

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

Key Market Segments & Applications

Factory Automation	Process Control, NC-Machining, Automotive, Packaging Equipment, Materials Handling, Chemical Processing, Robots
Test & Measurement	Burn-in & Test, Automated Test, Instrumentation, Measurement, Detection
Light Industrial	Gaming, Vending, Printers

ZWS-PAF Features and Benefits

Features

- Input Transient Protected
- Power Factor Corrected
- 200% Peak Power Capability

Benefits

- Withstands Harsh Environments
- Supports Global Use
- Can Drive High current Start Up Devices

Specifications

ITEMS		MODELS	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)			(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°C 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			>100MΩ 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			UL/CSA60950-1, EN60950-1, EN50178, CE Mark	
Conducted & Radiated EMI			EN55022/EN55022-B, FCC Class B, VCCI-B	
Immunity			EN61000-4-2, -3, -4, -5, -6, -8, -11	
Weight (Typ)	g		500g (800g with cover)	750g (1100g with cover)
Size (WxHxD) (PCB versions)	mm		208 x 80 x 40	222 x 95 x 45 (5)
Warranty	yrs		2	

Notes:

- | | | |
|-------------------------------|--|--|
| (1) 100/200VAC | (3) Avoid prolonged operation in overload | (5) See outline drawings for all other models on website |
| (2) 25°C ambient (cold start) | (4) With 0.7m/s airflow. See derating table for convection cooling | |

Model Selector

Model	Voltage	Max Adjust Range	Max Current Convection	Max Power Convection	Max Current Forced Air(6)	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

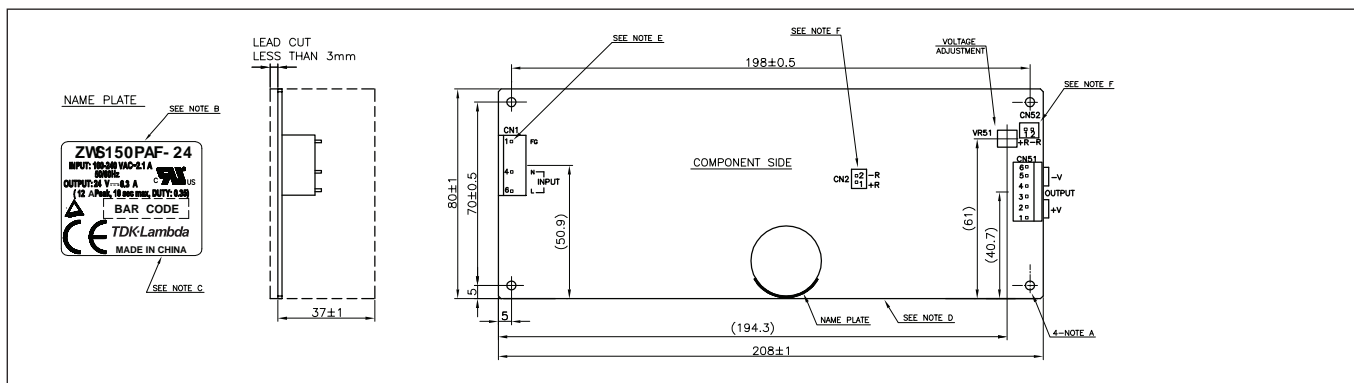
Note 5: For 10s maximum, 35% duty cycle, average power not to exceed maximum ratings

Note 6: With 1.5m/s forced air

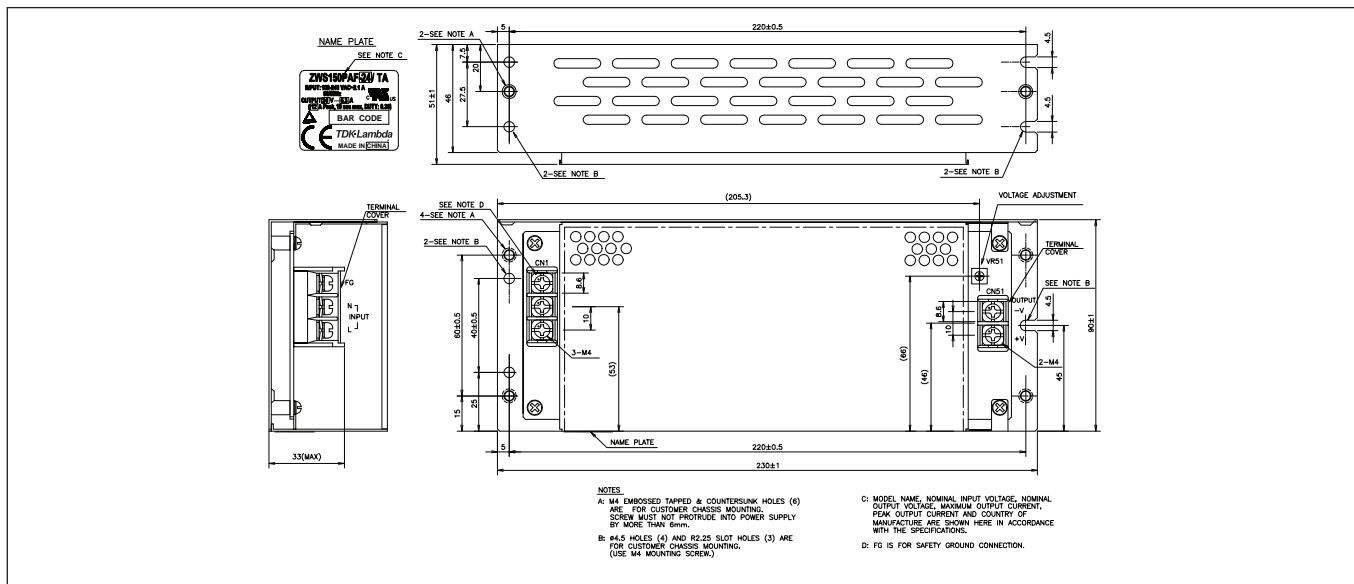
Model Derating for Convection Cooling

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%	-	-

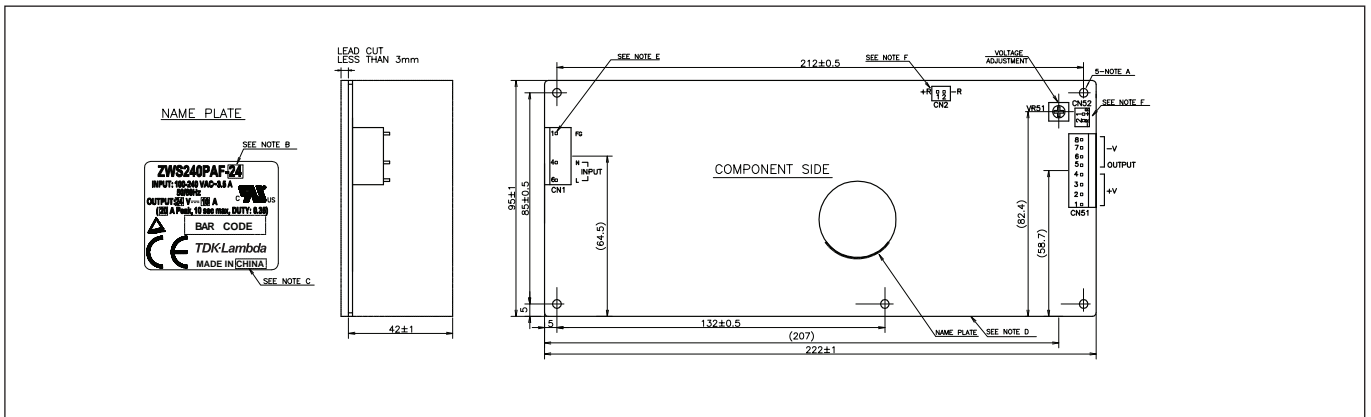
Outline Drawing ZWS150PAF



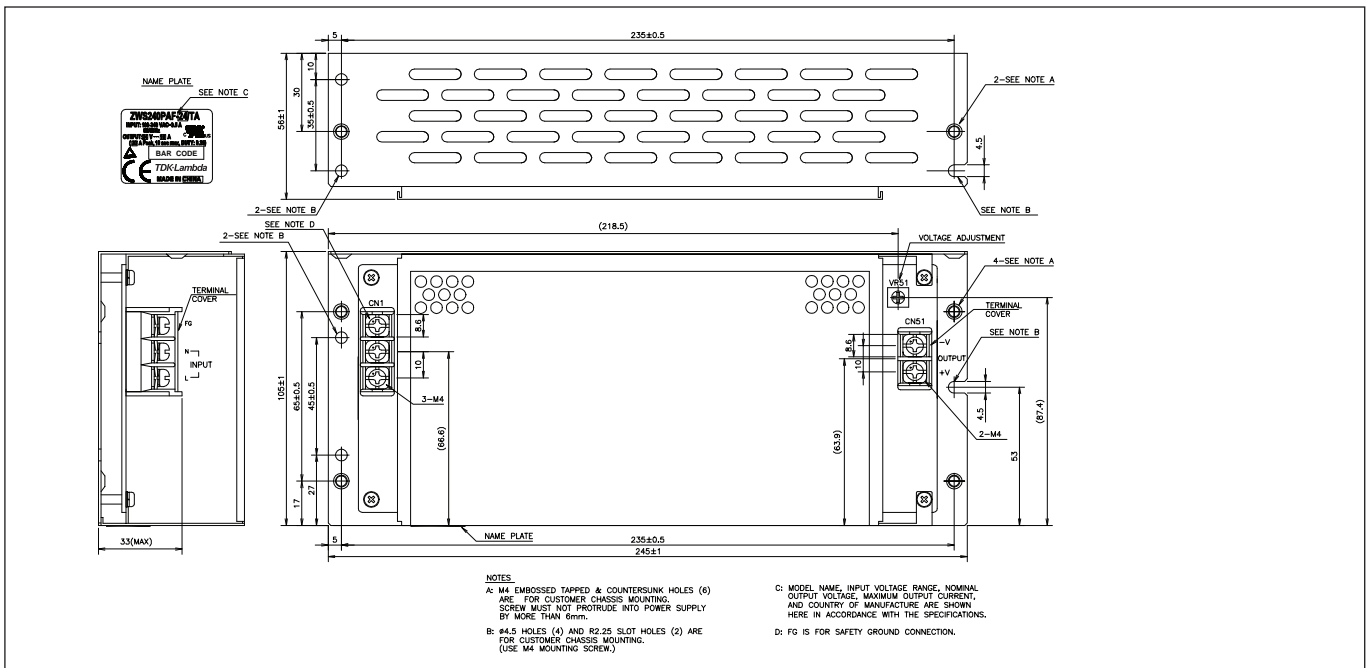
Outline Drawing ZWS150PAF/TL



Outline Drawing ZWS240PAF



Outline Drawing ZWS240PAF/TL



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

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