

### Key Features:

- 1 phase 85-264VAC 50/60Hz input
- 2200VDC Isolation Between Input /Output/Chassis
- **Input EMI Filtering**
- Transient look ahead/cut-off technology
- 12V, 24V, 28V Voltage Output Options
- 700msec hold up, 12V/80A peak
- 600W Maximum Continuous Power, NO derating
- 87% Typical Efficiency
- -40°C to 85°C Operating Temperature
- 1U Form Factor, 250mm deep
- Rugged **MIL-DTL-38999 connectors**
- **IP65 rating**
- SMART internal feature managing functions
- **FiveNines (99.999%) reliability**

## 600W 85-264VAC 50/60Hz POWER SUPPLY with Hold-UP

This 6U power supply works with **1 phase 220VAC 50Hz input** and isolates the input voltage ground from the output voltage ground.

The power supply is **conduction cooled in the inside of the chassis**, uses digitally controlled **poly-phase** technology on all voltage rails to minimize EMI, SSC on all stages for even lower EMI and high reliability of the power supply and can provide up to **600 watts**.

**It is suitable for use in highly reliable mission critical rugged applications.**

- Remote Voltage sensing
- Digital On/Off control for low standby power
- Fault management

Overview	
P/N	<b>PCI_800.450</b>
Hold Up time	<b>700msec at -20 to 55 deg C. 12V output</b>
VITA Compliant	<b>no</b>
Size	<b>1U rack 19"</b>
Temp. Range	<b>-40 C +70 C</b>
Input (AC or DC)	<b>AC</b>
Input Range (AC-DC)	<b>220VAC</b>
Active EMI Filtering	<b>YES</b>
Power (W, max.)	<b>600 continuous</b>
Efficiency (% , typ.)	<b>87</b>
# of outputs	<b>1</b>

OUTPUTS (Total output not to exceed 600W)	
VS1	<b>+12V@80A +24V@40A +28V@30A</b>

FEATURES	
Over-current Protection	<b>YES</b>
Over-voltage Protection	<b>YES</b>
Over-temperature Protection	<b>YES</b>
Current Sharing	<b>YES</b>
Remote Sense	<b>YES</b>
Standard Control	<b>YES</b>
Extended Control	<b>YES, PCI SYSTEMS</b>

Designed to meet the following standards, additional circuitry in the chassis may be required	
MIL-STD-704 (B-F)	<b>YES</b>
MIL-STD-461	<b>YES</b>
MIL-STD-810G	<b>YES</b>
* ESD Protection	<b>YES</b>
* Shock	<b>YES</b>
* Vibration	<b>YES</b>
* Rapid Decompression	<b>YES</b>
* Corrosion Resistance	<b>YES</b>
* Fungus Resistance	<b>YES</b>
* Altitude	<b>YES</b>
* Humidity	<b>YES</b>

INPUT CHARACTERISTICS					
Parameter	Min.	Typ.	Max.	Units	Notes
<b>Absolute Maximum Ratings</b>					
<b>Input Voltage</b>					
- Non-Operating			<b>360</b>	Vrms	
- Operating			<b>264</b>	Vrms	Continuous
- Operating Transient Protection			<b>280</b>	Vrms	100ms transient
<b>Isolation Voltage</b>			<b>2200</b>	V	
<b>Operating Temperature</b>	<b>-40</b>		<b>70</b>	C	Forced air cooling
<b>Storage Temperature</b>	<b>-55</b>		<b>105</b>	C	
<b>Electrical Characteristics</b>					
<b>Input Voltage</b>					
- Continuous	<b>200</b>		<b>264</b>	Vrms	
- Transient	<b>200</b>		<b>280</b>	Vrms	Transient for 100 ms
<b>Under-Voltage Lockout</b>					
- Turn-On Input Voltage Threshold		<b>190</b>		Vrms	



INPUT VOLTAGE SPIKES SUPPRESSION (Vin Centered)	
Designed to meet the following standards, additional circuitry in the chassis may be required	
+/- 450V, 100 us	MIL-STD-1275F
+/- 490V, 10 us	MIL-STD-461C (CS06); DEF-STAN 61-5
+/- 450V, 5 us	MIL-STD-461C (CS06)
+/- 600V, 10 us	RTCA/DO-160E

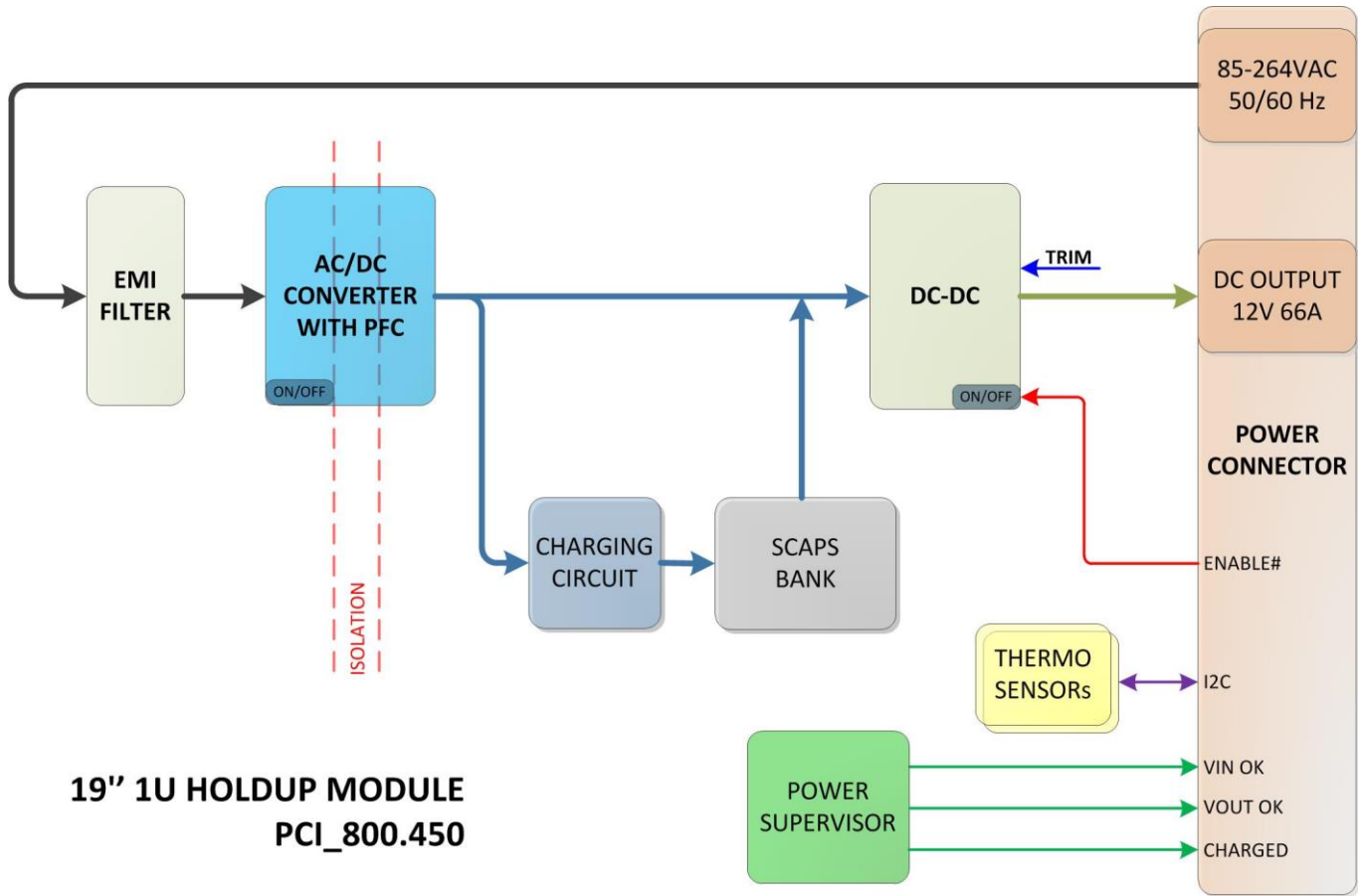
OUTPUT CHARACTERISTICS					
Parameter	+12V	+24V	+28V		Notes
Output Voltage Set Point, V	12	24	28		Vin = 220VAC
- Drift -40 deg.C to 85degC +/- %	0.01	0.01	0.01		Vin = 220VAC
Output Voltage Trim Range, V	+/- 10%	+/- 10%	+/- 10%		Over Line/load/temp.
Output Voltage Ripple (pk-pk), mV	120	120	120		Full load with 1 uF + 10 uF tantalum capacitor on each rail
HOLD UP Current Range, A	0-80	0-40	0-30		
Over-Voltage Protection, V	13	25	30		
Current Limit Inception, A	63	41	31		
Maximum Output Capacitance, mF	10	10	10		

MODULE QUALIFICATION	
Designed to meet the following standards, additional circuitry in the chassis may be required	
Test Name	Method
Random Vibration	MIL-STD-810, 514.6 - Procedure I, Class V3
Shock	MIL-STD-810, 516.6 - Procedure I, VI, Class OS2
Altitude	MIL-STD-810, 500.5 - Procedure I, II, III
Fungus Resistance	MIL-STD-810, 508.6
Corrosion Resistance	ASTM G85, Annex A4
Humidity	MIL-STD-810, 507.5 - Procedure II
High Temperature	MIL-STD-810, 501.5 - Procedure I, II
Low Temperature	MIL-STD-810, 502.5 - Procedure I, II
Temperature Cycling	MIL-STD-202, 107 - Class C4
ESD	EN61000-4-2, Level 4; 15kV Air Discharge

### RELIABILITY CHARACTERISTICS

Calculated MTBF per MIL-HDBK-217F (GB) at 70 deg C. 4.1 280.000 Hrs.

**Block Diagram:**



**Output Options: 12V 80A, 24V 40A, 28V 30A**

**ORDERING INFORMATION:**

- PCI\_800.450\_12V\_80A      6U VITA 62 850W 85-264VAC 50-60Hz Isolated Rugged Power Supply with holdup
- PCI\_800.450\_24V\_40A      6U VITA 62 850W 85-264VAC 50-60Hz Isolated Rugged Power Supply with holdup
- PCI\_800.450\_28V\_30A      6U VITA 62 850W 85-264VAC 50-60Hz Isolated Rugged Power Supply with holdup

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