INVERTERS

INVERTERS

Mini Inverter
Single Phase
Three Phase

STANPRO

YOUR TRUSTED PARTNER

ABOUT US

The Management of Stanpro Lighting Products is committed to constantly provide products that meet or exceed the requirements and expectations of our customers while at the same time making the company successful. Our ISO/IEC 17025 certified laboratory is qualified by CSA International under the CPC (Certification by Category) program which allows us to conduct safety and performance evaluations and to perform over 100 different tests on our products. This allows Stanpro to certify new custom products quickly and launch to the market. Stanpro's target is to maintain and improve its quality through programs that enable employees to do their job right the first time and use the best suppliers that share these same values. Our team consists of some of the most knowledgeable and recognizable people in the Canadian emergency and lighting industry.

NEW PRODUCT DEVELOPMENT

Our engineering and marketing team is composed of specialists ranging from a variety of technical backgrounds which allows us to develop a multitude of new products to meet today's market needs and requirements. Our focus is to design innovative products at a competitive price to set ourselves ahead of our competition while maintaining industry standards such as long life and energy efficiency.

CUSTOMER SATISFACTION

Customer satisfaction is the company's main priority: we want to be our customers' preferred supplier. Our customer service department is comprised of highly trained, knowledgeable and bilingual sales representatives whose only goal is to meet the needs of the customers. Sales staffs are continuously trained to keep them abreast of the latest lighting trends, technologies and developments so they may actively serve customers, resolve issues, initiate changes, and teach co-workers. Our technicians have extensive academic and practical experience with degrees in engineering and administration, allowing us to offer technical support in the retail, distribution and manufacturing sectors. Stanpro's management is dedicated to its customers, employees and safety.

THE IMPORTANCE OF EMERGENCY SYSTEMS

Public buildings bear a substantial electrical load, particularly due to daily lighting requirements. While the power supply fulfills daily electrical needs, unforeseen events like power outages, fires, or fluctuations can result in a loss of power. In such critical situations, reliable electrical backup systems are indispensable.

Enter the Emergency Inverter Systems also know as Inverters, these systems constantly monitor the building's utility supply and swiftly respond to instances of power loss. They provide electricity to lighting and power loads necessary for safe building evacuation (egress).

WHY DO WE NEED INVERTERS?

NEED FOR EMERGENCY SYSTEMS

Public buildings carry an electrical load. Daily lighting uses a lot of electricity. The power used supplies daily electrical needs, but in emergency situations such as power outages, fire or power fluctuations, that power could be lost. In these situations, electrical back-up systems are needed. These systems, aka Inverters,

automatically monitor the incoming utility to the building and react when the situation of lost power occurs. supplying electricity to the lighting and power loads, required to safely exit the building (egress).

HOW DO EMERGENCY SYSTEMS WORK?

Standard electrical systems run on AC power. Emergency lighting loads also run on AC power, usually as "normally-ON" or "normally-OFF" lighting. On occasion, back-up will be needed for a mix of both on and off lighting. Inverter systems are made up of a set of DC batteries and electronics that can convert the DC power from the batteries into an AC power source needed for the emergency lighting loads. Emergency inverter systems will provide enough emergency AC power for the required time to exit the building if necessary.

WHY USE AN INVERTER OVER EMERGENCY LIGHTING?

When a building is so vast and requires more lighting than just remote heads, it makes economic sense to use an Inverter instead of running thousands of feet of wire and pipe. Also with an inverter there is only one point of service, unlike many emergency lighting units and remotes. For applications such as warehouses which are congested with racking, traditional emergency heads cannot be placed properly for direction or could be hidden all together.

HOW DO INVERTERS PERFORM WITHOUT EMERGENCY REMOTES?

The inverter normally is sized to take 25% of the lighting load. This allows regular lighting, to also act as emergency lighting during power failure to illuminate the designed path of egress The inverter load requirement could also include all exit or pictogram signage.

WHAT ARE OTHER BENEFITS?

Designers have always believed that emergency lighting in general is unattractive and obtrusive. The inverter is typically hidden in an electrical room, out of site. Also there are no remotes anywhere since existing lighting (fluorescent, LED, HID and induction) is being utilized. The integrity of the esthetics are not harmed.

SLC-MIV

The SLC-MIV pure sine wave inverter represents a unique approach to power failure lighting applications. Pure sine wave inverters are ideal, as opposed to square and modified wave inverters, which will break down electronic ballasts and drivers prematurely. Stanpro's SLC-MIV pure sine wave inverter was designed to run up to 1 440 W of normally ON or OFF LED, CFL or fluorescent, incandescent lighting fixtures.

SNM

The SNM Inverter features the industry's smallest cabinetry, even when all optional equipment is incorporated. It can be either wall of floor mounted. Our fast transfer technology is 98% efficient and can support all lamp sources including HID and LED.

SNP

The SNP is a fast transfer central inverter system for HID and motor loads. The system features a single-cabinet design for units up to 16.7 kW, reducing the footprint and installation cost. With advanced communication features, the SNP offer the total solution.

SNR

The SNR is a single phase inverter, designed with the industry-leading compact footprint and are available with robust communication options. These highly efficient systems range from 1.75 kW to 16.7 kW.

SNJ

The SNJ three phase emergency lighting inverter provides up to 50 kW of backup power for larger facilities and campuses.

SNQ

The SNQ inverter is our sleekest and smartest three-phase units. The equipment has been designed with industry leading compact footprint and feature many communication options, such as the new IoT Inverter Connect cloud connectivity solution. The modular battery cabinet configurations optimize mechanical space requirements. These highly efficient systems range from 5 kW to 50 kW and are perfect for all commercial applications.

INTRODUCING THE SLC-MIV PURE SINE WAVE INVERTER:

REDEFINING POWER FAILURE LIGHTING

A reliable and efficient solution for power failure lighting applications, the SLC-MIV Pure Sine Wave Inverter sets itself apart with its unique approach. Unlike square and modified wave inverters that can cause premature breakdown of electronic ballasts and drivers, our pure sine wave inverter ensures optimal performance and longevity.

Designed specifically for lighting fixtures, the SLC-MIV Pure Sine Wave Inverter from Stanpro delivers exceptional results. It can power up to 1 440 W of both normally ON or OFF LED, CFL, fluorescent, and incandescent lighting fixtures, providing versatile and dependable lighting solutions.

KEY FEATURES:

1. Pure Sine Wave Output: The SLC-MIV generates a clean and stable pure sine wave output, ensuring compatibility with a wide range of lighting technologies. This prevents any potential damage or reduced lifespan that square or modified wave inverters may cause.

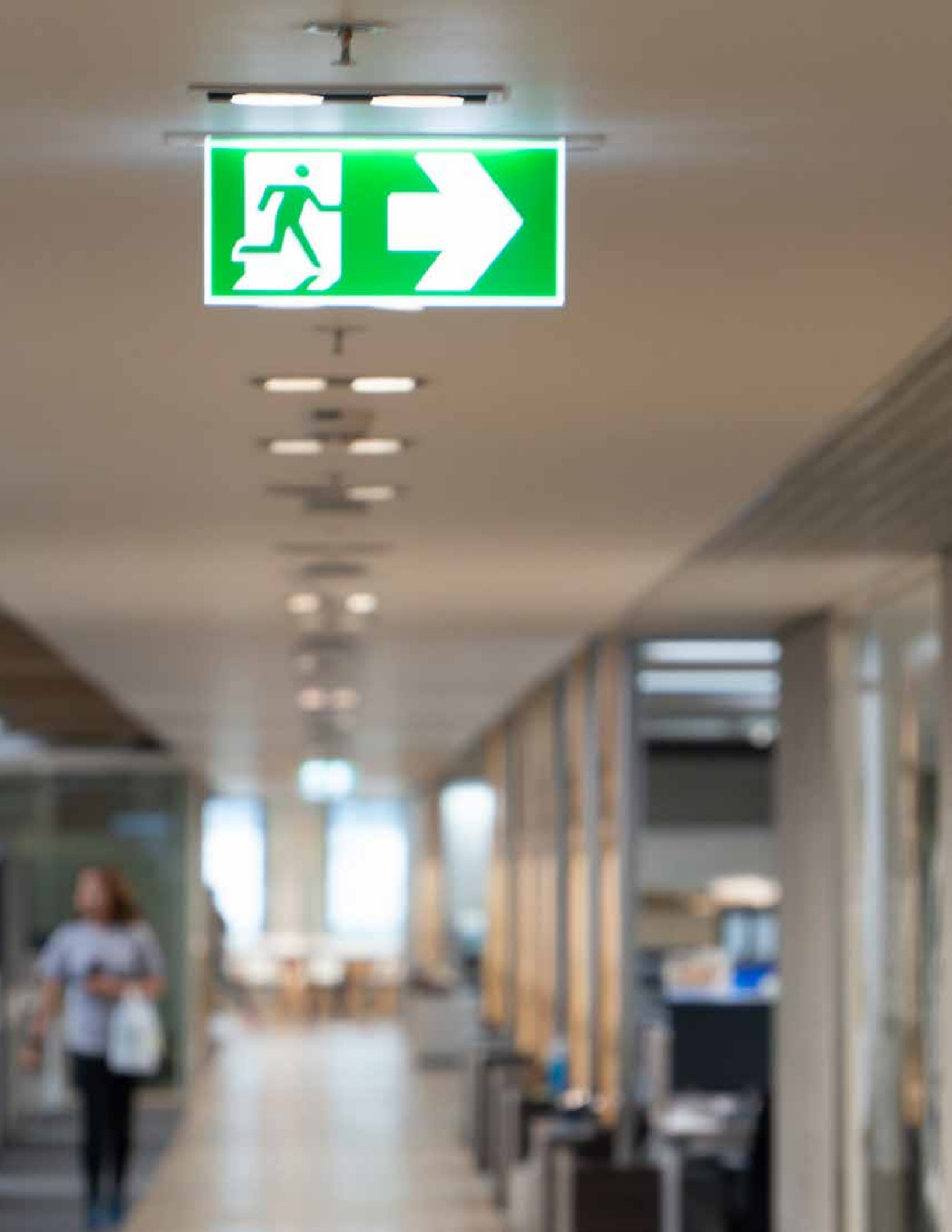
2. Versatile Lighting Support: Whether your lighting fixtures operate in normally ON or OFF mode, our inverter can seamlessly power LED, CFL, fluorescent, and incandescent lights. Enjoy consistent illumination during power failures without compromising on performance or functionality.

3. High Power Capacity: With an impressive capacity of up to 1 440 W, the SLC-MIV can support a substantial number of lighting fixtures, providing ample coverage for various commercial, residential, or industrial applications.

4. Reliability and Longevity: Our pure sine wave inverter is designed for durability, ensuring long-lasting performance even under demanding conditions. Benefit from a robust solution that safeguards your lighting investment.

5. Seamless Integration: The SLC-MIV inverter integrates smoothly with your existing lighting infrastructure, making it a convenient and hassle-free choice for power failure lighting applications.

Experience the Difference: Choose the SLC-MIV Pure Sine Wave Inverter from Stanpro and revolutionize your power failure lighting systems. With its superior performance, versatility, and reliability, our inverter is the ideal choice for maintaining uninterrupted lighting when it matters most. Trust in Stanpro's commitment to excellence and elevate your lighting solutions to new heights



Series spec sheet

SLC-MIV

PURE-SINE WAVE IPS MINI-INVERTER

The SLC-MIV pure sine wave inverter represents a unique approach to power failure lighting applications. Pure sine wave inverters are ideal, as opposed to square or modified wave inverters, which will break down electronic ballasts and LED drivers prematurely. Stanpro's pure sine wave inverter was designed to run up to 1 440 W for 30 minutes on normally ON and OFF LED, CFL, fluorescent or incandescent lighting fixtures.

FEATURES AND SPECIFICATIONS

- **Construction**

  Normally OFF

  By combining a battery unit and off-line inverter with superior 120 V or 347 V lighting performance for all types of lighting fixtures, the SLC-MIV provides exceptional power failure lighting. The typically configured battery unit is paired with an off-line, internally mounted, pure-sine wave inverter. When AC power is present there is no output and the connected fixtures are off, when the AC power fails, the unit outputs 120 V AC or 347 V AC to the connected lighting fixtures at 100% brightness.

  Normally ON

  This feature is easily activated by connecting a normally-ON lighting circuit to the unit. When AC power is present there is output and the connected lighting fixtures are on. When the AC power fails, the output is then transferring instantaneously to the power failure mode of the inverter and the connected lighting fixtures stay on.

- **Electrical**
  - 120 V AC input / 120 V AC output or 347 V AC input / 347 V AC output
  - Transfer time of 400ms
  - Momentary push button test switch
  - Diagnostic/pilot LEDs for AC ON and CHARGE
  - Fully automatic, current limited charger
  - Line latched, low voltage protection
  - Brownout and short circuit protection
  - Terminal block connectors for output load
  - Dimming override control is standard
  - Auto transfer switch for normally-on lighting circuit
  - Maintenance free, sealed lead acid battery(s)

  Overload protectors:
  - **1 000 W:** Fuse allowing max load of 175 A and board protector with protection up to 1 100 W
  - **1 440 W:** Fuse allowing max load of 175 A and board protector with protection up to 1 500 W
  - **Optional automatic-testing, self-diagnostic charger:**
    - Continuously monitors the unit's status
    - Automatically performs battery load testing and auto-cycling at preset intervals
    - Indicates malfunctions or auto-test failures
    - May accept load to 80% capacity when load feature power factor of 0.9 or more

- **Mechanical**
  - 18 Gauge steel construction (cabinet A and B), 16 Gauge steel construction (cabinet C)
  - Universal spider knockout pattern and keyhole mounting slots stamped into back of cabinet
  - Multiple conduit entry knockouts
  - Air intake and exhaust fan placed on the sides for 1 000 W and more
  - White powder coat finish standard
  - Separate battery compartment

- **Approvals**
  - CSA certified to C22.2 #141-15

TYPICAL SPECIFICATION

TYPICAL SPECIFICATION

1. Supply and install The Stanpro SLC-MIV mini-inverter designed to provide power output based on the input voltage, either 120 V AC or 347 V AC. The SLC-MIV features a transfer time of 400ms, a momentary push-button test switch, diagnostic LEDs for AC ON and CHARGE indication, a fully automatic current-limited charger, line-latched low voltage protection, and brownout and short circuit protection. The device includes terminal block connectors for output load, standard dimming override control, an auto transfer switch for normally-on lighting circuits, and maintenance-free sealed lead-acid battery(s). The SLC-MIV also incorporates overload protectors and is constructed using steel cabinets with knockout patterns, keyhole mounting slots, multiple conduit entry knockouts, and air intake/exhaust fans for models with 1,000 W and above. The device is finished with a white powder coat and includes a separate battery compartment the SLC-MIV shall be CSA certified to C22.2 #141-15.

2. Electrical Specifications:

- Input Voltage: 120 V AC or 347 V AC
- Output Voltage: 120 V AC or 347 V AC
- Transfer Time: 400ms
- Push-Button Test Switch: Momentary type
- Diagnostic LEDs: AC ON and CHARGE indication
- Charger Type: Fully automatic, current-limited
- Protection Features: Line-latched low voltage protection, brownout protection, short circuit protection
- Output Load Connectors: Terminal block connectors
- Dimming Override Control: Standard feature
- Auto Transfer Switch: Included for normally-on lighting circuits
- Battery Type: Maintenance-free, sealed lead-acid
- Overload Protection:
  - 1,000 W Model: Fuse allowing a maximum load of 175 A and board protector with protection up to 1,100 W
  - 1,440 W Model: Fuse allowing a maximum load of 175 A and board protector with protection up to 1,500 W

3. Mechanical Specifications:

- Cabinet Construction:
  - Cabinet A and B: 18 Gauge steel construction
  - Cabinet C: 16 Gauge steel construction
- Mounting Options: Universal spider knockout pattern and keyhole mounting slots stamped into the back of the cabinet
- Conduit Entry Knockouts: Multiple knockouts provided
- Air Intake/Exhaust: Side-mounted fans for models with 1,000 W and above
- Finish: Standard white powder coat finish
- Battery Compartment: Separate compartment for battery storage

4. Approvals:

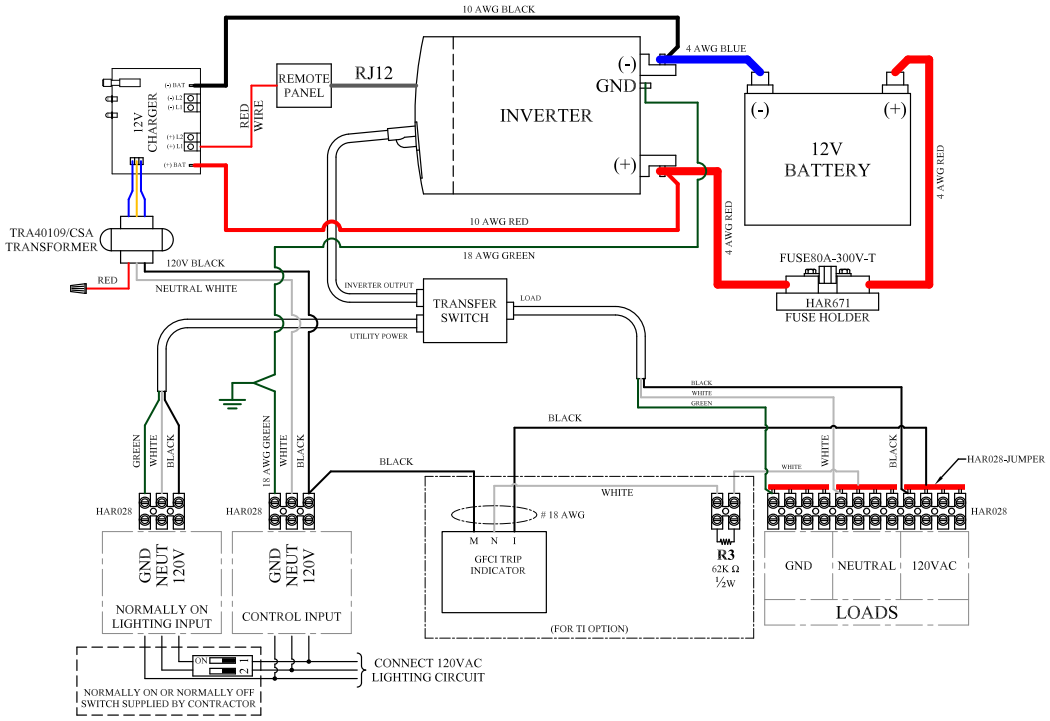
- CSA Certification: Certified to C22.2 #141-15 standards

The Stanpro SLC-MIV shall be model number _____

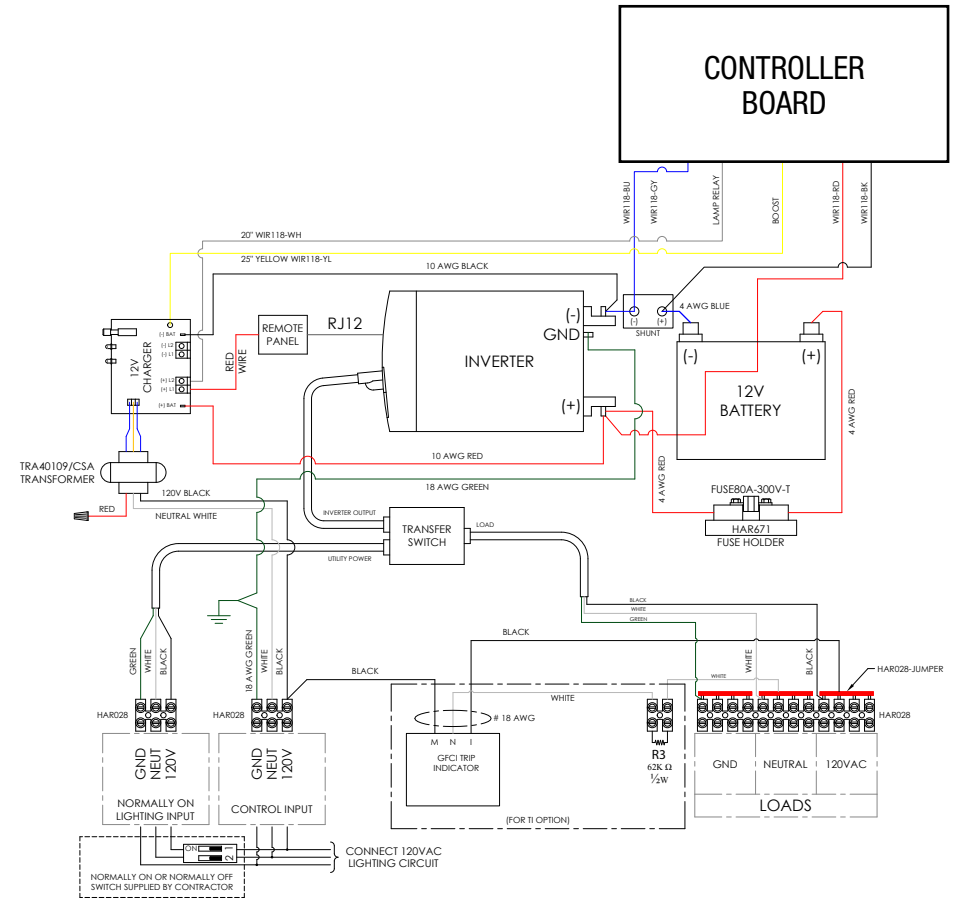
SLC-MIV

NORMALLY ON 120 V

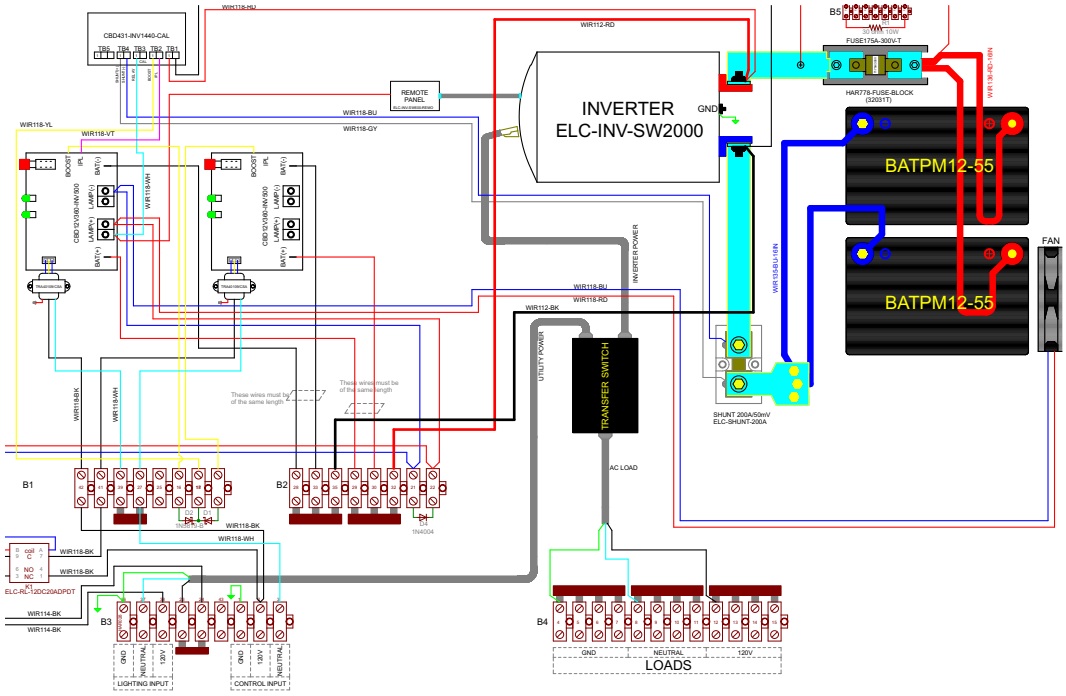
320 W



500 W

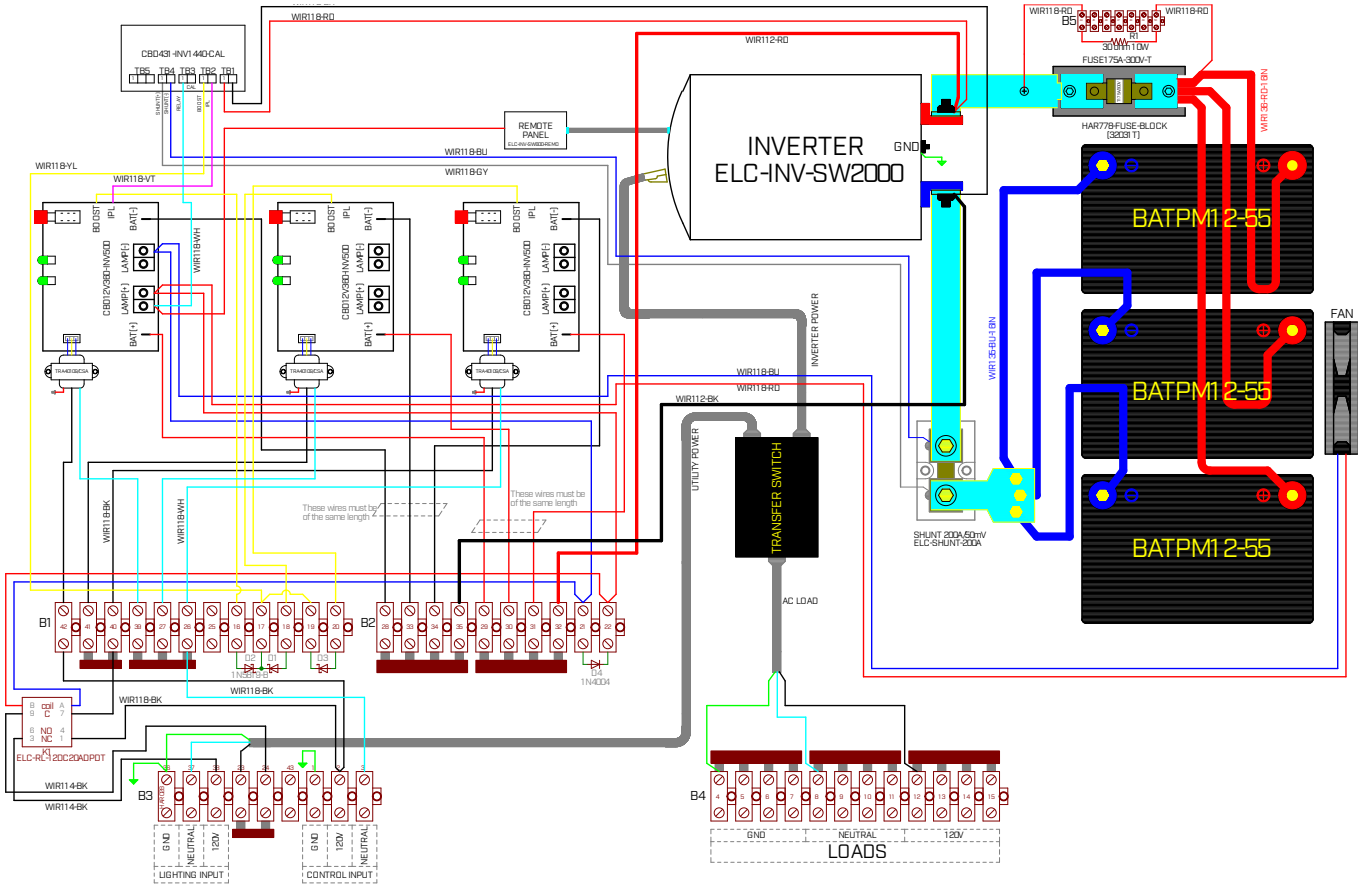


1 000 W


CBD431-INV1440-CAL
INVERTER
ELC-INV-SW2000
GND
REMOTE PANEL
FUSE175A-300V-T
HAR778-FUSE-BLOCK (32031T)
BATPM12-55
BATPM12-55
FAN
SHUNT 200A/50mV
ELC-SHUNT-200A
TRANSFER SWITCH
UTILITY POWER
INVERTER POWER
AC LOAD
B1
B2
B3
B4
B5
GND
NEUTRAL
120V
LOADS
LIGHTING INPUT
CONTROL INPUT
ELC-RC-12DC20ADPDT

MOST POPULAR SETUP

1 440 W



INTRODUCING OUR FAST TRANSFER TECHNOLOGY

INTRODUCING OUR FAST TRANSFER TECHNOLOGY

Experience a highly efficient and seamless power transfer within our cutting-edge inverter systems. Our innovative systems utilize PWM (Pulse Width Modulation) technology and IGBTs (Isolated Gate Bi-Polar transistors) to swiftly transfer power from the utility to batteries in just 2mS. When a voltage drop is detected (approximately 10% below the required level), these advanced devices seamlessly switch the power source to the batteries.

DISCOVER THE MULTITUDE OF ADVANTAGES OUR SYSTEMS OFFER:

1. Uninterrupted Performance: With our fast transfer technology, enjoy a no-break system that ensures your connected load acts as emergency light fixtures, and continues to operate at full capacity without any decrease in lumen output.

2. Versatile Compatibility: Any fixture designed to operate from the utility grid can seamlessly function from our inverter in emergency mode, granting you the freedom to design your system without limitations.

3. Enhanced Efficiency: Our full-size systems boast exceptional efficiency rates of 98% or higher. This remarkable efficiency not only results in lower operating costs during normal mode but also reduces heat loss, leading to decreased expenses for conditioning the space.

4. Cost Savings: Thanks to our system's efficiency, you can expect reduced energy waste and lower utility bills, ensuring cost-effective operation over the long term.

5. Integrated Lighting Control: Our fast transfer technology harmonizes seamlessly with all lighting control systems. While some systems may not detect this rapid transfer, our "0" (output transfer delay) option is specifically designed to accommodate such systems. This means that in utility mode, you can harness the advantages of our fast transfer system while utilizing your preferred lighting controls.

Discover the power of our Fast Transfer Technology and unlock a new level of efficiency, reliability, and flexibility for your power management needs

INVERTER.CONNECT

Inverter Connect is a cloud-based platform that allows users to monitor and receive alerts about their emergency lighting inverter systems. IoT Inverter Connect streamlines system communications and sends users notifications on their computers, tablets or smartphone devices. The web-based platform allows any device that connects to the internet to log in to the system.

Enhances Building Safety

- Proactively monitors & notifies of critical issues that could affect building safety.
- Proactive maintenance solidifies confidence that the lights will illuminate during an emergency.

Saves Times

- User-friendly design makes it easy to find the most crucial information quickly.
- Easy-to-use dashboard enables a status check of a fleet of inverters from anywhere.

Connectivity

- Receive status and alarm notifications by SMS and/or email.
- See the results of your inverters' periodic self-tests. View detailed real-time inverter telemetry.
- Accessible from any device connected to the internet.

Future-Ready Design

- Software is adaptable to meet the demands of future technological advances.

STANPRO

System Display Functions

ADVANCED TECHNOLOGY

Designed with Pure Sine Wave technology, the SNM series inverters provide direct AC power and full illumination to all lighting sources. With industry-leading efficiencies, they run cool and reduce the overall operating costs of emergency lighting systems.

DESIGNED WITH THE FIELD IN MIND

The small cabinet, with wall or floor mount capabilities, allows clients to install the system virtually anywhere in the building with minimal space requirements. All SNM lighting inverters perform and log the monthly and yearly tests as required by the national building codes, and the intelligent front meter panel allows easy access to this information. In addition, this front meter panel displays system status and allows for real time diagnostics of the system's electronics.

Meter Functions

- AC Voltage Input
- AC Voltage Output
- AC Current Output
- Battery Voltage
- System Days
- Battery Current
- VA Output
- Inverter Watts
- Ambient Temperature
- Inverter Minutes

Program Functions

- Date
- Time
- Month Test Date / Time
- Yearly Test Date / Time
- Load Fault Reduction Setting
- Low Battery Alarm
- Near Low Battery Alarm
- Low AC Voltage Alarm
- High AC Voltage Alarm
- Ambient Temperature Alarm

Control Functions

- Test Log & Event Log
- 75 Logs Stored
- Date, Time, Duration
- Output Voltage
- Output Current
- Ambient Temperature
- Alarms Preset
- Alarm Log
- 75 Logs Stored
- Date, Time, Alarm Type
- Test
- Buzzer On / Off

SNM

INTERMEDIATE INVERTER

The SNM inverter features the industry's smallest cabinetry, even when all optional equipment is incorporated. It can be either wall or floor mounted. Our fast transfer technology is 98% efficient and can support all lamp sources including HID and LED.

FEATURES AND SPECIFICATIONS

- **Standard Features**
  - 98% Efficient (Typical)
  - 65KAIC Input Rating
  - NFPA 101 Self Testing and Data Logging
  - User Programmable with Password Protection
  - Automatic Event, Test and Alarm Log
  - Compatible with all lighting loads including HID/ LED
  - Input Circuit Breaker
  - One Output Circuit Breaker
  - No Break 2ms Transfer Time
  - Wall Hung Units (No Mounting Brackets)
  - RS-232 Communication Port

- **Optional Features**
  - Enhanced Communications
    - Expanded Building Management Protocols
    - BACnet or Modbus Communications Interface
    - NEW IoT Connect Cloud Software
  - Internal or External Maintenance Bypass
  - Summary Form C Contacts
  - Status Monitoring Contacts
  - Output Circuit Breakers
  - Normally Off Output with Variable Time Delay
  - Output Trip Alarms
  - Remote Summary Alarm Panel
  - Wall Brackets, Floor, or Seismic Mounting

- **Specifications**
  - Input Voltage: 120, 277, 347VAC 1 Phase 2 Wire Plus Ground
  - Output Voltage: 120, 277, 347VAC 1 Phase 2 Wire Plus Ground
  - Output Load Power Factor .5 Lag to.5 Lead
  - Output Distortion Less than 3% THD for Linear Loads
  - Forced Air Cooling Only During Emergency Operation; No Filters Required
  - Electronic and Magnetic Ballast Compatible
  - Generator Compatibility
  - Custom Voltages Available
  - 30, 60, 90 and 120 Minute Run Time Standard

- **Approvals**
  - cUL to CSA 22.2 #141-15

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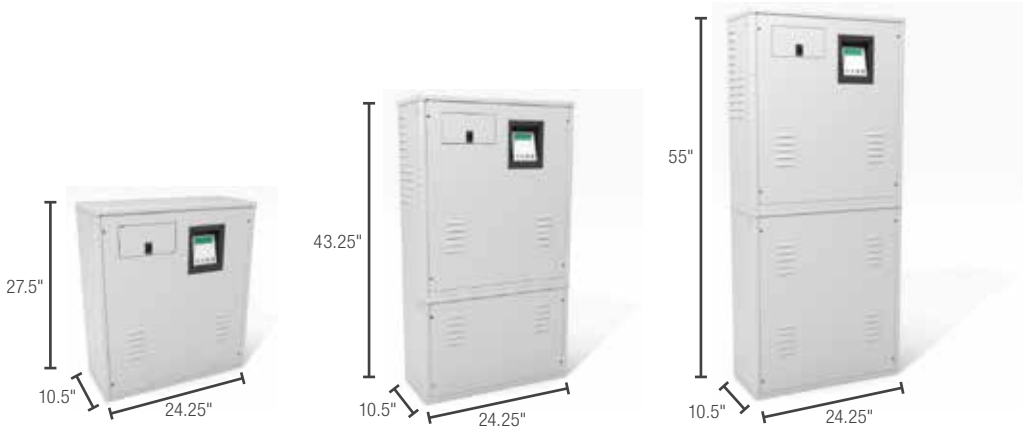
Series	Voltage Input-Output	Capacity Rating (W)	Battery Type	Output Breakers[1]				Options	
				Output	Voltage/Poles	Amp Rating	Quantity[2]		
SNM30	A-A - 120 Input; 120 Ouput	1 000	S - Standard	0 - Normally On	A - 120V 1-Pole	10	T01	**Standard Features**	
SNM60		1 600		F - Normally Off	B - 208V 2-Poles	16	T02	C -	Status Monitoring Contacts Dry Form C
SNM90	A-AE - 120 Input; 120/277 Ouput	2 200			C - 240	20	T03	DT -	Drip Top (NEMA 2)
SNM120		2 800			E - 277	25	T04	**Optional Features**	
	B-A - 208 Input; 120 Ouput				H - 347	32	T05	BBM -	Internal Maintenance Bypass (Break-Before-Make)
						40	T06	BL -	Circuit Breaker Lock(s)
	C-AC - 240 Input; 120/240 Ouput					50		BS -	Battery Strapping
						63		BTM -	Battery Temperature Monitor
	E-A - 277 Input; 120 Ouput							L -	Load Control Relay (Line Voltage Dimmer or Switch Bypass)
								MBB -	Internal Maintenance Bypass (Make-Before-Break)
	E-E - 277 Input; 277 Ouput							O -	Output Transfer Delay
								P -	Remote Status Panel (Requires Option C)
	E-EA - 277 Input; 277/120 Ouput							RA -	Remote Summary Alarm Panel
								S -	Summary Fault Form C Contacts
	B-AC - 208 Input; 120/240 Ouput							PICK 1	
								BIP -	BACnet IP
	B-AB - 208 Input; 120/208 Ouput							IOT -	IoT Inverter Cloud Connect
								MIP -	Modbus TCP/IP
	H-H - 347 Input; 347 Ouput							PICK 1	
								BLANK -	Standard Wall
								FL -	Floor Mount Bracket (Adds 4"" to total system height)
								SM -	Seismic / Raised Floor (Adds 4"" to total system height)
								W -	Wall Mount Brackets

OPTION TABLE

Option Code	Option Name	Description
BBM	Internal Maintenance Bypass Break Before Make	Toggle switch designed to disconnect inverter from electrical system for maintenance (Break Before Make)
BIP	BACnet IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
BL	Output Circuit Breaker lock(s)	Allows customer to lock the output circuit breaker in on or off position
BS	Battery Strapping	Strapping of the batteies to stop movement
BTM	Battery Temperature Monitor	1. Warning alarm: warns when battery temperature is getting too high. 2. Absolute alarm: when temperature reaches high temp this shuts down the string of batteries where the hot battery is.
C	Status Monitoring Contacts	5 form C dry contacts: 1. System in Bypass 2. Summary Alarm: any alarm in the FMP 3. Output trip alarm 4. Utility failure 5. Inverter on
DT	Drip Top (NEMA 2)	Metal piece designed to direct falling water away from the unit
EMBP	External Maintenance Bypass (Make-Before-Break)	Maintenance bypass switch mounted external to the system. Cannot use with output circuit breakers
FL	Floor Mount Bracket (add 4" to height of system)	Allows client to get the EM off the floor
IOT	IOT inverter Connect Cloud communication	System using the Cloud to allow monitoring of multiple systems in one location
L	Load Control Relay Dimmer or Bypass Switch	Load Control Relay (Line Voltage Dimmer or Switch Bypass) – EQUAL TO AN LVS EPC-2-D
MBB	Internal Maintenance Bypass Make Before Break	Toggle switch designed to disconnect inverter from electrical system for maintenance (Make Before Break)
MIP	Modbus TCP/IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
O	Output Transfer Delay	Device designed to delay transfer adjustable 0-7.5 seconds, factory set at 3 seconds. Used when control system cannot detect the fast transfer.
P	Remote Status Panel (Status alarms, Requires C Option)	Single gang box showing status of alarms, requires C option
R	Remote Meter Panel	Full size meter panel mounted remotely in a NEMA 1 enclosure
RA	Remote Summary Alarm Panel	LED indicator and Sound alert
S	Summary Fault Form C contacts	Relay contact showing any alarm
SM	Seismic Mounting	Instructions and hardware for mounting system in standard seismic applications
T	Output Trip Alarm	Alarms when any output circuit breaker is tripped
W	Wall Mount Bracket	Bracket for mounting system on the wall

DIMENSIONS



Power Rating (kW)	Voltage IN-OUT	Cabinet Dimensions				Batteries		Total System Weight
30 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	
1	120 OR 277	24.25	27.5	10.5	121	4	93	214
	347		43.25		199			292
1.6	120 OR 277	24.25	43.25	10.5	165	6	139	304
	347		55		237			376
2.2	120 OR 277	24.25	43.25	10.5	171	8	186	357
	347		55		237			423
2.8	120 OR 277	24.25	55	10.5	203	10	232	435
	347		70.75		281			513

Power Rating (kW)			Voltage IN-OUT	Cabinet Dimensions				Batteries		Total System Weight
60 min.	90 min.	120 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	
1	0.9	0.8	120 OR 277	24.25	27.5	10.5	121	4	146	267
			347		43.25		199			345
1.6	1.44	1.28	120 OR 277	24.25	43.25	10.5	165	6	218	383
			347		55		237			455
2.2	1.98	1.76	120 OR 277	24.25	43.25	10.5	171	8	291	462
			347		55		237			528
2.8	2.52	2.24	120 OR 277	24.25	55	10.5	203	10	364	567
			347		70.75		281			645

HEAT LOSS TABLE

30 Minute Run Time		60 Minute Run Time		90 Minute Run Time		120 Minute Run Time	
Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)
1.00	68	1.00	68	0.90	61	0.80	55
1.60	109	1.60	109	1.44	98	1.28	87
2.20	150	2.20	150	1.98	135	1.76	120
2.80	191	2.80	191	2.52	172	2.24	153


No. 2

SNP

SINGLE PHASE INVERTER

The SNP is a fast transfer central inverter system for HID and motor loads. The system features a single-cabinet design for units up to 16.7 kW, reducing the footprint and installation cost. With advanced communication features, the SNP offers the total solution.

FEATURES AND SPECIFICATIONS

- **Construction**
  - 98% Efficient (Typical)
  - PWM/IGBT Technology
  - Micro-Processor Control
  - User Programmable with Password Protection
  - Automatic Event, Test and Alarm Log
  - RS232 Communications Port
  - Input Circuit Breaker
  - 2ms Transfer Time
  - Low Audible Noise
  - Space-Saving, Single Cabinet Design
  - 65kAIC Withstand Rating

- **Optional Features**
  - Enhanced Communications
    - Expanded Building Management Protocols
    - BACnet or Modbus Communications Interface
    - IoT Connect Cloud Software
  - Internal Maintenance Bypass
  - Summary Alarm Dry Form C Contacts
  - Status Monitoring Dry Form C Contacts
  - Remote Meter Panel
  - Output Circuit Breakers
    - 1 500-5 000W: 8 supervised
    - 6 000-16 700W: 18 supervised
  - Factory Startup and Training
  - Normally Off Output
  - Output Trip Alarms
  - Remote Summary and Remote Status Alarm Panels

- **Specifications**
  - Input 120, 277, 347VAC 1 Phase 2 Wire Plus Ground
  - Output 120, 277, 347VAC 1 Phase 2 Wire Plus Ground
  - Output Load Power Factor .5 Lag to.5 Lead
  - Compatible with all LED Drivers
  - Forced Air Cooling Only During Emergency Operation, No Filters Required
  - Output Distortion Less than 3% THD for Linear Loads
  - Generator Compatibility
  - Custom & Mixed Voltages Available
  - 30, 60, 90 and 120 minutes runtime available

- **Approvals**
  - cUL to CSA 22.2 #141-15

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Series	Voltage Input-Output	Capacity Rating (W)	Battery Type	Output Breakers[1]				Options	
				Output	Voltage/Poles	Amp Rating	Quantity[2]		
SNP30	A-A - 120 Input; 120 Ouput	1 500	S - Standard	0 - Normally On	A - 120	10	T01	**Standard Features**	
SNP60		2 250		F - Normally Off	B - 208	16	T02	C -	Status Monitoring Contacts Dry Form C
SNP90	A-AE - 120 Input; 120/277 Ouput	3 000			C - 240	20	T03	DT -	Drip Top (NEMA 2)
SNP120		3 750			E - 277	25	T04	**Optional Features**	
	B-A - 208 Input; 120 Ouput	5 000			H - 347	32	T05	BBM -	Internal Maintenance Bypass (Break-Before-Make)
		6 000				40	T06	BL -	Circuit Breaker Lock(s)
	C-AC - 240 Input; 120/240 Ouput	8 000				50	T07	BTM -	Battery Temperature Monitor
		10 000				63	T08	F -	Fast Charge
	E-A - 277 Input; 120 Ouput	12 500					T09	I -	Inverter On Dry Form C Contacts
		16 700					T10	L -	Load Control Interface (Dimmer / Switch Bypass)
	E-E - 277 Input; 277 Ouput						T11	MBB -	Internal Maintenance Bypass (Make-Before-Break)
							T12	O -	Output Transfer Delay
	E-EA - 277 Input; 277/120 Ouput						T13	P -	Remote Status Panel (Requires Option C)
							T14	R -	Remote Meter Panel
	B-AC - 208 Input; 120/240 Ouput						T15	RA -	Remote Summary Alarm Panel
							T16	S -	Summary Dry Form C Contacts
	H-H - 347 Input; 347 Ouput						T17	SM -	Seismic Bracing/Mounting[3]
							T18	PICK 1	
	B-AB - 208 Input; 120/208 Ouput							BIP -	BACnet IP
								IOT -	IoT Inverter Cloud Connect
								MIP -	Modbus TCP/IP

Option Code	Option Name	Description
BBM	Internal Maintenance Bypass (Break-Before-Make)	Toggle switch designed to disconnect inverter from electrical system for maintenance (Break Before Make)
BIP	BACnet IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
BL	Output Circuit Breaker lock(s)	Allows customer to lock the output circuit breaker in on or off position
BTM	Battery Temperature Monitor	1. Warning alarm: warns when battery temperature is getting too high. 2. Absolute alarm: when temperature reaches high temp this shuts down the string of batteries where the hot battery is.
C	Status Monitoring Contacts	5 form C dry contacts: 1. System in Bypass 2. Summary Alarm: any alarm in the FMP 3. Output trip alarm 4. Utility failure 5. Inverter on
DT	Drip Top (NEMA 2)	Metal piece designed to direct falling water away from the unit
EMBP	External Maintenance bypass switch	Maintenance bypass switch mounted external to the system. Cannot use with output circuit breakers
F	Fast Charge	Allows the system to recharge in 12 hours from LVD
I	Inverter on Dry Form C Contact	Form C dry contact which opens when inverter is on
IOT	IOT inverter Connect Cloud communication	System using the Cloud to allow monitoring of multiple systems in one location
L	Load Control Relay (Line Voltage Dimmer or Switch Bypass)	Equal to an LVS EPC-2-D
MBB	Internal Maintenance Bypass Make Before Break	Toggle switch designed to disconnect inverter from electrical system for maintenance (Make Before Break)
MIP	Modbus TCP/IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
O	Output Transfer Delay	Device designed to delay transfer adjustable 0-7.5 seconds, factory set at 3 seconds. Used when control system cannot detect the fast transfer.
P	Remote Status Panel (Status alarms, Requires C Option)	Single gang box showing status of alarms, requires C option
R	Remote Meter Panel	Full size meter panel mounted remotely in a NEMA 1 enclosure
RA	Remote Summary Alarm Panel	LED indicator and Sound alert
S	Summary Fault Form C contacts	Relay contact showing any alarm
SM	Seismic Mounting	Instructions and hardware for mounting system in standard seismic applications
T	Output Trip Alarm	Alarms when any output circuit breaker is tripped

DIMENSIONS

Power Rating (kW)	Voltage IN-OUT (VAC)	Cabinet Dimensions				Batteries		Total System Weight
30 min.		Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	
1.5	120 or 277	30	47	25	215	4	146	361
	347		69		339			485
2.25	120 or 277	30	47	25	230	6	218	448
	347		69		354			572
3	120 or 277	30	47	25	235	8	291	526
	347		69		365			656
3.75	120 or 277	30	47	25	240	10	364	604
	347		69		376			740
5	120 or 277	30	47	25	280	12	437	717
	347		69		425			862
6	120 or 277	48	76	25	605	15	546	1 151
	347	78			784			1 330
8	120 or 277	48	76	25	640	20	728	1 368
	347	78			832			1 560
10	120 or 277	48	76	25	785	12	860	1 645
	347	78			990			1 850
12.5	120 or 277	48	76	25	805	15	1 076	1 881
	347	78			1 025			2 101
16.7	120 or 277	48	76	25	885	20	1 434	2 319
	347	78			1 120			2 554

Power Rating (kW)			Voltage IN-OUT (VAC)	Cabinet Dimensions				Batteries		Total System Weight
60 min.	90 min.	120 min.		Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	
1.5	1.39	1.28	120 OR 277	30	47	25	215	4	287	502
			347		69		339			626
2.25	2.08	1.91	120 OR 277	30	47	25	230	6	430	660
			347		69		354			784
3	2.78	2.55	120 OR 277	30	47	25	235	8	574	809
			347		69		365			939
3.75	3.47	3.19	120 OR 277	30	47	25	240	10	717	957
			347		69		376			1 093
5	4.63	4.25	120 OR 277	30	47	25	280	12	860	1 140
			347		69		425			1 285
6	5.55	5.1	120 OR 277	48	76	25	605	15	1 076	1 681
			347	78			784			1 860
8	7.4	6.8	120 OR 277	48	76	25	640	20	1 434	2 074
			347	78			832			2 266
10	9.25	8.5	120 OR 277	48	76	25	785	24	1 721	2 506
			347	78			990			2 711
12.5	11.6	10.6	120 OR 277	48	76	25	805	30	2 151	2 956
			347	78			1 025			3 176
16.7	15.4	14.2	120 OR 277	48	76	25	885	40	2 868	3 753
			347	78			1 120			3 988

HEAT LOSS TABLE

30 Minute Run Time		60 Minute Run Time		90 Minute Run Time		120 Minute Run Time	
Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)
1.50	102	1.50	102	1.39	95	1.28	87
2.25	153	2.25	153	2.08	142	1.91	130
3.00	205	3.00	205	2.78	189	2.55	174
3.75	256	3.75	256	3.47	237	3.19	217
5.00	341	5.0	341	4.63	315	4.25	290
6.00	409	6.0	409	5.55	379	5.10	348
8.00	546	8.0	546	7.40	505	6.80	464
10.0	682	10.0	682	9.25	631	8.50	580
12.5	853	12.5	853	11.6	789	10.6	725
16.7	1139	16.7	1139	15.4	1054	14.2	968

SNR

SINGLE PHASE INVERTER

The SNR is a single phase inverter, designed with the industry-leading compact footprint and are available with robust communication options. These highly efficient systems range from 1.75 kW to 16.7 kW.

FEATURES AND SPECIFICATIONS

- **Standard Features**
  - 98% Efficient (Typical)
  - PWM/IGBT Technology and Micro-Controller
  - User Programmable with Password Protection
  - Automatic Event, Test and Alarm Log
  - RS232 Communications Port
  - Input Circuit Breaker
  - 2ms Transfer Time
  - Low Audible Noise
  - NEMA Type 1 Single Cabinet Space-Saving Design
  - 65kAIC Interrupting Rating

- **Optional Features**
  - Enhanced Communications
    - Expanded Building Management Protocols
    - IoT Connect Cloud Software
  - Internal or External Maintenance Bypass
  - Summary Dry Form C Contacts
  - Remote Meter Panel
  - Output Circuit Breakers:
    - 1750-5000W: up to 11 supervised
    - 6250-7500W: up to 16 supervised
    - 10000-16700W: up to 22 supervised
  - Normally Off Output
  - Output Trip Alarms
  - Remote Summary Alarm Panel

- **Specifications**
  - Input 120, 277 or 347VAC 1 Phase 2 Wire Plus Ground
  - Output 120, 277 or 347VAC 1 Phase 2 Wire Plus Ground
  - Output Load Power Factor .5 Lag to .5 Lead
  - Compatible with LED Drivers
  - Forced Air Cooling Only During Emergency Operation; No Filters Required
  - Output Voltage Distortion Less than 3% THD for Linear Loads
  - Compatible with Generators
  - 30, 60, 90, 120 Minute Runtime available
  - Inverter Operating Temperature 0°C to 40°C
  - Battery Operating Temperature 20°C to 30°C

- **Approvals**
  - cUL to CSA 22.2 #141-15

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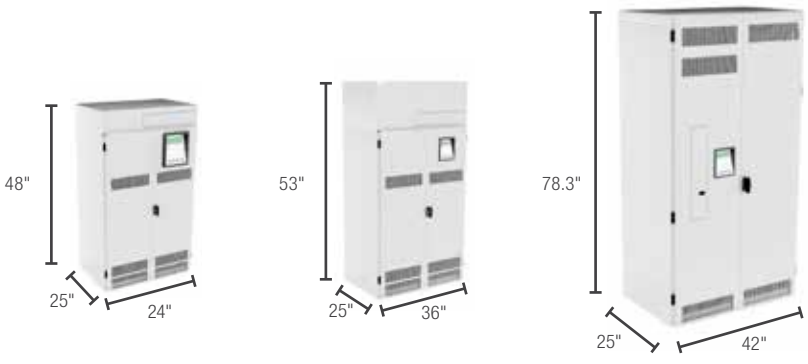
Series	Voltage Input-Output		Capacity Rating (W)	Battery Type	Output Breakers[1]				Options	
					Output	Voltage/Poles	Amp Rating	Quantity[2]		
SNR30	**A-A -**	120 Input; 120 Output	**1 750**	**S -** Standard	**O -** Normally On	**A -** 120V 1-Pole	**10**	**T01-T22**	**Standard Features**	
SNR60			**2 500**		**F -** Normally Off	**B -** 208V 2-Poles	**16**		**C -**	Status Monitoring Contacts Dry Form C
SNR90	**A-AE -**	120 Input; 120/277 Output	**3 750**			**C -** 240V 2-Poles	**20**		**DT -**	Drip Top (NEMA 2)
SNR120			**5 000**			**E -** 277V 1-Pole	**25**		**Optional Features**	
	B-A -	208 Input; 120 Output	**6 250**			**H -** 347V	**32**		**BBM -**	Internal Maintenance Bypass (Break Before Make)
			7 500			**K -** 480V 2-Poles	**40**		**BL -**	Output Circuit Breaker Lock(s)
	C-AC -	240 Input; 120/240 Output	**10 000**				**50**		**BTM -**	Battery Temperature Monitor[3]
			12 500				**63**		**F -**	Fast Charge
	E-A -	277 Input; 120 Output	**16 700**						**I -**	Inverter on Dry Form C Contact
									L -	Load Control Relay (Line Voltage Dimmer or Switch Bypass)
	E-E -	277 Input; 277 Output							**MBB -**	Internal Maintenance Bypass (Make Before Break)
									O -	Output Transfer Delay
	E-EA -	277 Input; 277/120 Output							**P -**	Remote Status Panel (Status with Alarms & Silence Switch; Requires C Option)
									R -	Remote Meter Panel
	B-AC -	208 Input; 120/240 Output							**RA -**	Remote Summary Alarm Panel
									S -	Summary Fault Form C Dry Contacts
	H-H -	347 Input; 347 Output							**SM -**	Seismic Mounting[4]
	B-AB -	208 Input; 120/208 Output							**PICK 1**	
									BIP -	BACnet IP
									IOT -	IoT Inverter Cloud Connect
									MIP -	Modbus TCP/IP

Option Code	Option Name	Description
BBM	Internal Maintenance Bypass (Break-Before-Make)	Toggle switch designed to disconnect inverter from electrical system for maintenance (Break Before Make)
BIP	BACnet IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
BL	Output Circuit Breaker Lock(s)	Allows customer to lock the output circuit breaker in on or off position
BTM	Battery Temperature Monitor	1. Warning alarm: warns when battery temperature is getting too high. 2. Absolute alarm: when temperature reaches high temp this shuts down the string of batteries where the hot battery is.
C	Status Monitoring Contacts	5 form C dry contacts: 1. System in Bypass 2. Summary Alarm: any alarm in the FMP 3. Output trip alarm 4. Utility failure 5. Inverter on
DT	Drip Top (NEMA 2)	Metal piece designed to direct falling water away from the unit
EMBP	External Maintenance Bypass (Make-Before-Break)	Maintenance bypass switch mounted external to the system. Cannot use with output circuit breakers
F	Fast Charge	Allows the system to recharge in 12 hours from LVD
I	Inverter on Dry Form C Contact	Form C dry contact which opens when inverter is on
IOT	IOT inverter Connect Cloud communication	System using the Cloud to allow monitoring of multiple systems in one location
L	Load Control Relay (Line Voltage Dimmer or Switch Bypass)	EQUAL TO AN LVS EPC-2-D
MBB	Internal Maintenance Bypass Make Before Break	Toggle switch designed to disconnect inverter from electrical system for maintenance (Make Before Break)
MIP	Modbus TCP/IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
O	Output Transfer Delay	Device designed to delay transfer adjustable 0-7.5 seconds, factory set at 3 seconds. Used when control system cannot detect the fast transfer.
P	Remote Status Panel (Status alarms, Requires C Option)	Single gang box showing status of alarms, requires C option
R	Remote Meter Panel	Full size meter panel mounted remotely in a NEMA 1 enclosure
RA	Remote Summary Alarm Panel	LED indicator and Sound alert
S	Summary Fault Form C contacts	Relay contact showing any alarm
SM	Seismic Mounting	Instructions and hardware for mounting system in standard seismic applications
T	Output Trip Alarm	Alarms when any output circuit breaker is tripped



Power Rating (kW)	Voltage IN-OUT	Cabinet Dimensions				Batteries		Total System Weight
30 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	
1.75	120 or 277	24	48	25	247	4	287	534
	347	54			396			683
2.50	120 or 277	24	48	25	263	4	287	550
	347	54			412			699
3.75	120 or 277	24	48	25	280	6	430	710
	347	54			441			871
5.00	120 or 277	24	48	25	297	8	574	871
	347	54			467			1 041
6.25	120 or 277	36	53	25	418	10	717	1 135
	347	66			597			1 314
7.50	120 or 277	36	53	25	444	12	860	1 304
	347	66			636			1 496
10.0	120 or 277	42	78.3	25	940	12	860	1 800
	347	72			1 145			2 005
12.5	120 or 277	42	78.3	25	980	15	1 076	2 056
	347	72			1 200			2 276
16.7	120 or 277	42	78.3	25	1 030	20	1 434	2 464
	347	72			1 265			2 699

Power Rating (kW)			Voltage IN-OUT	Cabinet Dimensions				Batteries		Total System Weight
60 min.	90 min.	120 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	
1.75	1.53	1.31	120 or 277	24	48	25	247	4	287	534
			347	54			396			683
2.50	2.19	1.88	120 or 277	24	48	25	263	4	397	660
			347	54			412			809
3.75	3.28	2.81	120 or 277	24	48	25	280	6	595	875
			347	54			441			1 036
5.00	4.38	3.75	120 or 277	24	48	25	297	8	794	1 091
			347	54			467			1 261
6.25	5.47	4.69	120 or 277	36	53	25	418	10	992	1 410
			347	66			597			1 589
7.50	6.56	5.63	120 or 277	36	53	25	444	12	1 190	1 634
			347	66			636			1 826
10.0	8.75	7.50	120 or 277	42	78.3	25	940	12	1 428	2 368
			347	72			1 145			2 573
12.5	10.9	9.38	120 or 277	42	78.3	25	980	15	1 785	2 765
			347	72			1 200			2 985
16.7	14.6	12.5	120 or 277	42	78.3	25	1 030	20	2 380	3 410
			347	72			1 265			3 645

HEAT LOSS TABLE

30 Minute Run Time		60 Minute Run Time		90 Minute Run Time		120 Minute Run Time	
Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)
1.75	119	1.75	119	1.53	104	1.31	90
2.50	171	2.50	171	2.19	149	1.88	128
3.75	256	3.75	256	3.28	224	2.81	192
5.00	341	5.00	341	4.38	298	3.75	256
6.25	426	6.25	426	5.47	373	4.69	320
7.50	512	7.50	512	6.56	448	5.63	384
10.0	682	10.0	682	8.75	597	7.50	512
12.5	853	12.5	853	10.9	746	9.38	639
16.7	1139	16.7	1139	14.6	997	12.5	854

SNJ

THREE PHASE INVERTER

The SNJ three phase emergency lighting inverter provides up to 50kW of backup power for larger facilities and campuses.

FEATURES AND SPECIFICATIONS

- **Construction**
  - 98% Efficient (Typical)
  - PWM/IGBT Technology & Microprocessor Control
  - Internal Maintenance Bypass
  - User Programmable with Password Protection
  - Automatic Event & Alarm Log
  - RS232 Communications Port
  - Input Circuit Breaker
  - Low Audible Noise

- **Optional Features**
  - Enhanced Communications
    - Expanded Building Management Protocols
    - BACnet or Modbus Communications Interface
    - IoT Connect Cloud Software
  - External Maintenance Bypass
  - Status Monitoring Dry Form C Contacts
  - Summary Dry Form C Contacts
  - Output Circuit Breakers
    - 4 800 - 16 700 W: up to 8 supervised poles, additional 19 with a top enclosure
    - 24 000 - 50 000 W: up to 30 supervised poles
  - Remote Meter Panel

- **Specifications**
  - Input 120/208 or 277/480 VAC 3-Phase 4 Wire Wye Configuration
  - Output 120/208 or 277/480 VAC 3-Phase Wye Or Delta Configuration
  - Output Load Power Factor .5 Lag to .5 Lead
  - LED, Electronic & Magnetic Ballast Compatible
  - Output Distortion Less Than 3% THD For Linear Loads
  - Generator Compatibility
  - Forced Air Cooling Only During Emergency Operation; No Filters Required
  - 30, 60, and 120 Minute Runtime available (90 minute certification pending)
  - Inverter Operating Temperature 0°C to 40 °C
  - Battery Operating Temperature 20°C to 30°C

- **Approvals**
  - cUL to CSA 22.2 #141-15

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Series	Voltage Input-Output	Capacity Rating (W)	Battery Type	Output Breakers[1]				Options	
				Output	Voltage/Poles	Amp Rating	Quantity[2]		
SNJ30 **SNJ60** **SNJ90** **SNJ120**	**AB-AB -** 120/208 Input; 120/208 Output **EK-EK -** 277/480 Input; 277/480 Output **HS-HS -** 347/600 Input; 347/600 Output	**4 800** **6 000** **8 000** **10 000** **12 500** **16 700** **24 000** **33 000** **40 000** **50 000**	**S -** Standard	**O -** Normally On **F -** Normally Off	**A -** 120V 1-Pole **B -** 208V 2-Poles **C -** 240V 2-Poles **E -** 277V 1-Pole **AB -** 120/208V 3-Poles **AK -** 277/480V 3-Poles **H -** 347V **K -** 480V 2-Poles	**10** **16** **20** **25** **32** **40** **50** **63**	**T01 - T30**	**Standard Features**	
								C -	Status Monitoring Contacts Dry Form C
								DT -	Drip Top (NEMA 2)
								Optional Features	
								BBM -	Internal Maintenance Bypass (Break-Before-Make)
								BL -	Circuit Breaker Lock(s)
								BTM -	Battery Temperature Monitor
								EMBP -	External Maintenance Bypass (Make-Before-Break)
								F -	Fast Charge
								I -	Inverter On Dry Form C Contacts
								L -	Load Control Interface (Dimmer / Switch Bypass)
								MBB -	Internal Maintenance Bypass (Make-Before-Break)
								O -	Output Transfer Delay
								P -	Remote Status Panel (Requires Option C)
								R -	Remote Meter Panel
								RA -	Remote Summary Alarm Panel
								S -	Summary Dry Form C Contacts
								SM -	Seismic Bracing/Mounting
								PICK 1	
								BIP -	BACnet IP
								IOT -	IoT Inverter Cloud Connect
								MIP -	Modbus TCP/IP

Option Code	Option Name	Description
BBM	Internal Maintenance Bypass (Break-Before-Make)	Toggle switch designed to disconnect inverter from electrical system for maintenance (Break Before Make)
BIP	BACnet IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
BL	Output Circuit Breaker lock(s)	Allows customer to lock the output circuit breaker in on or off position
BTM	Battery Temperature Monitor	1. Warning alarm: warns when battery temperature is getting too high. 2. Absolute alarm: when temperature reaches high temp this shuts down the string of batteries where the hot battery is.
C	Status Monitoring Contacts	5 form C dry contacts: 1. System in Bypass 2. Summary Alarm: any alarm in the FMP 3. Output trip alarm 4. Utility failure 5. Inverter on
DT	Drip Top (NEMA 2)	Metal piece designed to direct falling water away from the unit
EMBP	External Maintenance bypass switch	Maintenance bypass switch mounted external to the system. Cannot use with output circuit breakers
F	Fast Charge	Allows the system to recharge in 12 hours from LVD
I	Inverter on Dry Form C Contact	Form C dry contact which opens when inverter is on
IOT	IOT inverter Connect Cloud communication	System using the Cloud to allow monitoring of multiple systems in one location
L	Load Control Relay (Line Voltage Dimmer or Switch Bypass)	Equal to an LVS EPC-2-D
MBB	Internal Maintenance Bypass Make Before Break	Toggle switch designed to disconnect inverter from electrical system for maintenance (Make Before Break)
MIP	Modbus TCP/IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
O	Output Transfer Delay	Device designed to delay transfer from 1-6 seconds. Used when control system cannot detect the fast transfer
P	Remote Status Panel (Status alarms, Requires C Option)	Single gang box showing status of alarms, requires C option
R	Remote Meter Panel	Full size meter panel mounted remotely in a NEMA 1 enclosure
RA	Remote Summary Alarm Panel	LED indicator and Sound alert
S	Summary Fault Form C contacts	Relay contact showing any alarm
SM	Seismic Mounting	Instructions and hardware for mounting system in standard seismic applications
T	Output Trip Alarm	Alarms when any output circuit breaker is tripped

Power Rating (kW)	Voltage IN-OUT (VAC)	Electronics Cabinet Dimensions				Batteries			Battery Cabinet Dimensions			Total System Weight
30 min.		Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	
4.8	120/208 or 277/480	30	47	25	535	12	437	17.5	62	25	285	1 257
	347/600		69		725							1 447
6	120/208 or 277/480	30	47	25	535	15	546	17.5	62	25	285	1 366
	347/600		69		725							1 556
8	120/208 or 277/480	30	47	25	535	20	728	17.5	62	25	285	1 548
	347/600		69		725							1 738
10	120/208 or 277/480	30	47	25	639	12	860	22.75	77	25	375	1 874
	347/600		69		851							2 086
12.5	120/208 or 277/480	30	47	25	639	15	1 076	22.75	77	25	375	2 090
	347/600		69		873							2 324
16.7	120/208 or 277/480	30	47	25	639	20	1 434	22.75	77	25	375	2 448
	347/600		69		873							2 682
24	120/208 or 277/480	44	72	31	1 250	40	2 868	48	72	31	650	4 768
	347/600	74			1 547							5 065
33	120/208 or 277/480	44	72	31	1 250	40	2 868	48	72	31	650	4 768
	347/600	74			1 585							5 103
40	120/208 or 277/480	44	72	31	1 460	60	4 302	48	72	31	700	6 462
	347/600	74			1 827							6 829
50	120/208 or 277/480	44	72	31	1 460	60	4 302	48	72	31	700	6 462
	347/600	74			1 827							6 829

Power Rating (kW)			Voltage IN-OUT (VAC)	Electronics Cabinet Dimensions				Batteries			Battery Cabinet Dimensions			Total System Weight
60 min.	90 min.	120 min.		Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	
4.8	4.44	4.08	120/208 or 277/480	30	47	25	535	12	860	30	47	25	210	1 605
			347/600		69		725							1 795
6	5.55	5.1	120/208 or 277/480	30	47	25	535	15	1 076	30	47	25	210	1 821
			347/600		69		725							2 011
8	7.4	6.8	120/208 or 277/480	30	47	25	535	20	1 434	30	47	25	232	2 201
			347/600		69		725							2 391
10	9.25	8.5	120/208 or 277/480	30	47	25	639	24	1 721	30	47	25	232	2 592
			347/600		69		851							2 804
12.5	11.6	10.6	120/208 or 277/480	30	47	25	639	30	2 151	60	47	25	420	3 210
			347/600		69		873							3 444
16.7	15.4	14.2	120/208 or 277/480	30	47	25	639	40	2 868	60	47	25	464	3 971
			347/600		69		873							4 205
24	22.2	20.4	120/208 or 277/480	44	72	31	1 250	60	4 302	48	72	31	700	6 252
			347/600	74			1 547							6 549
33	30.5	28.1	120/208 or 277/480	44	72	31	1 250	80	5 736	96	72	31	1 300	8 286
			347/600	74			1 585							8 621
40	37	34	120/208 or 277/480	44	72	31	1 460	100	7 170	96	72	31	1 300	9 930
			347/600	74			1 827							10 297
50	46.3	42.5	120/208 or 277/480	44	72	31	1 460	120	8 604	96	72	31	1 400	11 464
			347/600	74			1 827							11 831

HEAT LOSS TABLE

30 Minute Run Time		60 Minute Run Time		90 Minute Run Time		120 Minute Run Time	
Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)
4.8	327	4.8	327	4.44	303	4.08	278
6.0	409	6.0	409	5.55	379	5.10	348
8.0	546	8.0	546	7.40	505	6.80	464
10.0	682	10.0	682	9.25	631	8.50	580
12.5	853	12.5	853	11.6	789	10.6	725
16.7	1 139	16.7	1 139	15.4	1 054	14.2	968
24.0	1 637	24.0	1 637	22.2	1 514	20.4	1 391
33.0	2 251	33.0	2 251	30.5	2 082	28.1	1 913
40.0	2 728	40.0	2 728	37.0	2 523	34.0	2 319
50.0	3 410	50.0	3 410	46.3	3 154	42.5	2 899

SNQ

THREE PHASE INVERTER

The SNQ inverter is our sleekest and smartest three-phase units. The equipement has been designed with industry leading compact footprint and feature many communication options, such as the new IoT Inverter Connect cloud connectivity solution. The modular battery cabinet configurations optimize mechanical space requirements. These highly efficient systems range from 5 kW to 50 kW and are perfect for all commercial applications.

FEATURES AND SPECIFICATIONS

- **Standard Features**
  - 98% Efficient Typical
  - PWM/IGBT Technology and Micro-Controller
  - Internal Maintenance Bypass
  - User Programmable with Password Protection
  - Automatic Event, Test and Alarm Log
  - RS232 Communications Port
  - Input Circuit Breaker
  - 2ms Transfer Time
  - Low Audible Noise
  - Space-Saving Design
  - 65kAIC Withstanding Rating

- **Optional Features**
  - Enhanced Communications
    - Expanded Building Management Protocols
    - BACnet or Modbus Communications Interface
    - IoT Connect Cloud Software
  - External Maintenance Bypass
  - Summary Alarm Dry Form C Contacts
  - Internal Output Distribution Circuit Breakers
  - Normally Off Output
  - Output Trip Alarms
  - Remote Panels (Meter, Status or Summary Alarm)

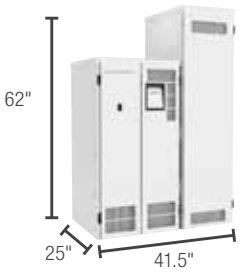
- **Specifications**
  - Input Voltage: 120/208, 277/480, 347/600 VAC 3-Phase 4 Wire Wye Configuration
  - Output Voltage: 120/208, 277/480, 347/600 VAC 3-Phase Wye or Delta Configuration
  - Output Load Power Factor .5 Lag to .5 Lead
  - Compatible with all lighting including LED Drivers
  - Forced Air Cooling Only During Emergency Operation; No Filters Required
  - Output Distortion Less than 3% THD for Linear Loads
  - Compatible with Generators
  - 30, 60, 90 and 120 Minute available
  - Inverter Operating Temperature 0°C to 40°C
  - Battery Operating Temperature 20°C to 30°C

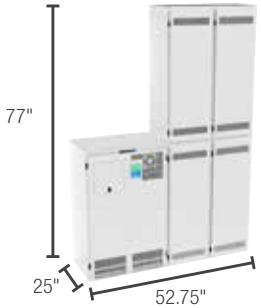
- **Approvals**
  - cUL to CSA 22.2 #141-15

				S					/	

Series	Voltage Input-Output	Capacity Rating (W)	Battery Type	Output Breakers[1]				Options	
				Output	Voltage/Poles	Amp Rating	Quantity[2]		
SNQ30	AB-AB - 120/208 Input;	5 000	S - Standard	0 - Normally On	A - 120V 1-Pole	10	T01 - T30	**Standard Features**	
SNQ60	120/208 Output	7 500		F - Normally Off	B - 208V 2-Poles	16		C -	Status Monitoring Contacts Dry Form C
SNQ90	EK-EK - 277/480 Input;	10 000			C - 240V 2-Poles	20		DT -	Drip Top (NEMA 2)
SNQ120	277/480 Output	12 500			E - 277V 1-Pole	25		**Optional Features**	
	HS-HS - 347/600 Input;	16 700			AB - 120/208V 3-Poles	32		BCF -	Battery Cabinet Fan
	347/600 Output	25 000			AK - 277/480V 3-Poles	40		BTM -	Battery Temperature Monitor
		33 200			H - 347V	50		F -	Fast Charge
		37 500			K - 480V 2-Poles	63		I -	Inverter On Dry Form C Contacts
		50 000						L -	Load Control Interface (Dimmer / Switch Bypass)[3]
								O -	Output Transfer Delay
								P -	Remote Status Panel (Requires Option C)
								R -	Remote Meter Panel
								RA -	Remote Summary Alarm Panel
								S -	Summary Dry Form C Contacts
								SM -	Seismic Bracing/Mounting[4]
								PICK 1	
								BIP -	BACnet IP
								IOT -	IoT Inverter Cloud Connect
								MIP -	Modbus TCP/IP

Option Code	Option Name	Description
BBM	Internal Maintenance Bypass (Break-Before-Make)	Toggle switch designed to disconnect inverter from electrical system for maintenance (Break Before Make)
BCF	Battery Cabinet Fan	Fan in battery cabinets activated whenever system goes to emergency
BIP	BACnet IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
BL	Output Circuit Breaker Lock(s)	Allows customer to lock the output circuit breaker in on or off position
BTM	Battery Temperature Monitor	1. Warning alarm: warns when battery temperature is getting too high. 2. Absolute alarm: when temperature reaches high temp this shuts down the string of batteries where the hot battery is.
C	Status Monitoring Contacts	5 form C dry contacts: 1. System in Bypass 2. Summary Alarm: any alarm in the FMP 3. Output trip alarm 4. Utility failure 5. Inverter on
DT	Drip Top (NEMA 2)	Metal piece designed to direct falling water away from the unit
EMBP	External Maintenance Bypass (Make-Before-Break)	Maintenance bypass switch mounted external to the system. Cannot use with output circuit breakers
F	Fast Charge	Allows the system to recharge in 12 hours from LVD
I	Inverter on Dry Form C Contact	Form C dry contact which opens when inverter is on
IOT	IOT inverter Connect Cloud communication	System using the Cloud to allow monitoring of multiple systems in one location
L	Load Control Relay (Line Voltage Dimmer or Switch Bypass)	EQUAL TO AN LVS EPC-2-D
MIP	Modbus TCP/IP	"MSTP" allow upload of FMP data via RS232 intermediate device. This info can then be downloaded to customer device. Allows direct communication via IP
O	Output Transfer Delay	Device designed to delay transfer adjustable 0-7.5 seconds, factory set at 3 seconds. Used when control system cannot detect the fast transfer.
P	Remote Status Panel (Status alarms, Requires C Option)	Single gang box showing status of alarms, requires C option
R	Remote Meter Panel	Full size meter panel mounted remotely in a NEMA 1 enclosure
RA	Remote Summary Alarm Panel	LED indicator and Sound alert
S	Summary Fault Form C contacts	Relay contact showing any alarm
SM	Seismic Mounting	Instructions and hardware for mounting system in standard seismic applications
T	Output Trip Alarm	Alarms when any output circuit breaker is tripped



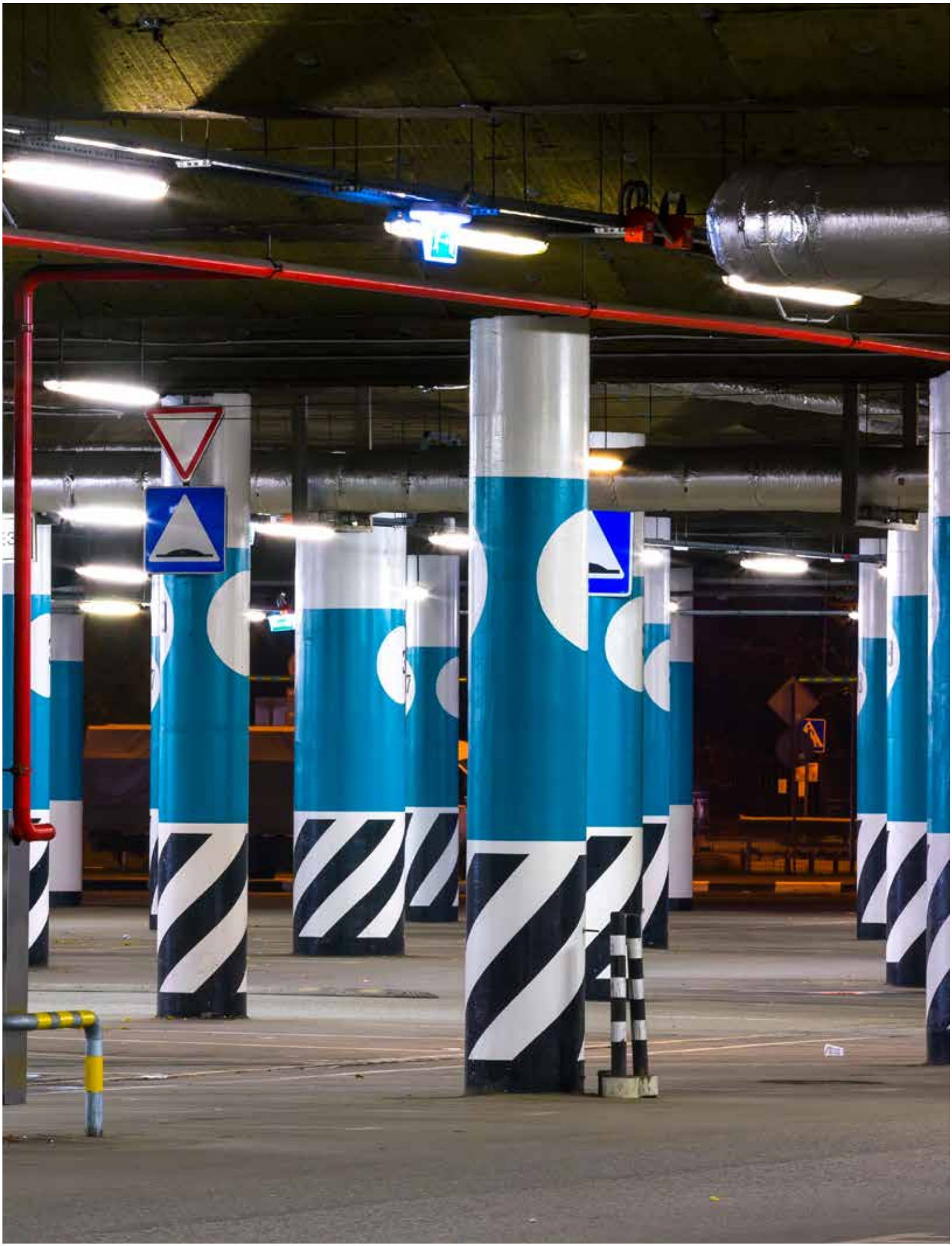


Power Rating (kW)	Voltage IN-OUT	Electronics Cabinet Dimensions				Batteries			Battery Cabinet Dimensions			Total System Weight
30 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	
5	120/208 or 277/480	24	47	25	485	12	860	17.5	62	25	285	1 630
	347/600		69		675							1 820
7.5	120/208 or 277/480	24	47	25	485	12	860	17.5	62	25	285	1 630
	347/600		69		675							1 820
10	120/208 or 277/480	24	47	25	590	12	860	17.5	62	25	285	1 735
	347/600		69		802							1 947
12.5	120/208 or 277/480	30	47	25	640	15	1076	22.75	77	25	375	2 091
	347/600		69		746							2 197
16.7	120/208 or 277/480	30	47	25	640	20	1434	22.75	77	25	375	2 449
	347/600		69		746							2 555
25	120/208 or 277/480	37.5	72	25	1 150	40	2868	45.5	77	25	750	4 768
	347/600	67.5			1 285							4 903
33.2	120/208 or 277/480	37.5	72	25	1 150	40	2868	45.5	77	25	750	4 768
	347/600	67.5			1 302							4 920
37.5	120/208 or 277/480	37.5	72	25	1 360	60	4302	68.25	77	25	1125	6 787
	347/600	67.5			1 531							6 958
50	120/208 or 277/480	37.5	72	25	1 360	60	4302	68.25	77	25	1125	6 787
	347/600	67.5			1 550							6 977

Power Rating (kW)			Voltage IN-OUT	Electronics Cabinet Dimensions				Batteries			Battery Cabinet Dimensions			Total System Weight
60 min.	90 min.	120 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	
5	4.38	3.75	120/208 or 277/480	24	47	25	485	12	860	17.5	62	25	285	1 630
			347/600		69		675							1 820
7.5	6.56	5.63	120/208 or 277/480	24	47	25	485	12	1 190	17.5	62	25	285	1 960
			347/600		69		675							2 150
10	8.75	7.5	120/208 or 277/480	24	47	25	590	12	1 428	17.5	62	25	285	2 303
			347/600		69		802							2 515
12.5	10.9	9.38	120/208 or 277/480	30	47	25	640	15	1 785	22.75	77	25	375	2 800
			347/600		69		746							2 906
16.7	14.6	12.5	120/208 or 277/480	30	47	25	640	20	2 380	22.75	77	25	375	3 395
			347/600		69		746							3 501
25	21.9	18.8	120/208 or 277/480	37.5	72	25	1 150	40	3 968	45.5	77	25	750	5 868
			347/600	67.5			1 285							6 003
33.2	29.1	24.9	120/208 or 277/480	37.5	72	25	1 150	40	4 760	45.5	77	25	750	6 660
			347/600	67.5			1 302							6 812
37.5	32.8	28.1	120/208 or 277/480	37.5	72	25	1 360	60	5 952	68.25	77	25	1125	8 437
			347/600	67.5			1 531							8 608
50	43.8	37.5	120/208 or 277/480	37.5	72	25	1 360	60	7 140	68.25	77	25	1125	9 625
			347/600	67.5			1 550							9 815

HEAT LOSS TABLE

30 Minute Run Time		60 Minute Run Time		90 Minute Run Time		120 Minute Run Time	
Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)	Ouput Rating (kW)	Heat Loss (BTU/h)
5.00	341	5.00	341	4.38	298	3.75	256
7.50	512	7.50	512	6.56	448	5.63	384
10.0	682	10.0	682	8.75	597	7.50	512
12.5	853	12.5	853	10.9	746	9.38	639
16.7	1 139	16.7	1 139	14.6	997	12.5	854
25.0	1 705	25.0	1 705	21.9	1 492	18.8	1 279
33.2	2 264	33.2	2 264	29.1	1 981	24.9	1 698
37.5	2 558	37.5	2 558	32.8	2 238	28.1	1 918
50.0	3 410	50.0	3 410	43.8	2 984	37.5	2 558



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