



HPRi Series 3 Phase 60 Hz 15 to 90 kVA 120/208 Vac Output 48 VDC Modular Inverter System

The Philtek HPRi 3 Phase Modular Inverter System features *expansion* and *redundancy* capabilities.



Inverter System as shown above:
30 kVA 3 Phase N+1 Redundant



The System is comprised of:

Inverter Modules “Plug and Play”

- 5 or 10 KVA output each, one for each Phase
- Modules are the same as used in the single phase inverter system
- High frequency PWM technology, quiet operation
- “Hot Pluggable”, allows installation or removal of modules without de-energizing the system
- Output compatible with Active Power Factor Corrected AC Loads

Static Bypass Switch and Controller

- Output power rating self configured, 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
- Docking caddies provide easy plug in and removal of Inverter Modules
- Compact design, 30 KVA system is only 24.5” x 29” in foot print and 84” in height
- **CSA** Certified
- Certified to **UL 1778**

System Specifications *(Subject to change without notice)*

DC Input

Nominal	48 V
Range	42 to 60 V
Current	See Table

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	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)	0.8
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 3 Phase 60 Hz
Current	Same as output current see Table

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

<i>Output</i>	<i>Model #</i>
5 kVA	HPri-INV-5K-48-N
10 kVA	HPri-INV-10K-48-N

Inverter System 48 VDC input 120/208 VAC 60 Hz 3 Phase Output

Output VA @ 0.8 PF	15,000 VA	30,000 VA	60,000 VA	90,000 VA
AC Power Plant + Controller Model #	HPri 30K-48-3N	HPri 30K-48-3N	HPri 90K-48-3N+2R3N	HPri 90K-48-3N+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	84 Amp AC	168 Amp AC	250 Amp AC
DC Input Current @ 42 V	336 Amp DC	672 Amp DC	2 x 672 Amp DC	3 x 672 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 48 VDC input 120/208 VAC 60 Hz 3 Phase Output

Output VA @ 0.8 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-48-3N+R3N	HPri 30KR-48-3N+R3N	HPri 90KR-48-3N+3R3N	HPri 90KR-48-3N+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	84 Amp AC	168 Amp AC	250 Amp AC
DC Input Current @ 42 V	336 Amp DC	672 Amp DC	2 x 672 Amp DC	3 x 672 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.

* AC Power Plant shipped disassembled

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-48-3N+R3N
Qty 6	HPri-INV-10K-48-N

For More Information please Contact:

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