

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component - Power Supply Model ZWS150PAF-24, may be followed by suffix YXXX. Models ZWS150PAF-36 and ZWS150PAF-48 may be followed by suffix X. When provided, the Suffix:

With Model ZWS150PAF-24, X may be replaced by /S, /T, or /J indicating the type of Input and Output connection means provided on the power supply. May be replaced by /L, /SL, /TL, /JL indicating units with a metal chassis. May be replaced by /A, /SA, /TA, /JA indicating units with a metal chassis and cover.

YYY - May be replaced by the letters "OTP" indicating the power supply circuit is provided with thermal sensing protection option.

With Models ZWS150PAF-36 and ZWS150PAF-48, the model number may be followed by suffix X which may be replaced by /S, /T, /J indicating the type of input and output connection means. May be replaced by /L, /SL, /TL, /JL indicating units with a metal chassis. May be replaced by /A, /SA, /TA, /JA indicating units with a metal chassis and cover.

ELECTRICAL RATINGS:

Model	Input			Output	
	V ac	Hz	A	V dc	A (+)
ZWS150PAF-24/YXXX	100/240	50/60	2.1	24	6.3
ZWS150PAF-36/X	100/240	50/60	2.1	36	4.2
ZWS150PAF-48/X	100/240	50/60	2.1	48	3.1

* (+) - Also rated: For ZWS150PAF-24 models, 12.0 amperes for a maximum of 10 s or less at a duty cycle of 0.35. For ZWS150PAF-36 models, 8 A for a maximum of 10 s or less at duty cycle of 0.35. For Model ZWS150PAF-48, 6A for a maximum of 10 s or less at duty cycle of 0.35

Temperature Rating - Maximum operating ambient is 60°C at 100 percent load, and 70°C at 80 percent load with a 0.7 m/s forced air rated cooling fan.

ELECTRICAL RATINGS (cont.):

For Models ZWS150PAF-24, -36, -48, and with Suffix /J, /S, /T, /L, /JL, /SL, /TL:

With convection cooling, the maximum operating ambient is 50°C at 100 percent load, 55°C at 85 percent load, and 60°C at 70 percent load.

Maximum operating ambient is 60°C at 100 percent load, and 70°C at 70 percent load with a 0.7 m/s forced air rated cooling fan.

With forced air cooling of 1.5 m/s or higher, the maximum operating ambient and output load is shown below:

Model	V dc	Output		
		A at maximum operating ambient		
		50°C	60°C	70°C
ZWS150PAF-24	24	8.4	7.7	5.9
ZWS150PAF-36	36	5.6	5.1	3.9
ZWS150PAF-48	48	4.3	3.9	3.0

For Models with Suffix /A, /JA, /SA, /TA:

With convection cooling, the maximum operating ambient is 30°C at 100 percent load, 40°C at 80 percent load, and 50°C at 65 percent load.

Maximum operating ambient is 50°C at 100 percent load, and 60°C at 70 percent load with a 0.7 m/s forced air rated cooling fan.

With forced air cooling of 1.5 m/s or higher, the maximum operating ambient and output load is shown below:

Model	V dc	Output		
		A at maximum operating ambient		
		40°C	50°C	60°C
ZWS150PAF-24	24	8.4	7.7	5.9
ZWS150PAF-36	36	5.6	5.1	3.9
ZWS150PAF-48	48	4.3	3.9	3.0

MODEL DIFFERENCES:

* Model ZWS150PAF-24XYYY, and the ZWS150PAF-36 and ZWS150PAF-48 Series are identical except for model designations and output ratings. All models are available with various output loads based on airflow and maximum operating ambient.

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

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

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

- A. USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for safety of Information Technology Equipment, Including Electrical Business Equipment, CSA C22.2 No. 60950, UL 60950.
- B. Temperature tests were conducted with the unit delivering rated output current while located in an ambient chamber maintained at 60°C and delivering 80 percent of rated output current while located in an ambient chamber maintained at 70°C. All temperatures were within the maximum allowable limits. The need to monitor temperatures of all coils and components during the end product testing shall be determined.
- C. The power supplies are intended for building in, and are intended for use on a TN power system.

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, CSA C22.2 No. 60950, UL 60950, Third Edition.

2. The power supply shall be properly bonded to the main protective earthing termination in the end product.

3. The equipment has been evaluated for use in a Pollution Degree 2 environment.

4. All secondary output circuits are SELV. The output is considered to be at energy hazard.

5. A temperature test shall be conducted in the end product. Consideration shall be given to measuring the temperature on power electronic components, inductors, and transformer windings when the power supply is installed in the end use equipment.

6. Transformer (T1) employ a Class F (155) electrical insulation system, File E182446, report dated June 10, 1997.

7. Consideration shall be given to the accessibility of hazardous primary circuits in the end use product.

8. The input and output connections are not suitable for field wiring. The connection terminals and connectors are intended for mating connectors or connection to internal wiring inside the end use machine. The acceptability of these and the mating connectors relative to securement, material, and operating temperature shall be considered.

9. The maximum working voltage in reference to earth ground present is 600 V peak/36 V rms. The electric strength tests and spacings in the end product shall be based on these values.

10. The maximum working voltage present between the primary and the secondary circuit is 656 V peak/402 V rms. The electrical spacings in the end product shall be based on these values.