 Class B, FCC Part 15, Subpart B, Class B
Radiated Emissions	EN55011/22 Class B, FCC Part 15, Subpart B, Class A w/6db margin
Static Discharge Immunity	EN61000-4-2, Criteria A, 6kV Contact Discharge, 8kV air discharge
Radiated RF Immunity	EN61000-4-3, 3V/m, Criteria A
EFT/Burst Immunity	EN61000-4-4, 2kV/5kHz, Criteria A
Line Surge Immunity	EN61000-4-5, 1kV differential, 2kV common-mode, Criteria A
Conducted RF Immunity	EN61000-4-6, 3Vrms, Criteria A
Power Frequency Magnetic Field Immunity	EN61000-4-8, 3A/m, Criteria A
Voltage Dip Immunity	EN61000-4-11, 0% Vnominal, 0.5cycle, 40% Vnominal, 5 cycles, 70% Vnominal, 25 cycles, Criteria A
Line Harmonic Emissions	EN61000-3-2, Class A, B, C & D
Flicker Test	EN61000-3-3, Complies (dmax<6%)

Mechanical Drawing and Connector Information

INPUT CONNECTOR (J100):

PIN 1) AC LINE
PIN 2) EMPTY
PIN 3) AC NEUTRAL

Mating Molex 09-50-3031,
Conn: pins = 08-52-0072

GROUND (J101)

FG 0.187" FASTON TAB

Mating Molex 01-90020009
Conn:

DC OUTPUT CONNECTOR (J300):

PIN 1) +Vout PIN 4) -Vout
PIN 2) +Vout PIN 5) -Vout
PIN 3) +Vout PIN 6) -Vout

Mating AMP 640250-6,
Conn: pins = 640252-1

FAN OUTPUT CONNECTOR (J500):

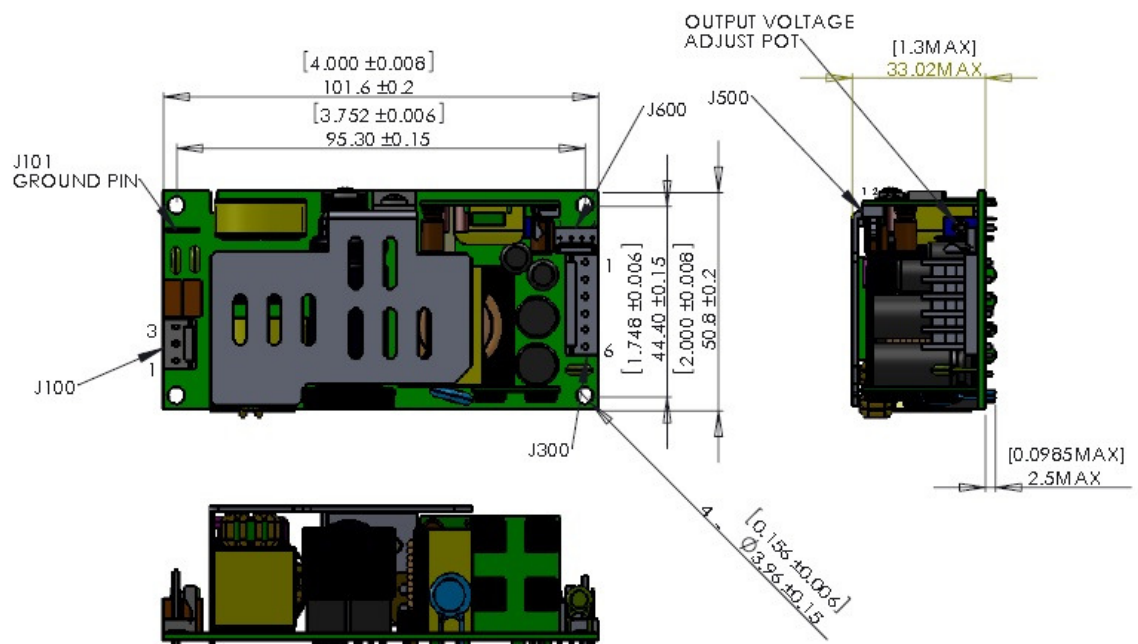
PIN 1) 12V Fan PIN 2) RTN

Mating Molex 1375820-2,
Conn: pins = 1375819

SIGNAL CONNECTOR (J600):

PIN 1) Inhibit PIN 3) Common
PIN 2) PF/DC OK PIN 4) Common

Mating Molex 1375820-4,
Conn: pins = 1375819



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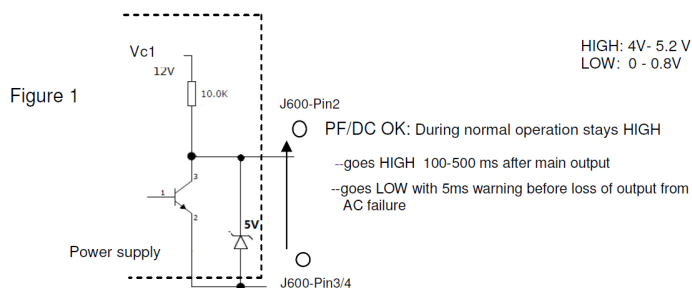
Auxiliary Signal Description and Functionality

Fan Output – J500:

J500 provides a 12V@0.4mA output to support a system cooling fan. The fan output is always available when AC input is present, so it also can be used for a 12V standby output if so desired.

AC Power Failure/DC OK And Inhibit Signals – J600:

AC Power Failure/DC OK

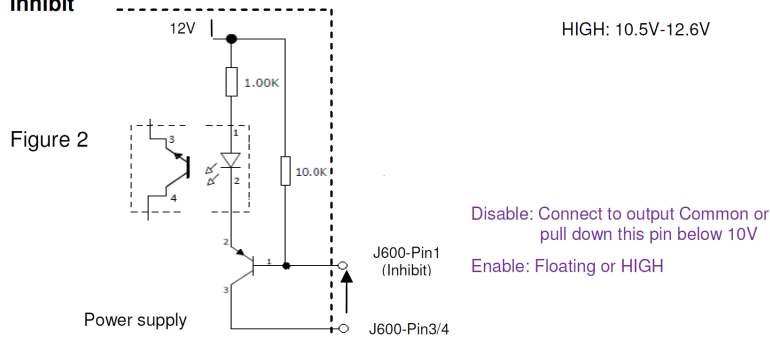


AC Power failure and DC OK signals use the same pin, so the signals can be used as follows:

DC OK: Pin2 = HIGH & Pin1 = HIGH

AC Power Failure: Pin2 = LOW & Pin1 = LOW

Inhibit



Timing sequence

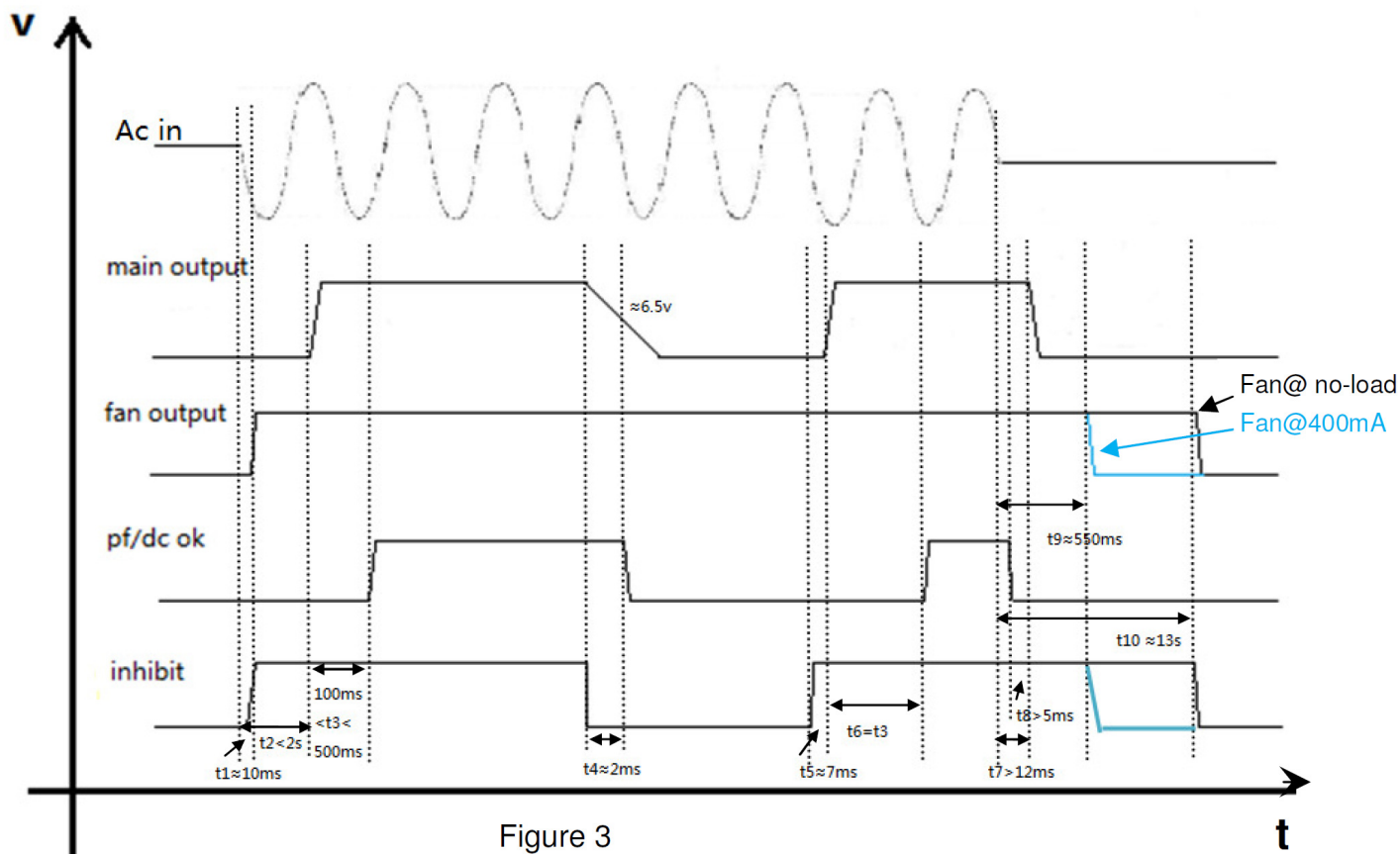


Figure 3