

OVERALL CHARACTERISTICS

98% throughput efficiency
 Single conversion UPS, 1ms transfer time
 Operating temperature range of 68°F (20°C) to 85°F (30°C) for batteries
 Standard 90 minutes minimum of operating time at full load
 Pulse width modulated (pwm) design
 The Synthesis Zone Inverter is a Made in the USA product.

APPLICATION

Operates incandescent, electronic ballast loads and HID lighting loads as well as critical loads requiring conditioned emergency power

HOUSING

Free standing, NEMA 1 enclosure
 Acid resistant powder coat finish
 Multiple conduit entries
 Refer to chart on back for dimensions

BATTERY

Maintenance free, sealed lead calcium battery with an expected life up to 10 years, and optimum operating range of 68°F (20°C) to 85°F (30°C)*

* Increases or decreases in temperature will affect battery performance. Optimum battery performance realized at 77°F (25°C). Batteries are rated at 100% capacity at 77°F (25°C).

STANDARD METERING/CONTROLS

AC input breaker
 AC output fuse
 Battery disconnect breaker
 LED indicating lamps for system on utility, system on inverter, overload condition, no load connected

Synthesis Zone Inverter

300 - 600 Watts, Sine Wave

Fast Transfer Power Supply for Emergency Lighting Applications

ELECTRONICS

Input

120 or 277 VAC
 Frequency 60.0 Hz ± 2.0%
 Input Voltage Tolerance ±10%
 Input circuit breaker

Output

Solid state PWM inverter with sine wave output
 Output distortion <3% THD (linear load)
 Output fusing standard, circuit breakers optional
 Output frequency 60 Hz ± 2 Hz
 Load power factor capability is 0.5 lagging to 0.5 leading

Overload rating: 150% for 5 seconds

Efficiency: 98%

Charger

Low voltage disconnect (LVD)
 Fully automatic, temperature compensated
 Recharge time: UL 924 compliant
 Battery circuit breaker



SHOWN: ZI300



SHOWN: ZI600

ORDERING INFORMATION



SERIES

ZI = Synthesis Zone Inverter



OUTPUT WATTAGE

300 = 330VA / 300 Watts
 400 = 660VA / 400 Watts
 600 = 660VA / 600 Watts



VOLTAGE CONFIGURATION

120 = 120V
 277 = 277V



FACTORY INSTALLED OUTPUT CIRCUIT BREAKERS

1 = OCB1
 2 = OCB2



OPTIONAL OUTPUT CIRCUIT BREAKER VOLTAGE*

A = 120 VAC
 R = 277 VAC



OPTIONAL OUTPUT CIRCUIT BREAKER RATING

10 = 10 Amps
 15 = 15 Amps
 20 = 20 Amps

* Output circuit breaker voltage must match the system input voltage.

Synthesis Zone Inverter, 300 - 600 Watts

SYSTEM INPUT/OUTPUT

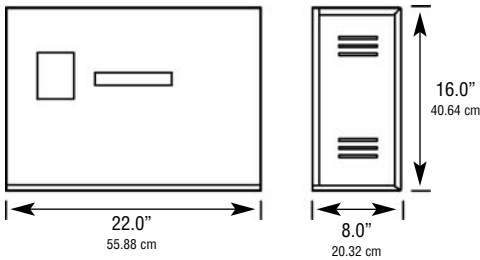
MODEL	CAPACITY	INPUT (select one)	
		AC INPUT VOLTAGES	INPUT AMPS ¹
ZI300	300W	120:277	3.1:1.4
ZI400	400W	120:277	5.8:2.6
ZI600	600W	120:277	6.2:2.8

NOTES:

1) Maximum input current

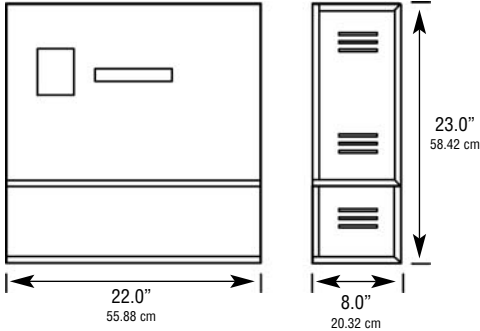
DIMENSIONS/WEIGHTS

ZI300, ZI400



	300W	400W	600W
Cabinet & Batteries	113 lbs. (51.26 kg)	132 lbs. (59.87 kg)	188 lbs. (85.28 kg)

ZI600



WARRANTY

Electronics: 3 years full
 Battery: 1 year full, 9 years pro-rata
 Extended warranty options available



CHLORIDE
SYSTEMS

272 West Stag Park Service Road • Burgaw NC 28425
 Telephone: (910) 259 1000 • Facsimile: (800) 258 8803
www.chloridesys.com

CHLORIDE SYSTEMS

TYPE: _____

CATALOG NO.: _____

Synthesis Zone Inverter, 300 - 600 Watts

SUGGESTED SPECIFICATION

Furnish and install Chloride's Emergency Lighting System known as the Synthesis Zone Inverter with a capacity rating of _____ watts for a minimum of 90 minutes. The system shall produce a sine wave output, and shall be UL listed to Underwriters Laboratories standard 924 and FCC Class A compliant.

Equipment and accessories furnished under the terms of this specification shall be the standard product of a single manufacturer and shall be equal in all respects to those supplied by Chloride. Catalog numbers and model designations which appear herein indicate design, quality and the type of material as well as required operating characteristics. All equipment shall be in compliance with the applicable UL standards, local and national codes.

The connected load shall be powered normally by utility through the Zone Inverter and upon failure of the utility input, the load shall automatically continue to be powered via the Synthesis Zone Inverter system's battery and inverter for a minimum of 1.5 hours. Upon restoration of utility power, the inverter will automatically reconnect the load to the utility power.

The Synthesis Zone Inverter system shall be capable of powering any combination of fluorescent ballasted lamps, HID, incandescent lamps or other approved loads up to the total rating of the system. The system shall automatically protect itself against damage from overloads and short circuits while powered from either utility AC or during emergency inverter operation.

The Synthesis Zone Inverter system shall automatically revert to emergency inverter operation should the average utility AC voltage fall below 80% of nominal line voltage. The system shall use no relays or other moving parts in the main inverter or battery charger circuitry. The power inverter shall be off except during a power failure.

Under inverter emergency operations, output voltage shall be within $\pm 3\%$ of nominal at full static load for the specified discharge period; and the frequency shall be $60.0 \text{ Hz} \pm 2 \text{ Hz}\%$.

During inverter emergency operation, the system efficiency shall not be less than 80%. The AC output to the load shall be isolated from the utility input during inverter emergency operation.

The Chloride Synthesis Zone Inverter battery charger shall be completely automatic, transistor controlled with a programmed reference, and capable of restoring the battery to capacity within UL 924 requirements after restoration of utility power. The charger power shall be obtained from the main power via independent transformer. The charger efficiency shall not be less than 90%. The charger shall be all solid state, and shall automatically maintain the battery in the fully charged condition whenever the utility power is available.

Under emergency mode conditions, the Synthesis Zone Inverter shall be powered by sealed, maintenance-free recombination batteries. The sealed lead calcium battery shall be encased in a high impact, heat resistant, plastic container with a permanently sealed cover. The battery shall operate entirely unattended and require no addition of water for a period of 10 years.

A low voltage disconnect circuit designed to reduce battery discharge during extended power outages, shall monitor the battery voltage and disconnect the inverter when battery voltage drops to approximately 85% of nominal battery voltage.

System metering and controls shall consist of AC input, output and load status indicator lamps. AC input breaker, battery circuit breaker and push to test switch are included.

UNIT CHECK LIST

Catalog No. _____ Wattage Rating: _____
Battery Type: Sealed Lead Calcium Operating Time Hrs. 1 Min. 30
Input: _____ VAC; Single Phase; # of Wires 2
Output: _____ VAC; Single Phase; # of Wires 2

Output Circuit Breakers:

- (1) AC Volts*: _____ Amps: _____
(2) AC Volts*: _____ Amps: _____

*Output breakers must be same voltage

REMARKS: _____

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



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