ZWS-PAF Series

150W to 480W Single Output Power Supplies

Features

- ◆ Universal Input (85 265VAC)
- ◆ Power factor Corrected
- ◆ 200% Peak Power capability
- ◆ 2 year warranty
- ◆ Less than 0.5mA earth leakage current
- ◆ Input Transient Protected

Key Market Segments & Applications











Specifications		
Model		ZWS150PAF ZWS240PAF
Input Voltage	-	85-265VAC (47-63Hz), 120-370VDC
Input Current (Forced air (1)	Α	2.8/1.4 4.0/2.0
Inrush Current (1,2)	Α	14 / 28
Power Factor	-	0.99 at 100VAC, 0.95 at 200VAC, Meets EN61000-3-2
Leakage Current	mA	0.5mA Max. Typically 0.1mA (100VAC), 0.22mA (230VAC)
Temperature Coefficient	-	<0.02%/°C
Overcurrent Protection (3)	-	>102% of peak current capability
Overvoltage Protection	V	24V: 30-35V, 36V: 43.2-50.4, 48V: 55.2-64.8V
Hold Up Time (Typ) at 100VAC	ms	20 (16ms at forced air power ratings)
Efficiency	%	82
Remote On/Off	-	See installation manual (Not available with /A cover option)
Line Regulation	%	0.4%
Load Regulation	%	0.8%
Ripple & Noise	%	1%
Operating Temperature (4)	°C	(Open frame or L bracket) -10°C to +70°C, derate linearly to 70% load from 60°C to 70°C
Operating Temperature (4)	°C	(With /A cover option) -10°C to +60°C, derate linearly to 70% load from 50°C to 60°C
Storage Temperature	°C	-30 to +85°C
Humidity (non condensing)	-	Operating: 30 - 90% RH, Operating: 10 - 95% RH
Cooling	-	Convection or Forced Air Cooled (1.5m/s)
Withstand Voltage	-	Input to Ground 2kVAC (20mA), Input to Output 3kVAC (20mA),
		Output to Ground 500VAC (100mA) for 1 min.
Isolation Resistance	-	>100M at 25°C & 70% RH, Output to Ground 500VDC
Vibration (non operating)	-	10 - 55Hz (1 minute sweep), 19.6m/s ² constant X, Y, Z 1 hour
Shock	-	< 196.1 m/s ²
Safety Agency Approvals	-	UL60950-1, CSA60950-1, EN60950-1, EN50178, CE Mark
Conducted & Radiated EMI	-	EN55022/EN55022-B, FCC Class B, VCCI-B
Recommended EMI Filter	-	RSEL-2006W
Immunity	-	EN61000-4-2, -3, -4, -5, -6, -8, -11
Weight (Typ)	g	500g (800g with cover) 750g (1100g with cover)
Size (WxHxD)	mm	See Outline Drawings
Warranty	yrs	Two Years

Notes:

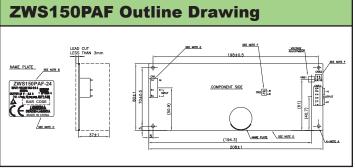
- (1) 100/200VAC
- (2) 25°C ambient (cold start)
- (3) Avoid prolonged operartion in overload
- (4) With 0.7m/s airflow. See derating table for convection cooling

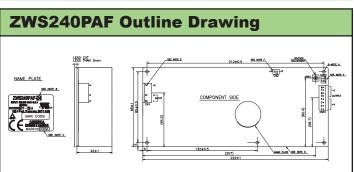
Model Selector Max Max Max Max Adjust Current Power Current Power Peak **Peak** Forced Air(6) Forced Air(6) Current⁽⁵⁾ Power⁽⁵⁾ Model Voltage Range Convection Convection ZWS150PAF24 24V 21.6 - 28.8V 151.2W 8.4A 201.6W 12A 288W 6.3A ZWS150PAF36 36V 32.4 - 41.4V 4.2A 151.2W 5.6A 201.6W 8A 288W ZWS150PAF48 48V 43.2 - 52.8V 3.1A 148.8W 4.3A 206.4W 6A 288W ZWS240PAF24 24V 21.6 - 28.8V 10A 240W 12.5A 300W 20A 480W ZWS240PAF36 36V 32.4 - 41.4V 6.7A 241.2W 8.4A 302.4W 13.3A 478.8W 48V 43.2 - 52.8V 5A 10A 480W ZWS240PAF48 240W 6.3A 302.4W

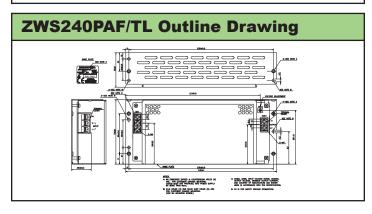
Note 5: For 10s maximum, 35% duty cycle, average power not to exceed maximum ratings

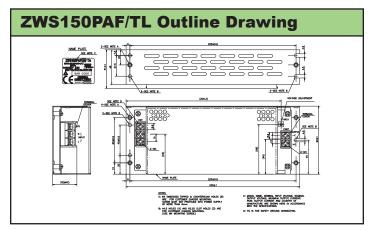
Note 6: With 1.5m/s forced air

Model Derating for Conducted Cooling 25°C 30°C 35°C 40°C 45°C 50°C 55°C 60°C Model ZWS150PAF** 100% 100% 100% 100% 100% 100% 85% 70% ZWS150PAF**/A 100% 100% 90% 80% 72.5% 65% ZWS240PAF** 100% 100% 100% 100% 100% 86.7% 73.3% 60% ZWS240PAF**/A 100% 90% 80% 70% 60% 50.0%









Option	S
Suffix	Option
Blank	Molex Input & Output Connectors
/L	L Bracket
/A	Cover and L Bracket
/J	JST Input & Output Connectors
/T	Vertical Mount Screw Terminals
/S	Horizontal Mount Screw Terminals

Preferred option combinations: Blank, /L, /TL or /TA. Example: ZWS240PAF24/TA

Other Industrial Products			
VSB/VSC	10W to 150W Single output 115VAC input		
ZWS	5W to 150W Single output, 115/230VAC input		
SC	30W to 120W Single, dual & triple output		
HWS	15W to 1500W Single output, enclosed		

For Additional Information, please visit us.tdk-lambda.com/lp/products/zws-series.htm

