

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

# Series Spec Sheet

# **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.

### **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
- Input Circuit Breaker
- One Output Circuit Breaker
- No Break 2ms Transfer Time
- Wall Hung Units (No Mounting Brackets)
- RS-232 Communication Port
- 65kAIC Withstanding Rating

## • 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







# **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





## **ORDERING GUIDE**

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

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

1 000-2 800 W: 6 supervised

347 V: 14 supervised

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

Capacity rating as per	Actual capacity rating (kW)							
ordering guide	SNM30	SNM60	SNM90	SNM120				
1 000	1	1	0.9	0.8				
1 600	1.6	1.6	1.44	1.28				
2 200	2.2	2.2	1.98	1.76				
2 800	2.8	2.8	2.52	2.24				



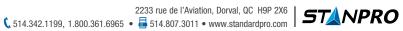
<sup>&</sup>lt;sup>2</sup> Maximum out breakers available:

<sup>&</sup>lt;sup>3</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
BS	Battery Strapping	Strapping of the batteies to stop movement
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
FL	Floor Mount Bracket (add 4" to height of system)	Allows client to get the EM off the floor
ЮТ	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)
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
W	Wall Mount Bracket	Bracket for mounting system on the wall





## **DIMENSIONS**





Power Rating	Voltage IN-OUT		Cabinet Dimensions				Batteries		
(kW)	(VAC)	MC III (C.)		<b>5</b>		No. of		Weight	
30 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	Batteries	Weight (lbs)		
1	120 OR 277	24.25	27.5	10.5	121	4	93	214	
I	347	24.20	43.25		199			292	
1.6	120 OR 277	24.25	43.25	10.5	165	- 6	139	304	
1.0	347		55		237		0	138	376
2.2	120 OR 277	24.25	43.25	10.5	171	- 8	171 237 8	186	357
2.2	347	24.25	55		237				423
2.8	120 OR 277	24.25	55	10.5	203	10	232	435	
	347	24.25	70.75	10.5	281	10	232	513	

Pov	ver Rating (	kW)	Voltage IN-OUT		Cabinet D	imensions		Batteries		Total System
60 min.	90 min.	120 min.	(VAC)	Width (in)	Height (in)	Depth (in)	Weight (lbs)	No. of Batteries	Weight (lbs)	Weight
-1	0.0	0.0	120 OR 277	04.05	27.5	10 5	121	4	140	267
1 0.9	8.0	347	24.25	43.25	10.5	199	4	146	345	
1.6	1 44	1.28	120 OR 277	04.05	43.25	10 5	165	c	010	383
1.6	1.44	1.20	347	24.25	55	10.5	237	6	218	455
2.2	1.98	1.76	120 OR 277	24.25	43.25	10.5	171	8	291	462
2.2	1.90	1.70	347	24.20	55	10.5	237	0	291	528
0.0		120 OR 277	120 OR 277	04.05	55	40.5	203	10	264	567
2.8	2.52	2.24	347	24.25	70.75	10.5	281	10	364	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	

