

Selection Guide

Philtek 48 V Inverters for Telecom Applications

5 and 10 KVA Single Phase 50 Hz Output

HPi Inverters 23” Rack Mount, Selection Guide

HPi Inverters c/w Static Bypass Switch and External Maintenance Bypass Switch

Output Power @ 0.8 PF	Output Voltage	Model Number	Unit Price
5,000 VA	220 VAC 1Φ 50 Hz 2 wire	HPi 5K-48-A-MBSXR	
10,000 VA	220 VAC 1Φ 50 Hz 2 wire	HPi 10K-48-A-MBSXR	

HPi Options Available

Code	Description	Price
EMD	Enhanced Meter Display <ul style="list-style-type: none"> • System Output Voltage Current and Frequency • Inverter Output Voltage and Frequency • AC Line Voltage and Frequency • DC Input Voltage and Current 	
RS232	RS232 Communication Port allows remote control and diagnosis	
HM	History Module Log and Display 100 Alarm Events with Date and Time Stamp	

Selection Guide

Philtek 48 V Inverters for Telecom Applications

Up to 50 KVA 1Φ, 150 KVA 3Φ 50 Hz Output

HPRi Modular Parallel Inverter System Selection Guide

To configure a HPRi Inverter System you will need to select:

- a) A HPRi AC Power Plant from **Table A, B** or **C**
- b) HPRi Inverter Module(s) from **Table D** and **E**
- c) Options, if required, from **Table F**

AC Power Plant Selection

The AC Power Plant is the infrastructure of the inverter system. It includes a plug-in Static Switch and Controller, a Maintenance Bypass Switch and a Bypass AC Circuit Breaker. You should size it for your maximum future power requirement. From **Table A, B** or **C**, select the output power from the first column, the output voltage from the second, and then determine the model number from the third.

Inverter Modules Selection

The Inverter Modules are the building blocks of the system. You may use a minimum quantity of inverter modules for you immediate requirement (select from **Table E**), and populate the AC Power Plant with additional modules later as your power requirements grow. The “Hot-Pluggable” feature allows you to add or remove modules without the need of shutting down the system. Select the model and quantity of inverter modules from **Table D** and **E**

Options Selection

All available options in **Table F** are factory installed in the AC Power Plant. The prices are listed in **Table G**, determined by the Configuration Code of the selected AC Power Plant (in **Table A, B** or **C**) and the option code (in **Table F**)

Ordering Example 1

You have an immediate AC power requirement of 220 VAC 1Φ at 5 KVA, and a possible future expansion to 10 KVA N+1 (same as 15 KVA with no redundancy) , and you do not want any options.

Select from Table(s)	Item	Model No.	Qty	Unit Price	Extension
A	AC Power Plant	HPRi 25K-48-A	1		
D & E	Inverter Module	HPRi-INV-5K-48-A	1		

Total:

Ordering Example 2

You have an immediate AC power requirement of 220 VAC 1Φ at 10 KVA, and a possible future expansion to 30 KVA, and you also want the SDC option.

Select from Table(s)	Item	Model No.	Qty	Unit Price	Extension
A	AC Power Plant	HPri50K-48-A	1		
D & E	Inverter Module	HPri-INV-10K-48-A	1		
G & F	Option & Config. Code	SDC (1.1.1)	1		

Total:

Ordering Example 3

You have an immediate AC power requirement of 220/380 VAC 3Φ at 30 KVA and a possible future expansion to 90 KVA N+1, and you also want the SDC and RS232 options.

Select from Table(s)	Item	Model No.	Qty	Unit Price	Extension
C	AC Power Plant	HPri 150K-48-3A+4R3A	1		
D & E	Inverter Module	HPri-INV-10K-48-A	3		
G & F	Option & Config. Code	SDC (5.4.4)	1		
G & F	Option & Config. Code	RS232 (5.4.4)	1		

Total:

Ordering Example 4

You have an immediate AC power requirement of 220/380VAC 3Φ at 45 KVA and a possible future expansion to 150 KVA, and you also want the Z4, SHE, SDC, RS232 and HM options.

Since the three phase system requires multiples of three (3) inverter modules for expansion, and only 10 KVA modules are available for the output voltage. You will need 6 x 10 KVA modules to meet your 45 KVA initial power requirement.

Select from Table(s)	Item	Model No.	Qty	Unit Price	Extension
C	AC Power Plant	HPri 150K-48-3E+5R3A	1		
D & E	Inverter Module	HPri-INV-10K-48-A	6		
G & F	Option & Config. Code	Z4 (6.5.5)	1		
G & F	Option & Config. Code	SHE (6.5.5)	1		
G & F	Option & Config. Code	SDC (6.5.5)	1		
G & F	Option & Config. Code	RS232 (6.5.5)	1		
G & F	Option & Config. Code	HM (6.5.5)	1		

Total:

Table A Up to 50 KVA AC Power Plant, 220 V 50 Hz 1 Φ 2 Wire

Output Power @ 0.8 PF	Output Voltage	AC Power Plant Model Number	Maximum Inverter Modules Accommodated	Config Code	Unit Price AC Power Plant only
15,000 VA	220 Vac 50 Hz 2 wire	HPri 25K-48-A	3 x 5 KVA HPri-INV-5K-48-A	1.1.1	
25,000 VA	220 Vac 50 Hz 2 wire	HPri 25K-48-A	1 x 5 KVA + 2 x 10 KVA	1.1.1	
20,000 VA N+1	220 Vac 50 Hz 2 wire	HPri 25K-48-A	3 x 10 KVA HPri-INV-10K-48-A	1.1.1	
30,000 VA	220 Vac 50 Hz 2 wire	HPri 50K-48-A	3 x 10 KVA HPri-INV-10K-48-A	1.1.1	
30,000 VA N+1	220 Vac 50 Hz 2 wire	HPri 50K-48-A+RA	4 x 10 KVA HPri-INV-10K-48-A	2.1.1	
50,000 VA	220 Vac 50 Hz 2 wire	HPri 50K-48-A+RA	5 x 10 KVA HPri-INV-10K-48-A	2.1.1	
50,000 VA N+1	220 Vac 50 Hz 2 wire	HPri 50K-48-A+RA	6 x 10 KVA HPri-INV-10K-48-A	2.1.1	

Table B Up to 45 KVA AC Power Plant, , 220/380V 50 Hz 3 Φ 4 Wire

Output Power @ 0.8 PF	Output Voltage	AC Power Plant Model Number	Maximum Inverter Modules Accommodated	Config Code	Unit Price AC Power Plant only
15,000 VA	220/380 VAC 3Φ 50 Hz 4W	HPri 45K-48-3A	3 x 5 KVA HPri-INV-5K-48-A	1.1.1	
15,000 VA N+1	220/380 VAC 3Φ 50 Hz 4W	HPri 45K-48-3A+R3A	6 x 5 KVA HPri-INV-5K-48-A	2.2.2	
30,000 VA	220/380 VAC 3Φ 50 Hz 4W	HPri 45K-48-3A	3 x 10 KVA HPri-INV-10K-48-A	1.1.1	
30,000 VA N+1	220/380 VAC 3Φ 50 Hz 4W	HPri 45K-48-3A+R3A	6 x 10 KVA HPri-INV-10K-48-A	2.2.2	
45,000 VA	220/380 VAC 3Φ 50 Hz 4W	HPri 45K-48-3A+R3A	3 x 5 KVA + 3 x 10 KVA	2.2.2	

Table C Up to 150 KVA, AC Power Plant, 220/380 50 Hz 3 Φ 4 wire

Output Power @ 0.8 PF	Output Voltage	AC Power Plant Model Number	Maximum Inverter Modules Accommodated	Config Code	Unit Price AC Power Plant only
60,000 VA	220/380 VAC 3Φ 50 Hz 4W	HPRi150K-48-3A+2R3A	6 x 10 KVA HPRi-INV-10K-48-A	3.2.2	
90,000 VA	220/380 VAC 3Φ 50 Hz 4W	HPRi150K-48-3A+3R3A	9 x 10 KVA HPRi-INV-10K-48-A	4.3.3	
120,000 VA	220/380 VAC 3Φ 50 Hz 4W	HPRi150K-48-3A+4R3A	12 x 10 KVA HPRi-INV-10K-48-A	5.4.4	
150,000 VA	220/380 VAC 3Φ 50 Hz 4W	HPRi150K-48-3A+5R3A	15 x 10 KVA HPRi-INV-10K-48-A	6.5.5	
150,000 VA N+1	220/380 VAC 3Φ 50 Hz 4W	HPRi150K-48-3A+6R3A	18 x 10 KVA HPRi-INV-10K-48-A	7.6.6	

Table D Inverter Modules

Model No.	Output Power @ 0.8 PF	Output Voltage	For AC Power Plants in Tables	Price each Qty 1 to 2	Price each Qty 3 +
HPRi-INV-5K-48-A	5,000 VA	220V 1Φ	A and B		
HPRi-INV-10K-48-A	10,000 VA	220V 1Φ	A, B and C		

Table E Minimum quantity of Inverter Modules

System Output Voltage	Minimum quantity for initial operation	Multiple quantity for each expansion
220 VAC 1Φ 50 Hz 2 W	1 Inverter module	1 Inverter Module
220 /380 VAC 3Φ 50 Hz 4W	3 Identical Inverter modules	3 Identical Inverter modules

Table F AC Power Plant Options

Code	Description
Z4	AC Power Plant constructed of seismic zone 4 rated rack. Note that the entire system has <i>not</i> been tested to meet seismic zone 4 requirement
SHE	Shroud Extender, increase connection shroud depth to 10"
SDC	Separate DC bus for inverter DC inputs
RS232	RS232 Com Port
HM	History Module, logs 100 events

Table G AC Power Plant Options

AC Power Plant Config. Code	Option Code				
	Z4	SHE	SDC	RS232	HM
1.1.1					
2.1.1					
2.2.2					
3.2.2					
3.2.3					
4.3.3					
5.4.4					
6.5.5					
7.6.6					