Model	Output	Output Current	Output Current	Regulation	Ripple & Noise
VPF-S200-03	3 - 4V	0.5A	30A	+/- 1%	50mVpp
VPF-S200-05	5 - 6V	0.5A	40A	+/- 1%	50mVpp
VPF-S200-12	12 - 16V	0.5A	16.7A	+/- 1%	1%
VPF-S200-24	24 - 30V	0.5A	8.34A	+/- 1%	1%
VPF-S200-48	36 - 56V	0.5A	5.55A	+/- 1%	1%

Input

Parameter	Conditions/Description	Min	Nom	Max	Units
Input Frequency		47		63	Hz
Input Voltages	Full range	90		264	VAC
Input Current	At 100 VAC	4			Amps
Inrush Current	Peak max. measuring at 110VAC full load cold start			35	Amps
PFC	Power factor correction pass EN61000-3-2 class D				
Phase	Power supply shall be connected to single phase TN-S system				

Output

Parameter	Conditions/Description	Min	Nom	Max	Units
Efficiency	Measured at 230 V and full load	70%			
Turn on delay	At 120 VAC			1	second
Hold up time	At 120 VAC and 80% of rated maximum load	20			Msec
Adjustability	Output user adjustable	-5%		5%	
Remote On-Off	Designated as S/D on the CN3. Requires a low signal to inhibit output				
Power supply on	Green LED light designated as LED 1 on the PCB. When LED light is on, the supply is operating.				
Power Good	Designated as PG on the CN3. This is a Power On Reset signal. This signal will go high 100-500 Msec before loss of regulation.				
Transient Response	Output voltage return to within 1% in less than 500us for a 50% dynamic load change. Peaks do not exceed 5%				
Overshoot	Turn on and turn off overshoot should not exceed 5% over nominal voltage				
Fan Drive	12VDC/160 mA is available to drive an external fan				
Output rating	Measured at output power connector (see chart above)				

* Maximum 200W continuous output, with minimum 17 cfm forced ventilation.
* Maximum 150W continuous output with air convection, except VPF-S200-03 and VPF-S200-05 with output current limited to 22A respectively.
* Output is fully isolated.
* Ripple and noise is measured from 10KHZ to 20MHz bandwidth at output terminals with parallel 0.1µF ceramic and 22µF electrolytic capacitors.

Protection Circuits

Parameter	Conditions/Description
Input circuit (primary)	Built-in AC fuse. A blown fuse usually indicates permanent damage to the power supply serviceable by factory only.
Under-voltage protection	Power supply shuts down when of AC input is under 80VAC. When AC reappears over 86VAC, the power supply starts automatically.
Overcurrent protection	Current limiting starts at 110-140% of the rated output current and recovers automatically.
Short circuit protection	Short circuit can be continuous and recovers automatically.
Overvoltage protection	Output is protected against overvoltage. Unit laches when output exceeds 130%. AC input needs to be reset to start the power supply.
Over temp. protection	Power supply shuts down when temperature is excessive. Auto recover.

Mechanical

Parameter	Conditions/Description	Min	Nom	Max	Units
Weight				650	grams
Enclosure	6.8 x 3.8 x 1.5” U-case				
Ac Input connector	Mating Molex part no. 09-91-0500 or equivalent (5 pin, 3 used). PCD is labeled: L=line, N=neutral G=chassis ground mating pins; Molex series 2478, 2578, 8818				
OR	Howder terminal block part no. FTB-702-3P(3 pin)				
Output connector	Mating Molex part no. 09-91-1200 (12 pin)				
OR	Howder terminal block part no. HD-301-4P(4 pin)				
Output pin assignment	Molex: VO+ (pins 1-6); VO- (pins 7-12)				
OR	Howder: VO+ (pins 1-2); VO- (pins 3-4)				
Logic signal connector	(CN3) Mating JST XHP-6 or equivalent (CHY AO SHIUNN JS-2001-06 Mating pins:JST SXH-002T-PO.6 FOR AWG 30 to 26				
Mounting Inserts	8 places M4. Maximum penetration 4mm (see outline for location)				

Environmental

Parameter	Conditions/Description	Min	Nom	Max	Units
Operating temp.		0		50	ºC
Storage temp.		-20		85	ºC
Operating humid.	Non-condensing	5%		90%	RH
Storage humid.	Non-condensing	5%		95%	RH

Safety and EMI

Parameter	Conditions/Description	Min	Nom	Max	Units
EMI requirement	Pass FCC Part 15 J Class B, CISPR 22 class B, CE Mark.				
Safety regulation	UL1950, TUV EN60950, CE				
Leakage Current	The AC leakage current shall not exceed 3.5mA at maximum input voltage of 264VAC				
HI-POT	Applied for three seconds. Primary to Chassis: Primary to Secondary: Primary to Core:			 1500VAC 3000VAC 1500VAC	
Grounding Test	Allowable resistance measured when 25 A current is applied from the ground pin of the three prong plug to the farthest earthed connection point.			0.1	Ohm

Reliability and Warranty

Parameter	Conditions/Description	Min	Nom	Max	Units
Warranty	Standard warranty length		1		year
MTBF	according to MIL-HBK-217F at 30ºC	100,000			hours

Burn in

Parameter	Conditions/Description	Min	Nom	Max	Units
Burn-in condition	Applying full load at 45±5ºC, 230VAC	1		8	hours