

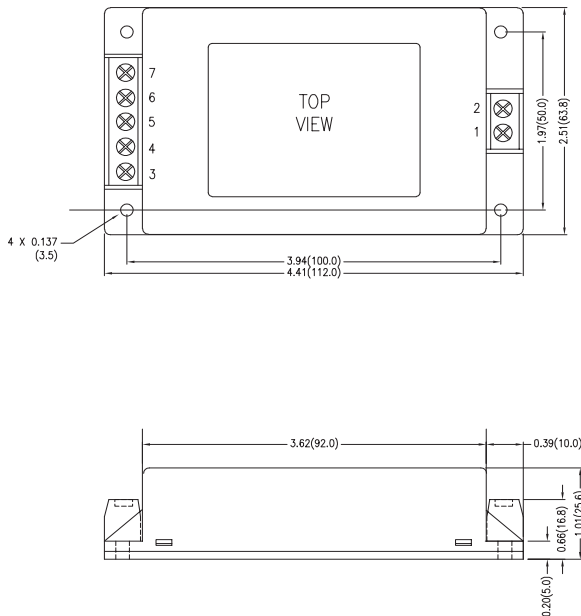


# 30 Watt AC/DC Chassis Module: Single, Dual and Triple Output Series

- Efficiency up to 80%
- Universal Input Range 85-265 VAC
- Single, Dual and Triple Output Modules
- 3000VAC Isolation
- Short Circuit Protection
- Over Voltage Protection
- MTBF > 250,000 Hours
- UL60950 Approved
- RoHS Compliant



Model Number	Voltage		Current				Efficiency	Capacitive Load
	Output	Input 115VAC, 60Hz		Output				
		(VDC)	@ No Load (mA)	@ Max Load (mA)	Min (mA)	Max (mA)		
PC30J85S5	5	60	557	600	6000	-----	78	8000 $\mu$ F
PC30J85S12	12	60	543	250	2500	-----	80	3900 $\mu$ F
PC30J85S15	15	60	543	200	2000	-----	80	3900 $\mu$ F
PC30J85S24	24	60	543	125	1250	-----	80	1500 $\mu$ F
PC30J85S48	48	60	543	63	625	-----	80	1000 $\mu$ F
PC30J85D12	$\pm$ 12	60	565	$\pm$ 130	$\pm$ 1300	-----	80	1500 $\mu$ F (each output)
PC30J85D15	$\pm$ 15	60	543	$\pm$ 100	$\pm$ 1000	-----	80	1500 $\mu$ F (each output)
PC30J85D512	5 (Floating)	60	572	300	3000	4500	76	3900 $\mu$ F
	12 (Floating)			125	1250	1800		1500 $\mu$ F
PC30J85T512	5 (Floating)	60	572	600	3000	4500	76	2200 $\mu$ F
	+12			120	600	900		1500 $\mu$ F
	-12			-120	-600	900		1500 $\mu$ F
PC30J85T512A	5 (Floating)	60	572	600	3000	4500	76	2200 $\mu$ F
	+12			200	1000	1500		1500 $\mu$ F
	-12			-50	-250	500		1500 $\mu$ F
PC30J85T515	5 (Floating)	60	572	300	3000	4500	76	2200 $\mu$ F
	+15			50	500	750		1500 $\mu$ F
	-15			-50	-500	750		1500 $\mu$ F
PC30J85T5312	5 (Floating)	60	588	900	4500	6000	71	2200 $\mu$ F
	+3.3			220	1000	1500		2200 $\mu$ F
	+12			50	250	500		1500 $\mu$ F
PC30J85T3512	3.3 (Floating)	60	483	800	4000	5300	71	2200 $\mu$ F
	+5			300	1500	2000		2200 $\mu$ F
	+12			50	250	500		1500 $\mu$ 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	Single	Dual (D12, D15)	Dual (D512A)	Triple	Triple (T5312, T3512)
1	AC(N) - AC Neutral				
2	AC(L) - AC Line				
3	+Vout	+Vout	+Vout2	+Vout2	+Vout2
4	NC	NC	+Vout1	+Vout1	+Vout1
5	-Vout	Common	-Vout2	Common 2/3	Common 2/3
6	NC	NC	-Vout1	-Vout1	-Vout1
7	NC	-Vout	NC	-Vout3	+Vout3

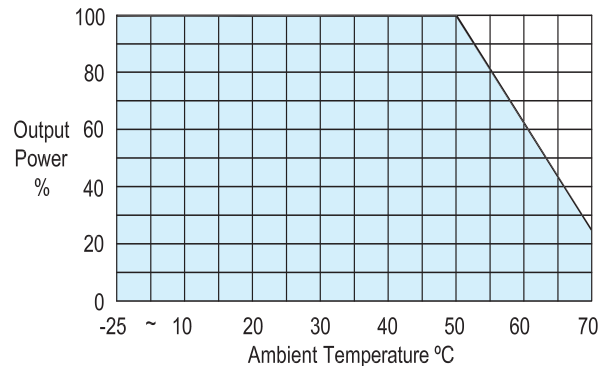


See Model Selection Table for Model Specific Parameters

Input Parameters		Min	Typ	Max	Units
Input Voltage Range		85		265	VAC
		120		370	VDC
Input Frequency		47		440	Hz
Switching Frequency			100		kHz
Inrush Current (Cold Start at 25°C)	115VAC			20	A
	230VAC			40	A
Output Parameters		Min	Typ	Max	Units
Output Voltage Accuracy					
Single / Dual Output			±1.0	±2.0	%
Dual Positive / Triple Output	Vo1		±1.0	±2.0	%
	Vo2 & Vo3		±3.0		%
Load Regulation I <sub>out</sub> = Min. to Max.					
Single Output Models			±0.5	±1.0	
Dual Output Models			±2.5	±5.0	
Triple Output Models	Vo1		±2.5	±5.0	
	Vo2 & Vo3		±4.0		
Line Regulation Vin=Min. to Max.			±0.2	±1.0	%
Cross Regulation - Dual Positives / Triple Output (Note 5)	Vo1				%
	Vo2				%
	Vo3				%
Ripple & Noise (20MHz) 3.3 and 5.0VDC Output Models Other Output Models			1.5 1.0	1.8 1.3	%V <sub>PP</sub> of V <sub>o</sub>
Over Voltage Protection Zener diode clamp			120		% of V <sub>o</sub>
Temperature Coefficient			±0.02		% / °C
Overshoot				5	%
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)		-10		+71	°C
Storage Temperature		-40		+85	°C
Humidity				95	%
MTBF MIL-HDBK-217F @25°C, Ground Benign		250			K Hours
Cooling		Free-Air Convection			
Case Size		4.41 x 2.51 x 1.01 inches 112.0 x 63.8 x 25.6 mm			
Case Material		Plastic Resin + Fiberglass (UL94V-0)			
Weight		191g			
Agency Approvals		UL60950 Approved			

Notes:

- Specifications typical at Ta=+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.
- Cross Regulation - Measured output I<sub>o</sub> = 20% to 100% of rated load. Other outputs are set at 50% of rated load.
- Peak current can not be drawn from all outputs at the same time.
- Floating (or isolated) output of a power supply that is not connected to any other output.
- 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.

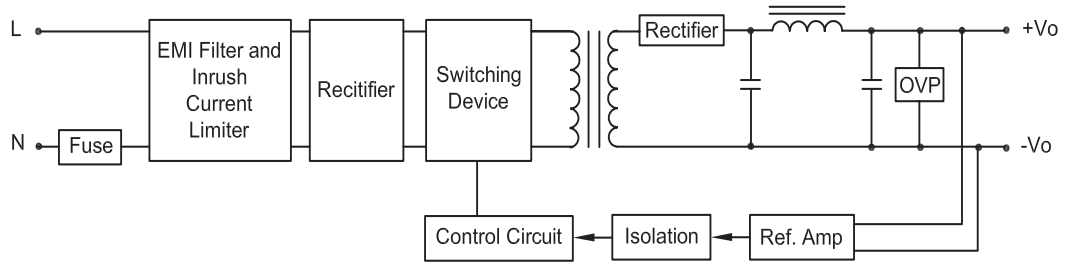
Input Fuse Selection Table	
Built In Fuse	6A - 250VAC
External Fuse (Recommended)	1.5A Slow-Blow Type

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.

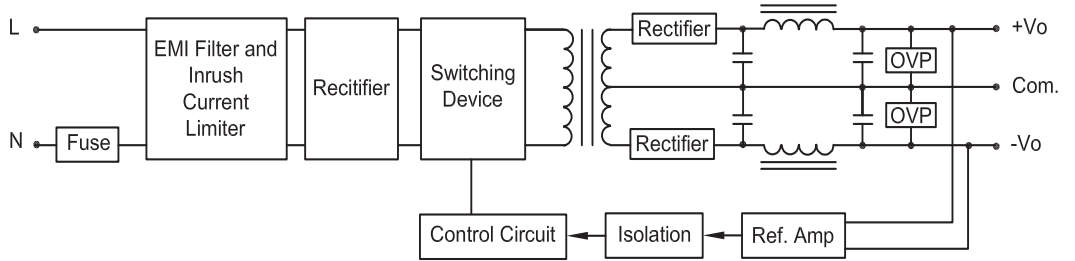


# Block Diagrams

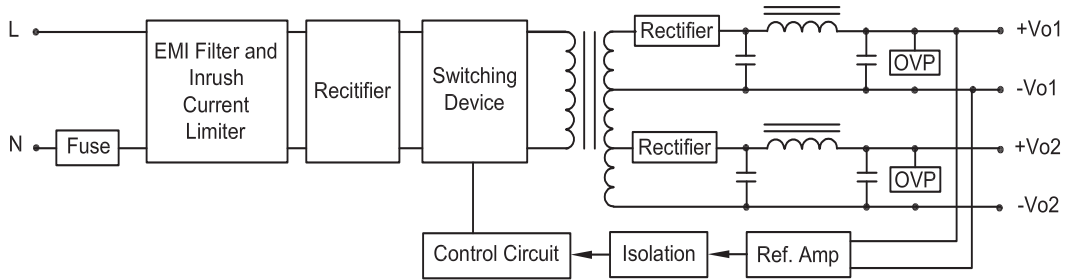
Single Output



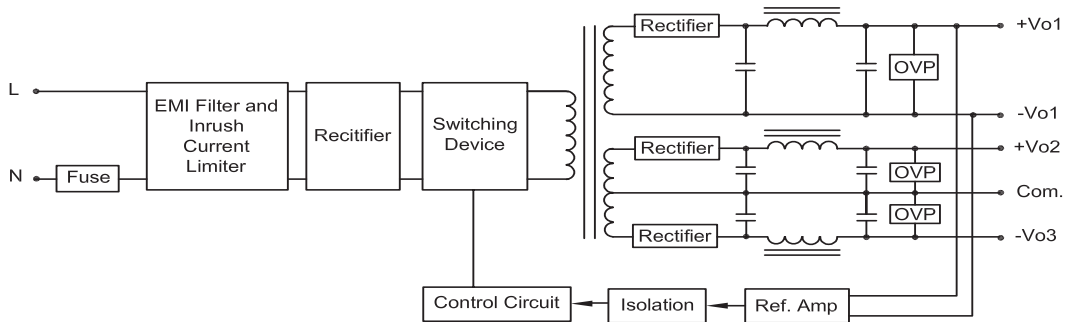
Dual Output (D12, D15)



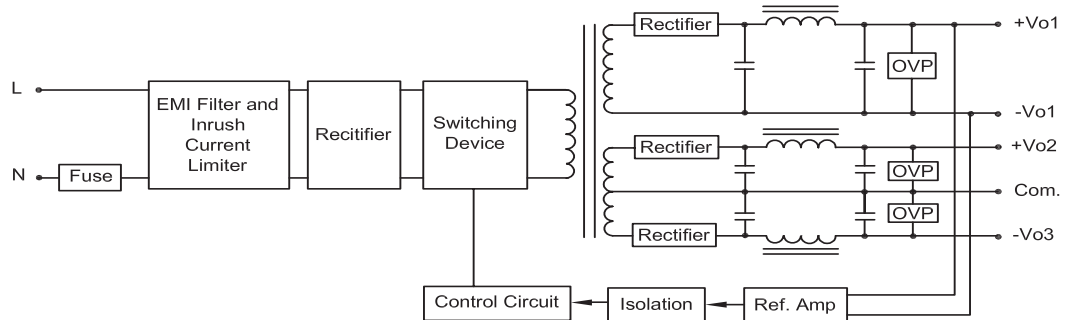
Dual Output (D512)



Triple Output

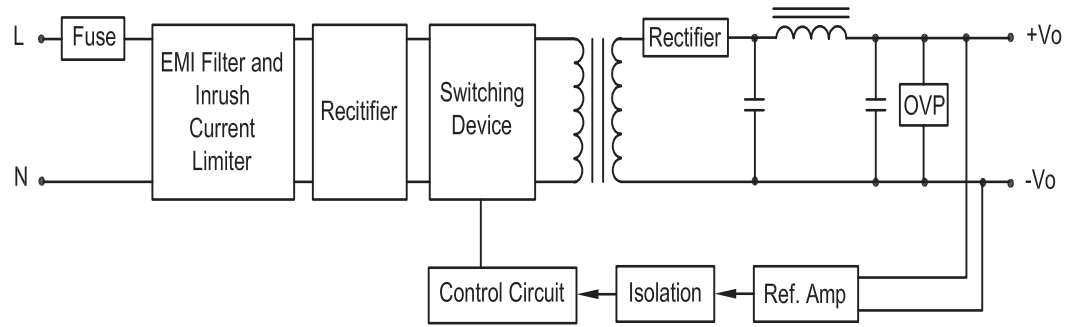


Triple Output (T3512, T5312)



# Block Diagrams for UL508

Single Output



Dual Output  
(D12, D15)

