

| Project : | | Type: |
|-----------|--------------|-------|
| Drawn by: | Catalogue #: | Date: |

Series Spec Sheet

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 VAC3-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





System Display Functions

ADVANCED TECHNOLOGY

Designed with advanced Pure Sine Wave technology, the SNQ provides 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.

INDUSTRY LEADING COMPACT FOOTPRINT

Designed with industry leading compact footprint, the SNQ allows building owners to comply with emergency lighting codes without sacrificing valuable floor-space. Featuring a NEMA Type 1 space-saving design these inverters fit easily into electrical rooms where floor space is limited!

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



ORDERING GUIDE

| _ | _ | | S | | | | | / | / | |
|-----------------------------------|--|--|--------------|------------|-----------------------------|--|--|-----------------------|---|--|
| Series | Voltage Capacity Rati | | Battery Type | | | Output Breakers ¹ | | | | Options |
| | Input-Output | (W)* | | | Output | Voltage/Poles | Amp Rating | Quantity ² | | |
| SN030 SN060 SN090 SN0120 | AB-AB - 120/208 Input; 120/208 Output EK-EK - 277/480 Input; 277/480 Output HS-HS - 347/600 Input; 347/600 Output | 5 000 7 500 10 000 12 500 16 700 25 000 33 200 37 500 50 000 | S - Standard | 0 - F - | Normally On Normally Off | 120V 1-Pole 208V 2-Poles 240V 2-Poles 277V 1-Pole 120/208V 3-Poles 277/480V 3-Poles 347V 480V 2-Poles | 10 16 20 25 32 40 50 63 | T01 - T30 | C - DT - BCF - BTM - F - I - L - O - P - R - | Standard Features Status Monitoring Contacts Dry Form C Drip Top (NEMA 2) Optional Features Battery Cabinet Fan Battery Temperature Monitor Fast Charge Inverter On Dry Form C Contacts Load Control Interface (Dimmer / Switch Bypass) ³ Output Transfer Delay Remote Status Panel (Requires Option C) Remote Meter Panel |
| | | | | | | | | | RA - S - SM - PICK 1 BIP - IOT - MIP - | Remote Summary Alarm Panel Summary Dry Form C Contacts Seismic Bracing/Mounting ⁴ BACnet IP IoT Inverter Cloud Connect Modbus TCP/IP |

¹ Output breakers are optional

12 500-16 700W: 27 supervised poles 25 000-50 000W: 30 supervised poles

Combinations of 1, 2 and/or 3 pole breakers available (consult factory)

347V: 14 supervised

^{*} Capacity changes with runtime. See list below.

| Capacity rating as per | | Actual capacity rating (kW) | | | | | | | | |
|------------------------|-------|-----------------------------|-------|--------|--|--|--|--|--|--|
| ordering guide | SNQ30 | SNQ60 | SNQ90 | SNQ120 | | | | | | |
| 5000 | 5 | 5 | 4.38 | 3.75 | | | | | | |
| 7500 | 7.5 | 7.5 | 6.56 | 5.63 | | | | | | |
| 10000 | 10 | 10 | 8.75 | 7.5 | | | | | | |
| 12500 | 12.5 | 12.5 | 10.9 | 9.38 | | | | | | |
| 16700 | 16.7 | 16.7 | 14.6 | 12.5 | | | | | | |
| 25000 | 25 | 25 | 21.9 | 18.8 | | | | | | |
| 33200 | 33.2 | 33.2 | 29.1 | 24.9 | | | | | | |
| 37500 | 37.5 | 37.5 | 32.8 | 28.1 | | | | | | |
| 50000 | 50 | 50 | 43.8 | 37.5 | | | | | | |



² Maximum out breakers available: 5 000-10 000W: 19 supervised poles

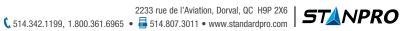
³ Contact factory

⁴ Anchorage based on calculations. For systems requiring OSHPD/Withstand testing, please contact the factory.



OPTION TABLE

| Option Code | Option Name | Description |
|-------------|---|--|
| ВВМ | 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 |
| втм | Battery Temperature Monitor | 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. |
| С | 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 |
| ЕМВР | 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 |
| ЮТ | 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) | Load Control Relay (Line Voltage Dimmer or Switch Bypass) |
| 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 |
| 0 | 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 |
| Т | Output Trip Alarm | Alarms when any output circuit breaker is tripped |





DIMENSIONS







| Power Rating (kW) | Voltage IN-OUT | | Electronics Cabinet Dimensions | | | | Batteries | | Battery Cabinet Dimensions | | | |
|-------------------|--------------------|------------|--------------------------------|------------|--------------|------------------|--------------|------------|----------------------------|------------|--------------|------------------|
| 30 min. | (VAC) | Width (in) | Height (in) | Depth (in) | Weight (lbs) | No. of Batteries | Weight (lbs) | Width (in) | Height (in) | Depth (in) | Weight (lbs) | System Weight |
| 5 | 120/208 or 277/480 | 24 | 47 | 25 | 485 | 12 | 860 | 17.5 | 62 | 25 | 285 | 1 630 |
| υ | 347/600 | 24 | 69 | 20 | 675 | 12 | 000 | 17.5 | 02 | 20 | 200 | 1 820 |
| 7.5 | 120/208 or 277/480 | 24 | 47 | 25 | 485 | 12 | 860 | 17 E | 60 | O.E. | 005 | 1 630 |
| 7.5 | 347/600 | 24 | 69 | 25 | 675 | 12 | 000 | 17.5 | 62 | 25 | 285 | 1 820 |
| 10 | 120/208 or 277/480 | 24 | 47 | 25 | 590 | 12 | 860 | 17.5 | 62 | 25 | 285 | 1 735 |
| 10 | 347/600 | 24 | 69 | | 802 | | | | | | | 1 947 |
| 12.5 | 120/208 or 277/480 | - 30 | 47 | - 25 | 640 | 15 | 1076 | 22.75 | 77 | 25 | 375 | 2 091 |
| 12.5 | 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 |
| 10.7 | 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 |
| 2.5 | 347/600 | 67.5 | 12 | 23 | 1 285 | 40 | 2000 | 40.0 | 11 | 20 | 730 | 4 903 |
| 33.2 | 120/208 or 277/480 | 37.5 | 72 | 25 | 1 150 | 40 | 2868 | 45.5 | 77 | 25 | 750 | 4 768 |
| 33.2 | 347/600 | 67.5 | 12 | 23 | 1 302 | 40 | 2000 | 40.0 | 11 | 20 | 730 | 4 920 |
| 37.5 | 120/208 or 277/480 | 37.5 | 72 | 25 | 1 360 | 60 | 4302 | 68.25 | 77 | 25 | 1125 | 6 787 |
| 37.3 | 347/600 | 67.5 | 12 | 20 | 1 531 | 00 | 4302 | 00.20 | 11 | 20 | 1123 | 6 958 |
| 50 | 120/208 or 277/480 | 37.5 | 72 | 25 | 1 360 | 60 | 4302 | CO 05 | 77 | 25 | 1125 | 6 787 |
| 30 | 347/600 | 67.5 | 12 | 20 | 1 550 | 00 | 4302 | 68.25 | '' | 25 | 1123 | 6 977 |

| Pov | Power Rating (kW) Voltage IN-OUT Electronics Cabinet Dimensions | | | | S | Batter | ies | | Battery Cabin | et Dimensions | | Total | | |
|---------|---|----------|--------------------|------------|-------------|------------|--------------|------------------|---------------|---------------|-------------|------------|--------------|------------------|
| 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) | System Weight |
| 5 | 4.20 | 3.75 | 120/208 or 277/480 | 24 | 47 | 25 | 485 | 12 | 000 | 17 E | 62 | 25 | 285 | 1 630 |
| 5 | 4.38 | 3.75 | 347/600 | 24 | 69 | 20 | 675 | 12 | 860 | 17.5 | 02 | 20 | 200 | 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 |
| 7.5 | 0.00 | 3.03 | 347/600 | 24 | 69 | 20 | 675 | 12 | 1 190 | 17.5 | 02 | 20 | 200 | 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 |
| 10 | 0.75 | 7.5 | 347/600 | 24 | 69 | 20 | 802 | 12 | 1 420 | 17.5 | UZ | 20 | 200 | 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 |
| 12.0 | 12.5 10.9 | 9.30 | 347/600 | 30 | 69 | 20 | 746 | 15 | 1 7 00 | 22.10 | 11 | 20 | 373 | 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 |
| 10.7 | 14.0 | 12.0 | 347/600 | 30 | 69 | | 746 | 20 | 2 300 | 22.10 | 11 | 23 | 3/3 | 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 |
| 23 | 21.5 | 10.0 | 347/600 | 67.5 | 12 | 23 | 1 285 | 40 | 3 300 | 40.0 | 11 | 23 | 730 | 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 |
| 33.2 | 23.1 | 24.3 | 347/600 | 67.5 | 12 | 23 | 1 302 | 40 | 4 700 | 40.0 | 11 | 23 | 730 | 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 |
| 37.3 | 32.0 | 20.1 | 347/600 | 67.5 | 12 | 23 | 1 531 | 00 | 3 332 | 00.20 | 11 | 23 | 1123 | 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 |
| 30 | 43.0 | 57.5 | 347/600 | 67.5 | 12 | 20 | 1 550 | 00 | / 140 | 00.25 | 11 | 25 | 1123 | 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 | |

