



N+1 REDUNDANT SERIES

Fault Tolerant DC Power Supplies in 12 and 24VDC Output



The ICT N+1 Redundant Series is the solution to your critical power needs. The fault tolerant design means that if one power module fails, the remaining modules will seamlessly power the load. The ICT N+1 systems are manually switchable between 120 and 220 VAC input voltages and are available in 13.8 and 27.6 VDC output voltages.

To increase reliability, active current sharing technology is used to distribute the load current equally among the modules, reducing stress on individual components. The N+1 system can accommodate a total of four modules in a single chassis. Each module provides over 450 watts of power. Standard features include 19 inch 2RU rack mount chassis, LED indicators for AC and DC status, and system monitoring outputs using a DB-style connector. Battery back-up terminals are provided for float charging an external lead acid battery with battery revert capability, ideal for communications sites.

Performance and Flexibility

The ICT N+1 Redundant Series is designed for mission critical power needs. Quick-install power modules can be configured with up to 4 modules per chassis depending on requirements. True redundant design means that when configured properly, the failure of a power module will not cause any disturbance to the DC load that the power supply is running. Battery backup terminals are provided as standard to provide a float charge with battery revert capability for seamless load transfer if the AC power fails. You can even order a single module version in 12 or 24VDC output and add additional modules later.

Reliability

The ICT N+1 Redundant Series uses active current sharing in order to balance the load equally across the number of power modules, increasing life expectancy. Premium high-quality power connectors are used to support the entire output current without voltage drop. There is no internal wiring between modules or from modules to the back plane that could reduce the reliability of the system. Only the highest quality ball-bearing fans are used for extra long life.

True Redundant Power

An output OR-ing diode completely isolates a failed power module from the rest of the circuit, preventing harmful feedback to the rest of the system.

Remote Signal Circuitry

The ICT N+1 Redundant Series incorporates a DB-25 connector that provides AC and DC power status signals, alarms for fan failure, power module failure, and over-temperature conditions.

MODEL SELECTION GUIDE

12VDC Output	24VDC Output	Peak Amps
ICT22012-35N		35A
ICT22012-70N		70A
ICT22012-100N		105A
ICT22012-140N		127A
	ICT22024-17N	18A
	ICT22024-35N	36A
	ICT22024-50N	54A
	ICT22024-70N	63A

OPTIONS GUIDE

Description	Add Suffix
Digital Meter	Displays voltage and current (example: ICT22012-70NM) M
ICT12-30	12VDC, 34 Amp Power Module
ICT24-17	24VDC, 17 Amp Power Module

TECH NOTE



TOTAL SYSTEM POWER
1350 Watts (3 X 450W)
With Redundancy

WHAT IS N+1?

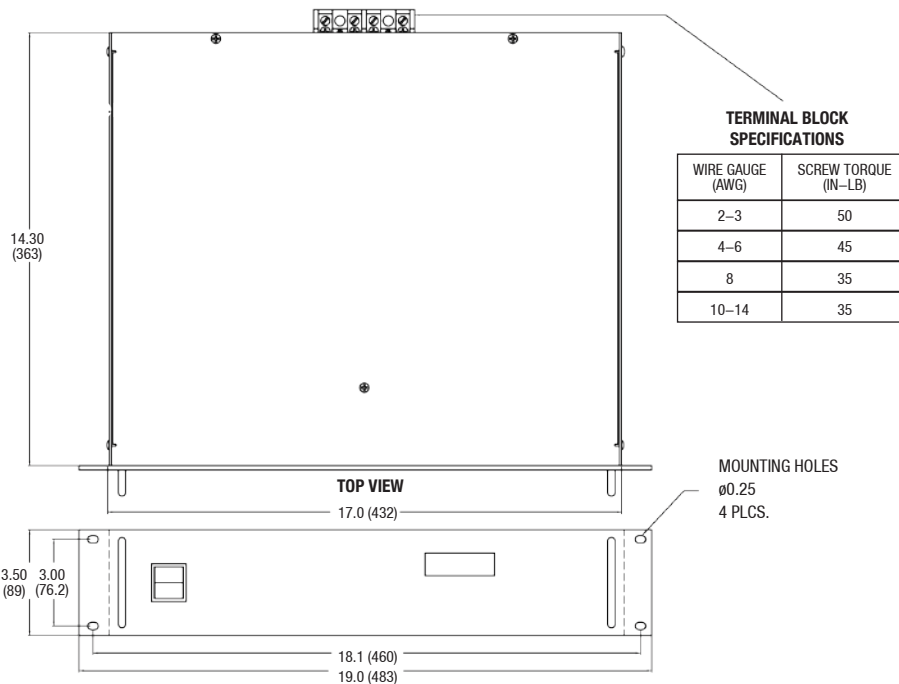
When configuring a system for N+1 redundant operation, size the load in order to allow at least one module to operate in reserve, so that the output load can be maintained even if one module fails.



Specifications

	Model Number	Input Voltage Range	Output Voltage	Output Current (Cont.)	Output Current (Peak)	Current Limiting	No. of Power Modules	Line Regulation	Load Regulation	Output Ripple (Typical)	Efficiency (Typical)	Operating Temperature Range
12VDC Output	ICT222012-35N	105-130/ 205-250VAC	13.8 VDC +/- 150 mV	34 Amps	35 Amps	36A	1	1%	1%	40mV RMS	79%	-46C to +52C
	ICT222012-70N		13.8 VDC +/- 150 mV	34 Amps	70 Amps	80A	2					
	ICT222012-100N		13.8 VDC +/- 150 mV	68 Amps	105 Amps	120A	3					
	ICT222012-140N		13.8 VDC +/- 150 mV	83 Amps	127 Amps	160A	4					
24VDC Output	ICT222024-17N		27.6 VDC +/- 300 mV	17 Amps	18 Amps	19A	1				80%	
	ICT222024-35N		27.6 VDC +/- 300 mV	17 Amps	36 Amps	40A	2					
	ICT222024-50N		27.6 VDC +/- 300 mV	34 Amps	54 Amps	60A	3					
	ICT222024-70N		27.6 VDC +/- 300 mV	41 Amps	63 Amps	80A	4					
Modules	ICT12-30		13.8 VDC	34 Amps	35 Amps	36A					80%	
	ICT24-17		27.6 VDC	17 Amps	18 Amps	19A						

Dimensions



Signal Connector Functions

Connector Type	DB-25
Functions	15VDC and 5VDC AC power good signals Fan failure alarm 0-5VDC system current sense signal Individual power module status (1-4) Over temperature alarm signal DC output voltage signal

Certifications

Safety	CSA C22.2 No.107.1 UL 1012 (6th edition)
Emissions	FCC Class A

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