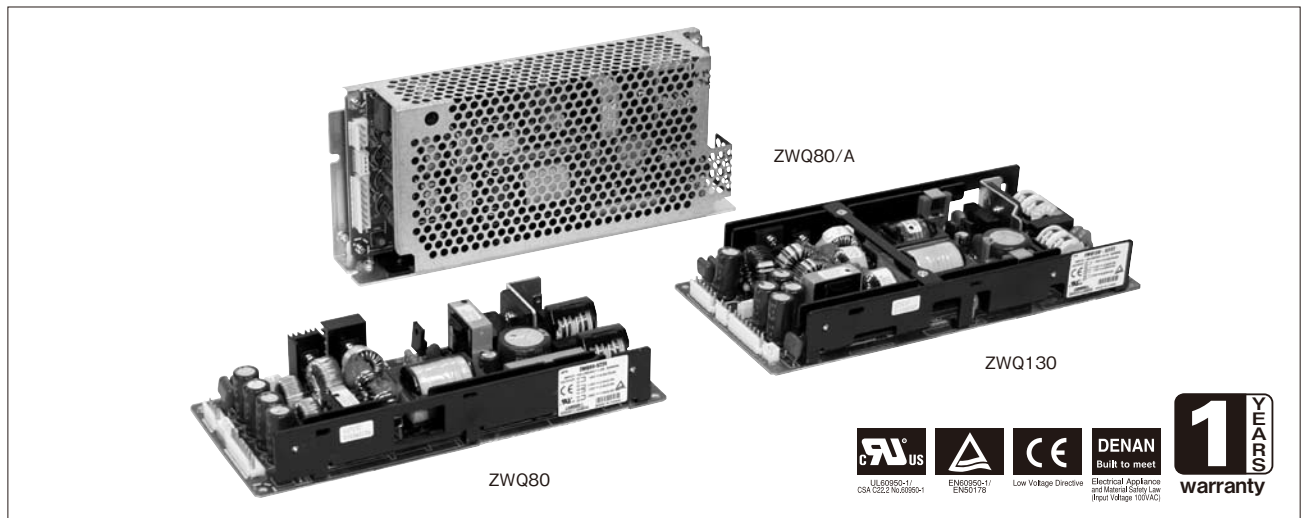


ZWQ SERIES

Quad Output 80W - 130W



Features



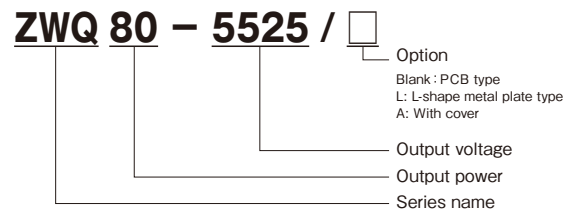
Complies the standard of the harmonics current limiter (EN61000-3-2) with built-in active filter

- Compact / Slim / On board type power supply with 4 outputs
- Broad output voltage range
V2/V3 output: Switchable between $\pm 12V$ and $\pm 15V$
24V (30V) output is possible by series connection.
- V4 output: 5V output covers 2V/3.3V/5V.
- Remote On/Off control available (except for with cover option)
- Worldwide input voltage range: 85-265VAC

Applications



Model naming method



Conformity to RoHS Directive

This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

Product Line up

Output Voltage	80W(Peak88.7W)		80W(Peak104W)		80W(Peak104W)		80W(Peak104W)	
	Output Current(Peak)/Model		Output Current(Peak)/Model		Output Current(Peak)/Model		Output Current(Peak)/Model	
3.3V	7.0A (9.0A)	ZWQ80-5223	—	ZWQ80-5225	—	ZWQ80-5222	—	ZWQ80-5224
5V	8.0A (10.0A)		8.0A (10.0A)		8.0A (10.0A)		8.0A (10.0A)	
5V	—		7.0A (9.0A)		—		—	
12V	—		—		3.0A (4.0A)		—	
12V (15V)	2.0A (2.5A)		2.0A (2.5A)		2.0A (2.5A)		2.0A (2.5A)	
-12V (-15V)	2.0A (2.5A)		2.0A (2.5A)		2.0A (2.5A)		2.0A (2.5A)	
24V	—		—		—		1.5A (2.0A)	

Output Current	130W(Peak149.6W)		130W(Peak170W)		130W(Peak170W)		130W(Peak170W)	
	Output Current(Peak)/Model		Output Current(Peak)/Model		Output Current(Peak)/Model		Output Current(Peak)/Model	
3.3V	10.0A (12.0A)	ZWQ130-5223	—	ZWQ130-5225	—	ZWQ130-5222	—	ZWQ130-5224
5V	15.0A (19.0A)		15A (19.0A)		15.0A (19.0A)		15.0A (19.0A)	
5V	—		10.0A (12.0A)		—		—	
12V	—		—		4.0A (5.0A)		—	
12V (15V)	4.0A (5.0A)		4.0A (5.0A)		4.0A (5.0A)		4.0A (5.0A)	
-12V (-15V)	4.0A (5.0A)		4.0A (5.0A)		4.0A (5.0A)		4.0A (5.0A)	
24V	—		—		—		2.0A (2.5A)	

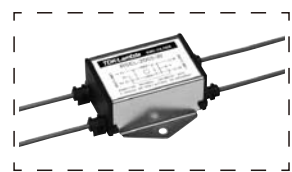
ZWQ

ZWQ80 (Convection Cooling) Specifications

ITEMS/UNITS		MODEL	ZWQ80-5225				ZWQ80-5222				ZWQ80-5224				ZWQ80-5223			
		CH	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Input	Voltage Range (*3)	V	AC85 - 265 or DC120 - 370															
	Frequency (*3)	Hz	47 - 63															
	Power Factor (100/200VAC)(typ) (*2)		0.99 / 0.93															
	Efficiency (typ) (*2)	%	72															
	Current (100/200VAC)(typ) (*2)	A	1.2 / 0.6															
	Inrush Current (100/200VAC)(typ) (*4)	A	14 / 28, Ta=25°C, cold start															
Leakage Current (*11)	mA	0.75 MAX, 0.2 (typ) at 100VAC / 0.44 (typ) at 230VAC																
Output	Nominal Voltage	VDC	+5	+12	-12	+5	+5	+12	-12	+5	+12	-12	+24	+5	+12	-12	+3.3	
	Minimum Current (Convection) (*1)	A	0.9	0			0.9	0			0.9	0			0.9	0		
	Minimum Current (Peak Application) (*1)	A	1.4	0			1.4	0			1.4	0			1.4	0		
	Maximum Current	A	8.0	2.0	7.0	8.0	2.0	3.0	8.0	2.0	1.5	8.0	2.0	7.0				
	Maximum Peak Current (*17)	A	10.0	2.5	9.0	10.0	2.5	4.0	10.0	2.5	2.0	10.0	2.5	9.0				
	Total Allowable Power (*16)	W	80				80				80				80			
	Total Allowable Peak Power (*16)	W	104				104				104				88.7			
	Voltage Setting Accuracy	%	-	+5%	-	-	+5%	-	-	+5%	-	-	+5%	-	-	+5%	-	
	Maximum Line Regulation (*5)(*6)	mV	20	48			20	48			20	48	96	20	48	20		
	Maximum Load Regulation (*5)(*7)	mV	100	300			100	300			100	300	400	100	300	100		
	Temperature Coefficient		Less than 0.02% /°C															
	Maximum Ripple & Noise (0≤Ta≤+60°C) (*5)	mVp-p	120	150			120	150			120	150	200	120	150	120		
	Maximum Ripple & Noise (-10≤Ta<0°C) (*5)	mVp-p	160	180			160	180			160	180	200	160	180	160		
	Hold-up Time (typ) (*10)	ms	20															
Voltage Adjustable Range	VDC	5.0-5.25	+12/+15	-12/-15	2.0-5.25	5.0-5.25	+12/+15	-12/-15	11.4-12.6	5.0-5.25	+12/+15	-12/-15	22.8-25.2	5.0-5.25	+12/+15	-12/-15	2.0-3.63	
Function	Over Current Protection (*8)		More than 109.2W of total output power														More than 93.1W of total output power	
	Over Voltage Protection (*9)	VDC	5.7 - 7.0	16.5-22.5	5.7 - 7.0	5.7 - 7.0	16.5-22.5	13.8-16.2	5.7 - 7.0	16.5-22.5	27.6-32.4	5.7 - 7.0	16.5-22.5	3.79 - 4.95				
	Remote ON/OFF Control (*14)		Possible															
	Parallel Operation		-															
Series Operation		-																
Environment	Operating Temperature (*12)	°C	-10 to +60 (-10 to +40 : 100%, +60 : 50%)															
	Storage Temperature	°C	-30 to +85															
	Operating Humidity	%RH	30 - 90 (No Dewdrop)															
	Storage Humidity	%RH	10 - 95 (No Dewdrop)															
	Vibration		At no operating, 10-55Hz (sweep for 1min) 19.6 m/s ² constant, X, Y, Z 1hour each.															
	Shock (In package)		Less than 196.1 m/s ²															
Isolation	Withstand Voltage		Input - FG : 2kVAC(20mA), Input - Output : 3kVAC (20mA) Output - FG : 500VAC(100mA), for 1min.															
	Isolation Resistance		More than 100MΩ at 25oC and 70%RH Output - FG : 500VDC															
Standards	Safety Standards (*13)		Approved by UL60950-1, CSA C22.2 No.60950-1, EN60950-1 Built to meet DENAN															
	PFHC		Built to meet IEC61000-3-2															
	EMI		Built to meet EN55011/EN55022-B, FCC-ClassB, VCCI-B															
Mechanical	Immunity (*15)		Built to meet EN61000-4-2, -3, -4, -5, -6, -8, -11															
	Weight (typ)	g	550															
	Size (W x H x D)	mm	93.5 x 35 x 210 (Refer to outline drawing)															

- (*1) For V2, V3, V4 stability, require minimum output current and above of V1.
- (*2) At 100/200VAC, Ta=25°C and total allowable output power.
- (*3) For cases where conformance to various safety specs (UL, CSA, EN) are required, to be described as 100 - 240VAC (50/60Hz).
- (*4) Not applicable for the inrush current to noise filter for less than 0.2ms.
- (*5) Refer to output measuring for line & load regulation and ripple voltage.
- (*6) 85-265VAC, constant load.
- (*7) Minimum load - Full load, constant input voltage.
- (*8) Constant current limit with automatic recovery. Refer to test data.
Not operate at over load or dead short condition for more than 30 seconds.
- (*9) OVP circuit will shut down all outputs, manual reset (Line recycle).
- (*10) At 100/200VAC, nominal output voltage and total allowable output power.
- (*11) Measured by the each method of UL, CSA, EN and DENAN (at 60Hz), Ta=25°C.
- (*12) At standard mounting.
- Load (%) is percent of total allowable output power or each maximum output current, whichever is greater.
For other mountings, refer to derating curve.
- (*13) As for DENAN, built to meet at 100VAC.
- (*14) For using, refer to note.
- (*15) Refer to test data.
- (*16) Allowable output power is changed according to V4 voltage (only ZWQ-5225), refer to derating table.
- (*17) Operating period at peak current is less than 10sec. (Duty<0.35)

● Recommended EMC Filter



RSEL-2002W
Please refer to "TDK-Lambda EMC Filters" catalog.