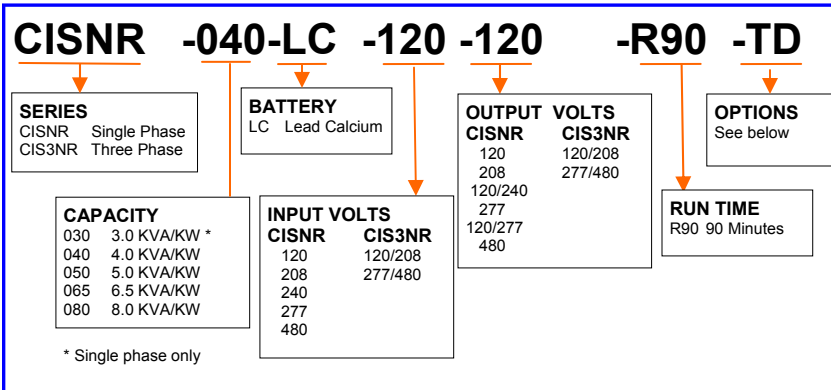


Fixture Type:	
Model Number:	
Project:	

## CISNR SERIES NEMA3R INVERTER SYSTEM



### ORDERING GUIDE



### Features

- Single cabinet design
- NEMA 3R rated powder coated cabinet
- Optional stainless steel cabinet offered
- Seismic Zone 4 rating standard
- Temperature controlled forced air cooling
- Pulse Width Modulated inverter design with IGBT technology
- Single- and 3-Phase models offered
- "Off line" operation for increased reliability and efficiency
- No break, 2ms transfer time
- Self-testing/self-diagnostic operation
- 97% efficiency rating at full load
- Harmonic distortion <3% for linear loads
- Load power factor range .5 lead to .5 lag
- Compatible with all HID, electronic ballast and other non-linear technologies
- Backup generator compatible
- Microprocessor controlled, 20 character display with touch pad controls and functions
- User programmable with password protection
- Internal maintenance bypass switch standard
- Summary Form C alarm contacts standard
- RS-232 communications port
- Corbin lock with # 60 key
- 90 minute operation standard
- Maintenance-free lead calcium battery
- 50°F to 104°F (10°C to 40°C) operating range
- Optional convection heater allows operating range of -4°F to 104°F (-20°C to 40°C)
- UL924 listed

### OPTIONS

- TD** 15-Minute Re-transfer Delay
- OCB** Output Circuit Breaker - See below for details
- AR** Alternate Run Time (Specify Time in Minutes)
- HTR** Thermostatically Controlled Battery Heater
- SNMP** Simple Network Monitoring Protocol
- SSC** Stainless Steel Cabinet
- RMP** Remote Meter Panel
- RAP** Remote Alarm Panel
- EW** Extended Warranty (Includes FS)
- FS** Factory Start-Up (Includes One Additional Year Of Warranty on the electronics portion only)
- MP** Maintenance Program

### OUTPUT CIRCUIT BREAKERS GUIDE

B		A		20	10	T
B Norm On	A 120 volts	Current Rating 10-60 Amps	Quantity 14 w/out Alarm 8 with Alarm	Optional Trip Alarm		
N Norm Off	B 208 volts <sup>1</sup>					
	C 240 volts <sup>1</sup>					
	D 277 volts					
	E 120/208 volts <sup>2</sup>					
	F 277/480 volts <sup>2</sup>					

<sup>1</sup> Double Pole breaker  
<sup>2</sup> Three Pole breaker

### Application

Carpenter's CISNR/CIS3NR Series fast transfer inverter systems feature a weather resistant, NEMA 3R and Seismic Zone 4 rated cabinet for indoor or outdoor applications.

All models are designed to back up critical loads where transfer to emergency mode must be uninterrupted. The CISNR/CIS3NR Series with Pulse Width Modulated design and ultra fast, 2ms switching provides the "no break" performance ideally suited for HID type lighting and other voltage or frequency sensitive loads. Additionally, the system's "off-line" design delivers superior reliability and increased MTBF.

### Construction

**Cabinet:** Freestanding heavy duty NEMA 3R rated steel single cabinet finished in baked-on powder paint providing scratch and corrosion resistance. Cabinet cooling is provided by temperature controlled fans. Optional stainless steel cabinet available on a special order basis

**Cooling:** Convection in standby mode with forced air during emergency mode.

**Access:** Front access via two hinged doors with 3-point latch and Corbin 60 locks

### Installation

**Mounting:** Freestanding cabinet with wall attachment provisions

**Wiring:** Cable entry KOs are located on the sides and bottom of the unit cabinet. All battery cables are provided pre-cut and terminated.

### Code Information

UL924 Listed and meets NFPA 101 Life Safety Code, NFPA 70, NFPA 110, UBC, SBCCI, NEC, OSHA, Local and State Codes

### Dimensions



### Electrical Specifications

#### Input

**Single Phase Input Voltages:** 120, 208, 240, 277 2-wire plus ground

**Three Phase Input Voltages:** 120/208, 240/277, 4-wire plus ground

**Voltage Range:** +10%, -15%

**Input Frequency:** 60Hz  $\pm$  3%

**Synchronizing Slew Rate:** 1 Hz per second nominal

**Power Factor:** 0.5 lead/lag

**Inrush Current:** 1.25 times nominal input current. 10 times 1 line cycle for incandescent loads

**Input Protection:** Circuit breaker

**Harmonic Distortion:** <10%

**Surge Protection:** Meets ANSI C62.41 (IEEE 587) and ANSI C62.42.45 (Cat. A&B) standards

#### Output

**Single Phase Output Voltages:** 120 or 277 2-wire plus ground

**Three Phase Output Voltages:** 120/208, 240/277, 4-wire plus ground

**Static Voltage Stability:** Load current change  $\pm$  2%

**Dynamic Voltage Stability:**  $\pm$  2% for 25% step load,  $\pm$  3% for 50% step load.

**Dynamic Recovery Time:** 3 Hz

**Output Distortion:** <3% THD (with linear load)

**Output Frequency:** 60Hz ( $\pm$  .05Hz in emergency mode)

**Transfer Time:** 2 ms

**Load Power Factor Range:** 0.5 Lead to 0.5 Lag

**Output Power Rating:** kVA = kW

**Overload Protection:** 110% continuous, 125% for 12 line cycles

#### Environmental

**Altitude:** < 10,000 feet (3,000m) above sea level without derating

**Operating Temperature Range:** 50°F to 104°F (10°C to 40°C),

-4°F to 104°F (-20°C to 40°C) with optional heater

**Relative Humidity:** 95% non-condensing

#### Batteries and Charger

**Charger Type:** Fully automatic, microprocessor controlled, temperature compensating charger

**Recharge Duty Cycle:** 24 hours

**Charger Protection:** Fused output and automatic low voltage battery disconnect

**Battery:** Sealed Lead Calcium (5 year life)

**Runtime:** 90 minutes standard - based on battery performance at 77°F (25°C). Other runtimes available, consult factory.

#### Control Panel

**Type:** 2x20-character display with touch pad control, five LED function indicators and alarm enunciator with ring back feature.

#### Communications

**Type:** RS-232 port (DB9) standard on all models.