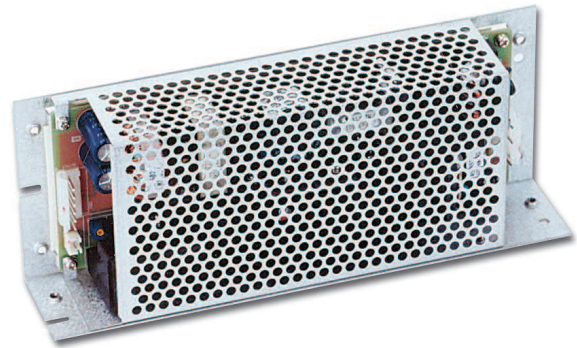


150W to 480W Single Output Power Supplies

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))	A	2.8/1.4	4.0/2.0
Inrush Current (1,2)	A	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 operation in overload
- (4) With 0.7m/s airflow. See derating table for convection cooling

Model Selector

			Max Current Convection	Max Power Convection	Max Current Forced Air ⁽⁶⁾	Max Power Forced Air ⁽⁶⁾	Peak Current ⁽⁵⁾	Peak Power ⁽⁵⁾
Model	Voltage	Adjust Range						
ZWS150PAF24	24V	21.6 - 28.8V	6.3A	151.2W	8.4A	201.6W	12A	288W
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
ZWS240PAF48	48V	43.2 - 52.8V	5A	240W	6.3A	302.4W	10A	480W

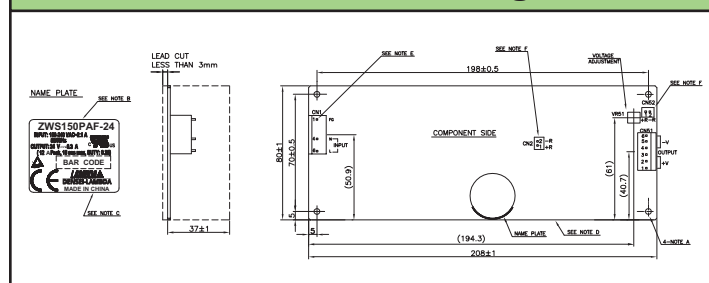
Note 5: For 10s maximum, 35% duty cycle, average power not to exceed maximum ratings

Note 6: With 1.5m/s forced air

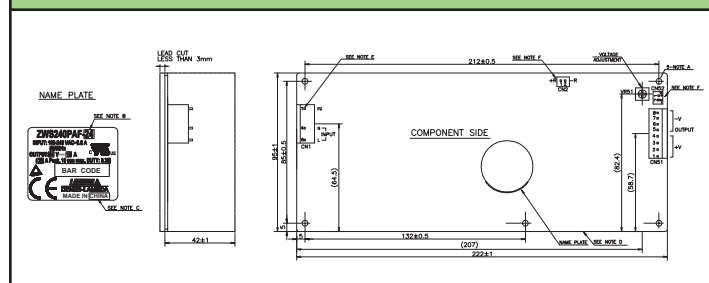
Model Derating for Conducted Cooling

Model	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C
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%	-	-

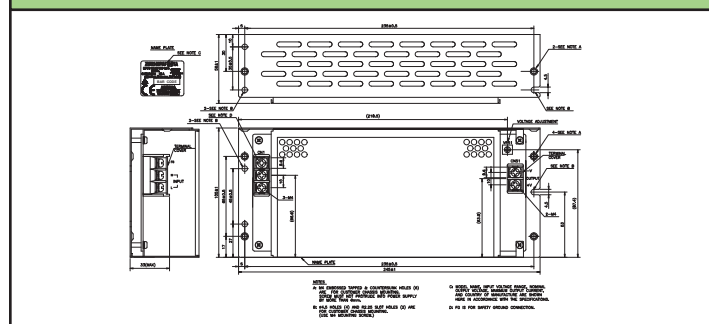
ZWS150PAF Outline Drawing



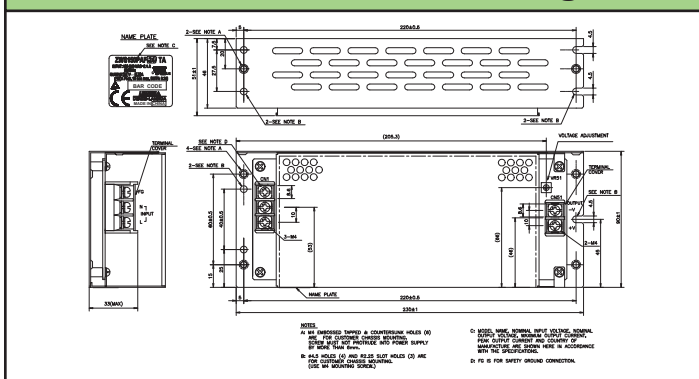
ZWS240PAF Outline Drawing



ZWS240PAF/TL Outline Drawing



ZWS150PAF/TL Outline Drawing



Options

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

VSΒ/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

