

## 80W to 170W Quad Output Power Supplies

### Features

- ◆ Universal Input (85 - 265VAC)
- ◆ Power Factor Corrected
- ◆ Floating Adjustable Fourth Output
- ◆ Low Profile <1U High



### Key Market Segments & Applications



Specifications		ZWQ80	ZWQ80	ZWQ80	ZWQ80	ZWQ130	ZWQ130	ZWQ130	ZWQ130
Model		-5222	-5223	-5224	-5225	-5222	-5223	-5224	-5225
Input Voltage	-	85-265VAC (47-63Hz), 120-370VDC*							
Input Current (1)	A	1.6 / 0.8				2.6 / 1.3			
Inrush Current (1)	A	14/28							
Power Factor	-	Meets EN61000-3-2							
Temperature Coefficient	-	<0.02%/°C							
Max Output Power (convection)	W	80				130			
Max Output Power (forced air)	W	104	88.7	104	104	170	149.6	170	170
Overpower Protection (2)	W	>109	>93	>109	>109	>173	>152	>173	>173
Minimum Load	A	V1: 0.9A Conv, 1.4A Forced Air				V1: 1.5A Conv, 2.1A Forced Air			
Output Voltage Accuracy	%	±5% for outputs V2 and V3							
Efficiency (Typ)	%	72							
Hold Up Time (1)	ms	20							
Leakage Current	-	0.75mA max, 0.2mA (Typ) at 100VAC / 0.44mA(Typ) at 230VAC							
Remote On / Off	-	See installation manual (Not available with /A cover option)							
Oper Temp (convection cooled)	°C	-10°C to 60°C, derate linearly to 50% load from 40°C to 60°C. (3)							
Oper Temp (forced air cooled)	°C	-10°C to 70°C, derate linearly to 50% load from 50°C to 70°C. (>30cfm airflow)(3)							
Storage Temperature	°C	-30° to +85°C							
Humidity (non condensing)	-	Operating: 30 - 90% RH; Non-operating 10-95% RH							
Withstand Voltage	-	I/P~Grnd 2kVAC (20mA), I/P~O/P 3kVAC (20mA), O/P~Grnd 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 <sup>2</sup> constant X, Y, Z 1 hour							
Shock	-	< 196.1 m/s <sup>2</sup>							
Safety Agency Approvals	-	UL60950-1, CSA60950-1, EN60950-1, CE Mark, EN50178							
Conducted & Radiated EMI	-	EN55011, EN55022-B, FCC Class B, VCCI-B							
Immunity	-	EN61000-4-2,-3,-4,-5,-6,-8,-11							
Weight (Typ)	g	550				730			
Size (W x H x D)	mm	93.5 x 35 x 210 (refer to outline drawing)				106 x 35 x 225 (refer to outline drawing)			
Warranty	yrs	One Year							

(1) 100/200VAC

(2) Avoid prolong operation in overload

(3) /A version - additional derating, see installation manual

\*Safety certified for AC input only

Model Selector									
Model	Output	Voltage (V)	Voltage Adjust Range (V)	Convect. (A)	Peak or Forced Air (A)(4)	Max Load Reg (mV)	Max Line Reg (mV)	Ripple Noise (mV)	OVP (V)(5)
ZWQ80-5222	V1	5	5.0-5.25	8.0	10.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	2.0	2.5	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	2.0	2.5	300	48	150	16.5-22.5
	V4	12	11.4-12.6	3.0	4.0	300	48	150	13.8-16.2
ZWQ80-5223	V1	5	5.0-5.25	8.0	10.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	2.0	2.5	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	2.0	2.5	300	48	150	16.5-22.5
	V4	3.3	2.0-3.63	7.0	9.0	100	20	120	3.79-4.95
ZWQ80-5224	V1	5	5.0-5.25	8.0	10.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	2.0	2.5	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	2.0	2.5	300	48	150	16.5-22.5
	V4	24	22.8-25.2	1.5	2.0	400	96	200	27.6-32.4
ZWQ80-5225	V1	5	5.0-5.25	8.0	10.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	2.0	2.5	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	2.0	2.5	300	48	150	16.5-22.5
	V4	5	2.0-5.25	7.0	9.0	100	20	120	5.7-7.0
ZWQ130-5222	V1	5	5.0-5.25	15.0	19.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	4.0	5.0	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	4.0	5.0	300	48	150	16.5-22.5
	V4	12	11.4-12.6	4.0	5.0	300	48	150	11.4-12.6
ZWQ130-5223	V1	5	5.0-5.25	15.0	19.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	4.0	5.0	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	4.0	5.0	300	48	150	16.5-22.5
	V4	3.3	2.0-3.63	10.0	12.0	100	20	120	3.79-4.95
ZWQ130-5224	V1	5	5.0-5.25	15.0	19.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	4.0	5.0	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	4.0	5.0	300	48	150	16.5-22.5
	V4	24	22.8-25.2	2.0	2.5	400	96	200	27.6-32.4
ZWQ130-5225	V1	5	5.0-5.25	15.0	19.0	100	20	120	5.7-7.0
	V2	+12/15*	+12/+15	4.0	5.0	300	48	150	16.5-22.5
	V3	-12/15*	-12/-15	4.0	5.0	300	48	150	16.5-22.5
	V4	5	2.0-5.25	10.0	12.0	100	20	120	5.7-7.0

\* User selectable via connector or PCB. Outputs are floating from V1 & V4. Can be connected in series for 24/30V.

Other Industrial Products	
ZWS/ZWD	5W to 480W Single and dual output
SC	30W to 120W Single, dual, & triple output
NV	175 to 700W Single and multiple output
HWS	15 to 1500W Single output

- (4) The peak current draw must not exceed a 10 sec. duration with a duty cycle of 35%.
- (5) An overvoltage condition on any output will shut down all outputs, the power supply must be re-set by cycling the AC input.

Options	
Suffix	Description
blank	No cover or L Bracket
/L	L Bracket
/A	Cover and L Bracket

For Additional Information, please visit [us.tdk-lambda.com/lp/products/zwq-series.htm](http://us.tdk-lambda.com/lp/products/zwq-series.htm)

