

DESCRIPTION

PRODUCT COVERED:

*USR/CNR - Switching Power Supplies, Models PW-YATXZ, where Y can be 200, 235, 250, Z can be E, ET, or EPS4, PW-xATXE-12V, where x can be 200, 235, 250, 300, 330, 350 and may be followed by -AP.

ELECTRICAL RATING:

Model	Input			Output (dc)	
	V	A	Hz	V	A
PW-200ATXZ	115/230	8/4 (with AC outlet)	50/60	+3.3	15
				+5	20
				-5	0.5
				+12	8
				-12	1
				+5 Vsb	1.5
				AC Output 115/230 V, 2/1 A	
(Maximum 200 W; combined output not exceed 150 W at +3.3 V and +5 V; combined output not exceed 9.6 W at -5 V and -12 V.)					
PW-235ATXZ	115/230	8/4 (with AC outlet)	50/60	+3.3	15
				+5	23
				-5	0.5
				+12	9
				-12	1
				+5 Vsb	1.5
				AC Output 115/230 V, 2/1 A	
(Maximum 235 W; combined output not exceed 150 W at +3.3 V and +5 V; combined output not exceed 9.6 W at -5 V and -12 V.)					
PW-250ATXZ	115/230	10/5 (with AC outlet)	50/60	+3.3	15
				+5	25
				-5	0.5
				+12	10
				-12	1
				+5 Vsb	1.5
				AC Output 115/230 V, 2/1 A	
(Maximum 250 W; combined output not exceed 150 W at +3.3 V and +5 V; combined output not exceed 14.5 W at -5 V and -12 V.)					

Model	Input			Output	
	V	A	Hz	V	A
PW-200ATXE-12V	115/230	8/4	60/50	+3.3	14
				+5	21
				+12	10
				-5	0.3
				-12	0.8
				+5sb	1.5
					or 2
					or
					2.5
					AC Output: 115/230 V, 2/1 A(optional) +5 V and +3.3 V maximum 145 W Total output 200 W
PW-235ATXE-12V	115/230	8/4	60/50	+3.3	15
				+5	23
				+12	12
				-5	0.3
				-12	0.8
				+5sb	1.5
					or 2
					or
					2.5
					AC Output: 115/230 V, 2/1 A(optional) +5 V and +3.3 V maximum 145 W Total output 235 W
PW-250ATXE-12V	115/230	8/4	60/50	+3.3	20
				+5	25
				+12	13
				-5	0.3
				-12	0.8
				+5sb	1.5
					or 2
					or
					2.5
					AC Output: 115/230 V, 2/1 A(optional) +5 V and +3.3 V maximum 160 W Total output 250 W
PW-300ATXE-12V	115/230 or 115 or 230	10/5 10 5	60/50	+3.3	28
				+5	30
				+12	15
				-5	0.3
				-12	0.8
				+5sb	1.5
					or 2
					or
					2.5
					AC Output: 115/230 V, 2/1 A(optional) +5 V and +3.3 V maximum 180 W Total output 300 W

Model	Input			Output	
	V	A	Hz	V	A
PW-330ATXE-12V	115/230	10/5	60/50	+3.3	28
	or			+5	30
	115	10		+12	16
	or			-5	0.3
	230	5		-12	0.8
				+5sb	1.5 or
					2 or
			2.5		
			AC Output: 115/230 V, 2/1 A(optional)		
			+5 V and +3.3 V maximum 200 W		
			Total output 330 W		
PW-350ATXE-12V	115/230	10/5	60/50	+3.3	28
	or			+5	30
	115	10		+12	16
	or			-5	0.3
	230	5		-12	0.8
				+5sb	1.5 or
					2 or
			2.5		
			AC Output: 115/230 V, 2/1 A(optional)		
			+5 V and +3.3 V maximum 200 W		
			Total output 350 W		
PW-250ATXE-12V-AP	100-240	8	60/50	+3.3	20
	or			+5	25
	115-230	8		+12	13
				-5	0.3
				-12	0.8
				+5sb	1.5 or 2
					or 2.5
			AC Output: 115/230 V, 2/1 A(optional)		
			+5 V and +3.3 V maximum 160 W		
			Total output 250 W		
PW-300ATXE-12V-AP	100-240	10	60/50	+3.3	28
	or			+5	30
	115-230	10		+12	15
				-5	0.3
				-12	0.8
				+5sb	1.5 or
					2 or
			2.5		
			AC Output: 115/230 V, 2/1 A(optional)		
			+5 V and +3.3 V maximum 180 W		
			Total output 300 W		

Model	Input			Output	
	V	A	Hz	V	A
PW-330ATXE-12V-AP	100-240	10	60/50	+3.3	28
	or			+5	30
	115-230	10		+12	16
				-5	0.3
				-12	0.8
				+5sb	1.5 or
					2 or
			2.5		
			AC Output: 115/230 V, 2/1 A(optional)		
			+5 V and +3.3 V maximum 200 W		
			Total output 330 W		
PW-350ATXE-12V-AP	100-240	10	60/50	+3.3	28
	or			+5	30
	115-230	10		+12	16
				-5	0.3
				-12	0.8
				+5sb	1.5 or
					2 or
			2.5		
			AC Output: 115/230 V, 2/1 A(optional)		
			+5 V and +3.3 V maximum 200 W		
			Total output 350 W		

ENGINEERING CONSIDERATIONS: (Not For Field 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.

USR/CNR indicates investigation to the U.S. and Canadian (Bi-National) Standard for Safety of Information Technology Equipment, Including Electrical Business Equipment, UL 1950, Third Edition, dated July 28, 1995 / CSA C22.2 NO. 950-M95.

These components were submitted by the manufacturer for use in a maximum air ambient of 25°C.

The equipment is considered for building in, Class I (earthed), pluggable Type A, intended for use on a TN power system.

Disconnect Device - The following part is considered the equipment disconnect device: Appliance Inlet.

Conditions of Acceptability - When installed in the end-use equipment, consideration shall be given to the following:

1. These components have been judged on the basis of the required spacing in the Standard for Information Technology Equipment, Including Electrical Business Equipment, CSA C22.2 No. 950 / UL 1950, Third Edition, Sub-clause 2.9, which would cover the component itself if submitted for unrestricted Listing.
2. The products were tested on a 20 A branch circuit. If used on a branch circuit greater than this, additional testing may be necessary.
3. All secondary output circuits are SELV and are not at hazardous energy levels.
4. The terminals and connectors have not been evaluated for field wiring.
5. The power supply shall be properly bonded to the main protective earthing termination in the end product.
6. Bonding terminals provided on this equipment have not been evaluated protected earthing terminals.
7. Transformer T1, T2 employ an electrical insulation system designated Class B.
8. The maximum working voltage present is 800 V peak. The electric strength tests in the end product shall be based upon this value.
9. The equipment has been evaluated for use in a Pollution Degree 2 environment.
10. A suitable electrical and fire enclosure shall be provided.

CONSTRUCTION DETAILS:

See Section General for additional details.

Internal Wiring - R/C (YDPU2, YDRY2, or UZFT2), rated 105° C, 300 V.

Printed Wiring Boards - See Section General for details. General appearance of trace and component layout same as in ILL. 1 (C0002624.I00), rated 105°C.

Power Supply Cord - Optional. Detachable, maximum 4.5 m (14.76 ft.) long. Listed, rated minimum 125 V, 10 A, having a No. 18/3 AWG, Type SVT flexible cord. One end terminates with a parallel blade, grounding, molded-on, attachment plug with a 15 A, 125 V (NEMA 5-15P) configuration; other end terminates with a molded-on appliance coupler.

Alternate - Same as above except rated minimum 250 V, 7 A and one end terminates with a tandem blade, grounding, molded-on, attachment plug with a 15 A, 250 V (NEMA 6-15P) configuration.

Nameplate Marking - Recognized company's name or File Number "E156513", Model name, and optional electrical ratings.

Date of Manufacture Marking - Optional. For CN Products, the unit shall have a marking which indicates the month and year of manufacture. Coding or serial numbers are acceptable.

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Model Differences - Models PW-200ATXZ and PW-230ATXZ are similar to Models PW-250ATXZ respectively except for model designation, output rating. Where: Z = E, ET or EPS4 denote different enclosure.

Models PW-200ATXE-12V and PW-235ATXE-12V are similar to Model PW-250ATXE-12V except for model designation and output rating.

*Model PW-350ATXE-12V is similar to Model PW-330ATXE-12V except for model designation, output rating and without PFC Choke.

*Models PW-250ATXE-12V-AP, PW-300ATXE-12V-AP and PW-330ATXE-12V-AP are similar to Model PW-350ATXE-12V-AP, except for model designation, input rating and output rating.

MODEL PW-250ATXE - FIG. 1 (C00-02239)

General - Shows the overall view of Model PW-250ATXE. Model PW-250ATXE also represents Model PW-250ATXEPS4, PW-250ATXET except as noted.

1. Chassis - Metal, 0.6 mm thick, overall 141.1 mm by 148.5 mm by 84.7 mm, constructed of two parts. Secured together by screws. Provided with ventilation openings as follows:

Top - 7 openings, each measures 3 mm by 30 mm.

Rear - 16 openings, each measures 3 mm by 27.6 mm.

Side - 5 openings, each measures 3 mm by 27.6 mm.

2. Fan Vent Openings - 75 mm diameter circular area provided with 12 oval shaped openings. Each opening 6 mm wide.
3. Appliance Inlet - Listed, R/C (AXUT2 or RTRT2) rated minimum 10 A, 250 V. Secured to chassis by screws.
4. Appliance Outlet - (Optional) - Listed, R/C (AXUT2 or RTRT2) rated minimum 2/1 A, 115/230 V. Secured to chassis by screws.
5. Power Switch - (Optional) - R/C (WOYR2) rated minimum 125 V, 9 A, 250 V, 5 A. Secured to chassis by snap-fit. Overall 11.33 mm by 16.2 mm.
6. Voltage Selector Switch - R/C (WOYR2) rated 10 A, 250 V ac. Secured to chassis by screws.
- * Alternate - Voltage Selector Switch not provided, AVS Board inside, see Fig. 2, AVS Board description for details.
7. Cooling Fan - R/C (GPWV2), Yate Loon Electronics Co., Ltd., Type D80SH 12, rated 12 V, 0.19 A, 33 cfm.

Alternate - Same as above except Yate Loon Electronics Co., Ltd., Type D90BH 12, rated 12 V, 0.250 A, 48.6 cfm.

Alternate - Same as above except Yate Loon Electronics Co., Ltd., Type D90SH 12, rated 24 V, 250 mA, 42 cfm.

7. Cooling Fans (Cont'd.)

Alternate - Same as above except Yate Loon Electronics Co., Ltd.,
Type D80BH 12, rated 12 V, 190 mA, 37.8 CFM.

Alternate - Same as above except Mitachi Taiwan Co., Ltd.,
Type M802512BH, rated 12 V, 0.16 A, 38.12 CFM.

Alternate - Same as above except Xinruilian Electronics., Ltd.,
Type RDM8025S, rated 12 V, 0.11 A, 30.5 CFM.

Alternate - Same as above except Xinruilian Electronics Co., Ltd.,
Type RDL8025S, rated 12 V, 0.08 A, 24.0 CFM.

Alternate - Same as above except Xinruilian Electronics, Co., Ltd.,
Type RDH8025S, rated 12 V, 0.17 A, 36.5 CFM.

Alternate - Same as above except Xinruilian Electronics Co., Ltd.,
Type RDM9025S, rated 12 V, 0.19 A, 44.5 CFM.

Alternate - Same as above except Xinruilian Electronics Co., Ltd.,
Type RDL9025S, rated 12 V, 0.16 A, 41.9 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA8012MB, rated 12 V, 0.17 A, 32.09 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA8012MS, rated 12 V, 0.17 A, 32.09 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA8012HB, rated 12 V, 0.26 A, 38.27 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA8012HS, rated 12 V, 0.26 A, 38.27 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA9212MS, rated 12 V, 0.19 A, 45.04 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA9212HS, rated 12 V, 0.27 A, 51.02 CFM.

7. Cooling Fans (Cont'd.)

Alternate - Same as above except ADDA Corp., Type AD0812HB-A70GL, rated 12 V dc, 0.25 A, 39.6 cfm.

Alternate - Same as above except ADDA Corp., Type AD0912HB-A70GL, rated 12 V dc, 0.25 A, 52.5 cfm.

Alternate - Same as above except ADDA Corp., Type AD0912HS-A70GL, rated 12 V dc, 0.25 A, 50.0 cfm.

Alternate - Same as above except ADDA Corp., Type AD0812HS-A70GL, rated 12 V dc, 0.25 A, 38.6 cfm.

Alternate - Same as above except Kaimei Electronic Corp., Type JF0825S1H, rated 12 V dc, 0.19 A, 39.2 cfm.

Alternate - Same as above except Kaimei Electronic Corp., Type JF0825B1H, rated 12 V dc, 0.19 A, 39.2 cfm.

Alternate - Same as above except Kaimei Electronic Corp., Type JF0925S1H, rated 12 V dc, 0.35 A, 52.09 cfm.

Alternate - Same as above except Roger Chen Enterprise Co., Ltd., Type S01138812H, rated 12 V dc, 0.23 A, 39.8 cfm.

Alternate - Same as above except Roger Chen Enterprise Co., Ltd., Type S01138812M, rated 12 V dc, 0.23 A, 39.8 cfm.

Alternate - Same as above except Colorful Industrial Ltd., Type CF-12825HS, rated 12 V dc, 0.22 A, 37 cfm.

Alternate - Same as above except Colorful Industrial Ltd., Type CF-12825HB, Rated 12 V dc, 0.22 A, 37 cfm.

Alternate - Same as above except Sunonwealth Electric Machine Industry Co., Ltd., Type KD1208PTS1-6, rated 12 V dc, 0.22 A, 41.7 cfm.

Alternate - Same as above except Sunonwealth Electric Machine Industry Co., Ltd., Type KD1208PTB1-6, rated 12 V dc, 0.22 A, 42.5 cfm.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA9212MB, rated 12 V, 0.19 A, 45.04 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA9212HB, rated 12 V, 0.27 A, 51.02 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA9212HS, rated 12 V, 0.27 A, 51.02 CFM.

Alternate - Same as above except Rotechnic Electric Ltd.,
Type MGA8012HS, rated 12 V, 0.26 A, 38.28 CFM.

Alternate - Same as above except Sunonwealth,
Type KD1208PTS2, rated 12 V, 0.165 A, 34.5 CFM.

Alternate - Same as above except Sunonwealth,
Type KD1208PTS1, rated 12 V, 0.165 A, 41.7 CFM.

Alternate - Same as above except Asia Vital Components Co., Ltd.,
Type D8025S12H, rated 12 V, 0.2 A, 43.98 CFM.

Alternate - Same as above except Asia Vital Components Co., Ltd.,
Type D8025S12M, 12 V, 0.12 A, 35.94 CFM.

Alternate - Same as above except Asia Vital Components Co., Ltd.,
Type D8025B12H, 12 V, 0.2 A, 43.98 CFM.

Alternate - Same as above except Asia Vital Components Co., Ltd.,
Type D8025B12M, 12 V, 0.12 A, 35.94 CFM.

Alternate - Same as above except Nidec Taiwan Corp., Type D08T-12PG,
rated 12 V, 0.15 A, 37.1 CFM.

Alternate - Same as above except Minebea Co., Ltd., Type 3110GL-B4W-B54,
rated 12 V, 0.23 A, 35.36 CFM.

Alternate - Same as above except Minebea Co., Ltd., Type 3610KL-04W-B50,
rated 12 V, 0.43 A, 54.8 CFM.

MODELS PW-250ATXEPS4

General - Model PW-250ATXEPS4 is similar in construction to Model PW-250ATXE described in FIG. 1 except for the following items.

1. Chassis - Same as FIG. 1, Item 1 except overall 150 mm by 114 mm by 86 mm.
Top - No openings.
Rear - 15 openings, each measure 3 mm by 27.6 mm.
Front - 42 openings, each measure 14.5 mm by 3 mm.
Side - 5 openings, each measure 3 mm by 27.6 mm
2. Fan Vent Openings - 75 mm diameter circular area provided with 12 oval shaped openings each 5 mm wide.

MODELS PW-250ATXET

General - Model PW-250ATXET is similar in construction to Model PW-250ATXE described in FIG. 1 except for the following items.

1. Chassis - Same as FIG. 1, Item 1 except overall provided with ventilation openings as follows:
Top - No openings.
Rear - 15 openings, each measures 15 mm by 2.4 mm.
Side - 5 openings, each measures 3 mm by 27.6 mm.
Front - 52 openings, each measures 3 mm by 27.6 mm.
2. Fan Vent Openings - 85 mm diameter circular area provided with 12 oval shaped openings each 6 mm wide.

MODEL PW-250ATXE - FIG. 2 (C00-02240)

General - Fig. 2 shows internal view of power supply board. Represents all models.

1. Line-Line Capacitor (CX') - (Optional) - R/C (FOWX2 or FOKY2), secured to AC inlet by solder, rated 0.22 μ F, 250 V. VDE, SEV, or DEMKO certified to IEC384-14.
2. Bleeder Resistor (R1') - Carbon type, rated 1M ohm, 0.25 W. Secured to ac inlet by solder.
- *3. Line-Line Capacitors (CX1) - (Optional) - R/C (FOWX2 or FOKY2), rated maximum 0.22 μ F, 250 V. VDE, SEV or DEMKO certified to IEC384-14.
Alternate (CX2) - Same as above except rated 0.33 μ F, 250 V.
4. Line-Ground Capacitors (CY1, CY3, CY4) - R/C (FOWX2 or FOKY2), rated maximum 4700 μ F, 250 V.
5. Connector (B1) - (PRI) R/C (RTRT2 or ECBT2), rated minimum 8 A, 250 V.
6. Fuse (F1) - Listed, rated 6 A or 6.3 A, 250 V ac, fuse ratings are permanently marked adjacent to fuse. Secured in two copper alloy fuse holders with integral end stops.
7. Inductor (LF1) - (Optional) - Toroidal type. Core is ferrite of size 16 by 4 by 6 mm thick. Coil is of copper magnet wire wound on toroidal core.
8. Inductor (LF2) - (Optional) - Toroidal type. Core is ferrite of size 24 by 10 by 10 mm thick. Coil is of copper magnet wire wound on toroidal core.
9. Thermistor (THR1) - Rated 5 ohm minimum at 25° C.
- *10. Bridge Rectifier (BD1) - Rated minimum 4 A, 600 V.
- *11. Bulk Capacitors (C1, C2) - Electrolytic type, provided with pressure relief, rated 220-1000 μ F minimum, 200 V, 85°C.
- *12. Switching Transistor (MOS1) - Rated minimum 800 V, minimum 5 A. Secured to heat sink by screws.

13. Heat sink (H3) - Aluminum. Overall 42 mm by 57.3 mm by 3 mm.
14. Heat sink (H2) - Aluminum. Overall 42 mm by 80 mm by 3 mm.
- Alternate - Same as above except overall 55 mm by 57 mm by 3 mm.
15. Transformer (T1) - Open type. Coils of enameled copper wire wound concentrically on two flanged phenolic bobbin, minimum 0.71 mm thick. Core is 33.6 mm by 31.5 mm by 14.15 mm. Leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins which are molded into bobbin. Coil: Copper magnet wire wound on bobbin. Bobbin: R/C (QMFZ2), Chang Chun Plastics, Type T373J, minimum 0.7 mm thick, rated minimum 94V-1.

Location	Insulation
Output wrap	3 layers, minimum 0.075 mm polyester tape.
Primary / Secondary	3 layers, minimum 0.075 mm polyester tape.
Primary / Core	Minimum 0.71 mm thick phenolic bobbin.
Secondary / Secondary	1 layer, minimum 0.025 mm polyester tape.
Primary / Primary	1 layer, minimum 0.025 mm polyester tape.

R/C (OBJY2) Sun Trans Electronic Co., Class 130 (B) Type Viking B-2.

Margin tape - R/C (OANZ2), 3 M, Type No. 44, minimum 3.0 mm wide, between windings and bottom of bobbin edge and 2.0 mm wide along top of bobbin edge..

Exit leads provided with Tubing/sleeving. R/C (YDPU2) Great Holding, Type TFL. Tubing/Sleeving extends minimum 3.0 mm into transformer.

Insulating Tape - R/C (OANZ2), 3 M, Type 1350 or Four Pillars, Type 35660.

Varnish - R/C (OBOR2), Viking Products, Type V1630FS.

Alternate - Same as above except the following:

R/C (OBJY2) Hsin Kang Electronic Co., Class 130 (B) Type Viking B-2.

Alternate - Same as above except the following:

R/C (OBJY2) Taiwan Volt Electronic Co., Class 130 (B) Type Dash 2 B-5.

Insulating Tape - R/C (OANZ2) and CN, 3 M, Type 1350 or Nitto Denko, Type 31C.

Exit leads provided with Tubing/sleeving. R/C (YDPU2) Great Holding, Types LW, TW or SW. Tubing/Sleeving extends minimum 3.0 mm into transformer.

Varnish - R/C (OBOR2), Ripley Resin, Type 468-2+.

16. Transformer (T2) - Open type. Coils of enameled copper wire wound concentrically on two flanged phenolic bobbin, minimum 0.17 mm thick. Core is 16 mm by 25 mm by 4.9 mm. Leads exit directly through integral flanges in bobbin and are mechanically secured and soldered to pins which are molded into bobbin. Bobbin: (QMFZ2), Chang Chun Plastics, Type T373J, minimum 0.7 mm thick, rated minimum 94V-1.

Location	Insulation
Outputwrap	3 layers, minimum 0.075 mm polyester tape.
Primary / Secondary	3 layers, minimum 0.075 mm polyester tape.
Primary / Core	Minimum 0.7 mm thick phenolic bobbin.
Secondary / Secondary	1 layer, minimum 0.025 mm polyester tape.
Primary / Primary	1 layer, minimum 0.025 mm polyester tape.

R/C (OBJY2) Sun Trans Electronic Co., Class 130 (B) Type Viking B-2.

Margin tape - R/C (OANZ2), 3 M, Type No. 44, minimum 3.0 mm wide, between windings and bottom of bobbin edge and 2.0 mm wide along top of bobbin edge..

Exit leads provided with Tubing/sleeving. R/C (YDPU2) Great Holding, Type TFL. Tubing/Sleeving extends minimum 3.0 mm into transformer.

Insulating Tape - R/C (OANZ2), 3 M, Type 1350 or Four Pillars, Type 35660.

Varnish - R/C (OBOR2), Viking Products, Type V1630FS.

Alternate - Same as above except the following:

R/C (OBJY2) Hsin Kang Electronic Co., Class 130 (B) Type Viking B-2.

Alternate - Same as above except the following:

R/C (OBJY2) Taiwan Volt Electronic Co., Class 130 (B) Type Dash 2 B-5.

Insulating Tape - R/C (OANZ2), 3 M, Type 1350 or Nitto Denko, Type 31C.

Exit leads provided with Tubing/sleeving. R/C (YDPU2) Great Holding, Types LW, TW or SW. Tubing/Sleeving extends minimum 3.0 mm into transformer.

Varnish - R/C (OBOR2), Ripley Resin, Type 468-2+.

17. Optical Isolator (IC2, IC3, IC4) - R/C (FPQU2), Toshiba, Type TLP621, rated minimum 3000 V ac insulation voltage.

Alternate - Same as the above except Lite-On, Type LTV 817.

Alternate - Same as the above except Vishay, Type TCET.

Alternate - Same as the above except Matsushita, Type ON3171.

Alternate - Same as the above except QTC, Type H11A817A.

Alternate - Same as the above except ATC, Type KA817.

18. Bleeder Resistor (R2) - Carbon type, rated 1M ohm, 0.25 W.
19. Zener Diode (ZNR1, ZNR2) - Rated minimum 15 J, 120 V.

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PFC Chock - (Optional) - Secured to chassis by screws, open type with laminated steel core, see ILL. 2 for dimensions and winding information, coil of copper magnet wire wounded on two-flange bobbin, (QMFZ2), rated minimum V-2, minimum 0.71 mm thick. Provided with minimum one layer of polyester insulation tape between coil and core to maintain minimum 2.5 mm creepage distance. See ILLS. 3, 4 & 5 for details.

AVS Board - (Alternate for Voltage Select Switch) Consists following components:

PWB: (ZPMV2), See Sec. Gen. for details. The general appearance of the foil pattern and component layout shall not be changed from that detailed in ILL. 6.

MODEL PW-250ATXE-12V - FIG. 3 AND FIG. 4 and FIG. 6

General - Fig. 3 illustrates the overall view of Model PW-250ATXE-12V, Fig. 4 shows the interior view, Fig. 6 shows the overall view of construction with two fans. Model PW-250ATXE-12V is similar to Model PW-250ATXE except for the follows:

Chassis - Metal, 0.6 mm thick minimum, overall 140 by 150 by 85 mm, constructed of two parts. Secured together by screws. Provided with ventilation openings. See ILL. 7 for bottom chassis openings details, ILL. 8 for top chassis openings.

Alternate - Same as above except top chassis opening as in ILL. 9.

Alternate - Same as above except providing additional Fan Vent Openings on top chassis, measured Dia. 76 mm.

Fan Vent Openings - Provided with three concentric fan openings, 28 mm ID, 76 mm OD, each 6 mm wide, spaced 3 mm apart, raised 2.5 mm high.

Alternate - Provided with fan guard, five concentric rings, formed of 1.7 mm diameter steel wire, overall 76 mm OD by 14 mm ID, spaced 5.5 mm apart, raised 1.2 mm high, secured to fan by screws.

Transformer (T1) - Open Type construction, same as Transformer (T1) of Model PW-250ATXE except follows:

Core: Ferrite, overall 33.3 by 29.1 by 13 mm

Insulation:

<u>Location</u>	<u>No. of Layers/Total Thickness (mm)/Material</u>
Outer Wrap	3 / 0.15 / Insulation Tape
Primary / Primary	2 / 0.10 / Insulation Tape
Primary / Shield	2 / 0.10 / Insulation Tape
Shield / Secondary	3 / 0.15 / Insulation Tape
Secondary / Shield	3 / 0.15 / Insulation Tape
Shield / Primary	3 / 0.15 / Insulation Tape
Primary / Core	1 / 0.05 / Insulation Tape
	- / 0.71 / Bobbin

Margin Tape: Both side 3.4 mm wide.

See ILL. 10 for winding information and other details.

Alternate - Same as above, except for (OBJY2), Chu Yang Electronic Co., Ltd., Class 130(B), designated CY33589E.

Varnish: (OBOR2), John C Dolph Co., Ltd., Type BC-359.

Transformer (T2) - (For +5 Vsb rated 1.5 A), same as Transformer (T2) of Model PW-250ATXE.

Alternate - (For +5 Vsb rated 2 A), same as above except follows:

Core: Ferrite, overall 19.6 by 27.2 by 5.0 mm.

Insulation:

<u>Location</u>	<u>No. of Layers/Total Thickness (mm)/Material</u>
Outer Wrap	3 / 0.15 / Insulation Tape
Secondary / Secondary	3 / 0.15 / Insulation Tape
Secondary / Shield	2 / 0.10 / Insulation Tape
Shield / Primary	3 / 0.15 / Insulation Tape
Primary / Shield	3 / 0.15 / Insulation Tape
Shield / Secondary	2 / 0.10 / Insulation Tape
Secondary / Core	1 / 0.05 / Insulation Tape
	- / 0.71 / Bobbin

Margin Tape: Top side 3.0 mm, bottom side 6 mm wide.

See ILL. 11 for winding information and other details.

Alternate - (For +5 Vsb rated 2 A or 2.5 A), same as above except for winding information as in ILL. 12.

*Alternate - Same as above, except for (OBJY2), Chu Yang Electronic Co., Ltd., Class 130(B), designated CY33589E.

*Varnish: (OBOR2), John C Dolph Co., Ltd., Type BC-359.

MODEL PW-300ATXE-12V - FIG. 5

General - Fig. 5 illustrates the interior view of Model PW-300ATXE-12V. Model PW-300ATXE-12V is similar to Model PW-250ATXE-12V except for the follows:

PFC Chock - (For input 115 V), optional, secured to chassis by screws, open type with laminated steel core, see ILL. 13 for dimensions and winding information, coil of copper magnet wire wounded on two-flange bobbin, (QMFZ2), rated minimum V-2, minimum 0.71 mm thick. Provided with minimum one layer of polyester insulation tape between coil and core to maintain minimum 2.5 mm creepage distance, See ILLS. 14, 15 and 16 for details.

Alternate - (For input 230 V), same as above except for winding information as in ILL. 17.

Transformer (T1) - Open Type construction, same as Transformer (T1) of *Model PW-250ATXE-12V except follows:

Core: Ferrite, overall 35.3 by 42.4 by 10.5 mm

Insulation:

<u>Location</u>	<u>No. of Layers/Total Thickness (mm)/Material</u>
Outer Wrap	3 / 0.15 / Insulation Tape
Primary / Primary	2 / 0.10 / Insulation Tape
Primary / Shield	2 / 0.10 / Insulation Tape
Shield / Secondary	3 / 0.15 / Insulation Tape
Secondary / Secondary	2 / 0.10 / Insulation Tape
Secondary / Shield	3 / 0.15 / Insulation Tape
Shield / Primary	2 / 0.15 / Insulation Tape
Primary / Core	1 / 0.05 / Insulation Tape
	- / 0.71 / Bobbin

Margin Tape: Both side 3.4 mm wide.

See ILL. 18 for winding information and other details.

Heat Sink (HS2) - Aluminum, Fin-shape, overall 87 by 60 by 11.4 mm, 2.7 mm thick minimum. See ILL. 19 for details.

Heat Sink (HS3) - Aluminum, fin-shape, overall 80 by 60 by 11.4 mm, 2.7 mm thick minimum. See ILL. 19 for details.

MODEL PW-330ATXE-12V

General - Model PW-330ATXE-12V is similar to Model PW-300ATXE-12V except for the follows:

Fuse (F1) - Rated 7 A.

MODEL PW-350ATXE-12V-AP - FIG. 7-10

General - Fig. 7 and 8 show the overall view of Model PW-350ATXE-12V-AP, Fig. 9 and 10 show the internal view. Model PW-350ATXE-12V-AP is similar to Model PW-330ATXE-12V except for the follows:

Chassis - Metal, 0.6 mm thick minimum, overall 141 by 150 by 86 mm, constructed of two parts. Secured together by screws. Provided with ventilation openings. See ILL. 20 for bottom chassis openings details, ILL. 21 for top chassis openings.

PFC Board - Consists following components:

PWB: (ZPMV2), See Sec. Gen. for details. The general appearance of the foil pattern and component layout shall not be changed from that detailed in ILL. 22. Secured on HS3 by screws.

Choke (T1): Open type construction, with toroid core, OD is 27.2 mm, ID is 17.2 mm, 11.2 mm thick, coils of copper magnet wire, one measured diameter 0.85 mm, 125.5-130.5 turns, the other measured diameter 0.5 mm, 7.5 turns, wound on toroidal core.

Heat Sink (HS3) - Aluminum, fin-shape, overall 100 by 60 by 20 mm, 2.0 mm thick minimum. See ILL. 23 for details. Provided a piece of steel bar, overall 36 by 73 mm, 2.5 mm thick.

Transformer (T1) - Open Type construction, same as Transformer (T1) of Model PW-330ATXE-12V except Margin Tape: Both side 3.6 mm wide.