

DESCRIPTION

PRODUCT COVERED:

* USR, CNR - Power Supplies, Models ZWQ80--5xyz, -5xy2 and 5xy4. All models may be followed by /L, /A, /FG, /LFG, /AFG, /AC, /LAC or /TOS.

MODEL DIFFERENCES:

"L" denotes models with optional chassis provided.

"A" denotes models with optional cover and chassis provided.

"FG" denotes models with capacitor (C2, C3) rated less than 2200 pF, and capacitor (C8) rated less than 3300 pF.

"AC" denotes models with input connector (CN1) are reverse mounted.

"LAC" denotes models with input connector and chassis.

"TOS" denotes models with Coating for Printed Wiring Board provided and with optional cover and chassis provided.

ELECTRICAL RATING:

Model	Input			Output No.	Output(+)	
	V ac	Hz	A		V dc	A (Forced Air Cooling/and Max. Peak Current (++)/ Convection Cooling)
ZWQ80-5xyz	100-240	50/60	1.6	V1	+5 ~ +5.25	10.0/8.0
				V2	+12 ~ +15	2.5/2.0
				V3	-15 ~ 12	2.5/2.0
				V4	+2 ~ +5.25	9.0/7.0
ZWQ80-5xy2	100-240	50/60	1.6	V1	+5 ~ +5.25	10.0/8.0
				V2	+12 ~ +15	2.5/2.0
				V3	-15 ~ -12	2.5/2.0
				V4	+11.4 ~ 12.6	4.0/3.0
ZWQ80-5xy4	100-240	50/60	1.6	V1	+5 ~ +5.25	10.0/8.0
				V2	+12 ~ +15	2.5/2.0
				V3	-15 ~ -12	2.5/2.0
				V4	+22.8 ~ +25.2	2.0/1.5

Note: x = 2 (if output V2 as 12 V)
or F (if output V2 as 15 V)
y = 2 (if output V3 as 12 V)
or F (if output V3 as 15 V)
z = B (if output V4 as 2 V)
3 (if output V4 as 3 V)
D (if output V4 as 4 V)
or 5 (if output V4 as 5 V)

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(+) - Total maximum output power 80 W for convection cooling and 104 W for forced air cooling.

(++) - Max. Peak Current: See Ill. I for details.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE'S USE):

Use - For use only in (or with) complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Special Considerations - The following items are considerations that were used when evaluating this product.

1. **USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, UL 60950-1, 2nd Edition, 2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements).**
2. **USR/CNR indicates investigation to UL 62368-1, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements) and CSA C22.2 No. 62368-1-14, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements)**
3. The component is for building in, Class I (earthed), intended for use on TN power systems.

Conditions of Acceptability - When installed in the end product, consideration shall be given to the following.

1. This component has been judged on the basis of the required spacings in the Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, UL 60950-1, 2nd Edition, **2014-10-14 (Information Technology Equipment - Safety - Part 1: General Requirements) and CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements), UL 62368-1, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements), and CSA C22.2 No. 62368-1-14, 2nd Edition, 2014-12-01 (Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements) which covers the end-use product for which the component was designed.**
2. All secondary output circuits are SELV and are not hazardous energy levels.
3. The power supply shall be properly bonded to the main protective earthing termination in the end product.
4. The equipment has been evaluated for use in a Pollution Degree 2 environment.

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5. The maximum working voltage present is 832 Vpeak. The electric strength tests in the end product shall be based on this value.
6. The power supply is considered for use in a maximum ambient as follows:

Maximum Ambient, °C	<u>Condition</u>				
	<u>Cooling Condition</u>	<u>Chassis</u>	<u>Cover</u>	<u>Load Factor, Percent (+)</u>	<u>Mounting Condition</u>
40	Convection	Not provided	Not provided	100	Standard position
60	Convection	Not provided	Not provided	50	Standard position
40	Convection	Provided	Not provided	100	Standard position
60	Convection	Provided	Not provided	50	Standard position
30	Convection	Provided	Provided	100	Standard position
50	Convection	Provided	Provided	50	Standard position
35	Convection	Not provided	Not provided	100	Horizontal and vertical with Input Connector at top.
55	Convection	Not provided	Not provided	50	Horizontal and vertical with Input Connector at top.
30	Convection	Not provided	Not provided	100	Vertical with Input Connector at bottom.
50	Convection	Not provided	Not provided	50	Vertical with Input Connector at bottom.
35	Convection	Provided	Not provided	100	Horizontal and vertical positions
55	Convection	Provided	Not provided	50	Horizontal and vertical positions
25	Convection	Provided	Provided	100	Horizontal and vertical positions
45	Convection	Provided	Provided	50	Horizontal and vertical positions
50	Forced air	Not provided	Not provided	100	All positions
70	Forced air	Not provided	Not provided	50	All positions
50	Forced air	Provided	Not provided	100	All positions
70	Forced air	Provided	Not provided	50	All positions
50	Forced air	Provided	Provided	100	All positions
70	Forced air	Provided	Provided	50	All positions

(+) - Convection Cooling: 100 percent = 80 W.
Forced Air Cooling: 100 percent = 104 W.

* 7. Forced Air Temperature Tests were conducted with a 30 cfm (0.85 m³/min) air flow located 100 mm from the input terminal side.

8. The unit has been evaluated for tropical climate and altitude up to 3,000 m.
9. Output circuit was considered ES1/PS3.
10. Classification of PIS has not been conducted. Therefore, all electrical components and conductors including printed wirings were assumed to be arcing PIS and resistive PIS.
11. This component has been evaluated in "control of fire spread" method assuming appropriate fire enclosure is provided in end product. Unless the fire enclosure is made of non-combustible or V-0 material, the separation from the PIS shall be considered.