

Interpower® International Power Source

VERIFY PRODUCT DESIGN AND TEST YOUR EXPORT PRODUCTS



Interpower® International Power Source



Test Before Export

Designing, building, and maintaining products for worldwide markets can help to enhance a company's success. During product development and prior to shipment, it's essential to know if that product will function properly in the country it is intended to be used in—which makes product testing crucial.

The Interpower® International Power Source (IPS) provides a low-cost, convenient source of AC power for product design and product testing at various operating voltages and frequencies found around the world. The IPS will supply output voltages ranging from 10–276VAC at 47–450Hz. Sockets included on the front test panel are: Continental Europe, United Kingdom, 10A Australia, France/Belgium, 10A Switzerland, 16A Italian, and a T-slot socket which will accept both the NEMA 5-20 plug and NEMA 5-15 plug.

With numerous plug patterns used around the world, engineers and designers need to verify that equipment and consumer electrical products will run safely and reliably on specific voltages and frequencies—before exporting. This makes testing during product development and prior to shipment very important.

Take Advantage...Take Control

There are several advantages to testing products in advance. Customers today expect to unpack and use the product immediately, so knowing the product will operate at the customer's input voltage and frequency before shipment is crucial. If the product is running on the incorrect voltage or frequency, it will not be running at its full potential. Using an AC power source to test before export allows for simulation of field conditions on final production models. Fluctuations in the frequency and voltage can be simulated, with voltage tolerances of $\pm 10\%$ and frequency tolerances of $\pm 3\text{Hz}$.

By testing during the design phase, it can help to ensure the product will perform correctly and may help to prevent potentially expensive modifications after the end product is in production. When a product is being built to operate in overseas markets, testing allows you to have control over the construction of the product and not have to rely on a third party modifying it for local use. By manufacturing the product to the customer's specifications in-house, it will reduce the chance of faulty modifications by the end customer and further reduce the product liability exposure.

Testing with an AC power source can offer low cost sources of power at various voltages and frequencies found around the world. These units are often used for technical work and allow precision control of the AC voltage, current, and frequency.

Who Can Benefit From Using an IPS?

Consider These Questions:

- Does your company manufacture, export, or test AC-powered electronic or electrical equipment?
- Where does your company export to?
- What power (voltage/current) rating is the equipment?
- What phase is the equipment? (Note: The Interpower IPS can only test single-phase.)

Interpower® International Power Source Continued



The Interpower International Power Source carries the following approvals:
ETL Certified, SEMKO Certified, and a CB Certificate.



Four IPS Models Available:

P/N: 85522211 (\$7,740.00)

Input: 100–240VAC/50–60Hz, supplied through 20A NEMA 5-20 plug*
Output: 2200VA maximum, Low Range variable 10–138VAC @ 16A RMS max and High Range variable 10–276VAC @ 8A RMS max, 47–450Hz, with 1 RS232 and 1 USB port.

P/N: 85522201 (\$7,340.00)

Input: 100–240VAC/50–60Hz, supplied through 20A NEMA 5-20 plug*
Output: 2200VA maximum, Low Range variable 10–138VAC @ 16A RMS max and High Range variable 10–276VAC @ 8A RMS max, 47–450Hz.
No communications port option.

P/N: 85521711 (\$7,490.00)

Input: 100–240VAC/50–60Hz, supplied through 15A NEMA 5-15 plug*
Output: 1725VA maximum, Low Range variable 10–138VAC @ 12.5A RMS max and High Range variable 10–276VAC @ 6.25A RMS max, 47–450Hz, with 1 RS232 and 1 USB port.

P/N: 85521701 (\$7,090.00)

Input: 100–240VAC/50–60Hz, supplied through 15A NEMA 5-15 plug*
Output: 1725VA maximum, Low Range variable 10–138VAC @ 12.5A RMS max and High Range variable 10–276VAC @ 6.25A RMS max, 47–450Hz. No communications port option.



C-20 Inlet

RS232 USB

The Interpower International Power Source provides a low-cost, convenient source of AC power at various operating voltages and frequencies found around the world (typically 110–240VAC/50–60Hz) which is important for testing any products that are exported. Output power is delivered through one of two ranges. Low range (NEMA 5-20) and High range through one of the six international sockets listed below:

Continental Europe for use at 230VAC 50Hz

United Kingdom for use at 230VAC 50Hz

Australia for use at 240VAC 50Hz

France/Belgium for use at 230VAC 50Hz

Switzerland for use at 230VAC 50Hz

Italian for use at 230VAC 50Hz

- **Dimensions:**
7.25" x 18.88" x 19.77"
- **Protection:** Over temperature; Input and Output over current, Output current limit is adjustable from 0 to maximum available for the model in use.
- **Harmonic Distortion:** 0.5%
- **Efficiency:** 82%
- **Closed box calibration**

- **Remote control operation ideal for automated test applications using optional IPS Interface Software P/N: 85501010 (\$500.00).**
- **Drivers available for use with models equipped with optional RS232/USB interfaces are easily integrated into ATE systems.**
- **The IPS can be used on a bench top or is rack mountable. The IPS is light weight, only weighing 26.5 lbs (12.3kg), and can be easily moved between work stations or lab positions as needed.**
- **Rental units also available. Contact Customer Service.**

* IPS units for international use can be ordered with a country-specific input power plug. Note: The four models mentioned above cannot be used in the United Kingdom due to the use of a C19 cord set. (The standard UK BS-1363 plug cannot be used on a cord set with a C19 connector.)



Order online:
www.interpower.com

P.O. Box 115, Oskaloosa, IA 52577 (U.S.A.)
Call: (641) 673-5000 Fax: (641) 673-5100
E-mail: info@interpower.com

Toll-free (U.S./Can./P.R./V.I.)
Call toll-free: (800) 662-2290
Fax toll-free: (800) 645-5360

IPS Rental Program

The IPS can be purchased or rented—rentals must be rented for a minimum of one month. The first three months of rent can be applied to the purchase price if the customer decides to buy. For more details, contact Customer Service.

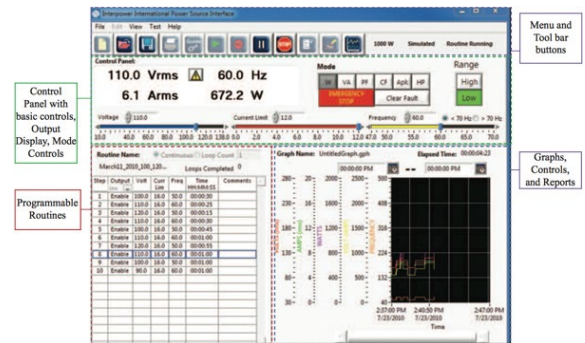
IPS Interface Software

An optional, computer graphical user interface software package is available. The IPS Interface Software extends the capabilities of the IPS by letting the user create programmable routines.

AC power test routines and graphic AC power tests can be created along with fast testing at AC world voltages and frequencies. This software can extend the capabilities of the IPS by letting the user create easy, step-by-step programmable routines which can be saved, stored, recalled, and reused. The IPS can also be semi-automated.

For example: A product needs to be tested for 24 hours. The IPS can be programmed to perform a certain test for the first five hours, a different test the next five hours, etc. with the different tests totaling up to 24 hours. The testing order can be saved and repeated.

P/N 85501010—IPS Interface Software



Overview of the IPS Interface Software Features

Control Panel

Used to manually control the IPS.

Tool Bar Buttons and Menus

Options include menus for file, edit, test, and help, plus a view tab.

Programmable Routines

Steps can be created, edited, and saved by changing a variety of variables including low or high range output, voltage, current limit, frequency, duration of the step, a continuous loop, or a set number of loops and comments can be added.

Graphing and Reports

Provides for graphing of the IPS output for test reporting purposes.

- Maximum viewable graph history is 60 hours, but all data is stored in a GPH file and is viewable with a text editor or with Microsoft Excel.
- Data is saved routinely throughout operation.
- A variety of graph options are available.

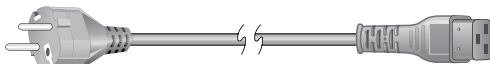













Able to Control the IPS from a Windows-based* Computer Using the Following Features:

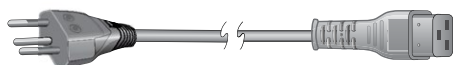






- Control of the IPS
- Programmable routines
- Guide to worldwide plugs, sockets, voltages, and frequencies
- Graphing IPS output and reports
- Trouble shooting
- Connected mode
- Simulated mode

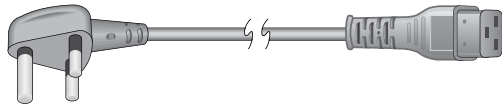


A license is needed to connect the software to the IPS (P/N **85521711** and **85522211**). It may be installed on more than one computer but can only be used with the IPS to which the license number is keyed. Multiple license numbers are available for users with multiple IPS units enabling one PC to interface with multiple IPS units.

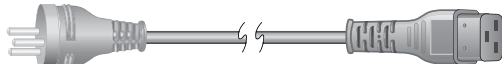




* Operating system: Windows 7 and Windows 10

International Power Source (IPS) Input Plug & Connector Specifications

Continental Europe					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
<div>86235000 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055
									         	
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	—	7.4–9.4mm						

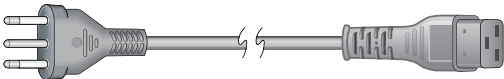



Brazil					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
<div>86286510 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055
									   	
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	—	7.4–9.4mm						

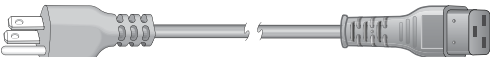


India/South Africa					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
<div>86265070 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055
									SABS Test Report Only	
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	—	8.5mm						




Israel					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
<div>86275060 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055
										
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	—	7.4–9.4mm						




Note: Standard cord set length is 2.5m. Special input cord set lengths are available, but are limited to three meters per IEC 61010-1 (CI 6.11.3.2).

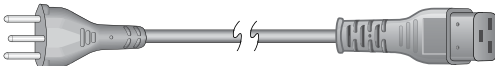



International Power Source (IPS) Input Plug and Connector Specifications, Continued

Italy					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
<div>86260060 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055
										
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	—	7.4–9.4mm						

North America					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
<div>71804110250 NEMA 5-15 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					60°C	Black	2.5m 8.2'	15A/125 VAC	Cord Set	Connector Locks 85910051 or 85910055
										
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 14AWG	SJT	—	9.4mm						

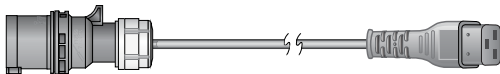



<div>86226020 NEMA 5-20 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					60°C	Black	2.5m 8.2'	20A/125 VAC	Cord Set	Connector Locks 85910051 or 85910055
										
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 12AWG	SJT	—	11.1mm						

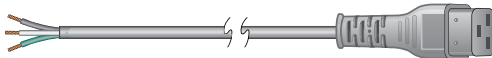


<div>86226100 NEMA 6-20 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					60°C	Black	2.5m 8.2'	20A/250 VAC	Cord Set	Connector Locks 85910051 or 85910055
										
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 12AWG	SJT	—	11.1mm						

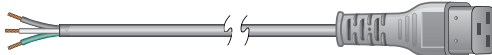


Switzerland					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
<div>86285110 Cord Set with IEC 60320 C19 Connector</div> <div></div> <div></div>					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055
										
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	—	7.4–9.4mm						




Note: Standard cord set length is 2.5m. Special input cord set lengths are available, but are limited to three meters per IEC 61010-1 (Cl 6.11.3.2).

International Power Source (IPS) Input Plug and Connector Specifications, Continued

IEC 60309 Assembly					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
87510011** International Cord Set 16A Single-Phase, 2P 3W  					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055
										
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	—	7.4–9.4mm						

IEC 60320 C19 Connector Power Cords					Max Temp.	Color	Length	Rating	Approvals	Recommended Connector Lock or Strain Relief
86295240 North American IEC C19 60320 Connector Power Cord  					60°C	Black	2.5m 8.2'	20A/250 VAC	Plug	Connector Locks 85910051 or 85910055 Strain Reliefs 85820450 or 85820350
									N/A	
									Connector	
										
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 12AWG	SJT	BBG/Y*	11.1mm						

70004110250 North American IEC 60320 C19 Connector Power Cord  					60°C	Black	2.5m 8.2'	18A/250 VAC	Plug	Connector Locks 85910051 or 85910055 Strain Relief 85820350
									N/A	
									Connector	
										
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 14AWG	SJT	BWG*	9.4mm						

70009110250 International IEC 60320 C19 Connector Power Cord  					70°C	Black	2.5m 8.2'	16A/250 VAC	Plug	Connector Locks 85910051 or 85910055 Strain Relief 85820530
									N/A	
									Connector	
									 Department of Fair Trading	
Specifications	Cable Size	Cable Type	Wiring	Approx. O.D.						
	3 x 1.50mm²	H05VV-F	BBG/Y*	7.4–9.4mm						

- Made in Iowa
- 1-week U.S. manufacturing lead-time on non-stock Interpower products
- Same day shipments on in-stock products
- Blanket and scheduled orders are available
- No minimum order or dollar requirements

Note: Standard cord set length is 2.5m. Special input cord set lengths are available, but are limited to three meters per IEC 61010-1 (CI 6.11.3.2).

* Wiring Code: BBG/Y: brown (line), light blue (neutral), green/yellow (ground); BWG: black (line), white (neutral), green (ground).

** Cord for use only when used in the UK or other countries. Per IEC 60799, the BS1363 plug cannot be used in a cord set with an IEC 60320 C19 connector.

Customer Testimonial



We love the unit... We test medical equipment designed to work in the 110/220 volt 60Hz environment being placed in Africa or Asia where all power is 50Hz. We can normally convert the voltage or add a step down transformer for operation there but the issue is frequency. Utility power can be as low as 40Hz in some countries. This can cause major damage to some circuitry or motor windings. We need to verify performance prior to shipment. We then can decide what locations in the world the device will perform. We look for increased current loading which will always indicate early failure, or changes in calibration specifications because of dependence on line frequency variations.



Additional Information About the IPS

Product Approvals:

ETL
SEMKO

CE Marking:

CE Marking

Standards Used to Certify the IPS:

IEC 610101-1
EN 61326-1 Class A for Emissions
EN 61000-3-2
EN 61000-3-3

Environmental Requirements:

Temperature
Operational: 32°F to 104°F (0°C to 40°C)
Storage: -40°F to 158°F (-40°C to 70°C)
Altitude
Up to 9842.52 feet (3000 meters)
Rated Pollution Degree
UL 61010-1, Pollution Degree 2 (normally only non-conductive pollution occurs)
Current Harmonics
IEC 60000-3-2
Efficiency
82%, at a resistive load of 1000W, 230VAC in, 120VAC out, typical
82%, at a resistive load of 1000W, 120VAC in, 240VAC out, typical

For More Information . . .

For more information, order a free copy of our Interpower Catalog.

Contact our Customer Service Department. They can assist you with price and delivery quotations, stock checks, samples, technical assistance, and order entry. Interpower is open 7 a.m.–6 p.m. Central Time. Rush orders placed for in-stock items by 6 p.m. Central Time can be shipped out the same day. Call or fax toll-free from the U.S., P.R., V.I., and Canada.

Toll-free telephone: (800) 662-2290

Toll-Free Fax: (800) 645-5360

E-mail: info@interpower.com

Website: www.interpower.com

Orders can be placed either with our Customer Service Department (by telephone, fax, mail, email, or web), or with one of our sales representatives. Interpower sales representatives are located throughout the United States and Canada; call our office in Oskaloosa, Iowa, for the name of your local sales representative or see our website at www.interpower.com/ic/salesreps.html.

Speak with a Technically Trained Customer Service Representative

- Speak directly with a Customer Service Representative during business hours, 7 a.m.–6 p.m. Central Time.
- In-stock orders taken by 6 p.m. Central Time can ship the same day.

In a Hurry for Your Order?

We are prepared for same day shipments if parts are in stock and your order is placed by 6 p.m. Central Time.

UPS and Federal Express shipments are available.

For your convenience, we accept MasterCard, Visa, and American Express.



Interpower is ISO 9001 Certified

Product Liability: Interpower will accept liability for only the purchase price of products and applicable freight charges. Interpower is not liable for any costs for issues such as production delays, rework, late deliveries, etc., unless agreed upon in writing by both Interpower and the purchaser at the time of purchase.

Note: Product specifications and availability subject to change without notice. Please contact our Customer Service Department at (800) 662-2290 or access our website for the most current information at www.interpower.com.



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