

5000 Watts



- 3 Phase 180 to 528 VAC Input - 3 Wire & Earth
- High Efficiency - up to 94%
- Programmable Output Voltage (0-105%)
- Programmable Output Current (0-110%)
- Parallel Operation
- Analog & Digital Interfaces
- Multiple Digital Protocols - PMBus, CANopen, MODBUS & SCPI
- Fully Featured Signals & Controls
- Graphical User Interface (GUI)
- 5V/2A Standby Supply
- 3 Year Warranty



Dimensions:

HPT5K0:
13.00 x 5.00 x 5.00" (330.2 x 127.0 x 127.0 mm)

The HPT5K0 series offers users both output voltage and output current programming, via voltage, I²C PMBus, RS485 and CANopen in a very high efficiency, high power density 5 kW chassis mount package. Options are available for RS232 or UART. Measuring just 13.0" x 5.0" x 5.0", the HPT5K0 also features active current sharing, remote on/off, remote sense and a power OK signal. The 5V/2A standby output is available whenever the mains supply is present.

Models & Ratings

Max Output Power	Output Voltage V1			Output Current		Efficiency ⁽¹⁾	Model Number ^(2,3)
	Min	Nominal	Max	Min	Max		
5000 W	0 VDC	60 VDC	63 VDC	0.0 A	83.3 A	93%	HPT5K0TS060
5000 W	0 VDC	100 VDC	105 VDC	0.0 A	50.0 A	93%	HPT5K0TS100
5000 W	0 VDC	200 VDC	210 VDC	0.0 A	25.0 A	93%	HPT5K0TS200

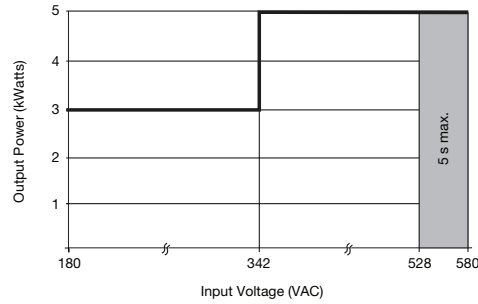
Notes

1. Measured with 480 VAC input and full load.
2. Standard models include PMBus, CANopen and RS485 interfaces. RS485 default is full duplex. RS485 half duplex can be configured via I²C or factory configured on request. To replace RS485 with RS232 or UART, contact sales.
3. For medical applications with 4000 VAC isolation test add suffix -M. Installation Class 3 surge only.
4. USB interface available to enable RS485 and RS232 communication with GUI. Part number XP PS MANAGER INT.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage	180		264	VAC	3 kW output power max
	342		528	VAC	5 kW output power max, 3 wire & earth
			580	VAC	For 5 s
Input Frequency	47		63	Hz	
Power Factor		0.96			Complies with EN61000-3-2 for Class A
Input Current			10/11	A	Per phase, 342 VAC (5 kW)/180 VAC (3 kW)
Inrush Current			60	A	Per phase, 528 VAC (5 kW)
Earth Leakage Current			1.0	mA	528 VAC/60 Hz
			3.3		528 VAC/60 Hz, single fault
Input Protection	F16A / 500 V fuse fitted in each phase				
Loss of phase	Shutdown after 0.5s, auto recovery				

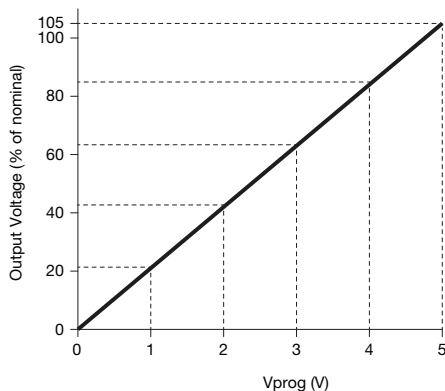
Input Derating



Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage	0		210	VDC	See Models and Ratings table
Output Set Tolerance		±0.5		%	Nominal voltage irrespective of set voltage.
+5 V Standby Tolerance		±3		%	5V Standby
Output Voltage Program	0		105	%	Of nominal, slew rate <40 ms 10-105% & 105-10%. Max frequency of voltage program is 0.5 Hz 0-5% load, 0.67 Hz 5-10% load, 1Hz 10-20% load, 3 Hz 20-100% load
Output Voltage Adjust	±10			%	Of set output via potentiometer 105% of nominal max.
Output Current Program	0		110	%	Of nominal
Minimum Load	0			A	No minimum load required
Start Up Delay		1.8	2	s	Under all load and line conditions
Start Up Rise Time			40	ms	
Hold Up Time	20	22		ms	380 VAC at 5000 W and 25 °C
	40	44			180 VAC at 3000 W and 25 °C
Line Regulation			±0.5	%	Of nominal voltage
			±0.5		5V Standby
Load Regulation			1	%	0-100% or 100-0% load
			2		5V Standby
Transient Response			3	%	Deviation with a 50-75-50% load change. Output returns to within 1% in less than 500 µs
Ripple & Noise			1/2.5	%	Of nominal voltage/5V Standby. Measured with 20 MHz bandwidth limited oscilloscope 0-50 °C.
Overshoot			5	%	Turn on & turn off
Overvoltage Protection	110		120	%	Of nominal voltage, latching. Cycle AC to reset. No protection for 5V Standby
Overtemperature Protection					Auto resetting thermal protection
Overload Protection			±3	% (of max load)	Set current limit point. Constant current characteristics. Max current limit is 108% ±3% of maximum rated current. For low line (180-264 VAC), constant power characteristic set at 3.4 kW until current limit point is reached. 5V Standby: <5 A max
Short Circuit Protection					Constant current characteristics. 5V Standby: Foldback characteristic < 5 A max.
Temperature Coefficient			0.03 of max load	%/°C	
Remote Sense	Compensates for 1% max of nominal voltage per lead, 2% of total nominal voltage drop. Not fitted on HPT5K0TS200				

Output Voltage Programming



Output Current Programmes

