

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

### Series Spec Sheet

# **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





# **System Display Functions**

### ADVANCED TECHNOLOGY

Designed with advanced Pure Sine Wave technology, the SNR 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 SNR 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.

Data is based upon tests performed in a controlled environment. Actual performance can vary depending on operating conditions. All products are subject to change or may be discontinued any time without notice. Please contact your Stanpro customer service representative to confirm inventory levels at time of order.

SNR • Rév. 2024-3-18



### **ORDERING GUIDE**

-	_			S						/			
Series			Capacity Rating	Battery Type		Output Breakers <sup>1</sup>					Options		
	'	nput-Output	(W)*		Output		Voltage/Poles		Amp Rating	Quantity <sup>2</sup>			
SNR30	A-A -	120 Input;	1 750	S - Standard	0 -	Normally On	Α-	120V 1-Pole	10	T01-T22		Standard Features	
SNR60		120 Output	2 500		F-	Normally Off	В-	208V 2-Poles	16		C -	Status Monitoring Contacts Dry Form C	
SNR90	A-AE -	120 Input;	3 750				C -	240V 2-Poles	20		DT -	Drip Top (NEMA 2)	
SNR120		120/277 Output	5 000				E -	277V 1-Pole	25			Optional Features	
	B-A -	208 Input;	6 250				Н -	347V	32		BBM -	Internal Maintenance Bypass (Break Before Make)	
		120 Output	7 500				K -	480V 2-Poles	40		BL -	Output Circuit Breaker Lock(s)	
	C-AC -	240 Input;	10 000						50		BTM -	Battery Temperature Monitor <sup>3</sup>	
		120/240 Output	12 500						63		F-	Fast Charge	
	E-A -	277 Input;	16 700								1-	Inverter on Dry Form C Contact	
		120 Output									L-	Load Control Relay (Line Voltage Dimmer or Switch Bypass)	
	E-E -	277 Input;									MBB -	Internal Maintenance Bypass (Make Before Break)	
		277 Output									0 -	Output Transfer Delay	
	E-EA -	277 Input;									P -	Remote Status Panel (Status with Alarms & Silence Switch;	
		277/120 Output										Requires C Option)	
	B-AC -	208 Input;									R -	Remote Meter Panel	
		120/240 Output									RA -	Remote Summary Alarm Panel	
	H-H -	347 Input;									S-	Summary Fault Form C Dry Contacts	
		347 Output									SM -	Seismic Mounting <sup>4</sup>	
	B-AB -	208 Input;									PICK 1		
		120/208 Output									BIP -	BACnet IP	
											IOT -	loT Inverter Cloud Connect	
											MIP -	Modbus TCP/IP	

<sup>&</sup>lt;sup>1</sup> Output breakers are optional

1 750-5 000W: 11 supervised 6 250-7 500W: 16 supervised 10 000-16 700W: 22 supervised

347V: 14 supervised

<sup>\*</sup> Capacity changes with runtime. See list below.

Capacity rating as per	Actual capacity rating (kW)							
ordering guide	SNR30	SNR60	SNR90	SNR120				
1750	1.75	1.75	1.53	1.31				
2500	2.5	2.5	2.19	1.88				
3750	3.75	3.75	3.28	2.81				
5000	5	5	4.38	3.75				
6250	6.25	6.25	5.47	4.69				
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				



<sup>&</sup>lt;sup>2</sup> Maximum out breakers available:

 $<sup>^{\</sup>rm 3}$  BTM option only available on the following sizes: 10 000, 12 500, 16 700W

<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)
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
1	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)
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
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.
Р	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		Cabinet Dimensions			Batter	Total System	
30 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	Weight
1 75	120 or 277	24	48	25	247	4	007	534
1.75	347	54			396		4	287
2.50	120 or 277	24	48	25	263	4	287	550
2.50	347	54	40	25	412	4	201	699
3.75	120 or 277	24	48	25	280	6	430	710
3.70	347	54	40	20	441	0		871
5.00	120 or 277	24	- 48	O.E.	297	- 8	574	871
5.00	347	54	40	25	467		3/4	1 041
6.25	120 or 277	36	- 53	25	418	10	717	1 135
0.23	347	66	33	25	597	10		1 314
7.50	120 or 277	36	53	25	444	12	860	1 304
7.50	347	66	33	20	636	12	000	1 496
10.0	120 or 277	42	70.0	O.E.	940	12	000	1 800
10.0	347	72	78.3	25	1 145		860	2 005
10.5	120 or 277	42	70.0	O.E.	980	45	1.076	2 056
12.5	347	72	78.3	25	1 200	15	1 076	2 276
16.7	120 or 277	42	78.3	O.E.	1 030	20	1 434	2 464
10.7	347	72	10.3	25	1 265	20	1 434	2 699

Pov	wer Rating	(kW)	Voltage IN-OUT		Cabinet D	mensions		Batteries		Total	
60 min.	90 min.	120 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	System Weight	
1 75	1.50	1.01	120 or 277	24	40	0.5	247	4	007	534	
1.75	1.53	1.31	347	54	48	25	396	4	287	683	
2.50	2.19	1.88	120 or 277	24	48	25	263	4	397	660	
2.50	2.19	1.00	347	54	40	20	412	4	397	809	
3.75	3.28	2.81	120 or 277	24	48	25	280	6	595	875	
3.73	3.20	2.01	347	54	40	20	441	O		1 036	
5.00	5.00 4.38 3.75	3.75	120 or 277	24	48	25	297	0	- 8	794	1 091
3.00	4.30	3.73	347	54	40	20	467	0	134	1 261	
6.25	25 5.47 4.69	4.69	120 or 277	36	53	25 418 597	418	10	992	1 410	
0.23	5.47	4.09	347	66	55		10	992	1 589		
7.50	6.56	5.63	120 or 277	36	53	25	444	12	1 190	1 634	
7.50	0.50	5.05	347	66	55	20	636	12		1 826	
10.0	8.75	7.50	120 or 277	42	78.3	25	940	12	1 428	2 368	
10.0	0.75	7.50	347	72	70.5	20	1 145	12	1 420	2 573	
12.5	10.9	9.38	120 or 277	42	78.3	25	980	15	1 785	2 765	
12.3	10.9	9.30	347	72	10.5	20	1 200	10	1 700	2 985	
16.7	16.7 14.6	12.5	120 or 277	42	78.3	25	1 030	20	2 380	3 410	
10.7	14.0	12.5	347	72	10.3	20	1 265	20	2 300	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	

