



P-DUKE POWER

PSC06 Series

AC-DC POWER SUPPLIES
Up to 6 Watts

3
YEARS
WARRANTY

ROHS
COMPLIANT

REACH
COMPLIANT

+85°C
-40°C
AMBIENT TEMP.



Smart Meter



Smart Street
Light



Three Phase
Voltage



Automation



Datacom



IPC



Industry



Measurement



PV



Telecom



Automobile



Boat



Charger



Medical



Railway

4000
VAC
Reinforced
Insulation

Internal
EN55032
Class
Filter **B**

LOW
Leakage
Current

LOW
Standby
Power

Operating
Altitude
5000
meter

Protection
Class **II**

OVCIII

OCP

OVP

SCP

PART NUMBER STRUCTURE

PSC06	H	S	12	B
Series Name	Input Voltage (VAC)	Output Quantity	Output Voltage (VDC)	Protection Type
	H: 85 ~ 530	S: Single	05:5 12:12 15:15 24:24	B: CLASS II

TECHNICAL SPECIFICATION All specifications are typical at 480VAC input, full load and 25°C unless otherwise noted

Model Number	Input Range	Output Voltage	Output Current Natural Convection	Max. Output Power	Input Power @ No Load	Efficiency	Maximum Capacitor Load
	VAC	VDC	mA	W	mW	%	μF
PSC06HS05B	85 ~ 530	5	1200	6	400	69	2400
PSC06HS12B	85 ~ 530	12	500	6	400	73	420
PSC06HS15B	85 ~ 530	15	400	6	400	74	270
PSC06HS24B	85 ~ 530	24	250	6	400	75	100

INPUT SPECIFICATIONS

Parameter	Conditions	Min.	Typ.	Max.	Unit
Operating input voltage range	AC input	85		530	VAC
	DC input	120		750	VDC
Input frequency	AC input	47		63	Hz
Input current	100VAC and Full Load			150	mA
	480VAC and Full Load			60	
No load input power	480VAC		400		mW
Leakage current	480VAC			100	μA
Start up time				25	ms
Rise time				20	ms
Hold up time	480VAC and Full Load		180		ms
Input inrush current	480VAC		20		A
Input protection	Internal				Fusible resistor 8.2Ω

OUTPUT SPECIFICATIONS

Parameter	Conditions	Min.	Typ.	Max.	Unit
Output power				6	Watts
Initial set voltage accuracy	230VAC and Full Load	-1.0		+1.0	%
Line regulation	Low Line to High Line at Full Load	-0.2		+0.2	%
Load regulation	No Load to Full Load	-0.5		+0.5	%
Minimum load			0		%
Ripple and noise	Measured by 20MHz bandwidth		50		mVp-p
	With a 1μF/50V 1206 X7R MLCC				
Temperature coefficient		-0.02		+0.02	%/°C
Transient response	Load step form 75 ~100% change at 0.25A/μs		3		%Vout
			500		
Over voltage protection	% of Vout(nom); Latch mode	115		140	%
Over load protection	% of Iout rated; Hiccup mode		220		%
Short circuit protection					Continuous, automatic recovery

GENERAL SPECIFICATIONS

Parameter	Conditions	Min.	Typ.	Max.	Unit
Isolation voltage	1 minute (Reinforced insulation)	4000			VAC
Isolation resistance	1000VDC	1			GΩ
Switching frequency	480VAC		65		kHz
Safety approvals (Pending)					EN/ UL 61010-1 IEC/ EN/ UL 62368-1 (OVC III)
Potting material					Potting compound (UL94 V-0)
Weight					60.0g (2.12oz)
MTBF	MIL-HDBK-217F, Full load				1.841 x 10 ⁶ hrs

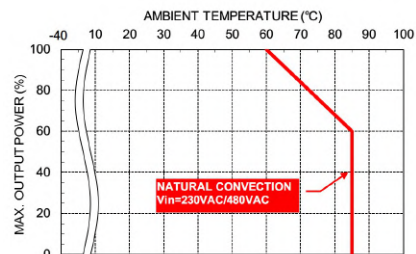
ENVIRONMENTAL SPECIFICATIONS

Parameter	Conditions	Min.	Typ.	Max.	Unit
Operating ambient temperature	Natural convection	-40		+85	°C
Storage temperature range	With derating	-40		+85	°C
Operating altitude	EN/ UL 61010-1 IEC/ EN/ UL 62368-1			4000 5000	m
Shock				IEC60068-2-27	
Vibration				IEC60068-2-6	
Relative humidity	Non-condensing			5% to 95% RH	

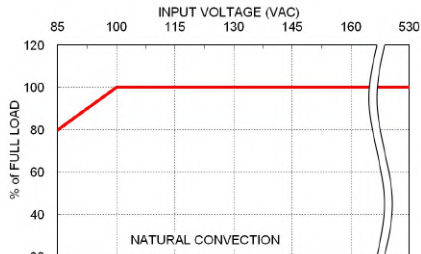
EMC SPECIFICATIONS

Parameter	Conditions	Level
EMI	EN55032 and FCC Part 15	Conducted Radiated
Harmonic currents	EN61000-3-2	Class B
Voltage flicker	EN61000-3-3	Class B
EMS	EN55024	Class A
ESD	EN61000-4-2	Perf. Criteria A
Radiated immunity	EN61000-4-3	Perf. Criteria A
Fast transient	EN61000-4-4	Perf. Criteria A
Surge	EN61000-4-5	Perf. Criteria A
Conducted immunity	EN61000-4-6	Perf. Criteria A
Power frequency magnetic field	EN61000-4-8	Perf. Criteria A
Dip and interruptions	EN61000-4-11	Perf. Criteria A

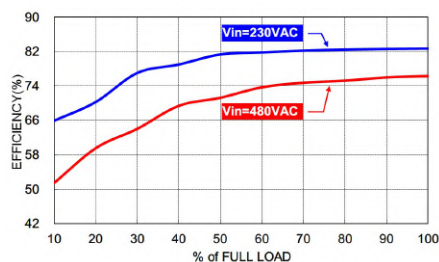
CHARACTERISTIC CURVE



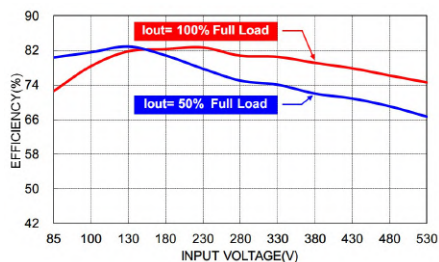
Derating Curve vs. Ambient Temperature



Derating Curve vs. Input Voltage

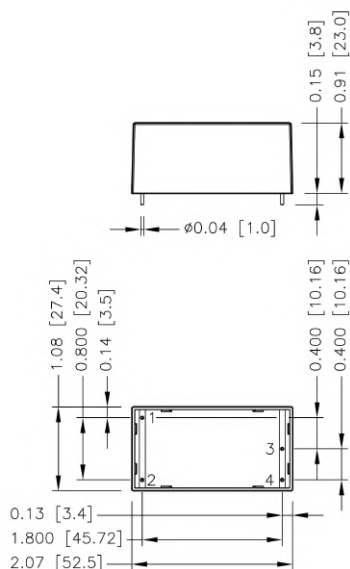


PSC06HS24B Efficiency vs. Output Load



PSC06HS24B Efficiency vs. Input Voltage

MECHANICAL DRAWING



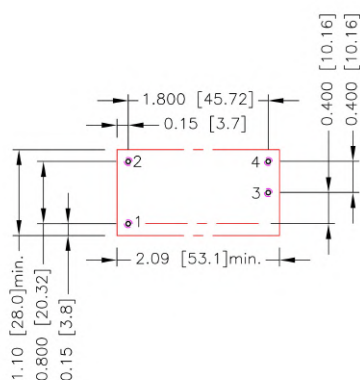
BOTTOM VIEW

PIN CONNECTION

PIN	DEFINE
1	Line
2	Neutral
3	-Vout
4	+Vout

1. All dimensions in inch [mm]
2. Tolerance : $x.xx \pm 0.02$ [$x.x \pm 0.5$]
 $x.xxx \pm 0.010$ [$x.xx \pm 0.25$]
3. Pin pitch tolerance ± 0.010 [0.25]
4. Pin dimension tolerance ± 0.004 [0.10]

RECOMMENDED PAD LAYOUT



All dimensions in inch[mm]
 Pad size(lead free recommended)
 Through hole 1.2.3.4: $\phi 0.051$ [1.30]
 Top view pad 1.2.3.4: $\phi 0.064$ [1.63]
 Bottom view pad 1.2.3.4: $\phi 0.102$ [2.60]

- * There should be at least 8mm distance between primary and secondary circuit.
- ** For further information, please contact P-DUKE.