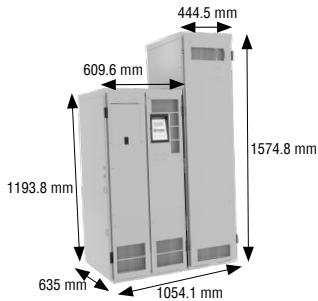




# SCUDO-HN THREE PHASE INVERTER

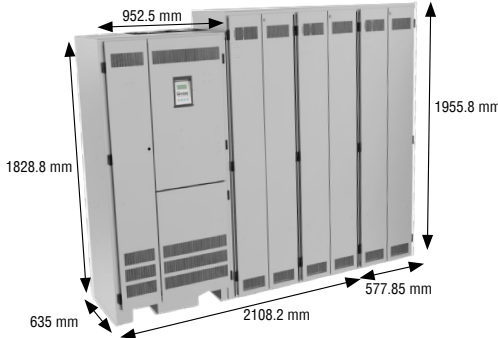
Distributed by BeLuce  
cUL listed to CSA C22.2 No. 141-15

Project Name: \_\_\_\_\_ Model Number: \_\_\_\_\_  
Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_



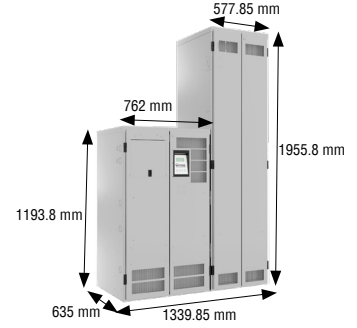
**ELECTRONICS CABINET**

MODELS 5.0kW - 10.0kW



**ELECTRONICS CABINET**

MODELS 25.0kW - 50.0kW



**ELECTRONICS CABINET**

MODELS 12.5kW - 16.7kW

## ORDERING GUIDE

SCU-HN

SERIES	INPUT	OUTPUT <sup>1</sup>	OUTPUT (KVA/ KW)	BATTERY	RUNTIME	OPTIONS (REFERENCE PAGE 5 OPTIONS MATRIX)
SCU-HN	P = 120/208 U = 277/480 W = 347/600	P = 120/208 U = 277/480 W = 347/600	5.0 kW 7.5 kW 10.0 kW 12.5 kW 16.7 kW 25.0 kW 33.2 kW 37.5 kW 50.0 kW	S (Standard VRLA) C (Custom - For 12.5kW & 16.7kW Systems Only)	C (30 min) D (60 min) S (90 min) E (120 min)	<p><b>Output Breakers<sup>2</sup></b> <b>Output:</b> B - Normally On N - Normally Off</p> <p><b>Voltage/Poles:</b> A - 120V, 1-Pole H - 208V 2-Poles J - 240V 2-Poles B - 277V 1-Pole P - 120/208V, 3-Poles U - 277/480V, 3-Poles D - 480V, 2-Poles C - 347V O - Other</p> <p><b>Amp Rating<sup>3</sup>:</b> 15, 20, 25, 30, 35, 40, 50, 60</p> <p><b>*Quantity<sup>2</sup>:</b> 01 - 42 (Qty Must Be Specified)</p> <p><b>Warranty &amp; On-Site Services<sup>7</sup> :</b> 2YW - Start Up &amp; Same Day Training 2YWT - Start Up, Same Day Training and Full Run Test 5YP - 5-Year Preventative Maintenance Plan 5YW - 5-Year Extended Electronics Warranty TR - Training On Day Other Than Start Up Date</p> <p>A - Remote Summary Alarm Panel BAT<sup>8</sup> - batteries and units are shipped together (uninstalled) or separately (3 months or 6 months) BCF - Battery Cabinet Fan BL - Output Circuit Breaker lock(s) BTM - Battery Temperature Monitor *C - Status Monitoring Contacts Dry Form C *DT - Drip Top (NEMA 2) EB - External Bypass, input/ output voltage must match and output breakers are limited to (1) only F - Fast Charge I - Inverter on Dry Form C Contact L - Load Control Relay (Dimmer or Switch Bypass) M(BBM) - Internal Maintenance Bypass "Break Before Make" O - Output Transfer Delay P - Remote Status Panel (Status Alarms, Requires C Option) R - Remote Meter Panel S - Summary Fault Form C Contacts *T<sup>2</sup> - Output Trip Alarm (Qty Must Be Specified) V - Time Delay 15 Minutes Z<sup>9</sup> - Seismic Mounting ZM - Zone Monitoring (Quantity Must Be Specified) <b>PICK 1:</b> SEA - Serial to Ethernet Adapter BAC - BACnet BIP - BACnet IP IoT - Inverter Connection Cloud Communications (Avail. 2024) MIP - Modbus TCP/IP MOD - Modbus RTU NOTE: Not all options are described in UL file. <b>ACCESSORIES</b> EMBP<sup>4,5</sup> - External Maintenance Bypass Switch SPARES - Spare Parts Kit SPAREF - Spare Fuses</p>

NOTE: <sup>1</sup>These items are mandatory in order configuration. <sup>2</sup>Standard input voltage is 4-Wire Wye. 3-Wire Delta Input requires external isolation transformer. <sup>3</sup>Maximum output breakers available; 5kW-10kW - 1 Internal; 30 with enclosure; 12.5kW-16.7kW - 12 Internal; 42 with enclosure; 25kW-50kW - 24 Internal, 36 Internal with extra tray. The breakers provided are 20 Amps unless specified otherwise. Combinations of 1, 2, and 3 pole breakers available; <sup>4</sup>Higher AMP ratings available; <sup>5</sup>Maintenance bypass switch is a "make before break". <sup>6</sup>Main output breaker or main lug output can only be provided with External Maintenance Bypass; <sup>7</sup>Anchorage based on calculations. For systems requiring Withstand testing, please contact the factory. <sup>8</sup>Warranty is 1yr standard includes all parts for electronics; Batteries are 1yr full, 9yrs prorated. <sup>9</sup>If batteries are shipped separately additional charges will apply.

# SCUDO-HN THREE PHASE INVERTER

The SCUDO-HN is a stand-by, three-phase, solid-state interruptible\* power supply unit. It 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. Designed with Industry Leading Compact Footprint, the SCUDO-HN 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!

## 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
- Low Audible Noise
- Space-Saving Design
- 65kAIC Withstanding Rating
- \*2 milliseconds(ms) Transfer Time

## SAFETY

- cUL listed to CSA C22.2 No. 141-15

## SPECIFICATION

- Input Voltage: 120/208, 277/480 or 347/600 VAC 3-Phase 4-Wire Plus Ground
- Output Voltage: 120/208, 277/480 or 347/600 VAC 3-Phase 4-Wire Plus Ground
- Output Load Power Factor 0.5 Lag to 0.5 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 Runtime available
- Inverter Operating Temperature 0°C to 40°C
- Battery Operating Temperature 20°C to 30°C

## AUDIBLE ALARM

The SCUDO-HN audible alarm will activate with any of the following conditions and automatically store the 50 most recent events:

- High Battery Charger Voltage
- Low Battery Charger Voltage
- High AC Input Voltage
- Low AC Input Voltage
- Near Low Battery Voltage
- Low Battery Voltage
- Load Reduction Fault
- High Ambient Temperature
- Inverter Fault
- Output Fault
- Output Overload

## OPTIONAL FEATURES

- Enhanced Communications
  - Expanded Building Management Protocols
  - BACnet or Modbus Communications Interface
  - IoT Connect Cloud Software (Available 2024)
- 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)

## APPLICATIONS

- Airports Terminals
- Apartment / Condominium Complexes
- Arenas / Stadiums
- Assisted Living Centers & Nursing Homes
- Casinos / Resorts
- Correctional Facilities
- Financial Institutions
- Government Buildings / Public Address Systems
- Hospitals / Clinics
- Hotels / Motels
- Industrial & Commercial Spaces
- Institutional
- Office Buildings
- Parking Structures / Garages
- Race Tracks
- Religious Facilities
- Restaurants
- Retail Department Stores & Malls
- Subways / Mass Transit Stations
- Theaters

## BATTERIES

Batteries do not come pre-installed. They can be shipped together with the unit(s) or shipped separately at a later date (3 or 6 months) with additional charges.

# SCUDO-HN THREE PHASE INVERTER

## MONITORING AND CONTROL

The SCUDO-HN provides operation monitoring and control, audible alarms, LED indicators, and diagnostics. The front-mounted control panel includes a 2-line 20-character LCD display and a keypad to control and monitor the internal operation of the system. This allows the operator to easily “watch” system functions as they occur and check on virtually any aspect of the system’s operation. Monitoring and control are microcontroller-based for accuracy and reliability. To ensure only authorized personnel can operate the unit, the system is multi-level password protected for all control functions and parameter changes.

## METER FUNCTION

- 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

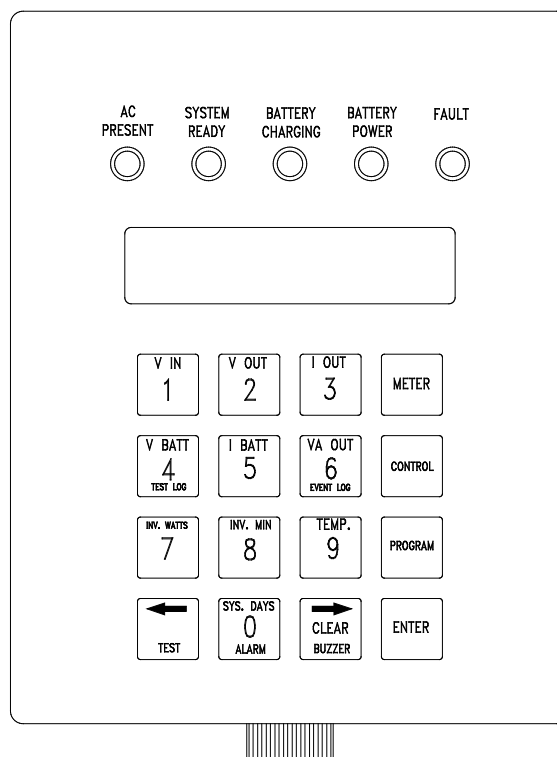
- Date
- Time
- Month Test Date / Time
- Yearly Test Date / Time
- Load Fault Reduction Setting
- Low Battery Alarm
- Near Low Battery Alarm
- Low AC Voltage Alarm
- High AC Voltage Alarm
- Ambient Temperature Alarm

## 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

## MANUAL AND PROGRAMMABLE TESTING

The SCUDO-HN incorporates a manual test function and two automatic test modes. The system will perform a programmable, self-diagnostic monthly test for 5 minutes. The monthly test is preset for the 15th of every month and the user can program the event time of day. The yearly self-diagnostic test is for the full rated run time and the user can program the time of the day the event is to take place. The microcontroller automatically records the last 75 test events in its own separate test result log.



## LED INDICATION

The front panel with integrated LEDs, allows a quick check of the CIS operating status.

- AC Present (Green)
- System Ready (Green)
- Battery Charging (Yellow)
- Battery Power (Yellow)
- Fault (Red)

# SCUDO-HN THREE PHASE INVERTER

GENERAL SPECIFICATIONS		
<b>INPUT</b>	Voltage Input Frequency Synchronizing Slew Rate Protection Voltage Harmonic Distortion Power Factor	120/208 or 277/480 or 347/600V AC 3-phase 4-wire +10% -15%. 60Hz, +/- 3%, 50Hz Available upon request 1Hz per second nominal Input Circuit Breaker <10% (For Resistive Load) 0.5 lag/lead
<b>OUTPUT</b>	Voltage Static Voltage Dynamic Voltage Harmonic Distortion Output Frequency Load Power Factor Inverter Overload Protection	120/208, 277/480 or 347/600 VAC 3-phase 4-wire Load current change +/-4%, battery discharge +/-4% +/- 3% for +/-25% load step change, +/-6% for a 50% load step change <3% THD for linear load 60Hz +/-0.05Hz during emergency mode 0.5 lag to 0.5 lead 115% continuous rating; 150% for 2.5 seconds; 250% for 3 line cycles Output Circuit Breaker
<b>BATTERY</b>	Type Charger Protection Disconnect	Valve-regulated lead-acid (VRLA) Microcontroller two stage charger (recharge - 24HR) Automatic low-battery disconnect; automatic restart upon utility return Fuse / Circuit Breaker
<b>ENVIRONMENTAL</b>	Altitude Operating Temperature  Storage Temperature Relative Humidity	<3000m (10,000 feet) above sea level without derating Inverter: 0°C to 40°C Battery: 20°C to 30°C -20°C to 70°C (electronics only) <95% (non-condensing)
<b>GENERAL</b>	Design Generator Input Control Panel  Metering Alarms  Communications Manual Maintenance Bypass Alarm Contacts Warranty	Stand-By IPS, PWM inverter type utilizing IGBT technology with 2ms transfer time Compatible with generators Microcontroller 2 x 20-character Display with touch pad controls & functions 5 LED indicators & alarm with status indicator Input & Output Voltage, Battery Voltage, Battery & Output Current, Output VA, Temperature, Inverter Wattage High/Low Battery Charger Fault, Near Low Battery, Low Battery, Load Reduction Fault, Output Overload High/Low AC Input Volts, High Ambient Temperature, Inverter Fault, Output Fault, Optional Circuit Breaker Trip RS-232 port (DB9) Standard internal Optional Summary Form "C" Contacts 1 year standard warranty and up to 9 Years prorated warranty on batteries.
<b>PHYSICAL</b>	Cabinet Cooling Cable Entry Access	Freestanding NEMA Type 1 Forced Air, during emergency mode Top or Side Front

# SCUDO-HN THREE PHASE INVERTER

## OPTIONS MATRIX

Option Code	Option Name	Description
A	Remote Summary Alarm Panel	LED indicator and Sound alert
BAT	Battery Shipment	Batteries do not come pre-installed. They can be shipped together with the unit(s) or shipped separately at a later date (3 or 6 months) with additional charges.
BCF	Battery Cabinet Fan	The fan in battery cabinets (3 phase only) is activated whenever the system goes into emergency
BTM	Battery Temperature Monitor	1. Warning alarm: warns when the battery temperature is getting too high 2. Absolute alarm: when the temperature reaches high temp this shuts down the string of batteries where the hot battery is.
BL	Output Circuit Breaker lock(s)	Allows customer to lock OCB in on or off position
C	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)	A metal piece designed to direct falling water away from the unit
EB	External Bypass	Input/ output voltage must match and output breakers are limited to (1) only
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 the inverter is on
L	Load Control Relay Dimmer or Bypass Switch	Equal to an LVS EPC-2-D
M(BBM)	Internal Maintenance Bypass Break Before Make	Toggle switch designed to disconnect inverter from the electrical system for maintenance (break before make)
O	Output Transfer Delay	A device designed to delay transfer adjustable 0-7.5 seconds, factory set at 3 seconds. Used when the control system cannot detect the fast transfer
P	Remote Status Panel (Status alarms, Requires C Option)	Single gang box showing the status of alarms requires a C option
R	Remote Meter Panel	Full-size meter panel mounted remotely in a NEMA 1 enclosure
S	Summary Fault Form C contacts	Relay contact showing any alarm
SEA	Serial to Ethernet Adapter	RS232 to Ethernet adapter
T	Output Trip Alarm (Qty Must Be Specified)	Alarms when any OCB is tripped, must be specified to the output breaker qty
V	Time Delay 15 minutes	Delays transfer back to utility power for up to 15 minutes, not used much anymore mostly for HID
Z	Seismic Mounting	Instructions and hardware for mounting systems in standard seismic applications
ZM	Zone Monitoring (Qty must be specified)	3 zones max, used to monitor other phases in 3 phase utility system or to monitor external CB panels. Not necessary with normally on OCB's.
BAC	BACnet Communications	"MSTP" allow the upload of FMP data via an RS232 intermediate device. This info can then be downloaded to the customer's device.
BIP	BACnet IP	Same as above except allows direct communication via IP
IOT	IOT inverter Connect Cloud communication	A system using the Cloud to allow monitoring of multiple systems in one location. (Available 2024)
MIP	Modbus TCP/IP	Same as BACnet IP
MOD	Modbus RTU	Same as BACnet MSTP
2YW	Startup & Same day training	Factory start-up which extends electronics warranty by an additional year
2YWT	Startup & Same day training and full run test	Same as 2YW. Includes full load test using customer load or load bank
5YP	5-Year Service Plan	Annual (once or twice) visit to perform preventative maintenance
5YW	5-Year Extended Electronics Warranty	Same as 2YW except extend the electronics warranty and additional 3 years (5 total)
TR	Training (if required on separate day)	Only used if required by the owner
EMBP	External Maintenance bypass switch	Maintenance bypass switch mounted external to the system. Can not use with OCB's
SPARES	Spare parts kit	Complete parts kits including PC boards
SPAREF	Spare fuses	Spare fuses only



# SCUDO-HN THREE PHASE INVERTER

## DIMENSIONS

30 MIN													
POWER RATING (KW)	VOLTAGE IN-OUT (VAC)	HEAT LOSS (BTU)	ELECTRONICS CABINET DIMENSIONS				BATTERIES		BATTERY CABINET DIMENSIONS				TOTAL SYSTEM WEIGHT
			WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	NO. OF BATTERIES	WEIGHT (LBS)	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	
5.0	120/208 or 277/480	341	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1630
5.0	347/600	341	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	1820
7.5	120/208 or 277/480	512	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1630
7.5	347/600	512	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	1820
10.0	120/208 or 277/480	682	609.6	1193.8	635	590	12	860	444.5	1574.8	635	285	1735
10.0	347/600	682	609.6	1752.6	635	802	12	860	444.5	1574.8	635	285	1947
12.5	120/208 or 277/480	853	762	1193.8	635	640	15	1076	577.85	1955.8	635	375	2091
12.5	347/600	853	762	1752.6	635	874	15	1076	577.85	1955.8	635	375	2325
16.7	120/208 or 277/480	1139	762	1193.8	635	640	20	1434	577.85	1955.8	635	375	2449
16.7	347/600	1139	762	1752.6	635	874	20	1434	577.85	1955.8	635	375	2683
25.0	120/208 or 277/480	1705	952.5	1828.8	635	1150	40	2868	1155.7	1955.8	635	750	4768
25.0	347/600	1705	1714.5	1828.8	635	1447	40	2868	1155.7	1955.8	635	750	5065
33.2	120/208 or 277/480	2264	952.5	1828.8	635	1150	40	2868	1155.7	1955.8	635	750	4768
33.2	347/600	2264	1714.5	1828.8	635	1485	40	2868	1155.7	1955.8	635	750	5103
37.5	120/208 or 277/480	2558	952.5	1828.8	635	1360	60	4302	1733.55	1955.8	635	1125	6787
37.5	347/600	2558	1714.5	1828.8	635	1737	60	4302	1733.55	1955.8	635	1125	7164
50.0	120/208 or 277/480	3410	952.5	1828.8	635	1360	60	4302	1733.55	1955.8	635	1125	6787
50.0	347/600	3410	1714.5	1828.8	635	1779	60	4302	1733.55	1955.8	635	1125	7206

60 MIN													
POWER RATING (KW)	VOLTAGE IN-OUT (VAC)	HEAT LOSS (BTU)	ELECTRONICS CABINET DIMENSIONS				BATTERIES		BATTERY CABINET DIMENSIONS				TOTAL SYSTEM WEIGHT
			WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	NO. OF BATTERIES	WEIGHT (LBS)	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	
5.0	120/208 or 277/480	341	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1630
5.0	347/600	341	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	1820
7.5	120/208 or 277/480	512	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1960
7.5	347/600	512	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	2150
10.0	120/208 or 277/480	682	609.6	1193.8	635	590	12	860	444.5	1574.8	635	285	2303
10.0	347/600	682	609.6	1752.6	635	802	12	860	444.5	1574.8	635	285	2515
12.5	120/208 or 277/480	853	762	1193.8	635	640	15	1785	577.85	1955.8	635	375	2800
12.5	347/600	853	762	1752.6	635	874	15	1785	577.85	1955.8	635	375	3034
16.7	120/208 or 277/480	1139	762	1193.8	635	640	20	2380	577.85	1955.8	635	375	3395
16.7	347/600	1139	762	1752.6	635	874	20	2380	577.85	1955.8	635	375	3629
25.0	120/208 or 277/480	1705	952.5	1828.8	635	1150	40	3968	1155.7	1955.8	635	750	5868
25.0	347/600	1705	1714.5	1828.8	635	1447	40	3968	1155.7	1955.8	635	750	6165
33.2	120/208 or 277/480	2264	952.5	1828.8	635	1150	40	3968	1155.7	1955.8	635	750	6660
33.2	347/600	2264	1714.5	1828.8	635	1485	40	3968	1155.7	1955.8	635	750	6995
37.5	120/208 or 277/480	2558	952.5	1828.8	635	1360	60	5952	1733.55	1955.8	635	1125	8437
37.5	347/600	2558	1714.5	1828.8	635	1737	60	5952	1733.55	1955.8	635	1125	8814
50.0	120/208 or 277/480	3410	952.5	1828.8	635	1360	60	5952	1733.55	1955.8	635	1125	9625
50.0	347/600	3410	1714.5	1828.8	635	1779	60	5952	1733.55	1955.8	635	1125	10044



# SCUDO-HN THREE PHASE INVERTER

## 90 MIN

POWER RATING (KW)	VOLTAGE IN-OUT (VAC)	HEAT LOSS (BTU)	ELECTRONICS CABINET DIMENSIONS				BATTERIES		BATTERY CABINET DIMENSIONS				TOTAL SYSTEM WEIGHT
			WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	NO. OF BATTERIES	WEIGHT (LBS)	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	
4.38	120/208 or 277/480	298	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1630
4.38	347/600	298	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	1820
6.56	120/208 or 277/480	448	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1960
6.56	347/600	448	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	2150
8.75	120/208 or 277/480	597	609.6	1193.8	635	590	12	860	444.5	1574.8	635	285	2303
8.75	347/600	597	609.6	1752.6	635	802	12	860	444.5	1574.8	635	285	2515
10.9	120/208 or 277/480	746	762	1193.8	635	640	15	1785	577.85	1955.8	635	375	2800
10.9	347/600	746	762	1752.6	635	874	15	1785	577.85	1955.8	635	375	3034
14.6	120/208 or 277/480	997	762	1193.8	635	640	20	2380	577.85	1955.8	635	375	3395
14.6	347/600	997	762	1752.6	635	874	20	2380	577.85	1955.8	635	375	3629
21.9	120/208 or 277/480	1492	952.5	1828.8	635	1150	40	3968	1155.7	1955.8	635	750	5868
21.9	347/600	1492	1714.5	1828.8	635	1447	40	3968	1155.7	1955.8	635	750	6165
29.1	120/208 or 277/480	1981	952.5	1828.8	635	1150	40	3968	1155.7	1955.8	635	750	6660
29.1	347/600	1981	1714.5	1828.8	635	1485	40	3968	1155.7	1955.8	635	750	6995
32.8	120/208 or 277/480	2238	952.5	1828.8	635	1360	60	5952	1733.55	1955.8	635	1125	8437
32.8	347/600	2238	1714.5	1828.8	635	1737	60	5952	1733.55	1955.8	635	1125	8814
43.8	120/208 or 277/480	2984	952.5	1828.8	635	1360	60	5952	1733.55	1955.8	635	1125	9625
43.8	347/600	2984	1714.5	1828.8	635	1779	60	5952	1733.55	1955.8	635	1125	10044

## 120 MIN

POWER RATING (KW)	VOLTAGE IN-OUT (VAC)	HEAT LOSS (BTU)	ELECTRONICS CABINET DIMENSIONS				BATTERIES		BATTERY CABINET DIMENSIONS				TOTAL SYSTEM WEIGHT
			WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	NO. OF BATTERIES	WEIGHT (LBS)	WIDTH (MM)	HEIGHT (MM)	DEPTH (MM)	WEIGHT (LBS)	
3.75	120/208 or 277/480	256	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1630
3.75	347/600	256	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	1820
5.63	120/208 or 277/480	384	609.6	1193.8	635	485	12	860	444.5	1574.8	635	285	1960
5.63	347/600	384	609.6	1752.6	635	675	12	860	444.5	1574.8	635	285	2150
7.50	120/208 or 277/480	512	609.6	1193.8	635	590	12	860	444.5	1574.8	635	285	2303
7.50	347/600	512	609.6	1752.6	635	802	12	860	444.5	1574.8	635	285	2515
9.38	120/208 or 277/480	639	762	1193.8	635	640	15	1785	577.85	1955.8	635	375	2800
9.38	347/600	639	762	1752.6	635	874	15	1785	577.85	1955.8	635	375	3034
12.5	120/208 or 277/480	854	762	1193.8	635	640	20	2380	577.85	1955.8	635	375	3395
12.5	347/600	854	762	1752.6	635	874	20	2380	577.85	1955.8	635	375	3629
18.8	120/208 or 277/480	1279	952.5	1828.8	635	1150	40	3968	1155.7	1955.8	635	750	5868
18.8	347/600	1279	1714.5	1828.8	635	1447	40	3968	1155.7	1955.8	635	750	6165
24.9	120/208 or 277/480	1698	952.5	1828.8	635	1150	40	3968	1155.7	1955.8	635	750	6660
24.9	347/600	1698	1714.5	1828.8	635	1485	40	3968	1155.7	1955.8	635	750	6995
28.1	120/208 or 277/480	1918	952.5	1828.8	635	1360	60	5952	1733.55	1955.8	635	1125	8437
28.1	347/600	1918	1714.5	1828.8	635	1737	60	5952	1733.55	1955.8	635	1125	8814
37.5	120/208 or 277/480	2558	952.5	1828.8	635	1360	60	5952	1733.55	1955.8	635	1125	9625
37.5	347/600	2558	1714.5	1828.8	635	1779	60	5952	1733.55	1955.8	635	1125	10044