

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		93-94		%	230 VAC full load
Isolation: Input to Output	4000			VAC	2 x MOPP
Input to Ground	1500			VAC	1 X MOPP
Output to Ground	1500			VAC	1 X MOPP
Switching Frequency		45-280		kHz	PFC
		31		kHz	Boost
		63		kHz	Main converter
		56-91		kHz	Standby (optional)
Power Density			11.7	W/in ³	
Mean Time Between Failure		213		kHrs	MIL-HDBK-217F, Notice 2 +25 °C GB
Weight		0.94 (425)		lb (g)	CHD250PSxx
		0.97 (441)			CHD250PSxx-A
		1.36 (619)			CHD250PSxx-C
		1.40 (636)			CHD250PSxx-AC

Efficiency Vs Load

Figure 2
12 V Models

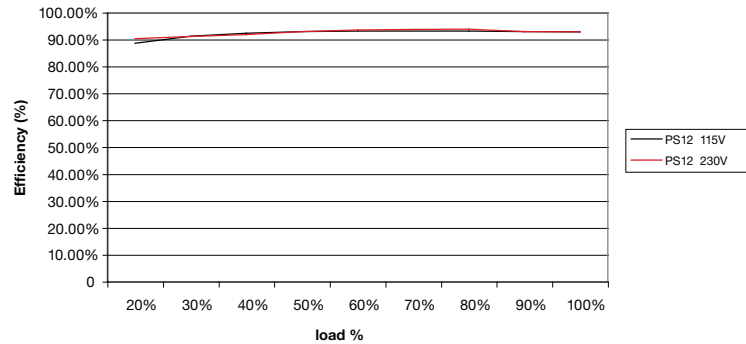


Figure 3
24 V Models

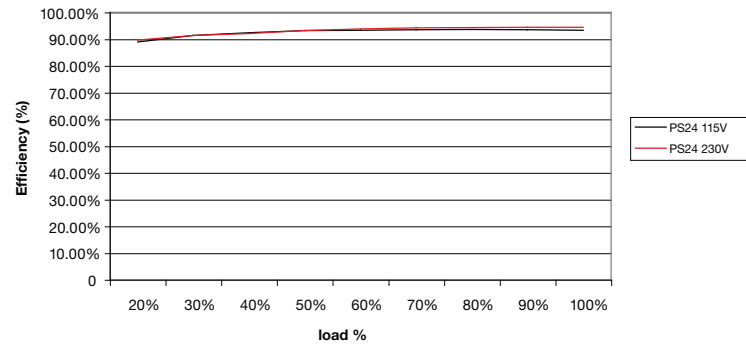
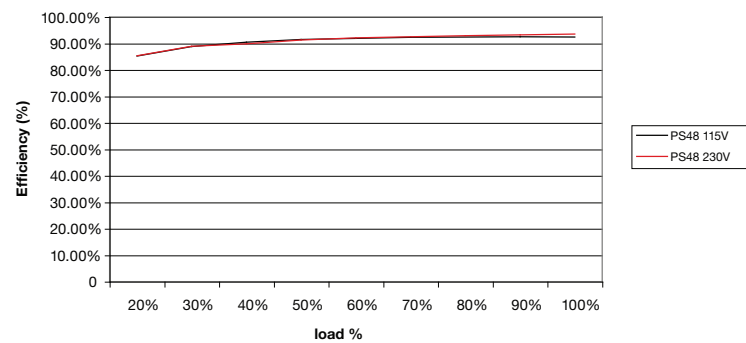


Figure 4
48 V Models

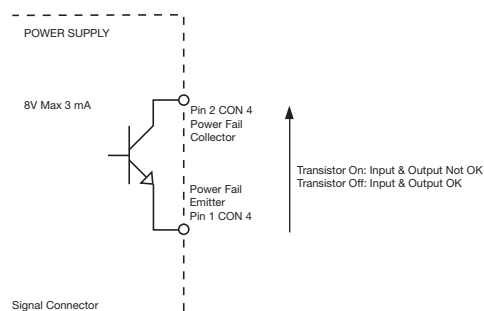


Signals & Controls

Characteristic	Notes & Conditions
Power Fail (AC-OK)	Uncommitted isolated optocoupler transistor, normally off when AC is good (see fig.5) Provides 5 ms warning of loss of output from AC failure off when AC is healthy.
Inhibit	Uncommitted isolated optocoupler diode, powered diode inhibits the supply (see fig.6 & 7)
Standby Supply (optional)	5V/0.5A Isolated supply present when AC applied.
Remote Sense	Compensates for 0.25V per lead, 0.5V total drop.

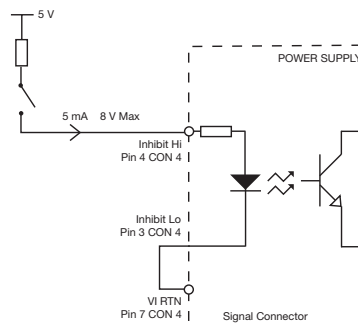
Power Fail

Figure 5



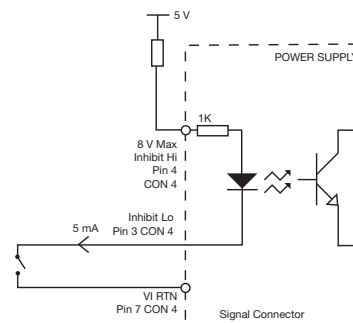
Inhibit (High)

Figure 6



Inhibit (Low)

Figure 7



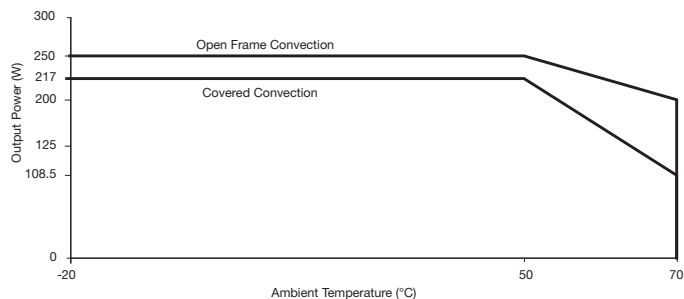
Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-20		+70	°C	See derating curve, fig.8. and Thermal Considerations on page 8.
Storage Temperature	-40		+85	°C	
Cooling					Convection cooled
Humidity			95	%RH	Non-condensing
Operating Altitude			5000	m	Information Technology
			4000		Medical
Shock	±3 x 30g shocks in each plane, total 18 shocks. 30g = 11ms (±0.5msec), half sine. Conforms to EN60068-2-27 & EN60068-2-47				
Vibration	Single axis 10 - 500 Hz at 2g sweep and endurance at resonance in all 3 planes. Conforms to EN60068-2-6				

Temperature Derating Curve

Figure 8

Standard & Covered (-C) versions



5 V Standby (-A & -AC) versions

