

FSP GROUP INC  
 MR A CHENG  
 22 JIANGUO E RD  
 TAOYUAN CITY TAIWAN

**RE: Project Number(s) - 02CA08248**

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**QQGQ2** January 25, 2003  
**Power Supplies, Information Technology Equipment Including Electrical Business Equipment - Component**

**FSP GROUP INC** **E190414**  
**22 JIANGUO E RD, TAOYUAN CITY TAIWAN**

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
ACE-1010AXX, FSP200-60PUXX	100/240	60/50	0	3.3	12	62	3	1950	20	2	1
				5	16	158					
				12	5	163					
				-12	0.8	55					
				-5	0.3	6.2					
				+5 Vsb	2	27					
ACE-1020AXX, FSP300-60PUXX	100/240	60/50	0	5.45	31.20	127	4	1950	—	—	—
				12.82	15.10	177					
				4.98	4.78	22					
				3.31	29.00	70					
				-12.10	1.74	22					
				-5.17	1.43	7					
ATX-200GT, ATX-200GN	115/230 or 230	50/60	0	+5R	21R	105R	3	1950	20B	0	1
				+3.3R	14R	46.2R					
				+12R	6.5R	78R					
				-5R	0.3R	1.5R					
				-12R	0.5R	6R					
				5VsbR	2R	10R					
ATX-250GT, ATX-250GN	115/230 or 230	50/60	0	5.5	49	180	3	1950	20B	0	1
				3.4	53	160					
				12.8	35	330					
				-5.7	4.3	7.6					
				-13.9	5	3.4					
				5.1	7.7	17					
ATX-250GU	115/230	60/50	0	+5R	25R	MAX	3	1950	20B	0	1

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
				+3.3R	14R	250W					
				+12R	8R	---					
				-5R	0.3R	---					
				-12R	0.8R	---					
				+5VsbR	2.0R	---					
ATX-300GT, ATX-300GN	115/230	60/50	0	5.5	65	210	3	1950	20B	0	1
				3.4	63	129					
				12.7	40	410					
				-5.6	4.2	7.5					
				-14	4.9	35					
				5.1	7.5	16.6					
ATX-250N	115/230	60/50	0	5.2	43.5	153	3	1950	20B	0	0
				13	18	211					
				3.3	35.7	58.5					
				-5	5.6	18.7					
				-12	6.1	50.5					
				+5	0.8	40R					
ATX-300GU	115/230	60/50	0	+5R	30R	150R	3	1950	20B	0	0
				+3.3R	20R	66R					
				+12R	13R	156R					
				-5R	0.3R	1.5R					
				-12R	0.8R	9.6R					
				+5R	2R	10R					
FSP150-50CI(G)	115/230 or 230	50/60 50	0	+5.0R	10R	50.0R	3	1950	20B	0	1
				+12.0R	4.5R	54.0R					
				+3.3	10R	33.0R					
				-5.0R	0.2R	1.0R					
				-12.0R	0.3R	3.6R					
				+5VsbR	2.0R	10.0R					
FSP020-2P01XX where X may be any alphanumeric character or blank	100-240	50/60	0	+5	0.5	10.1	3	1950	20B	0	0
				+3.3	5.0	22.8					
FSP060-2P01XX	100-240	50/60	0	5.12	26.1	87	3	1950	20B	2	1
				11.7	11.2	66					
				-12.06	1.4	15.9					
FSP060-3P02XX	100-240	50/60	0	5.12	26.1	87	3	1950	20B	2	1
				11.7	11.2	66					
FSP090-50NA, FSP090-50NI, FSP090-50NLA, FSP090-50NWL, FSP090-51NA, FSP090-51NI	115/230	60/50	0	+5R	10R	50R	3	1950	20	0	0
				+12R	1.5R	18R					
				+3.3R	6R	19.8R					
				-12R	0.2R	2.4R					
				5R	0.72R	3.6R					
				-5R	0.3R	1.5R					
FSP090-50PI, FSP090-50PP, FSP090-50PL	100-240	47-63	0	+5R	12R	60R	3	1950	20	0	0
				+12R	1.5R	18R					
				+3.3R	8R	26.4R					
				-12R	0.2R	2.4R					
				5R	1.2R	6R					
FSP090-61GY(a), FSP090-60GZW(b)	115/230	60/50	0	+5.0	10.0	50.0	3	1950	20	0	0
				+12.00	2.0	24.0					
				+3.3	8.0	26.4					
				-5.0	0.3	1.5					
				-12.0	0.5	6.0					
				+5sb	0.8	4.0					
FSP100-50CI, FSP100-51CI, FSP145-50CI, FSP145-51CI	115/230	50/60	0	+5.35	36	144	3	1950	20B	0	1
				+11.99	18	187					
				+3.37	13	28					
				-12.32	7	60					
				+4.94	2.6	12.5					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP150-50CI, FSP150-51CI	115/230	50/60	0	+5.0R +12.0R +3.3R -5.0R -12.0R +5VsbR	10R 4.5R 10R 0.2R 0.3R 2.0R	50.0R 54.0R 33.0R 1.0R 3.6R 10.0R	3	1950	20B	0	1
FSP110-50NA, FSP110-50NI, FSP110-50NIA, FSP110-50NW, FSP110-51NA, FSP110-51NI	115/230	60/50	0	+5R +12R +3.3R -12R 5R -5R	10R 2R 8R 0.5R 0.8R 0.3R	50R 24R 26.4R 6R 4R 1.5R	3	1950	20	0	0
FSP120-50PI, FSP120-50PP	100-240	47-63	0	+5R +12R +3.3R -12R 5R	14R 2R 8R 0.3R 1.2R	70R 24R 26.4R 3.6R 6R	3	1950	20	0	0
FSP145-50NA, FSP145-50NI, FSP145-50NIA, FSP145-50NW, FSP145-51NA, FSP145-51NI	115/230	60/50	0	+5.15 +12.19 +3.43 -12.24 5.23 -5R	47 18.6 30 1.6 1.5 0.3R	203.5 209.9 65.7 16.53 6.43 1.5R	3	950	20	0	0
FSP145-60SI	100-120/ 200-240	60/50	0	5.42 +12R +3.3R -5R -12R (Total 145 W maximum)	37 4R 10R 0.2R 0.3R	142 218	3	1950	20	8	1
FSP145-60SP, FSP145-60SF	100-120/ 200-240	50/60	0	5.8 12.9 3.4 12.2 5.0	42 19 27 1.4 1.2	172 218 58 15 6	3	1950	20B	6.2	1
FSP200-60SAV FSP200-60SAV(PF)	115/230 230	60/50 50	0	+5R +12R +3.3R -5R -12R +5VsbR +12VsbR	16 10 16.7 0.2 0.3 2 or 3 1	MAX 200W	3	1950	20B	6.2	1
FSP180-60SA	115/230 230	60/50 50	0	+5R +12R +3.3R -5R -12R +5VsbR +12VsbR	16R 4R 10R 0.5R 0.8R 2.0R 1	MAX 180W	3	1950	20B	6.2	1
FSP180-60SAV(PF), FSP180-60SAV, FSP180-60SI	115/230 230	60/50 50	0	+5R +12R +3.3R -5R -12R +5VsbR	16R 10R 16.7R 0.2R 0.3R 2.0R	MAX 180W	3	1950	20B	6.2	1
FSP180-60SP(12V), FSP180-60SP(12V), FSP180-60SPV(PF), FSP180-60SPV	100-240 200-240	60/50 50	0	+5R +12R +3.3R -5R	16R 10R 16.7R 0.2R	MAX 180W	3	1950	20B	6.2	1

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP170-60SI	115/230 230	60/50 50	0	-12R	0.3R	—	3	1950	20B	6,2	1
				+5VsbR	2.0R	—					
				+5R	16R	MAX					
				+12R	10R	170W					
				+3.3R	16.7R	—					
				-5R	0.2R	—					
				-12R	0.3R	—					
FSP160-60SAV(PF) FSP160-60SAV	115/230/200-240 200-240	60/50 50	0	+5R	12R	MAX	3	1950	20B	6,2	1
				+12R	8R	160W					
				+3.3R	16.7R	—					
				-5R	0.2R	—					
				-12R	0.3R	—					
				+5VsbR	2.0R	—					
				or 3.0R							
FSP145-61GL, FSP145-61GN, FSP145-61GT, FSP145-61GW, FSP145-60GZW(b)	115/230	60/50	0	+5.1	42	165.06	3	1950	20	0	0
				13.6	17	193.0					
				3.5	35	62.4					
				-5	-4.8	12.88					
				-12.54	7	50.96					
				+4.98	2	9.04					
				5.2	2.9	15					
FSP030-2P04XX	100-240	50/60	0	+5.17	14.9	51.8	3	1950	20B	0	0
				13.1	4.7	40.9					
				+5.24	33.0	116					
				+3.36	17.0	50					
				+12.5	12.8	137					
				-5.3	1.1	5					
				-12.8	7.6	4					
FSP110-60PA	115-230	60/50	0	+5.2	34.0	121	3	1950	20B	0	0
				+3.4	19.0	53					
				+12.6	13.5	148					
				-5.2	1.1	8					
				-13.1	8.2	46					
				5.1	3.1	15					
				+5.2	37	136					
FSP145-60PA, FSP145-60PI	115-230	60/50	0	+12.7	15	167	3	1950	20B	0	0
				+3.3	22	63					
				-5.0	1.4	7					
				-13.2	10	58					
				5.2	3.2	16.3					
				5.2	64	200					
				13	21	221					
FSP145-60GIA, FSP145-60GNA, FSP145-60GTA, FSP145-60PNA(PF)	115/230	60/50	0	3.4	45	64	3	1950	20B	6,2	1
				-5	7	12					
				-12.54	9	46					
				5	3.6	17					
				+5.78	42	172.2					
				+12.85	19.2	218.8					
				+3.35	27	58.05					
FSP145-SF(f), FSP145-SP(f)	100-120/ 200-240	50/60	0	-12.16	1.4	15.27	3	1950	20	0	0
				+5.01	1.2	5.94					
				-5.03	0.89	3.68					
				5.2	39	157					
				12.5	16	174					
				3.3	25	66					
				-5.1	1.4	7					
FSP135-60PF	115/230	50/60	0	-12.2	6.4	53	0	1950	20B	0	1
				5.1	2.7	13					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP135-60PF(F501)	115/230	50/60	0	5.2 12.5 5.1	39 16 2.7	157 174 13	3	1950	20B	0	1
FSP150-50NI, FSP175-50NI, FSP-150-50NI(PF), FSP175-51NI, FSP150-51NI, FSP-150-51NI(PF)	115/230	60/50	0	+5.15 +12.19 +3.43 -12.24 4.96 -5R	47 18.6 30 1.6 3.3 0.3R	203.5 209.9 65.7 16.53 15.7 1.5R	3	1950	20B	0	0
FSP150-60SF, FSP150-60SP, FSP150-60SP(PF)	100-120/ 200-240	60/50	0	5R 12R 3.3R -5R -12R	18R 4.2R 10R 0.3R 0.3R	90 50.4R 33 1.5R 3.6R	3	1950	20B	6,2	0
FSP170-50PNA(PF)	115/230	60/50	0	+5VsbR +5R +12R +3.3R -12R +5VsbR +12R	3R 25R 2R 5R 0.4R 2R 0.5R	15R MAX 170W — — — —	3	1950	20B	0	1
FSP180-50NI(VPF) FSP180-50NI(V) FSP180-51NI(VPF) FSP180-51NI(V)	115/230 230	60/50 50	0	+5R +12R +3.3R -5R -12R +5VsbR	16R 10R 16.7R 0.2R 0.3R 2.0R	MAX 180W — — — —	3	1950	20B	0	1
FSP200-50NW	115/230	60/50	0	5.4 12.4 3.4 5.1 12.1 5.0	41 18 37 1.5 1.7 3.4	166 198 74 6 15 16	3	1950	20B	0	0
FSP200-50NWV(PF), FSP200-50NWV	115/230 230	60/50 50	0	+5R +12R +3.3R -5R -12R +5VsbR	16R 10R 16.7R 0.3R 0.5R 2.0R	MAX 200W — — — —	3	1950	20B	0	1
FSP200-50PLXX, ACE-816AX	115/230	60/50	0	+3.37 -13.7 +5.08 +12.2 +5.06 Vsb	25.8 7.38 27.5 20.9 3.36	73 74.5 123.7 223 14.5	3	60950	20B	2,6	1
FSP200-60SF, FSP200-60SP	100-120/ 200-240	60/50	0	5R 12R 3.3R -5R -12R +5VsbR	21R 7R 12R 0.3R 0.5R 0.8R	105R 84R 39.6R 1.5R 6R 4R	3	1950	20B	6,2	1
FSP200-61GI, FSP200-61GN, FSP200-61GT, FSP200-61GW, FSP200-60GZW(b)	115/230	60/50	0	+5.1 13.6 3.5 -5 -12.54 +4.98	42 17 35 -4.8 7 2	165.06 193.0 62.4 12.88 50.96 9.04	3	1950	20	0	0
FSP200-60GIA, FSP200-60GNA,	115/230	60/50	0	5.2 13	64 21	200 221	3	1950	20B	6,2	1

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP200-60GTA				3.4	45	64					
				-5	7	12					
				-12.4	9	46					
				5	3.6	17					
FSP150-601U	100-240	50/60	0	5	14	70	3	1950	20B	0	0
				12	4.5	54					
				3.3	10	33					
				-5	0.3	1.5					
				-12	0.8	9.6					
				5sb	2	10					
FSP200-601U	100-240	50/60	0	5.6	51	205	3	1950	20B	0	0
				12.6	24	220					
				3.4	34	84					
				-5.1	2.1	9					
				-12.7	12	66					
				5.1sb	5.6	23					
FSP200-601U(12V)	100-240	50/60	0	5.17	30	130	3	1950	20B	2,6	0
				3.39	40	107					
				13.3	18	196					
				5.11	0.8	3.9					
				12.14	1.5	14.6					
				5.15	4.9	23.3					
FSP200-60U1	115-230	50/60	0	5.78	50	202	3	1950	20B	0	0
				12.51	19	209					
				3.32	48	74					
				-5.18	1.4	7.3					
				-14.81	11	61					
				5.08sb	3.8	17					
				5.1sb	5.6	23					
FSP250-601U	100-240	60-50	0	+5.25	63.7	269	3	1950	20B	0	1
				+3.41	43.1	96					
				+14.3	32.1	365					
				-5.2	1	4.2					
				-12.4	1.4	15.9					
				+5.02	5.8	25					
FSP300-601U	100-240	60-50	0	+5.43	64.3	270	3	1950	20B	0	1
				+3.39	42	94.6					
				+14.2	35	390					
				-5.19	1.1	4.4					
				-12.32	1.34	15.7					
				+5.02	5.8	24					
FSP350-601U	100-240	60-50	0	+5R	25.0R	Max	3	60950	20B	0	1
				+12R	20.0R	350					
				+3.3R	20.0R						
				-5R	0.3R						
				-12R	0.8R	350					
				+5VsbR	2.0R						
FSP200-60PNA(PF)	115-230	60/50	0	+5R	25R	MAX	3	1950	20B	6,2	1
				+12R	4.5R	200W					
				+3.3R	7.6R	—					
				-12R	0.8R	—					
				+5VsbR	2.0R	—					
FSP215-60PNA(PF)	115/230	60/50	0	+5R	28R	MAX	3	1950	20B	6,2	1
				+12R	5.5R	215W					
				+3.3R	5R	—					
				-12R	0.4R	—					
				+5VsbR	2.0R	—					
FSP235-61GL, FSP235-61GN, FSP235-61GT, FSP235-60GZW(b)	100-120	50/60	0	+5.2	45	177.7	3	950	20	0	0
				13.6	17	193.0					
				3.5	35	62.4					
				-12.54	7	50.96					
				+4.98	2	9.04					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP235-60GIA, FSP235-60GNA, FSP235-60GTA FSP235-60PNA	115/230	50/60	0	5.2 13 3.4 -5 -12.4 5	64 21 45 7 9 3.6	200 221 64 12 46 17	3	1950	20B	6.2	1
FSP235-60PNA(PF)	115/230 230	50-60 50	0	+5R +12R +3.3R -5R -12R +5VsbR +12R	22R 8R 14R 0.3R 0.8R 2R 0.8R	235 — — — — — —	3	1950	20B	0	1
FSP245-50PNA	100/240	50-60	0	5.2 12.2 3.4 -12.3 12.4 5.2	60 18 27 2.5 4.0 3.9	230 217 67 26 15 13	3	1950	20	0	1
FSP250-60BN*, FSP250-60BT*, FSP250-60BN(12V), FSP250-60BT(12V)	115/230	50/60	0	+5.24 +12.6 -12.58 +3.46	46 19.3 4.1 33	220 232 45.8 92.8	3	1950	20B	0	0
FSP250-61GI, FSP250-61GN, FSP250-61GT	115/230	60/50	0	-5.14 +4.99 +5.2 13.6 3.5	2.8 3.9 45 17 35	13.7 17.3 177.7 193.0 62.4	3	950	20	0	0
FSP250-61GN(AMD), FSP250-61GN(A), FSP250-61GT(A), FSP250-61GT(AMD)	115/230	60/50	0	5.2 13.6 3.5 -5 -12.54 4.98	45 17 35 4.8 7 2	177.7 193 62.4 12.88 50.96 9.04	3	1950	20B	0	0
FSP250-60GIA, FSP250-60GNA, FSP250-60GTA	115/230	60/50	0	5.2 5.2 13 3.4 -5 12.4 5	45 45 21 45 7 9 3.6	177.7 200 221 64 12 46 17	3 3	1950 1950	20B 20B	0 6.2	0 1
FSP250-60GTA(UMDN)	115	60	0	+5R +12R +3.3R -5R -12R +5VsbR	25R 13R 16R 0.3R 0.8R 2R	250 — — — — —	3	1950	20B	0	1
FSP250-60GNV(PF), FSP250-60TV(PF), FSP250-60GN, FSP250-60GTV	115/230	60/50	0	+5R +12R +3.3R -5R -12R +5VsbR	27R 13R 20R 0.3R 0.8R 2.0R	MAX 250W — — — —	3	1950	20B	6.2	1
FSP280-60FS	115/230	60/50	0	+5R +12R +3.3R -5R -12R +5sbR	22.0R 10.0R 20.0R 0.3R 0.8R 1.0R	— — — — — —	3	1950	20B	0	1
FSP300-60BR**	115/230	50/60	0	+5R	30R	180R	3	1950	20B	0	0

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP300-60BN, FSP300-60BT  FSP300-60BN(PF), FSP300-60BT(PF), FSP300-60BN(12V), FSP300-60BT(12V) FSP300-60U2	115/230	50/60	0	+12R	9R	108R	3	1950	20B	0	0
				-12R	0.8R	9.6R					
				+3.3R	28R	92.4R					
				-5R	0.3R	1.5R					
				+5R	1-1.6R	8R					
				+5R	30R	---					
				+12R	11R	---					
				+3.3R	16R	---					
				-5R	0.3R	---					
				-12R	0.8R	---					
+5Vsb	2/3R	---									
FSP300-60BNV, FSP300-60BTV, FSP300-60BTV, FSP300-60BTV(PF)	115/230	60/50	0	+5.62	72	269	3	1950	20B	0	0
				+3.47	60	104					
				+12.68	29	321					
				-14.60	18	53					
				-5.16	2.3	11					
				5.14	3.3	15.3					
				+5.43	49	197					
				+12.66	21	236					
				+3.51	523	107					
				-5.05	2.4	10					
-12.42	12	75									
FSP300-60GRA	115/230	60/50	0	+5.1	3.5	16	3	1950	20	0	1
				+5.6	127	331.2					
				13.2	73	744.6					
				3.5	50	116.6					
				4.8	1.6	5.4					
				12.7	28	120.4					
				5.3	3.2	11.8					
				+5R	30R	150R					
				+12R	15R	180R					
				+3.3R	15R	49.5R					
-5R	0.3R	1.5R									
-12R	0.8R	9.6R									
FSP300-60PNA(PF)	115/230	60/50	0	+5R	2R	10R	3	1950	20B	0	0
				+12R	0.8R	9.6R					
				+3.3R	15R	49.5R					
				-5R	0.3R	1.5R					
				-12R	0.8R	9.6R					
				+5R	2R	10R					
				+12R	0.8R	9.6R					
				5.6	34.2	143					
				3.4	49.1	106					
				14.1	32.1	360					
-12.1	2.5	23.1									
-5.2	1.2	4.4									
FSP330-60BN***, FSP330-60BT***	115/230	50/60	0	5.2 Vsb	5.4	24.6	3	1950	20B	0	0
				+5R	32R	160R					
				+12R	8/7R	96R					
				-12R	0.8R	9.6R					
				+3.3R	28R	92.4R					
				-5R	0.3R	1.5R					
				+5R	2/3R	8R					
				+5.17	87	256					
				+12.52	34	350					
				-12.45	5.9	56.8					
+3.32	50	26.5									
-5.13	3.6	21.5									
*FSP350-60BT(PF)	115/230 or 230	60-50 50	0	+4.99	4.3	18.3	3	1950	20B	0	0
				+5R	32	MAX					
				+12R	16	350					
				+3.3R	28						
				-5R	0.3						
				-12R	0.8						



Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP390-40AT	100-240	60-50	0	+5VsbR +5R +12R -5R -12R	2 40R 15R 0.3R 0.8R	MAX 390 — —	3	1950	20B	2,6	0
FSP390-40AT	100-240	60-50	0	+5R +12R +3.3R -5R -12R	40R 15R 28R 0.3R 0.8R	MAX 400W — — —	3	1950	20B	2,6	0
FSP400-60GN(c)(d)	115/230	50/60	0	+5VsbR 5.45 3.46 12.73 -12.0 -5.12 5.17	2.0R 43.6 44.2 16.9 2.2 0.5 3.2	— 176.7 110.1 201.5 23.2 1.9 15.7	3	1950	20B	0	1
FSP530-60GNA	115/230	50/60	0	5.7 3.5 12.8 5.1 12.1 5	48 45 22 0.5 2.5 3.5	215 128 232 2 25 17	3	1950	20B	2,6	1
FSP530-60GN, FSP530-60GL	115/230	50/60	0	5.51 12.16 3.46 5.22 12.17	52 35 48 0.6 2.5	201 348 126 1.8 24	3	1950	20B	2,6	1
FSPxxx-60PFN, FSP300-60PFN(1), FSP300-60PFN(12V), ST250PFC, ST250PFCN, ST300PFC, ST300PFCN, where xxx=150, 200, 250, 235 or 300	100/240	50-60	0	5.4 3.4 13.1 -12.1 -5.2	58 52 22 2.4 1.6	173 108 210 21.6 7.4	3	1950	20B	2,6	0
Optional Appliance Outlet	115/230	60/50	—	—	—	—	1	1950	20B	5,6	1
FSP300-60PFNI	100-240	50-60	0	+5R +3.3R +12R -5R -12R	30R 28R 15R 0.3R 0.8R	MAX 300W — — —	3	1950	20B	2,6	0
FSP250-60PFN	100-240	50-60	0	+5VsbR +5R +3.3R +12R -5R -12R	2.0R 25R 16R 13R 0.3R 0.8R	— MAX 250W — — —	3	1950	20B	2,6	0
FSP250-60PFN(12V)	100-240	50-60	0	+5VsbR +5R +3.3R +12R -5R -12R	2.0R 25R 20R 13R 0.3R 0.8R	— MAX 250W — — —	3	1950	20B	2,6	0
FSP250-40PFN	100-240	50-60	0	+5VsbR +5R +12R -5R -12R	2.0R 30R 13R 0.3R 0.8R	— MAX 250W — —	3	1950	20B	2,6	0
FSP245-60GP	100/240	60/50	0	5.1	42	165	3	1950	20	0	1

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
				12.4	19.5	208					
				3.3	5.6	68					
				-12.3	5.2	40					
				5.1Vsb	3.5	15					
				13.2 Vsb	8.6	19					
FSP460-60PFNXX	100-240	50-60	0	4.96	36.6	153	3	1950	20B	0	1
				3.39	37	103					
				11.9 I/O	18.1	210					
				11.9 CPU	18.1	210					
				-5.16	1.2	6					
				-12.38	1.1	13.3					
				5 vsb	3.9	13.8					
FSP300-60ATV, FSP300-60ATV(PF)	115/230 230	60/50 50	0	+3.3(R)	28(R)	300(R)	3	1950	20	2	1
				+5(R)	30(R)	300(R)					
				+12(R)	15(R)	300(R)					
				-5(R)	0.3(R)	300(R)					
				-12(R)	0.8(R)	300(R)					
				+5Vsb(R)	2.0(R)	300(R)					
FSP250-60ATV, FSP250-60ATV(PF)	115/230 230	60/50 50	0	+3.3(R)	20(R)	250(R)	3	1950	20	2	1
				+5(R)	27(R)	250(R)					
				+12(R)	13(R)	250(R)					
				-5(R)	0.3(R)	250(R)					
				-12(R)	0.8(R)	250(R)					
				+5Vsb(R)	2.0(R)	250(R)					
FSP012-2P01XX	100-240	50/60	0	+5.07	5.2	14.8	3	60950	20	0	0
				-5.47	4.8	12.2					
FSP090-50MA, FSP090-50MI, FSP090-50ML, FSP090-50MP	115/230	60/50	0	+5R	10R	50R	3	1950	20	2,3	0
				+12R	1.5R	18R					
				+3.3R	6R	19.8R					
				-12R	0.2R	2.4R					
				+5R	0.72R	3.6R					
FSP110-50MA, FSP110-50MI	115/230	60/50	0	+5R	10R	50R	3	1950	20	2,3	0
				+12R	2R	24R					
				+3.3R	8R	26.4R					
				-12R	0.5R	6R					
				+5R	0.8R	4R					
FSP028-40MS	90-264	47-63	0	5.1	19.2	50.8	3	1950	20	2	0
				12.0	1.7	16.9					
				12.3	1.3	15.1					
				5.03	1.45	7.2					
FSP060-1S04XX, where X may be any alphanumeric character or blank	100-240	50/60	0	24.4	5.8	118	3	1950	20	2	0
FSP060-2P02XX, where X may be any alphanumeric character or blank	100-240	50/60	0	3.3	23.0	52.0	3	1950	20	2	0
				12.8	6.1	58.0					
FSP060-2P03XX, where X may be any alphanumeric character or blank	100-240	50/60	0	3.3	15.0	53.0	3	1950	20	2	0
				13.0	3.9	31.0					
FSP060-4P01XX, FSP060-4P02XX	100-240	50/60	0	5.11	18.5	60.3	3	1950	20B	0	0
				12.6	8.0	67.8					
				-5.0	1.3	6.4					
				-12.0	1.28	15.3					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP060-4P03XX	100-240	50/60	0	5.0	17	57.9	3	1950	20B	0	0
				12.7	8.4	61.9					
				12.9	5.3	42.0					
				5.17	5.5	23.0					
FSP030-2P01XX	100-240	50/60	0	+5	4.5	28	3	1950	20B	0	1
				+12	0.5	—					
FSP030-2P02XX	100-240	50/60	0	—	3.5	29	3	1950	20B	0	1
				+5	1.0	—					
FSP030-2P03XX	100-240	50/60	0	+12	1.0	17	3	1950	20B	0	1
FSP090-50DP, FSP145-50DL	115/230	60/50	0	+5.37	29	114	3	1950	20B	0	1
				+3.3	23	41					
				+11.97	10.9	121					
				-12.22	15	15.6					
				+5.01	3.2	15.5					
				-4.99	1.2	6.1					
				+5R	10R	50R					
FSP090-50MA, FSP090-50MI, FSP090-50ML, FSP090-50MP	115/230	60/50	0	+12R	1.5R	18R	3	1950	20	2,3	0
				+3.3R	6R	19.8R					
				-12R	0.2R	2.4R					
				+5R	0.72R	3.6R					
FSP110-50MA, FSP110-50MI	115/230	60/50	0	+5R	10R	50R	3	1950	20	2,3	0
				+12R	2R	24R					
				+3.3R	8R	26.4R					
				-12R	0.5R	6R					
FSP145-50DP,	115/230	60/50	0	+5R	0.8R	4R	3	1950	20B	0	1
				+5.35	37.7	149					
				3.41	16.9	32					
				+12.15	13.4	150					
				-12.08	1.6	16.7					
				+4.98	3.2	15.5					
				-5.03	1.2	5.7					
FSP145-60AI, FSP145-60AT, FSP145-60AN	100-120/ 200-240	60/50	0	5	18	145W	3	1950	20B	0	1
				12	4	max					
				-5	0.2						
				-12	0.3						
				3.3	12						
				5Vsb	2.0/						
					1.6/1.0						
FSP145-60PFN(SAXX)	100-240	60-50	0	3.3(R)	8.0(R)	145W	3	1950	20B	2	1
				+5(R)	15(R)	Max					
				+12(R)	4.2(R)						
				-12(R)	0.3(R)						
				-5(R)	0.2(R)						
				+5Vsb(R)	2.0(R)						
FSP180-60PFN(SAXX)	100-240	60-50	0	+3.3(R)	10.0(R)	180	3	1950	20B	2	1
				+5(R)	18.0(R)	Max					
				+12(R)	6.0(R)						
				-12(R)	0.3(R)						
				-5(R)	0.2(R)						
				+5Vsb(R)	2.0(R)						
FSP200-60PFN(SAXX)	100-240	60-50	0	5.1	44	175	3	1950	20B	2	1
				12.1	19.3	210					
				5.2	5	24					
				3.4	28.4	75					
				-11.4	3.2	31					
				-5.2	0.9	4					
FSP200-60AI, FSP200-60AT, FSP200-60AN	100-120/ 200-240	60/50	0	5	20	200W	3	1950	20B	0	1
				12	7	max					
				-5	0.3						
				-12	0.5						
				3.3	14						
				5Vsb	2.0/						

Model No.	Rated Input		SC	Max V	Output			OC	SP	EP	FC	GC
	V	Hz			Max A	Max VA	1.6/1.0					
FSP235-60AI, FSP235-60AT, FSP235-60AN	100-120/ 200-240	60/50	0	5 12 -5 -12 3.3 5Vsb	22 8 0.3 0.5 14 2.0/ 1.6/1.0	235W max	3	1950	20B	0	1	
FSP250-60AI, FSP250-60AT, FSP250-60AN	115/230	60/50	0	5.96 12.9 3.68 5.09 12.34 5.1	58 19 35 138 1.5 3.3	229.1 186.2 89.1 6.29 17.88 16.1	3	1950	20B	0	1	
@FSP250-60PN, FSP250-60PT, FSP200-60PN, FSP160-60PN, FSP145-60PN	100-240	47-63	0	5.22 12.52 3.38 5.04 12.13	48 29 34 2 1.5	226.08 235.8 70.56 9.04 17.67	3	1950	20	6,2	1	
FSP150-50PL1XX, ACE-816AP, FSP150-50FL1AX	100-240	60-50	0	5.1 3.3 12.0 12.3 5.0	33.2 25.2 18.8 7.5 3.8	137 57 205 51 16.7	3	1950	20B	2	1	
FSP100-50PL1XX,	100-240	60-50	0	5.1 3.3 12.5 12.6 5.0	24.6 25.1 10.1 6.4 3.8	112 68 116 53 16.7	3	1950	20B	2	1	
@FSP235-60PN, FSP235-60PT, FSP200-60PT, FSP200-60PA, FSP160-60PT	100-240	47-63	0	5.2 3.35 12.42 5.14 12.3 5.15	46 32 23 1.9 9.5 4.2	186.3 82.96 216.6 8.98 69.07 12.56	3	1950	20	6,2	1	
FSP030-2P05XX	100-240	50/60	0	+5(R) +12(R)	4.5(R) 0.2(R)	—	3	1950	20	0	0	
FSP180-60SI	100-120/ 200-240	50/60	0	5.5 12.8 3.3 -5.1 -13.3 5.0	43.0 20.0 32.0 1.6 18.0 3.3	170.0 232.0 61.0 6.0 70.0 15.0	3	1950	20	6,2	0	
FSP150-60PFN(PAXX)	100-240	50/60	0	3.38 5.3 12.17 -11.6 -5.03 +5.12Vsb	31.6 46.8 20.5 8.4 1.77 5.2	76 185 214 47.7 7.1 24.5	3	1950	20B	2	1	
FSP060-3S01XX	100-240	50/60	0	+5R +12R -12R	8R 3.5R 1R	(e)	3	1950	20B	0	1	
FSP200-60SPV, FSP200-60SPV(PF)	115/230	60/50	0	+12	21	120	3	1950	20B	2	0	
FSP250-60XYZ	100-240	50-60	0	+3.4 +5.0 +12.3 -12.0 -5.1 +5.0 Vsb	38.4 29.6 19.6 2.0 1.4 4.7	98 120 132 22 6 15.8	3	1950	20B	2,6	1	
FSP300-60XYZ	100-240	50-60	0	+3.3 +5.0	46.4 35.7	113 134	3	1950	20B	2,6	1	

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP350-60XYZ	100-240	50-60	0	+12.4	16.5	180	3	1950	20B	2,6	1
				-12.1	1.95	23					
				-5.2	1.2	5.2					
				+5.1 Vsb	4.4	15.2					
				+3.3	51.0	110					
				+5.0	50.4	176					
				+12.3	32.8	296					
				-12.1	1.8	21					
				-5.2	1.0	5.4					
				+4.9 Vsb	4.0	15.3					
FSP007-1P02XX	100-240	50-60	0	3.3	4.27	13.93	3	1950	20B	0	1
FSP007-1P002AXX	100-240	50-60	0	5.0	5.6	25.0	3	60950	20B	2,6	1
FSP017-2PI02XX	115/230	60/50	0	12.0	3.6	34.0	3	1950	20B	0	1
	FSP180-60AV	115/230	60/50	0	+5R	16R					
FSP180-60AV(PF)				+5R	16R	Max	3	1950	20B	0	1
FSP200-50PSXX	115/230	60/50	0	+12R	10R	180W	3	1950	20B	2,6	1
				+3.3R	16.7R						
				-5R	0.2R						
				-12R	0.3R						
				+5VsbR	2R						
				+12VsbR	1R						
				5.15	26.5	120					
				3.32	17	48					
				12.3	15.2	172					
				-12.5	2.3	31					
5.07	3.4	14									
FSP200-60ATV	115/230	60/50	0	+3.3R	14R	Max	3	1950	20B	0	1
FSP200-60ATV(PF)				+5R	21R	200W					
FSP060-2P06XX, where X can be any alphanumeric character or blank	100-240	50/60	0	+12R	10R		3	1950	20B	2	1
				-5R	0.3R						
				-12R	0.5R						
FSP200-50SNV	115/230	60/50	0	+5VsbR	2.0R						
FSP200-50SNV	115/230	60/50	0	14.9	4.1	49	3	1950	20B	2	1
				15.9	4.1	48.8					
				+3.3R	16.7	Max					
				+5R	16	200W					
				+12R	10	—					
				-12R	0.5	—					
				-5R	0.3	—					
				+5VsbR	2	—					
				+3.3R	12	Max					
				+5R	10	150W					
+12R	4	—									
-12R	0.3	—									
-5R	0.2	—									
+5VsbR	2	—									
FSP150-50SNV	115/230	60/50	0	5.3	43	168	3	1950	20B	0	1
FSP250-60PNA(PF)	115/230	60/50	0	12.67	19	198	3	1950	20B	0	1
				73	147						
MPS1083-000	100-240	50-60	0	-12.94	7.2	58	3	1950	20B	2	2
				5.12	3.5	16					
				14.1	8.3	15					
				-51.0	4.6	72.3					
				+3.2	34.0	88					
FSP550-60PLNXX	100-240	50-60	0	+4.9 V	36.0	146	3	1950	20B	2	1
FSP550-60PLNXX	100-240	50-60	0	+12 V	24.0	262	3	1950	20B	2	1
				12.1 V	23.5	273					
				-12.3 V	1.1	14					
				-5.1 V	1.4	6.4					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
				+4.97 V sb	4.2	13.9					
FSP550-60PLGXX	100-240	50-60	0	+3.2	34.0	88	3	1950	20B	2	1
				+4.9 V	36.0	146					
				12.2 V	32.1	372					
				12.1 V	23.5	273					
				-12.3 V	1.1	14					
				-5.1 V	1.4	6.4					
				+4.97 V sb	4.2	13.9					
FSP250-60MDN-120US(1)	100-240	50-60	0	3.49	69	159	3	1950	20B	0	1
				5.34	48	162					
				12.7	17	201					
				-13.10	7	61					
				-5.30	11	18					
				5.12	3.5	16					
*FSP240-60PLA(ST)	100-240	60-50	0	+3.3R	17R	Max	3	60950	20B	0	1
				+5R	16R	240 W					
				+12R	12R						
				-12R	0.8R						
				-5R	0.2R						
				+5VsbR	2R						
*FSP220-60PLA(ST), FSP220-60PLA(SI)	100-240	60-50	0	+3.3R	17R	Max	3	60950	20B	0	1
				+5R	12R	220 W					
				+12R	12R						
				-12R	0.8R						
				-5R	0.2R						
				+5VsbR	2R						
*FSP200-50PLA, FSP200-50PLF, FSP200-50PLA1	100-240	60-50	0	+3.3R	16R	Max	3	60950	20B	0	1
				+5R	12R	200 W					
				+12R	12R						
				-12R	0.8R						
				+5VsbR	2R						
*FSP180-50PLA1, FSP180-50PLA	100-240	60-50	0	+3.3R	16.8R	Max	3	60950	20B	0	1
				+5R	12R	180 W					
				+12R	10R						
				-12R	0.8R						
				+5VsbR	2R						
*FSP180-60PLA(SI), FSP180-60PLA(ST)	100-240	60-50	0	+3.3R	17R	Max	3	60950	20B	0	1
				+5R	12R	180 W					
				+12R	12R						
				-12R	0.8R						
				-5R	0.2R						
				+5VsbR	2R						
*FSP180-60PLF	100-240	60-50	0	+3.3R	15R	Max	3	60950	20B	0	1
				+5R	10R	180 W					
				+12R	12R						
				+5VsbR	2R						
*FSP160-60PLF1	100-240	60-50	0	+3.3R	16.8R	Max	3	60950	20B	0	1
				+5R	12R	160 W					
				+12R	8R						
				-12R	0.8R						
				-5R	0.2R						
				+5VsbR	2R						
*FSP150-50PLA, FSP150-50PLA1	100-240	60-50	0	+3.3R	8R	Max	3	60950	20B	0	1
				+5R	12R	150 W					
				+12R	10R						
				-12R	0.8R						
				-5VsbR	2R						
*FSP150-40AT	100-240	60-50	0	+5R	16R	Max	3	60950	20B	0	1
				+12R	6R	150 W					
				-12R	0.8R						

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
*FSP150-60DL(48V)	36-72	—	6	+5VsbR +3.3R +5R +12R -12R -5R	2R 10R 14R 4.2R 0.3R 0.3R	Max 150 W	3	60950	20B	0	0
*FSP150-60DL(24V)	18-32	—	6	+5VsbR +3.3R +5R +12R -12R -5R	2R 10R 14R 4.2R 0.3R 0.3R	Max 150 W	3	60950	20B	0	0
*FSP100-60DL(24V)	18-32	—	6	+5VsbR +3.3R +5R +12R -12R -5R	2R 4R 13R 2.5R 0.3R 0.3R	Max 100 W	3	60950	20B	0	0
FSP150-50PL	115/230	60/50	0	+5VsbR +5.0 +4.1 +12.8 -12.9 +5.1	1.5R 22.0 17.2 7.32 3.8 3.1	105 51 84 41 14.5	3	60950	20B	0	1
FSP245-50PNA(PF)	115/230	60/50	0	+3.3R +5R +12R -12R +12R (DC-JACK)	8R 12R 11.2R 0.4R 0.8R	Max 245 W	3	60950	20B	0	1
FSP215-50PNA(PF)	115/230	60/50	0	+5sbR +3.3R +5R +12R -12R +12R (DC-JACK)	2R 20R 20R 11R 0.4R 0.8R	— Max 215 W	3	60950	20B	0	1
ATX-350GU	115/230	60/50	0	+5sbR 5.36 13.34 3.35 -5.71 -14.78	2R 52 25 59 9.6 10	— Max 350 W	3	1950	20B	0	1
FSP300-60PN(PF), FSP300-60PN	115/230 or 230	60/50	0	5.15 12.88 3.79 -5.59 -13.58 5.13 (sb)	80 18 84 9.6 20 3.4	Max 300 W	3	1950	20B	0	1
FSP350-60PN(PF), FSP350-60PN	115/230 or 230	60/50	0	+3.3R +5R +12R -5R -12R +5sbR	28R 30R 16R 0.3R 0.8R 2R	Max 350 W	3	1950	20B	0	1

\* - (+5V & +3.3V = 145W) (Total output 250W max).  
\*\* - (+5V & +3.3V = 180W) (Total output 300W max).  
\*\*\* - (+5V & +3.3V = 220W) (Total output 330W max).  
\*\*\*\* - (+5V & +3.3V = 220W) (Total output 350W max).  
(a) - Y may be I, N, T or W.  
(b) - Z may be I, N, P or T.  
(c) - +5V and +3.3V = 235W.

- (d) - Total Output = 400W maximum.
  - (e) - 90 W with 30 CFM forced air cooling; 65 W under natural convection cooling.
  - (f) - (-5V and +3.3V is optional).
  - R - Rated values.
  - @ - Indicates optional AC outlet 115/230 47-63 0 115/230 2/1(rated) 0 1950 20B 5 1.
- Marking: Company name and model designation.
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**See General Information Preceding These Recognitions**

For use only in equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.