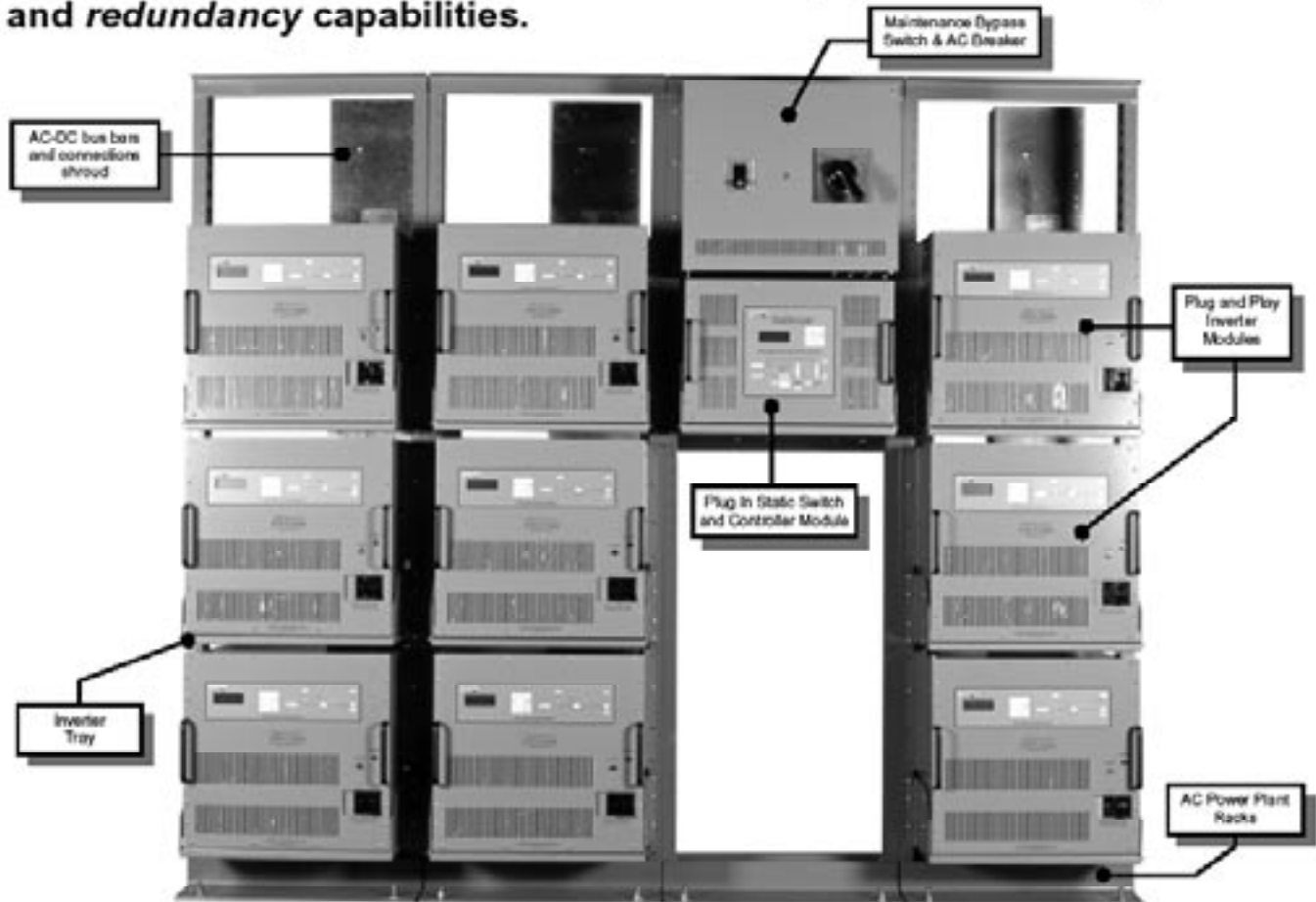




## HPRi Series Modular Inverter System 48 VDC Input 90 kVA to 180 kVA 277/480 VAC 3 Phase 4 Wire Output

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



90 KVA HPRi Inverter System c/o AC Power Plant, Controller and 9 x 10 KVA Inverter Modules

### Inverter Modules "Plug and Play"

- 10 KVA output each
- 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
- Inverter docking trays provide easy plug in and removal of Inverter Modules
- CSA Certification pending
- UL 1778 Certification pending

# 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	277/480V 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 Input

Connection	4 wires (Y) + Gnd
Voltage	277/480V 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>
10 kVA 277 Vac 1Φ	<b>HPRI-INV-10K-48-E</b>
Weight	320 Lbs

### ***Inverter System 48 VDC input 277/480 VAC 60 Hz 3 Phase Output***

Output VA @ 0.8 PF	90,000 VA	120,000 VA	150,000 VA
*AC Power Plant + Controller Model #	HPRI 180K-48-3E+3R3E	HPRI 180K-48-3E+4R3E	HPRI 180K-48-3E+5R3E
Inverter Modules Required	9 x 10 kVA	12 x 10 kVA	15 x 10 kVA
AC Output Current per Phase	109 Amp AC	145 Amp AC	189 Amp AC
DC Input Current @ 42 V	3 x 672 Amp DC	4 x 672 Amp DC	5 x 672 Amp DC
*AC Power Plant Racks	4	5	6
Overall Dim. W"xD"xH"	98 x 29 x 84	122.5 x 29 x 84	147 x 29 x 84
Total Weight ( Net )	4,205 Lbs.	5,460 Lbs.	6,715 Lbs.

### ***Inverter System 48 VDC input 277/480 VAC 60 Hz 3 Phase Output***

Output VA @ 0.8 PF	180,000 VA	180,000 VA N+1
*AC Power Plant + Controller Model #	HPRI 180K-48-3E+6R3E	HPRI 180K-48-3E+7R3E
Inverter Modules Required	18 x 10 kVA	21 x 10 kVA
AC Output Current per Phase	217 Amp AC	217 Amp AC
DC Input Current @ 42 V	6 x 672 Amp DC	**7 x 672 Amp DC
*AC Power Plant Racks	7	8
Overall Dim. W"xD"xH"	171.5 x 29 x 84	196 x 29 x 84
Total Weight ( Net )	7,970 Lbs.	9,225 Lbs.

\* AC Power Plant shipped disassembled

\*\* The actual maximum total input current is only 4,032 A DC



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## 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:**

**180,000VA output with N+1 redundancy requires**

Qty 1	HPRI 180K-48-3E+7R3E
Qty 21	HPRI-INV-10K-48-E