



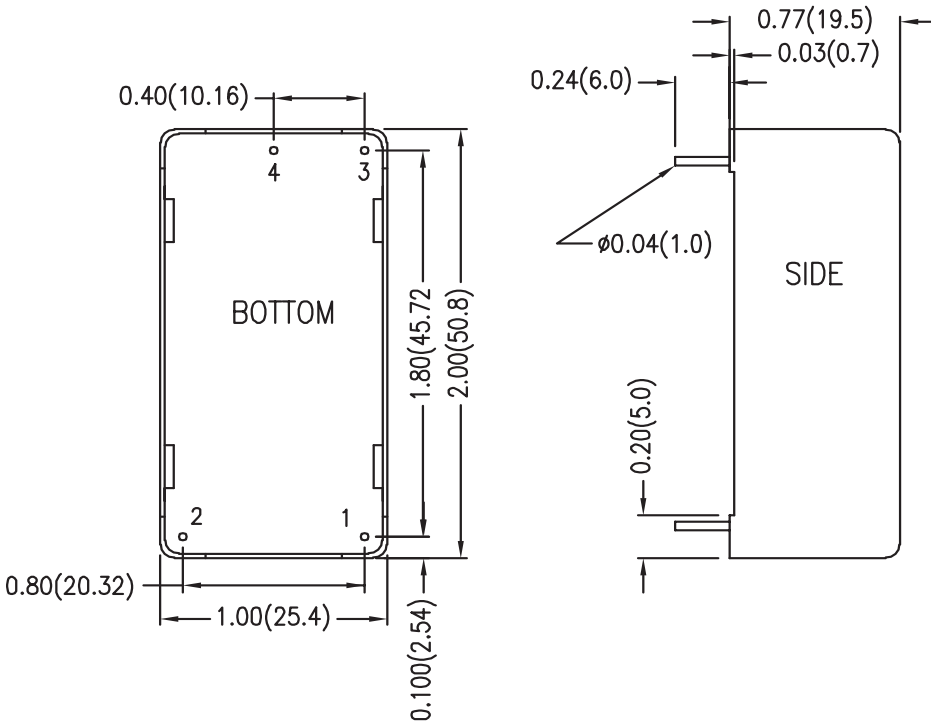
- Efficiency up to 78%
- Universal Input Range 85-264 VAC
- Single Output
- 3000VAC Isolation
- Short Circuit Protection
- Over Voltage Protection
- Class II Protection
- MTBF > 330,000 Hours
- UL60950 Approved
- RoHS Compliant



## 7 Watt AC/DC Module Single Output Series



Model Number	Voltage Output (VDC)	Current				Efficiency @ Max Load (% Typ)	Capacitive Load Max
		Input 115VAC, 60Hz		Output			
		@ No Load (mA)	@ Max Load (mA)	Min (mA)	Max (mA)		
PK7J85S3	3.3	10	96	140	1400	70	2200 $\mu$ F
PK7J85S5	5	10	139	140	1400	73	2200 $\mu$ F
PK7J85S12	12	10	130	58	583	78	1000 $\mu$ F
PK7J85S15	15	10	130	47	466	78	1000 $\mu$ F
PK7J85S24	24	10	130	29	291	78	680 $\mu$ F



Dimensions are inches (mm) unless noted

Tolerance: Inches	Millimeters
X.XX $\pm 0.02$	X.X $\pm 0.5$
X.XXX $\pm 0.010$	X.XX $\pm 0.25$
Pin	$\pm 0.004$ $\pm 0.1$

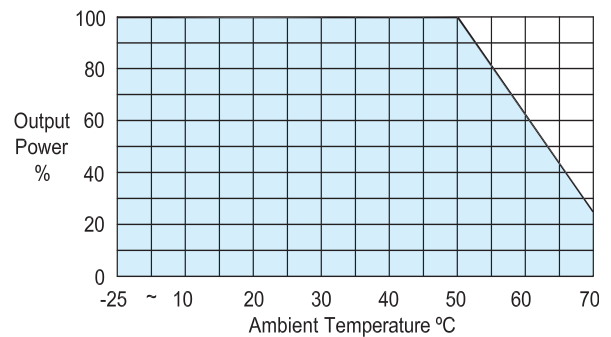
Pin Connections (NC) Not Connected	
Pin	Function
1	AC(N) - AC Neutral
2	AC(L) - AC LINE
3	+Vout
4	-Vout

## See Model Selection Table for Model Specific Parameters

Input Parameters		Min	Typ	Max	Units
Input Voltage Range		85		264	VAC
		120		370	VDC
Input Frequency		47		440	Hz
Switching Frequency			100		kHz
Inrush Current (Cold Start at 25°C)	115VAC			10	A
	230VAC			20	A
Output Parameters		Min	Typ	Max	Units
Output Voltage Accuracy			±1.0	±2.0	%
Load Regulation I <sub>o</sub> = Min. to Max.			±0.5	±1.0	%
Line Regulation V <sub>in</sub> =Min. to Max.			±0.5	±1.0	%
Ripple & Noise (20MHz) 3.3 & 5 VDC Output Models Other Output Models			1.5 0.8	1.8 1.0	%V <sub>PP</sub> of V <sub>o</sub>
Over Voltage Protection Zener diode clamp			120		% of V <sub>o</sub>
Temperature Coefficient			±0.01	±0.02	% / °C
Overshoot				5.0	%
Current Limitation 85VAC, Hiccup Technique, auto-recovery		105			%
Short Circuit Protection		Hiccup mode, indefinite (automatic recovery)			
General Specifications		Min	Typ	Max	Units
Isolation Voltage, 60 seconds		3000			VAC
Isolation Resistance 500VDC		100			Mohms
Hold-up Time (115VAC, 60Hz)			20		ms
Operating Temperature (Ambient)		-25		+70	°C
Storage Temperature		-40		+85	°C
Humidity				95	%
MTBF MIL-HDBK-217F @25°C, Ground Benign		330			K Hours
Cooling		Free-Air Convection			
Case Size		2.00 x 1.00 x 0.76 inches 50.8 x 25.4 x 19.3 mm			
Case Material		Plastic Resin + Fiberglass (UL94V-0)			
Weight		44g			
Agency Approvals		UL60950 Approved			
Isolation/Protection		Class II per IEC/EN 60536			
EMI Filtering Conducted and Radiated		EN55011, Class B, EN 55022, Class B, FCC part 15, class B			

### Notes:

- Specifications typical at T<sub>a</sub>=+25°C, 115VAC, 60Hz input voltage, rated output current unless otherwise noted.
- ConTech power converters require a minimum output loading to maintain specified regulation. Operation under no-load conditions will not damage these modules; however, they may not meet all specifications listed.
- The series has a limitation of a maximum connected capacitance at the output. The power module may be operated in current limiting mode during start-up, affecting the ramp-up and the startup time.
- Ripple & Noise measurement bandwidth is 0-20MHz.
- Long term short circuit operation may cause damage to the unit.
- Water washability - ConTech AC/DC converters are designed to withstand most solder/wash processes. Careful attention should be used when assessing the applicability in your specific manufacturing process. Converters are not hermetically sealed.
- See ConTech website for Definition of Terms, Application Notes, and Test Setups and Parameters. [www.ConTech-us.com/appnotes.html](http://www.ConTech-us.com/appnotes.html).
- Specifications subject to change without notice.
- See ConTech website [www.ConTech-us.com/pdf/rohs.pdf](http://www.ConTech-us.com/pdf/rohs.pdf) for RoHS Statement.



### Derating Curve

To avoid exceeding the maximum temperature rating of the components inside the power module, the case temperature must be kept below 90°C.

### Input Fuse Selection Table

External Fuse (Recommended)	1.5A Slow-Blow Type
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External fusing should be used for system protection due to a catastrophic failure. See ConTech website for Fusing Application Notes to determine the correct fuse.

# Block Diagram

