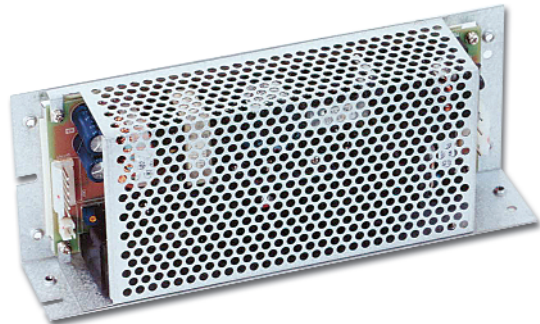


ZWS-PAF Series

150W to 480W Single Output Power Supplies



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

RoHS

Key Market Segments & Applications

Factory Automation
 Test & Measurement
 Light Industrial Equipment

Features and Benefits

Feature	Benefit
◆ Input Transient Protected	◆ Withstands harsh environments
◆ Power Factor Corrected	◆ Supports Global Use
◆ 200% Peak Power capability	◆ Can drive high current start up or pulse loads

Specifications

MODELS		ZWS150PAF	ZWS240PAF
ITEMS			
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)		(Open frame or L bracket) -10°C to +70°C, derate linearly to 70% load from 60°C to 70°C	
Operating Temperature (4)		(With /A cover option) -10°C to +60°C, derate linearly to 70% load from 50°C to 60°C	
Storage Temperature		-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 25C & 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		MAW1205-22	
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

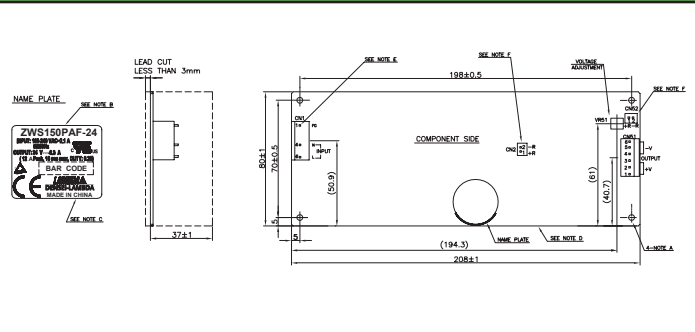
Model	Voltage	Adjust Range	Max Current Convection	Max Power Convection	Max Current Forced Air(6)	Max Power Forced Air(6)	Peak Current(5)	Peak Power(5)
ZWS150PAF24	24V	21.6 - 28.8V	6.3A	151.2W	8.4A	201.6W	12A	288W
ZWS150PAF36	36V	32.4 - 41.4V	4.2A	151.2W	5.6A	201.6W	8A	288W
ZWS150PAF48	48V	43.2 - 52.8V	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

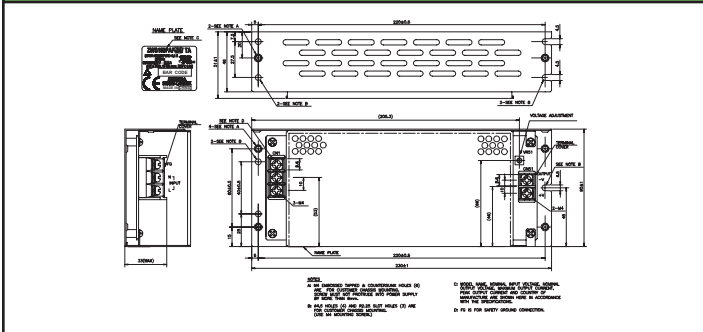
Model Derating for Conducted Cooling

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%	-	-

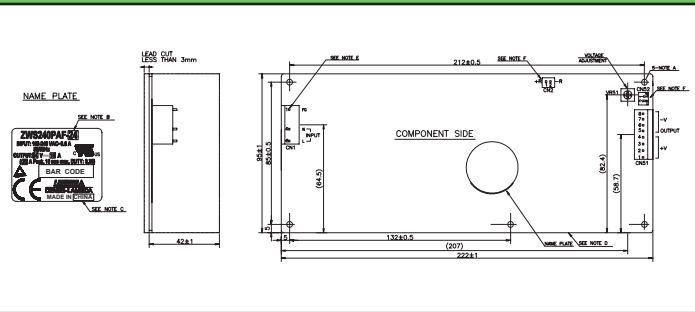
ZWS150PAF Outline Drawing



ZWS150PAF/TL Outline Drawing



ZWS240PAF Outline Drawing

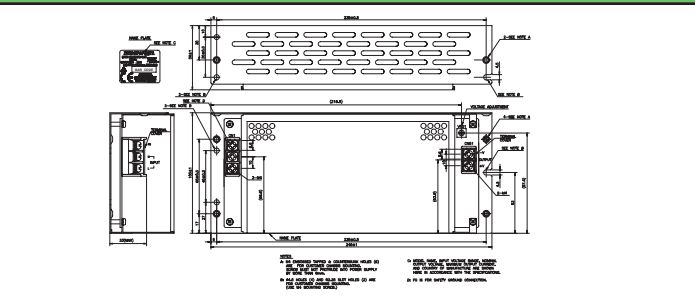


Options

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

ZWS240PAF/TL Outline Drawing



Other Lambda Industrial Products

VS/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