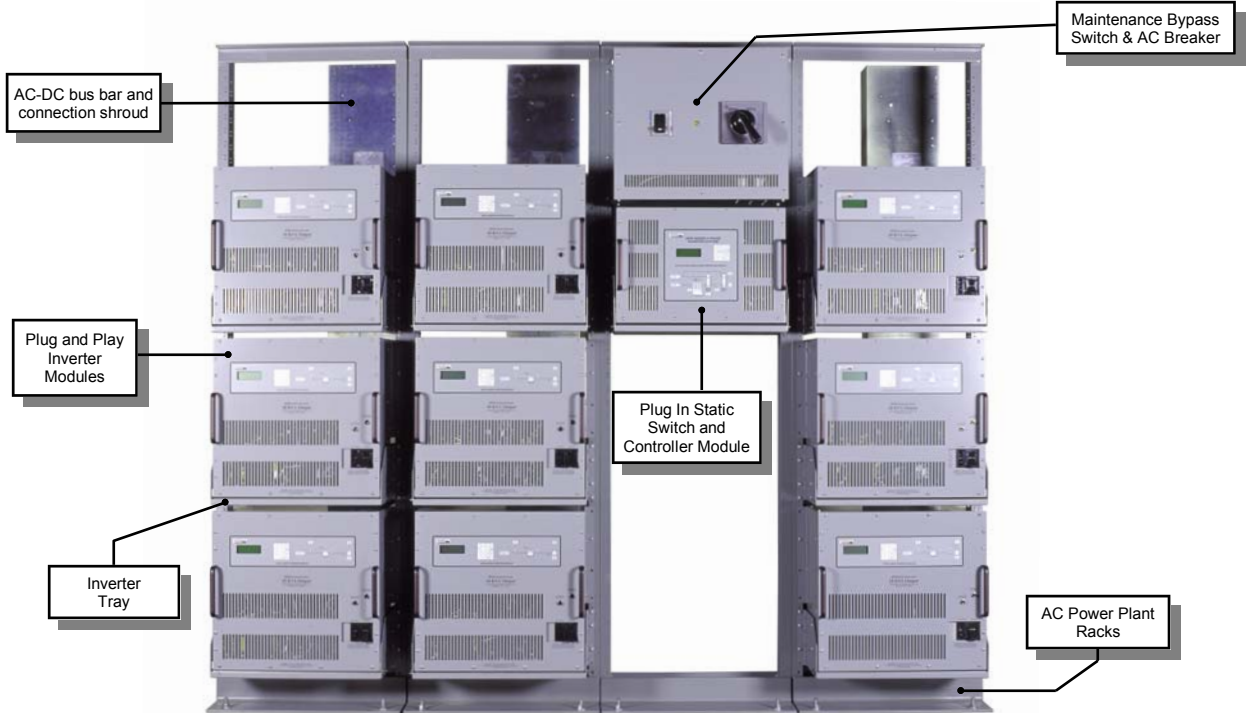




# HPRI Series 3 Phase 60 Hz 15 to 90 kVA, 120/208 Vac Output 120 VDC Modular Inverter System

The Philtek HPRI 3 Phase Modular Inverter System features both  
Expandable and Redundant capabilities



Inverter System as shown above: 90 kVA 3 Phase Output

*The System is comprised of:*

### Inverter Modules “Plug and Play”

- 5 or 10 KVA output, minimum one for each phase
- Modules are the same as used in the Single Phase Inverter System
- High frequency PWM technology, quiet operation
- Parallel connected with automatic load sharing per phase
- “Hot Pluggable”, allows installation or removal of modules without de-energizing the system
- Inverter Output isolation transformer provides galvanic isolation between DC and AC circuits.

### Static Bypass Switch and Controller

- Output power rating self configured
- 2 mSec transfer time, Online Mode
- Microprocessor Controlled with LCD display and Industrial style LED Mimic Diagram
- User configured to operate in the Online (Inverter preferred) or the Offline (AC line preferred) mode

- Provides an additional level of redundancy when operated in the Online Mode
- Plug in modular construction, can be removed or installed with no output interruption during Maintenance Bypass
- RS-232 Communication Port

### 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
- Docking tray provides easy plug-in and removal of Inverter Module, will accept either a 5 kVA or a 10 kVA module
- 30 KVA system is only 24.5” x 29” in footprint and 84” in height

# System Specifications *(Subject to change without notice)*

## DC Input

Nominal	120 V
Range	105 to 150 V
Current	See Table

## Inverter AC Output

Power	See Table
Connection	4 wires (Y) + Gnd
Voltage	120/208V 3 Phase 60 Hz
Regulation	± 1%
Dynamic Regulation:	
100 % step load	± 4%
Recovery	< 8 mSec
Efficiency	89% to 91%
Distortion ( linear load )	< 1.0 % THD
Non Linear Load Capability	Up to 100 %
Active P.F. Corrected Loads	Compatible
Load Power Factor	0.7 to 1.0 PF
Frequency Tolerance	± 0.1 % free running
Overload	120 % for 10 minutes
Synchronization:	
Range	± 1.5 Hz
Rate	1 Hz per Sec

## Bypass AC

Connection	4 wires (Y) + Gnd
Voltage	120/208V 3Phase 60 Hz
Current	Same as output current see Table

## Static Bypass Switch

Transfer Time	2 mSec typical, Online 4.2 mSec max, Online 8.4 mSec max, Offline
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

<i>Output</i>	<i>Model #</i>
5 kVA	<b>HPRI-INV2-5K-120-N</b>
10 kVA	<b>HPRI-INV2-10K-120-N</b>

## ***Inverter System 120 VDC Input, 120/208 VAC, 60 Hz, 3 Phase Output***

Output VA @ 1.0 PF	15,000 VA	30,000 VA	60,000 VA	90,000 VA
AC Power Plant + Controller Model #	HPRI 30K-120-3N	HPRI 30K-120-3N	HPRI 90K-120-3N+2R3N	HPRI 90K-120-3N+3R3N
Inverter Modules Required	3 x 5 kVA	3 x 10 kVA	6 x 10 kVA	9 x 10 kVA
AC Output Current per Phase	42 Amp AC	83 Amp AC	167 Amp AC	250 Amp AC
DC Input Current @ 105V	160 Amp DC	320 Amp DC	640 Amp DC	960 Amp DC
AC Power Plant Racks	1	1	3	4
Overall Dim. W"xD"xH"	24.5 x 29 x 84	24.5 x 29 x 84	73.5 x 29 x 84	98 x 29 x 84
Total Weight ( Net )	990 Lbs.	1,350 Lbs.	2,950 Lbs.	4,410 Lbs.

## ***N+1 Redundant System 120 VDC Input, 120/208 VAC, 60 Hz, 3 Phase Output***

Output VA @ 1.0 PF	15,000 VA N+1	30,000 VA N+1	60,000 VA N+1	90,000 VA N+1
AC Power Plant + Controller Model #	HPRI 30K-120-3N+R3N	HPRI 30K-120-3N+R3N	HPRI 90K-120-3N+3R3N	HPRI 90K-120-3N+4R3N
Inverter Modules Required	6 x 5 kVA	6 x 10 kVA	9 x 10 kVA	12 x 10 kVA
AC Output Current per Phase	42 Amp AC	83 Amp AC	167 Amp AC	250 Amp AC
DC Input Current @ 105 V	160 Amp DC	320 Amp DC	640 Amp DC	960 Amp DC
AC Power Plant Racks	2	2	4	5
Overall Dim. W"xD"xH"	49 x 29 x 84	49 x 29 x 84	98 x 29 x 84	122.5 x 29 x 84
Total Weight ( Net )	1,930 Lbs.	2,570 Lbs.	4,410 Lbs.	5,670 Lbs.

## 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:

**30,000VA output with N+1 redundancy requires**

Qty 1	HPRI 30K-120-3N+R3N
Qty 6	HPRI-INV2-10K-120-N

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