

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

Series Spec Sheet

SNP

SINGLE PHASE INVERTER

The SNP is a fast transfer central inverter system. 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 Withstanding 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
- 1 500-5 000 W: 8 supervised
- 6 000-16 700 W: 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
- 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 $\#141\mbox{-}15$





System Display Functions

The SNP Series is an uninterruptible lighting inverter. It transfers to inverter mode (battery power) when utility power is interrupted for less than 2ms. The line interactive design eliminates excessive transfers to battery power. The SNP Series is designed for all lighting loads.



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





ORDERING GUIDE

-				S						/	/	
Series			Capacity Rating	Battery Type Output Breakers¹					Options			
		Input-Output	(W)*		Output		Vo	tage/Poles	Amp Rating	Quantity ²		
SNP30	A-A -	120 Input;	1 500	S - Standard	0 -	Normally On	Α-	120	10	T01		Standard Features
SNP60		120 Ouput	2 250		F-	Normally Off	В-	208	16	T02	C -	Status Monitoring Contacts Dry Form C
SNP90	A-AE -	120 Input;	3 000				C -	240	20	T03	DT -	Drip Top (NEMA 2)
SNP120		120/277 Ouput	3 750				E-	277	25	T04		Optional Features
	B-A -	208 Input;	5 000				Н-	347	32	T05	BBM -	Internal Maintenance Bypass (Break-Before-Make)
		120 Ouput	6 000						40	T06	BL -	Circuit Breaker Lock(s)
	C-AC -	240 Input;	8 000						50	T07	BTM -	Battery Temperature Monitor
		120/240 Ouput	10 000						63	T08	F-	Fast Charge
	E-A -	277 Input;	12 500							T09	1-	Inverter On Dry Form C Contacts
		120 Ouput	16 700							T10	L-	Load Control Interface (Dimmer / Switch Bypass)
	E-E -	277 Input;								T11	MBB -	Internal Maintenance Bypass (Make-Before-Break)
		277 Ouput								T12	0 -	Output Transfer Delay
	E-EA -	277 Input;								T13	P -	Remote Status Panel (Requires Option C)
		277/120 Ouput								T14	R -	Remote Meter Panel
	B-AC -	208 Input;								T15	RA -	Remote Summary Alarm Panel
		120/240 Ouput								T16	S-	Summary Dry Form C Contacts
	H-H -	347 Input;								T17	SM -	Seismic Bracing/Mounting ³
		347 Ouput								T18	PICK 1	
											BIP -	BACnet IP
											IOT -	IoT Inverter Cloud Connect
											MIP -	Modbus TCP/IP

¹ Output breakers are optional

1 500-5 000 W: 8 supervised poles

6 000-16 700 W: 18 supervised poles

Combinations of 1 and 2 pole breakers available (consult factory)

347 V: 14 supervised

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

Capacity rating as per	Actual capacity rating (kW)							
ordering guide	SNP30	SNP60	SNP90	SNP120				
1 500	1.5	1.5	1.39	1.28				
2 250	2.25	2.25	2.08	1.91				
3 000	3	3	2.78	2.55				
3 750	3.75	3.75	3.47	3.19				
5 000	5	5	4.63	4.25				
6 000	6	6	5.55	5.1				
8 000	8	8	7.4	6.8				
10 000	10	10	9.25	8.5				
12 500	12.5	12.5	11.6	10.6				
16 700	16.7	16.7	15.4	14.2				



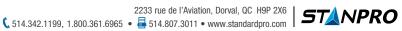
² Maximum output breakers available:

³ Anchorage based on calculations. For systems requiring OSHPD/Withstand testing, please contact the factory.



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
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
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
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 D	Batter	ries	Total		
30 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	System Weight
1.5	120 or 277	30	47	25	215	4	146	361
1.5	347	7 30	69	25	339			485
2.25	120 or 277	30	47	25	230	6	010	448
2.20	347	30	69		354	0	218	572
3	120 or 277	30	47	25	235	8	291	526
J	347	30	69	25	365	0		656
3.75	120 or 277	30	47	25	240	10	364	604
3.73	347	30	69	20	376			740
5	120 or 277	30	47	25	280	12	437	717
J .	347	30	69	20	425			862
6	120 or 277	48	76	25	605	- 15	546	1 151
Ü	347	78			784			1 330
8	120 or 277	48	76	25	640	20	728	1 368
O	347	78	70		832			1 560
10	120 or 277	48	76	25	785	12	860	1 645
10	347	78	70	20	990			1 850
12.5	120 or 277	48	76	25	805	15	1 076	1 881
12.0	347	78	7 /6	20	1 025	15	1 0/6	2 101
16.7	120 or 277	48	76	25	885	20	1 434	2 319
10.7	347	78	10	20	1 120	20	1 434	2 554

Power Rating (kW)		Voltage IN-OUT		Cabinet D	imensions	Batteries		Total		
60 min.	90 min.	120 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	System Weight
1.5	1.39	1.28	120 OR 277	- 30	47	25	215	4	287	502
1.5	1.39	1.20	347	30	69	25	339	4	201	626
2.25	2.08	1.91	120 OR 277	- 30	47	25	230	6	430	660
2.20	2.00	1.91	347	30	69	20	354	Ü	430	784
3	2.78	2.55	120 OR 277	30	47	25	235	8	574	809
3	2.70	2.55	347	30	69	25	365	0	3/4	939
3.75	3.47	3.19	120 OR 277	- 30	47	25	240	10	717	957
3.75	3.47	3.19	347	30	69	25	376	10		1 093
5	4.63	4.25	120 OR 277	- 30	47	25	280	12	860	1 140
5	4.03	4.25	347] 30	69	25	425	12	000	1 285
6	5.55	5.1	120 OR 277	48	76	25	605	15	1 076	1 681
0	5.55	5.1	347	78	76	25	784	15	1 076	1 860
8	7.4	6.8	120 OR 277	48	76	25	640	20	1 434	2 074
0	7.4	0.0	347	78	76	25	832	20	1 434	2 266
10	9.25	8.5	120 OR 277	48	76	25	785	24	1 721	2 506
10	9.25	0.5	347	78	76	23	990	24	1721	2 711
12.5	11.6	10.6	120 OR 277	48	76	25	805	30	2 151	2 956
12.5	11.6	10.6	347	78	/6	25	1 025	30	2 151	3 176
16.7	15.4	14.2	120 OR 277	48	76	25	885	40	2 868	3 753
10.7	15.4	14.2	347	78	/0	20	1 120	40	∠ 000	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	1 139	16.7	1 139	15.4	1 054	14.2	968	

