

Project:		Type:
Orawn by:	Catalogue #:	Date:
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## 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
- $-\ 2\text{ms}\ \text{Transfer}\ \text{Time}$
- 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		Capacity Rating	Battery Type			Output Breakers <sup>1</sup>					Options
	Input-Output	(W)*			Output		Voltage/Poles	Amp Rating	Quantity <sup>2</sup>		
SNQ30 SNQ60 SNQ90 SNQ120	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 - RA - S - SM -	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) <sup>3</sup> Output Transfer Delay Remote Status Panel (Requires Option C) Remote Meter Panel Remote Summary Alarm Panel Summary Dry Form C Contacts Seismic Bracing/Mounting <sup>4</sup>
										PICK 1 BIP - IOT - MIP -	BACnet IP IoT Inverter Cloud Connect Modbus TCP/IP

<sup>1</sup> 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

<sup>\*</sup> 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						



<sup>&</sup>lt;sup>2</sup> Maximum out breakers available: 5 000-10 000W: 19 supervised poles

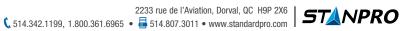
<sup>&</sup>lt;sup>3</sup> Contact factory

<sup>&</sup>lt;sup>4</sup> 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	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.
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

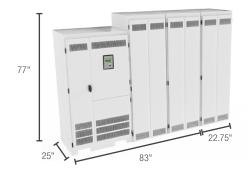




### **DIMENSIONS**







Power Rating (kW)	Voltage IN-OUT		Electronics Cab	inet Dimension	S	Batteries			Batter	Total		
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
	347/600	24	69	23	675	12	000	17.5	02	20	200	1 820
7.5	120/208 or 277/480	24	47	0.5	485	12	860	17.5	62	25	285	1 630
7.5	347/600	24	69	25	675	12	000	17.5	02	25	200	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	12	000					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	15						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
20	347/600	67.5	12	20	1 285	40	2000	45.5	11	20	750	4 903
33.2	120/208 or 277/480	37.5	72	72 25	1 150	40	0000	45.5	77	25	750	4 768
33.2	347/600	67.5	12	25	1 302	40	2868	45.5				4 920
37.5	120/208 or 277/480	37.5	72	25	1 360	60	4302	00.05	77	25	1125	6 787
37.5	347/600	67.5	12	23	1 531	00	4302	68.25	11	25	1120	6 958
50	120/208 or 277/480	37.5	72	25	1 360	60	4302	02 68.25	77	25	1125	6 787
30	347/600	67.5	12	20	1 550	00					1123	6 977

Power Rating (kW) Voltage IN-OUT Electronics Cabinet Dimensions				S		Batteries		Batter	ensions	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	4.00	3.75	120/208 or 277/480	24	47	25	485	12	000	17.5	60	0E	205	1 630
5	4.38	3.75	347/600	24	69	20	675	12	860	17.5	62	25	285	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	0.50	0.00	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	17.0	UZ			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 8	3.50	347/600	30	69	20	746	10	1 700	LL.10	11	20	010	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	20	746	20	2 300	2 300 22.73	" "	23	373	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
20	21.0	10.0	347/600	67.5	12	20	1 285	40	3 300	70.0	" "	23	130	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
00.2	20.1	24.5	347/600	67.5	12	20	1 302	40	4700	40.0	,,,	20	700	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
07.0	02.0	20.1	347/600	67.5	12		1 531	00	0 002	00.20	,,		1120	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
	10.0	07.0	347/600	67.5	12	20	1 550	30	, 140	00.20	,,	20	1120	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	

