

700 WATTS

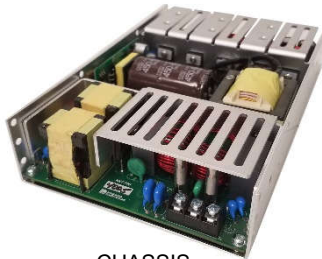
MULTI OUTPUT AC-DC

FEATURES:

- Compact 5.0" x 8.0" x 1.6" Size
- 3 Year Warranty
- Universal 85-264V Input
- 2-4 Regulated & Adjustable Outputs
- 90% Peak/87% Average Efficiency
- <300mW No Load Input Power
- -20 to +70°C Operating Temperature
- RoHS Compliant
- IEC 60601-1 3rd ed. Medical Cert.
- IEC 62368-1 2nd ed. Certification
- IEC 60601-1-2 4th ed. EMC
- Class B Emissions per EN55011/32
- 5V/2A Standby Output
- 12V/0.6A Fan Output
- Remote Inhibit/Enable
- Optional Chassis, Fan Enclosure








CHASSIS/COVER



CHASSIS

SAFETY SPECIFICATIONS

 Underwriters Laboratories File E137708/E140259	UL 62368-1:2014, 2 nd Edition CAN/CSA-C22.2 No. 62368-1-14 AAMI/ANSI ES60601-1:2005(R) 2012 CAN/CSA-C22.2 No. 60601-1:2014
 CB Reports/Certificates (including all National and Group Deviations)	IEC 62368-1:2014, 2 nd Edition IEC 60601-1:2005/A1:2012
 TUV SUD America	EN 62368-1:2014, 2 nd Edition EN 60601-1:2006/A1:2013
 Low Voltage Directive RoHS Directive (Recast)	(2014/35/EU of February 2014) (2015/863/EU of March 2015)
 Electrical Equipment (Safety) Regulations 2016 SI No. 1101 Restriction of the Use of Certain Hazardous Substances in EEE Regulations 2012 SI No. 3032 + 2019 SI No.492	

MODEL LISTING

MODEL	OUTPUT 1	OUTPUT 2	OUTPUT 3	OUTPUT 4
NXT-700-4001	+5V/30A	+24-28V/10A	+12-15V/10A	-12-15V/10A
NXT-700-4002	+24V/20A	+12-15V/15A	+3.3-5V/10A	-12-15V/10A
NXT-700-4003	+24V/20A	-24-28V/10A	+12-15V/10A	-12-15V/10A
NXT-700-4004	+48V/10A	+3.3-5V/20A	+12-15V/10A	-12-15V/10A
NXT-700-4005	+48V/10A	+24-28V/10A	+12-15V/10A	-12-15V/10A
NXT-700-3001	+12V/30A	+12-15V/20A	-	3.3-5V/10A
NXT-700-3002	+24V/20A	+12-15V/15A	-	-12-15V/10A
NXT-700-2001	+5V/30A	+12-15V/20A	-	-
NXT-700-2002	+12V/30A	-12-15V/20A	-	-
NXT-700-2003	+24V/20A	+3.3-5V/20A	-	-
NXT-700-2004	+24V/20A	+12-15V/20A	-	-

ORDERING INFORMATION

Consult factory for alternate output configurations.
Please specify output voltage set points when ordering.
Please specify the following optional features when ordering:

OF-Open Frame	PF-Power Fail Warning
CO-Cover w/ Internal Fans	BF-Type BF
I/O-Isolated Outputs	

All specifications are maximum at 25°C, 700W unless otherwise stated, may vary by model and are subject to change without notice.

PRODUCT BULLETIN

OUTPUT SPECIFICATIONS

Output Power at 50°C ₍₁₎ (See Derating Chart)	300W 700W 700W	Convection Cooled, Chassis Internal Fan Enclosure 300LFM Forced-Air Cooled, Chassis
Voltage Centering	Outputs 1-4:	±0.5% (All outputs at 50% load)
Voltage Adjust Range	Output 1:	95-105% Outputs 2-4: 90-110% ₍₁₅₎
Load Regulation	Output 1: Outputs 2-4:	±0.5% (10-100% load change) ±1.0% (0-100% load change)
Source Regulation	Outputs 1-4:	0.5%
Cross Regulation	Outputs 2-4:	0.5%
Ripple & Noise	Outputs 1-4	1.0% or 100mV p-p, 20MHz BW
Current Limit	Each Output	110-150% Fold-back, Auto-Recovery
Turn On Overshoot	None	
Transient Response		Output recovers to within 1% of initial set point due to a 50-100-50% step load change, 1ms maximum, 4% maximum deviation.
Overvoltage Protection	Output 1:	110%-150% of rated output voltage, latching.
Overpower Protection		110%-150% rated P _{out} , cycle off/on, auto recovery.
Hold-Up Time		>20ms, full power.
Start-Up Time		<1 sec., 115/230V input.
Output Rise Time	Output 1:	5ms typical. Outputs 2-4: 30ms typical.
Minimum Load ₍₅₎		No minimum load required.
Remote Sense ₍₉₎	Output 1:	250mV compensation of output cable losses.
Enable/Inhibit (System) ₍₁₆₎		Contact closure enables all outputs.
Enable/Inhibit (Outputs 2, 3, 4) ₍₁₇₎		Contact closure inhibits individual output.
Standby Output		5V/2A

INPUT SPECIFICATIONS

Protection Class	I
Source Voltage	85 – 264 VAC (see derating chart)
Frequency Range	47 – 63 Hz
Input Protection	Dual internal 12A time-delay fuses, 1500A breaking capacity
Peak Inrush Current	40A max
Peak Efficiency	Up to 90%
Average Efficiency	Up to 87% (Avg. of 25%, 50%, 75% and 100% rated load)
No Load Input Power	<300mW (Non-Fan only); <500mW (PF option)

ENVIRONMENTAL SPECIFICATIONS

Ambient Operating Temp. Range	-20°C to +70°C, Derating: (see derating chart)
Ambient Storage Temp. Range	-40°C to +85°C
Operating Relative Humidity Range	20-90% non-condensing
Altitude	3,000m ASL Operating/ 12,192m ASL Non-operating
Temperature Coefficient	0.02%/°C
Vibration (MIL-STD-810G)	2.5Gswept sine, 10-2000Hz, 1 octave/min, 3 axis, 1 hour each
Shock (MIL-STD-810G)	20g, 11 ms, 3 axis.

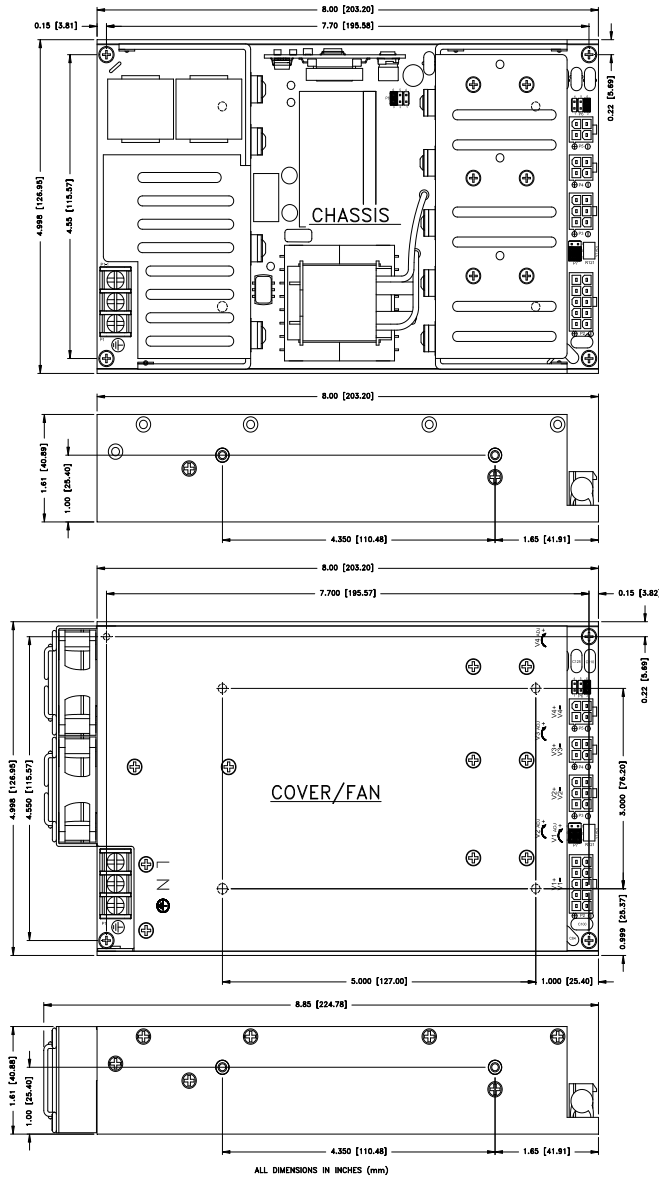
GENERAL SPECIFICATIONS

Means of Protection	Primary to Secondary Primary to Ground Secondary to Ground	2MOPP (Means of Patient Protection) 1MOPP (Means of Patient Protection) Operational Insulation (1MOPP w/Option BF)
Dielectric Strength _(7, 8)	Reinforced Insulation Basic Insulation Operational Insulation	5656VDC (4000VAC) 2121VDC (1500VAC) 707VDC (500VAC)/2121VDC (1500VAC) w/Option BF
Leakage Current	Earth Leakage Touch Current Patient Leakage Current	<300µA NC, <1000µA SFC <100µA NC, <500µA SFC <100µA NC, <500µA SFC w/Option BF
AC Power Fail Signal		Logic low 10-15ms prior to V1 loss of regulation.
Switching Frequency		PWM:133 KHz/PFC:Variable
Mean-Time Between Failures		150,000 hours, MIL-HDBK-217F, 25°C, GB
Weight		1.7 lb. Open frame / 2.2 lb. Chassis and cover

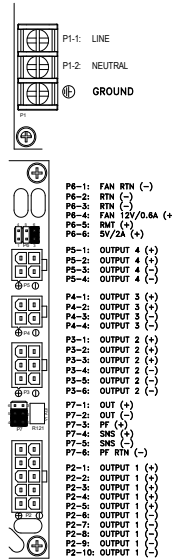
EMC SPECIFICATIONS (IEC 60601-1-2:2014, 4TH ed./IEC 61000-6-2:2005)

Electrostatic Discharge	EN 61000-4-2	±8KV contact / ±15KV air discharge	A
Radiated Electromagnetic Field	EN 61000-4-3	80MHz-2.7GHz, 10V/m, 80% AM	A
Electrical Fast Transients/Bursts	EN 61000-4-4	±2 KV, 5KHz/100KHz	A
Surge Immunity	EN 61000-4-5	±2 KV line to earth / ±1 KV line to line	A
Conducted Immunity	EN 61000-4-6	0.15 to 80MHz, 10V, 80% AM	A
Magnetic Field Immunity	EN 61000-4-8	30A/m, 60 Hz.	A
Voltage Dips	EN 61000-4-11	0% U _T , 0.5 cycles, 0-315° 0% U _T , 1 cycles, 0° 40% U _T , 10/12 cycles, 0° 70% U _T , 25/30 cycles, 0°	100/240V A/A 100/240V A/A 100/240V B/A 100/240V B/A
Voltage Interruptions	EN 61000-4-11	0% U _T , 300 cycles, 0°	100/240V B/B
Radiated Emissions	EN 55011/32	Class B	
Conducted Emissions	EN 55011/32	Class B	
Harmonic Current Emissions	EN 61000-3-2	Class A	
Voltage Fluctuations/Flicker	EN 61000-3-3	Compliant	

NXT-700 MECHANICAL SPECIFICATIONS



CONNECTOR SPECIFICATIONS



P1: 0.325 #6-32 3-position terminal block.

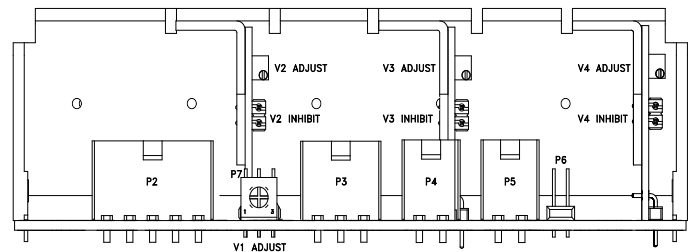
P5 & P4: 5566 Mini-Fit, Jr. header 39-28-8040 mates with 5557 Mini-Fit, Jr. 39-01-2040 or equivalent crimp housing with 5556 Mini-Fit or equivalent crimp terminal.

P3: 5566 Mini-Fit, Jr. header 39-28-8060 mates with 5557 Mini-Fit, Jr. 39-01-2060 or equivalent crimp housing with 5556 Mini-Fit or equivalent crimp terminal.

P6 & P7: 0.100 breakaway header mates with Molex 22-55-2061 or equivalent crimp housing with Molex 70450 or equivalent crimp terminal.

P2: 5566 Mini-Fit, Jr. header 39-28-8100 mates with 5557 Mini-Fit, Jr. 39-01-2100 or equivalent crimp housing with 5556 Mini-Fit or equivalent crimp terminal.

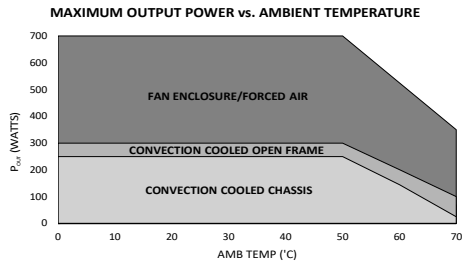
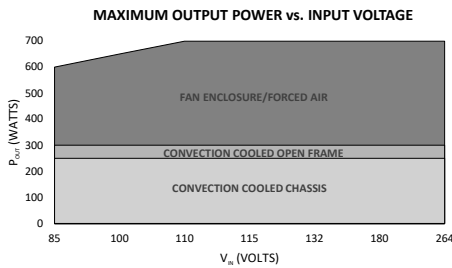
OUTPUT VOLTAGE ADJUSTMENT LOCATIONS



APPLICATIONS INFORMATION

- Each output can deliver its rated current but total output power must not exceed 700W.
- Generally, adequate cooling is provided when semiconductor case temperatures do not exceed 70°C rise and transformer temperature does not exceed 60°C rise at any specified ambient temperature.
- Sufficient area must be provided around power supply to allow natural movement of air to develop in convection-cooled applications.
- This product is intended for use as a professionally-installed component within information technology, industrial, and medical equipment and is not intended for stand-alone operation.
- Minimum load is not required for reliable operation; however, a 5% load may be required on Output 1 when loading Outputs 2, 3 or 4 to full rated current.
- Peak-to-Peak Output Ripple and Noise is measured directly at the output terminals, without the use of the probe ground lead or retractable tip (tip-and-barrel method), 20 MHz.
- This product was type-tested and safety-certified using the dielectric strength test voltages listed in Table 6 of IEC60601-1:2005. In consideration of clause 8.8.3, care must be taken to ensure that the voltage applied to a reinforced insulation does not overstress different types and levels of insulation. Primary and secondary-to-ground capacitors may need to be disconnected prior to performing a dielectric strength type test on the power supply or the end product. It is highly recommended that the DC test voltage listed in DVB.1, annex DVB of UL60601-1 1st Edition are not exceeded during a production-line dielectric strength test of the assembled end product. Please consult factory for further information.
- This power supply has been safety-approved and final-tested using a DC dielectric strength test. Please consult factory before performing an AC dielectric strength test.
- Remote-Sense terminals may be used to compensate for cable losses up to 250mV, depending on model. The use of a twisted pair, decoupling capacitors and an appropriately-rated low-impedance capacitor connected across the load will increase noise immunity.
- Maximum screw penetration into bottom chassis mounting holes is 0.125 inches. Maximum screw penetration into side chassis mounting holes is 0.188 inches.
- To comply with emissions specifications, all four mounting hole pads must be electrically connected to a common metal chassis. Chassis/cover option is recommended. Refer to Operating Instructions for additional information.
- Common RF shielding precautions may need to be taken to assure emissions compliance. Refer to Operating Instructions for additional information.
- Power Fail (AC-Good) feature provides a logic-low warning signal from an open collector transistor output 10-15ms prior to loss of output from AC failure, 5V/10mA.
- 300LFM minimum of airflow must be maintained one inch above all points of top-side components or cover when forced-air cooling is required.
- Outputs 2, 3 and 4 are adjustable from -10% of lowest voltage rating to +10% of highest voltage rating.
- RE/SB enables all outputs with a P6-3 to P6-1 switch closure, 6V Max./50mA.
- Output 2, 3 and 4 Inhibit feature shuts down only that output with a P6-1 to P6-2 switch closure, 45V Max.

MAX P_{OUT} vs. INPUT VOLTAGE/AMBIENT TEMPERATURE



- Derate total output power 4 watts/volt from 700W to 600W below 110 volt input.
- Derate total output power linearly from 100% at 50°C to 50% at 70°C.
- Derate outputs 2, 3 and 4 25% when convection cooled.