

6 Watts

- Overvoltage Category III 85-530VAC Input
- IEC/EN/UL 62368-1 ITE approval
- -40 to +85°C Operation
- EN55032 Level B conducted & radiated
- 3 Year warranty



The PSC06HS series of OVC III compact encapsulated AC-DC power modules are PCB mount and have a super wide AC input from 85 to 530VAC. The units are suitable for installations directly to consumer units, also they are approved to the latest IEC/EN/UL 62368-1 safety standard. They provide 6W of power and have a wide temperature range from -40 to +85°C. The series offers low no-load power consumption of <0.4W, low EMC emissions meeting EN55032 level B for both conducted and radiated. All models have a Fidus 3 year warranty.

Dimensions:

2.07 x 1.08 x 0.91" (52.5 x 27.4 x 23mm)

Models & Ratings

Model Number	Output Voltage	Output Current	Efficiency	Capacitive Load
PSC06HS05B	5V	1200mA	69%	2400uF
PSC06HS12B	12V	500mA	73%	420uF
PSC06HS15B	15V	400mA	74%	270uF
PSC06HS24B	24V	250mA	75%	100uF

Notes

All specifications are typical at 480VAC input, full load at 25°C unless otherwise stated

Key specifications

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
AC Input range	85		530	VAC	See derating curve page 2
Operating temperature	-40		85	°C	See derating curve page 2
Efficiency	69		75	%	See model table above.
Dimensions	2.07 x 1.08 x 0.93" (52.5 x 27.5 x 23.5mm)				
EMC	EN55032 Level B Conducted and Radiated. EN61000-3 and EN61000-4, harmonics, flicker, Surge, EFT, ESD, conducted and radiated EN55035				
Safety	UL / IEC / EN 62368-1, CE				

Input

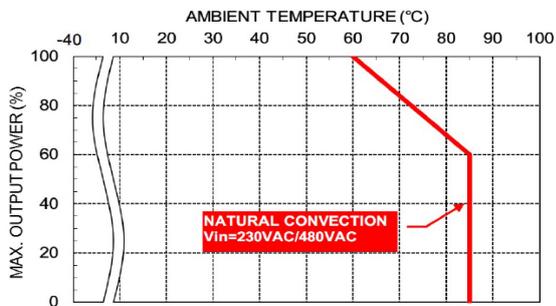
Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Input voltage	85		530	VAC	See derating curve below
	120		750	VDC	DC fuse required
Input frequency	47		63	Hz	
Power factor					EN61000-3-2 class A compliant
Input current	150		60	mA rms	150mA at 100VAC and 60mA at 480VAC
Inrush current		20		A	At 480VAC
No load input power		0.4		W	At 480VAC
leakage current			100	uA	At 480VAC

Output

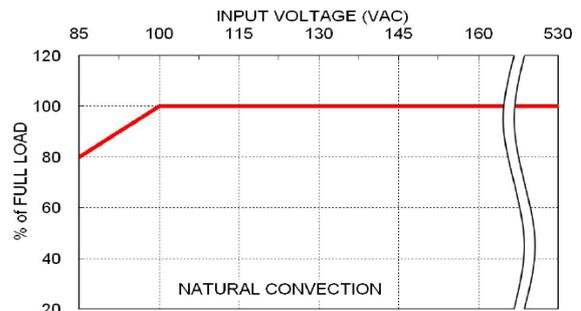
Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Output voltage	5		24	VDC	See Model & Ratings table
Set point accuracy			±1	%	250VAC full load
Line regulation			±0.2	%	Low line to High line full load.
Load regulation			±0.5	%	0 to 100% load.
Minimum load	0			%	
Ripple & Noise		50		mV pk-pk	Noise and ripple measured with 1uF/50V 1206 X7R MLCC, 20 MHz bandwidth.
Hold up time		180		mS	At 480VAC. Full load
Transient response		3		%Vout	500us recovery step from 75-100% at 0.25A/us
Overload protection		220			Trip & restart. Automatic recovery
Short circuit protection					Trip & restart. Automatic recovery
Overvoltage protection	115		140		Latch reset

Environmental

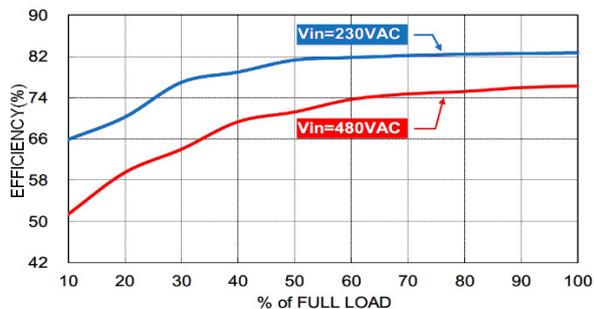
Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating temperature	-40		85	°C	See derating graph below
Storage temperature	-40		85	°C	
Altitude	4000		5000	m	4km for EN/UL 61010-1, 5km for IEC62368-1
Temperature coefficient			±0.02	%/°C	
Humidity	5		95	% RH	Non condensing
Shock & vibration	IEC 60068-2-27 IEC 60068-2-6				



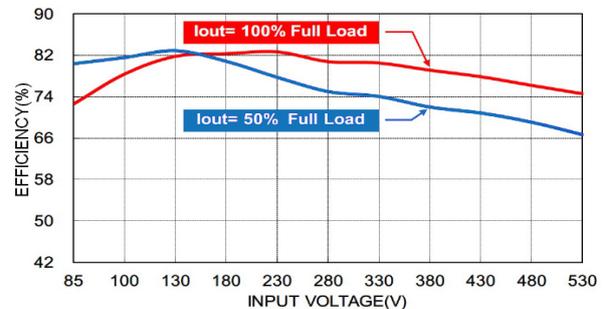
Derating Curve vs. Ambient Temperature



Derating Curve vs. Input Voltage



PSC06HS24B Efficiency vs. Output Load



PSC06HS24B Efficiency vs. Input Voltage

PSC06HS Series

EMC: Emissions

	Standard	Test level	Criteria	Notes & Conditions
Conducted	EN55032	B		
Radiated	EN55032	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

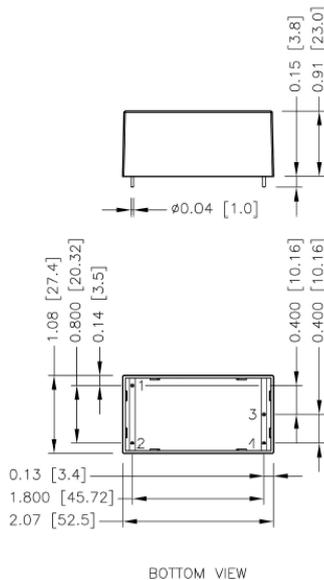
General

Parameter	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency	69		75	%	See models & Ratings table. At 480VAC full load
Isolation	4000			VAC	Input to output
Isolation resistance	1			GΩ	At 1000VDC
Switching frequency		65		kHz	At 480VAC
Power density			2.95	W/In ³	
MTBF		1.841		Mhrs	As per MIL-HDBK-217F, 25°C GB
Weight		60		g	

Safety Approvals

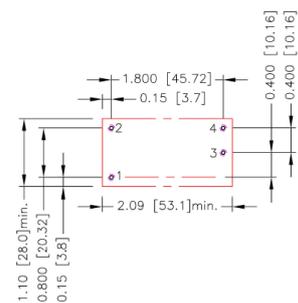
	Safety standard	Notes & Conditions
UL	UL 62368-1, UL 61010-1	
CB	IEC 62368-1	
TUV	EN 62368-1, EN 61010-1	
CE		2014/35/EU LVD
Equipment protection class		Class II

Mechanical Details



Pin Connections	
Pin	Single
1	AC IN (L)
2	AC IN (N)
3	-DC OUT
4	+DC OUT

Pad layout



Through hole 1,2,3,4: Ø0.051[1.3]
 Top view pad 1,2,3,4: Ø0.064[1.63]
 Bottom view pad 1,2,3,4: Ø0.102[2.60]

Dimension notes

- All dimensions shown in inches [mm]
- Tolerance 2dp ±0.02 [1dp ±0.5], tolerance 3dp ±0.010 [±0.25]
- Pin pitch tolerance ±0.010 [±0.25]
- Pin dimension tolerance ±0.004 [0.10]