



# HPRi Series Single Phase 60 Hz 15 kVA to 60 kVA Output 48 VDC Modular Inverter System

The Philtek HPRi Modular Inverter System features both Expandable and Redundant capabilities

*The System is comprised of:*

## Inverter Modules “Plug and Play”

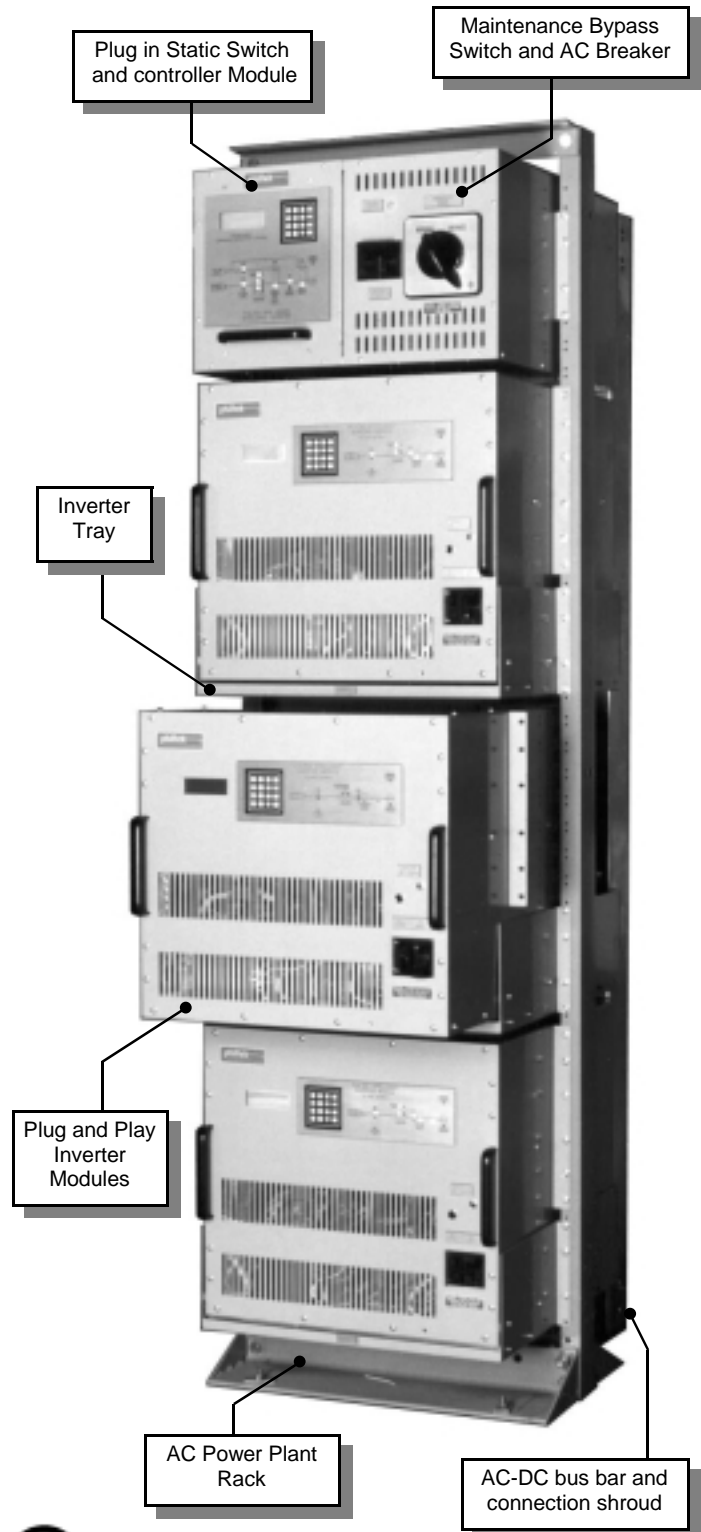
- 5 KVA or 10 KVA output each
- High frequency PWM technology, quiet operation
- Parallel connected with automatic load sharing
- “Hot Pluggable”, allows addition or removal of modules without de-energizing the system
- Output compatible with Active Power Factor Corrected AC Loads

## Static Bypass Switch and Controller

- 2 mSec transfer time
- Microprocessor Controlled with LCD display and Industrial style LED Mimic Diagram
- User configured to operate in the On-line (Inverter preferred) or the Off-line (AC line preferred) mode
- Provides an additional level of redundancy when operated in the On-line Mode
- Plug in modular construction, can be removed or installed with no output interruption during Maintenance Bypass
- Optional RS-232 Communication Port available

## AC Power Plant

- Constructed of heavy duty 23” Racks
- Make Before Break Maintenance Bypass Switch provides uninterrupted output during bypass
- AC line Circuit Breaker for overload protection during Static Bypass
- Fully enclosed AC and DC power bus bars, pre-wired to terminal blocks for external connections, simplifies installation
- Docking tray provides easy plug-in and removal of Inverter Module, will accept either a 5 kVA or a 10 kVA module
- Compact design, 30 KVA system is only 24.5” x 29” in foot print and 84” in height
- **CSA** Certified
- Certified to **UL 1778** (Selected Models)



*Inverter System as shown above:  
30 kVA Single Phase Output*

## System Specifications (Subject to change without notice)

### DC Input

Nominal	48 V
Range	42 to 60 V
Current	See Table

### Inverter System AC Output

Power	See Table
Voltage	120 V 2 W 15 K VA , 30 KVA 120/240V 3 W 60 KVA
Regulation	± 1%
Dynamic:	
100 % step load	± 4%
Recovery	< 8 mSec
Efficiency	84% to 87%
Distortion ( linear load )	< 1.0 % THD
Non Linear Load Capability	Up to 100 %
Active P.F. Corrected Loads	Compatible
Load Power Factor ( PF )	1.0
Frequency	60 Hz
Frequency Tolerance	± 0.1 % free running
Synchronization:	
Range	± 1.5 Hz
Rate	1 Hz per Sec

### Bypass AC

Connection	2 wire + Gnd, 3 wire + Gnd
Voltage	120 V, 120/240 V
Phase	Single
Frequency	60 Hz

### Static Bypass Switch

Transfer Time	2 mSec typical 4 mSec maximum
Voltage Tolerance	± 10 %
Frequency Tolerance	± 1.5 Hz
Overload:	120 % for 10 Minutes 1000 % for 8 ms

### Environmental

Temperature	0° C to 40° C
Humidity	95 % RH
Cooling	Forced Air with temperature Controlled Fans

### Inverter Modules

Output	Model #
5 kVA	<b>HPRI-INV-5K-48-N</b>
10 kVA	<b>HPRI- INV-10K-48-N</b>

## Inverter System 48 VDC Input, 120 VAC, 120/240VAC, 60 Hz, Single Phase Output

Output VA @ 0.8 PF	①15,000 VA	①30,000 VA	②60,000 VA
AC Power Plant + Controller Model #	<b>HPRI 15K-48-N</b>	<b>HPRI 30K-48-N</b>	<b>HPRI 60K-48-B+2RN</b>
Inverter Modules Required	3 x 5 kVA	3 x 10 kVA	6 x 10 kVA
AC Output Current	125 Amp AC	250 Amp AC	250 Amp AC per Line
DC Input Current @ 42 V	336 Amp DC	672 Amp DC	2 x 672 Amp DC
AC Power Plant Racks	1	1	3 *
Overall Dim. W"xD"xH"	24.5 x 29 x 84	24.5 x 29 x 84	73.5 x 29 x 84
Total Weight ( Net )	990 Lbs.	1,350 Lbs.	2,850 Lbs.

## N+1 Redundant System 48 VDC Input, 120 VAC, 120/240 VAC, 60 Hz Single Phase Output

Output VA @ 0.8 PF	①15,000 VA N+1	①30,000 VA N+1	②60,000 VA N+1
AC Power Plant + Controller Model #	<b>HPRI 15K-48-N+RN1T</b>	<b>HPRI 30K-48-N+RN1T</b>	<b>HPRI 60K-48-B+2RN+2T</b>
Inverter Modules Required	4 x 5 kVA	4 x 10 kVA	8 x 10 kVA
AC Output Current	125 Amp AC	250 Amp AC	250 Amp AC per Line
DC Input Current @ 48 V	336 Amp DC	672 Amp DC	2 x 672 Amp DC
AC Power Plant Racks	2*	2 *	3 *
Overall Dim. W"xD"xH"	24.5 x 29 x 84	49 x 29 x 84	73.5 x 29 x 84
Total Weight ( Net )	1,500 Lbs.	1,850 Lbs.	3,200 Lbs

\* AC Power Plant racks shipped as individual units

### Ordering Information:

First determine your power requirement, then select the appropriate **AC Power Plant + Controller** and quantity of **Inverter Modules** from the above tables

#### For example:

**60,000VA output with N+1 redundancy requires**

Qty 1	<b>HPRI 60K-48-B+2RN+2T</b>
Qty 8	<b>HPRI-INV-10K-48-N</b>

① Available in 120 VAC ( 2 Wire + Gnd ) Output only

② Available in 120/240 VAC ( 3 Wire + Gnd ) Output only

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