



**IPSi3605**  
**INTELLIGENT 3600W PURE SINE INVERTER**

The IPSi3605 Series Intelligent Pure Sinewave Inverters are designed for powering sensitive AC loads in harsh environment applications.

Internally, the IPSi3605 is controlled by a sophisticated Digital Signal Processor (DSP) for optimal control and efficient operation. Power MOSFET transistors and a heavy-duty toroidal power transformer produce stepped up AC voltage from the input DC. Additional filtering on the AC output reduces EMI noise that can interfere with sensitive communication equipment.

For safety, this unit features a low voltage warning with shutdown circuitry to protect the DC power source. The inverter is also safeguarded by high voltage and over-temperature protection with shutdown circuitry. All alarm conditions can be monitored on the bright LED indicator display and mirrored on the optional remote control panel (control panel coming soon, contact Sales for more details).

With the optional InverterWizard software, additional inverter settings can be adjusted using any Windows laptop via the inverter's MicroUSB port. InverterWizard allows for adjustment of output frequency, output voltage, and alarm shutdown parameters, as well as monitoring and logging operating data.



**FEATURES**

- Overload protection
- Short-circuit protection
- Overtemperature protection
- Optional ground fault protection
- Bright LED indicators
- DSP controlled
- Programmable output voltage and frequency
- AC Input, Line AC Detect & Autoswitch UPS

**AVAILABLE MODELS**

**DC Input**

24, 28, 32 or 36VDC  
48 or 72VDC

**AC Output**

120VAC 50/60Hz  
240VAC 50/60Hz  
230VAC 50/60Hz



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**5 YEAR WARRANTY**



101-8128 River Way  
Delta, B.C. V4G1K5

## TECHNICAL SPECIFICATIONS

### DC Input

	-20	-40
Nominal Voltage	24, 28, 32 or 36VDC	48 or 72VDC
Actual Voltage	20 to 45VDC	39 to 86VDC
Maximum Current	80A	40A
Recommended Fuse	400A	200A
Low Voltage Input Shutdown Range	21VDC (user selectable: 19 to 36VDC)	40VDC (user selectable: 39 to 70VDC)
Low Voltage Input Startup Range	23VDC (user selectable: 20 to 36VDC)	44VDC (user selectable: 40 to 70VDC)
Low Voltage Input Shutdown Delay	5s (user selectable: 1 to 120s)	5s (user selectable: 1 to 120s)
High Voltage Input Shutdown	49VDC	88VDC

### AC Input

	110VAC (user selectable: 90 to 140VAC)	220VAC (user selectable: 180 to 240VAC)	210VAC (user selectable: 180 to 240VAC)
Voltage Switchover			
Continuous Current	10A		
Switchover Delay	30s (user selectable: 5 to 120s)		
Transfer Time	15ms (inverter to line), 36ms (line to inverter)		

### AC Output

	-120	-240	-230
Nominal Voltage	120VAC	240VAC	230VAC
Voltage Range	100 to 120VAC	200 to 240VAC	200 to 240VAC
Power Phase	Single	Split	Single
Default Frequency	60Hz $\pm$ 0.01Hz	60Hz $\pm$ 0.01Hz	50Hz $\pm$ 0.01Hz
Frequency Range	user selectable: 50 or 60Hz		
Continuous Current	30A	15A	15A
Peak Current	36A	18A	18A
Surge Current	60A	30A	30A
Output Breaker	30A	30A	30A
Regulation (Line & Load)	< $\pm$ 2.0VAC	< $\pm$ 3.0VAC	< $\pm$ 3.0VAC
Output Distortion	< 2% at full load (resistive load)		
Duty Cycle	Continuous: 24 hours per day		
Efficiency	> 85% @ maximum output		
Ground Fault Trip Current	4 to 6mA (with Option G)		

# TECHNICAL SPECIFICATIONS

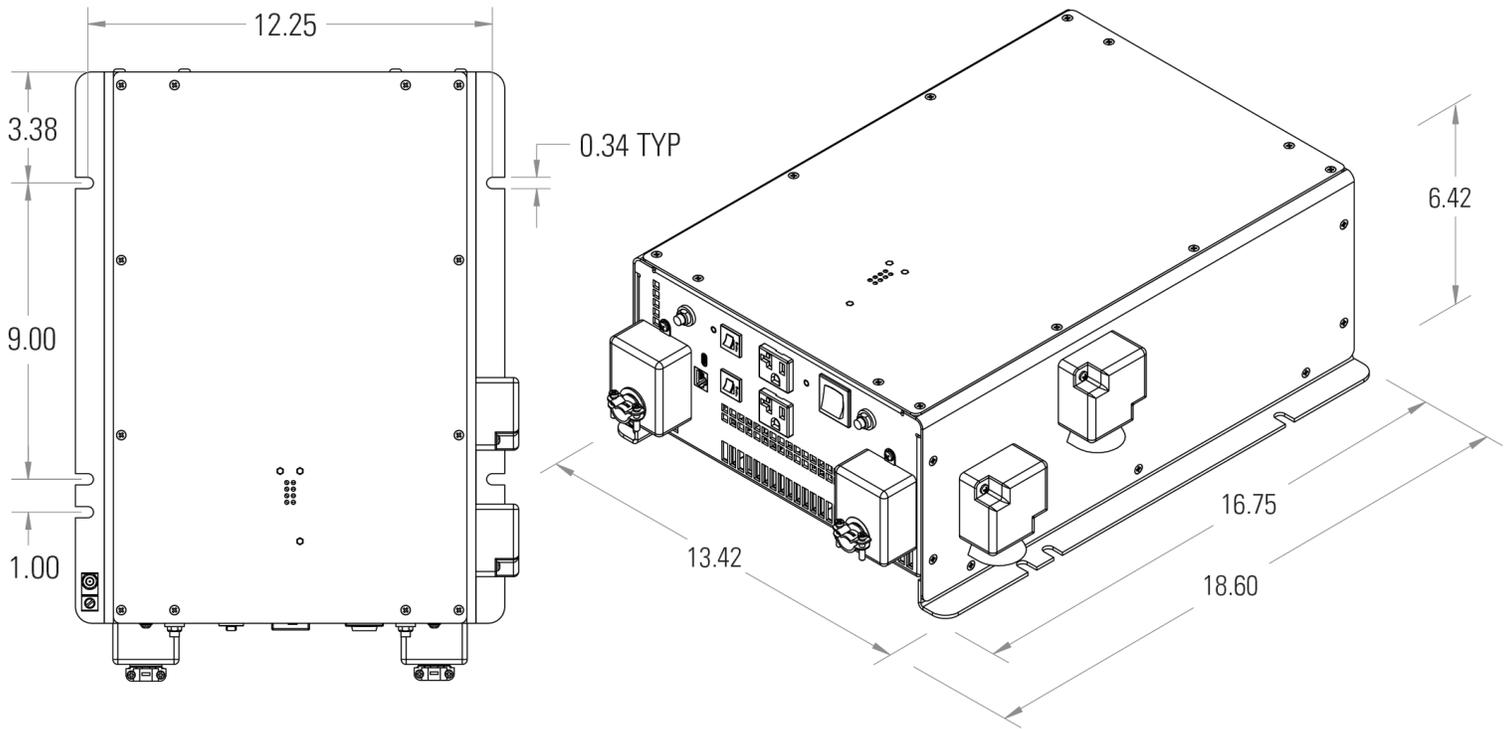


Figure 1. IPSi3605 top and isometric view with dimensions in inches.  
Unit may not be exactly as shown.

STEP model available upon request.

## Mechanical

Length	18.6in. / 47.2cm
Width	13.42in. / 34.1cm
Height	6.42in. / 16.3cm
Weight	63.5lb / 28.6kg (estimated)
Encasement Material and Finish	Marine grade aluminum, with a stainless steel baseplate Powder coated chromate
Mounting	Horizontal or vertical
Clearance	1.0in. / 2.5cm (each side and above)
DC Input Connections	2x M8 Stud
AC Input Connections	1x Phoenix VDFK-4 terminal block
AC Output Connections	2x TBD (standard electrical code wall sockets) 1x Phoenix VDFK-4 terminal block

# TECHNICAL SPECIFICATIONS

## Pinouts

J1, J2 - DC Input	
2x M8 Stud	
Pin	Description
J1	DC-
J2	DC+

J3, J4 - AC Output	
2x TBD (standard electrical code wall sockets)	

J5 - AC Output	
1x Phoenix VDFK-4 terminal block	
Pin	Description
A	Neutral / Line2
B	Ground
C	Line

J6 - AC Input	
1x Phoenix VDFK-4 terminal block	
Pin	Description
A	Neutral / Line2
B	Ground
C	Line

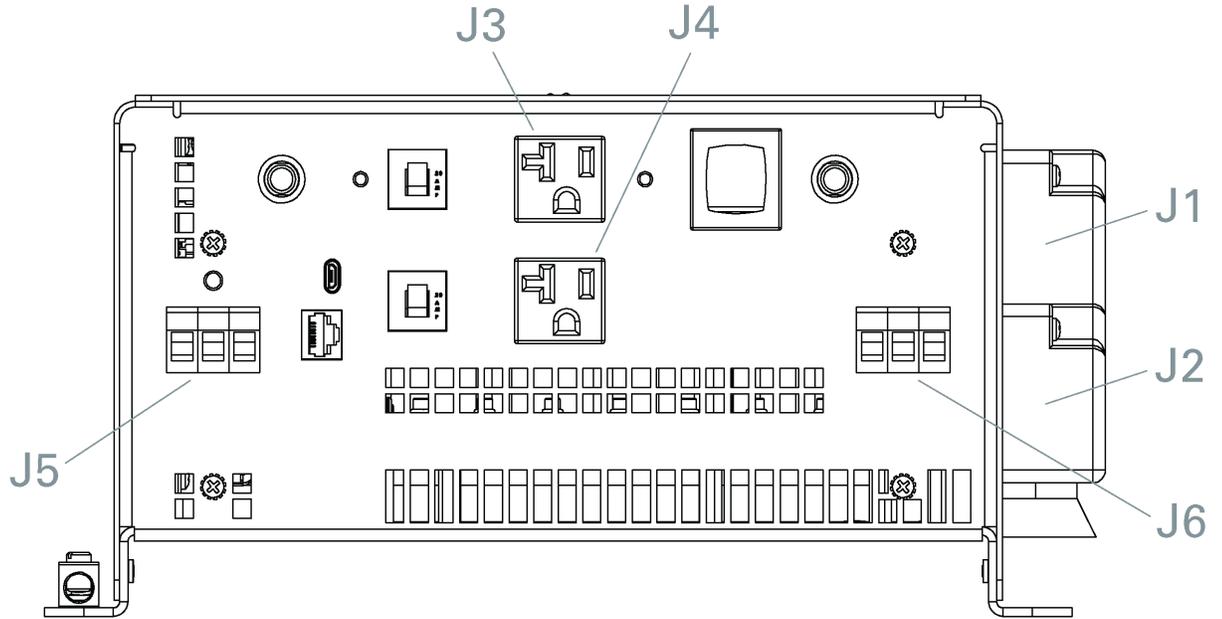


Figure 2. IPSi3605 front view with connector pinouts. Covers for J5 and J6 not shown. Unit may not be exactly as shown.

## Environmental and Safety

Operating Temperature	-20°C to +40°C @ maximum output (Optional -40°C to +55°C wide temperature range available)
Storage Temperature	-20°C to +80°C
Humidity	0 to 95% relative humidity (non-condensing)
Packaging	Vented chassis
Isolation	DC Input to AC Output > 2000VDC
Mean Time Between Failures	> 10 Years
Warranty	Two years parts and labor
Emissions	Complies with FCC Class B
Environment	Indoors
Safety	Designed to meet FCC Class B, Part 15

# ORDERING INFORMATION

## INVERTERS

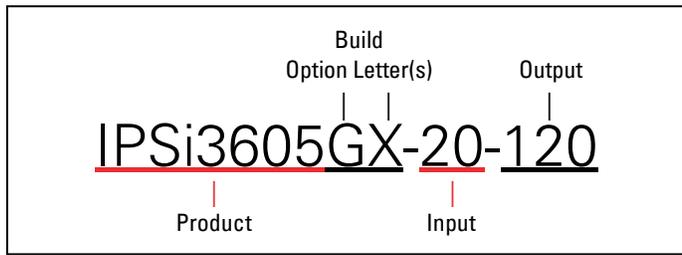


Figure 3. Example model number for an IPSi3605 Intelligent Pure Sine Inverter.

### Model Naming

Product	IPSi3605
Additional Build Options	G, X
Additional Line Options	U
DC Input Voltage	-20, -40
AC Output Voltage	-120, -240, -230

Not all combinations make valid part numbers.  
Please contact Sales for availability.

### Build Options

Option G:	Ground Fault Circuit Interrupter (GFCI) enabled
Option X:	Basic ruggedization and -40°C to +55°C wide temperature operating range

### Line Item Options

Option U:	Factory inspected to meet CSA SPE-1000
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