

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

RE: Project Number(s) - 02CA08248

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QQGQ8 January 25, 2003
 Power Supplies, Information Technology Equipment Including Electrical Business Equipment Certified for Canada - Component

FSP GROUP INC
 22 JIANGUO E RD, TAOYUAN CITY TAIWAN

E190414

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	950	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	950	—	—	—
				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	950	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	950	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					



Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
ATX-250GU	115/230	60/50	0	+5R +3.3R +12R -5R -12R +5VsbR	25R 14R 8R 0.3R 0.8R 2.0R	MAX 250W — — — —	3	950	20B	0	1
ATX-300GT, ATX-300GN	115/230	60/50	0	5.5 3.4 12.7 -5.6 -14 5.1	65 63 40 4.2 4.9 7.5	210 129 410 7.5 35 16.6	3	950	20B	0	1
ATX-250N	115/230	60/50	0	5.2 13 3.3 -5 -12 +5	43.5 18 35.7 5.6 6.1 0.8	153 211 58.5 18.7 50.5 40R	3	950	20B	0	0
ATX-300GU	115/230	60/50	0	+5R +3.3R +12R -5R -12R +5R	30R 20R 13R 0.3R 0.8R 2R	150R 66R 156R 1.5R 9.6R 10R	3	950	20B	0	0
FSP135-60PF	115/230	50/60	0	5.2 12.5 3.3 -5.1 -12.2 5.1	39 16 25 1.4 6.4 2.7	157 174 66 7 53 13	0	950	20B	0	1
FSP135-60PF(F501)	115/230	50/60	0	5.2 12.5 5.1	39 16 2.7	157 174 13	3	950	20B	0	1
FSP150-50CI(G) or 230	115/230 or 230	50/60 50	0	+5.0R +12.0R +3.3 -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	950	20B	0	1
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	950	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	950	20B	0	0
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 5.2	73 74.5 123.7 223 14.5 14.8	3	60950	20B	2,6	1
FSP012-2P01XX	100-240	50/60	0	+5.07 -5.47	5.2 4.8	14.8 12.2	3	60950	20	0	0
FSP020-2P01XX where X may be	100-240	50/60	0	+5 +3.3	0.5 5.0	10.1 22.8	3	950	20B	0	0

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
any alphanumeric character or blank											
FSP060-2P01XX	100-240	50/60	0	5.12 11.7 -12.06	26.1 11.2 1.4	87 66 15.9	3	950	20B	2	1
FSP060-3P02XX	100-240	50/60	0	5.12 11.7	26.1 11.2	87 66	3	950	20B	2	1
FSP090-50NA, FSP090-50NI, FSP090-50NLA, FSP090-50NW, FSP090-51NA, FSP090-51NI	115/230	60/50	0	+5R +12R +3.3R -12R 5R -5R	10R 1.5R 6R 0.2R 0.72R 0.3R	50R 18R 19.8R 2.4R 3.6R 1.5R	3	950	20	0	0
FSP090-50PI, FSP090-50PP, FSP090-50PL	100-240	47-63	0	+5R +12R +3.3R -12R 5R	12R 1.5R 8R 0.2R 1.2R	60R 18R 26.4R 2.4R 6R	3	950	20	0	0
FSP090-61GY(a), FSP090-60GZW(b)	115/230	60/50	0	+5.0 +12.00 +3.3 -5.0 -12.0 +5sb	10.0 2.0 8.0 0.3 0.5 0.8	50.0 24.0 26.4 1.5 6.0 4.0	3	950	20	0	0
FSP100-50CI, FSP100-51CI, FSP145-50CI, FSP145-51CI	115/230	50/60	0	+5.35 +11.99 +3.37 -12.32 +4.94	36 18 13 7 2.6	144 187 28 60 12.5	3	950	20B	0	1
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	950	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	950	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	950	20	0	0
FSP145-50NA, FSP145-50NI, FSP145-50NIA,	115/230	60/50	0	+5.15 +12.19 +3.43	47 18.6 30	203.5 209.9 65.7	3	950	20	0	0
FSP030-2P05XX	100/240	50/60	0	+5(R) -12.24 5.23 -5R	4.5(R) 1.6 1.5 0.3R	— 0.2(R) 16.53 6.43 1.5R	3 —	950	20	0	0
FSP145-50NW, FSP145-51NA, FSP145-51NI											
FSP145-60SF,	100/120	50/60	0	5.8	42	172	3	950	20B	6,2	1
FSP145-60SI	100-120/ 200-240	60/50	0	5.42 +12R +3.3R -5R -12R	37 4R 10R 0.2R 0.3R	142 218	3	950	20	8	1

Model No.	Rated Input		SC	Max V (Total 145 W maximum)	Output			OC	SP	EP	FC	GC
	V	Hz			Max A	Max VA						
FSP145-60SP	200/240	—	—	12.9	19	218	3					
				3.4	27	58	3					
				12.2	1.4	15	3					
				5.0	1.2	6	3					
FSP200-60SAV	115/230	60/50	0	+5R	16	MAX	3	950	20B	6,2	1	
FSP200-60SAV(PF)	230	50		+12R	10	200W						
				+3.3R	16.7							
				-5R	0.2							
				-12R	0.3							
				+5VsbR	2 or 3							
				+12VsbR	1							
FSP180-60SA	115/230	60/50	0	+5R	16R	MAX	3	950	20B	6,2	1	
	230	50		+12R	4R	180W						
				+3.3R	10R	—						
				-5R	0.5R	—						
				-12R	0.8R	—						
				+5VsbR	2.0R	—						
FSP180-60SAV(PF), FSP180-60SAV, FSP180-60SI	115/230	60/50	0	+5R	16R	MAX	3	950	20B	6,2	1	
	230	50		+12R	10R	180W						
				+3.3R	16.7R	—						
				-5R	0.2R	—						
				-12R	0.3R	—						
				+5VsbR	2.0R	—						
					or							
					3.0R							
FSP180-60SP(100/120/200-240) FSP180-60SP(12V), FSP180-60SPV(PF), FSP180-60SPV	115/230	60/50	0	+5R	16R	MAX	3	950	20B	6,2	1	
	200-240	50		+12R	10R	180W						
				+3.3R	16.7R	—						
				-5R	0.2R	—						
				-12R	0.3R	—						
				+5VsbR	2.0R	—						
					or							
					3.0R							
FSP160-60SAV(PF) FSP160-60SAV	100/127/200-240	60/50	0	+5R	12R	MAX	3	950	20B	6,2	1	
	200-240	50		+12R	8R	160W						
				+3.3R	16.7R	—						
				-5R	0.2R	—						
				-12R	0.3R	—						
				+5VsbR	2.0R	—						
					or							
					3.0R							
FSP145-60SA	100-127/ 200-240	50/60	0	5.5	43.0	170.0	3	950	20	6,2	0	
				12.8	20.0	232.0						
				3.3	32.0	61.0						
				-5.1	1.6	6.0						
				-13.3	18.0	70.0						
				5.0	3.3	15.0						
FSP145-61GI, FSP145-61GN, FSP145-61GT, FSP145-61GW, FSP145-60GZW(b)	115/230	60/50	0	+5.1	42	165.06	3	950	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						

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP030-2P04XX	100-240	50/60	0	5.17	14.9	51.8	3	950	20B	0	0
FSP100-60PL	115-230	50/60	0	13.1	4.7	40.9	3	950	20B	0	0
				+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	2.9	15	3	950	20B	0	0
				+5.2	34.0	121					
				+3.4	19.0	53					
				+12.6	13.5	148					
				-5.2	1.1	8					
				-13.1	8.2	46					
FSP145-60PA, FSP145-60PI	115-230	60/50	0	5.1	3.1	15	3	950	20B	0	0
				+5.2	37	136					
				+12.7	15	167					
				+3.3	22	63					
				-5.0	1.4	7					
				-13.2	10	58					
FSP145-60GLA, FSP145-60GNA, FSP145-60GTA, FSP145-60PNA(PF)	115/230	60/50	0	5.2	3.2	16.3	3	950	20B	6,2	1
				5.2	64	200					
				13	21	221					
				3.4	45	64					
				-5	7	12					
				-12.4	9	46					
FSP145-SF(f), FSP145-SP(f)	100-120/ 200-240	50/60	0	5	3.6	17	3	950	20	0	0
				+5.78	42	172.2					
				+12.85	19.2	218.8					
				+3.35	27	58.05					
				-12.16	1.4	15.27					
				+5.01	1.2	5.94					
FSP150-50NI, FSP175-50NI, FSP150-51NI, FSP175-51NI, FSP-150-50NI(PF), FSP-150-51NI(PF)	115/230	60/50	0	-5.03	0.89	3.68	3	950	20B	0	0
				+5.15	47	203.5					
				+12.19	18.6	209.9					
				+3.43	30	65.7					
				-12.24	1.6	16.53					
				4.96	3.3	15.7					
FSP150-50PL1XX, ACE-816AP, FSP150-50PL1AX	100-240	60-50	0	-5R	0.3R	1.5R	3	950	20B	2	1
				5.1	33.2	137					
				3.3	25.2	57					
				12.0	18.8	205					
				12.3	7.5	51					
				5.0	3.8	16.7					
FSP100-50PL1XX,	100-240	60-50	0	5.1	24.6	112	3	950	20B	2	1
				3.3	25.1	68					
				12.5	10.1	116					
				12.6	6.4	53					
				5.0	3.8	16.7					
				5R	18	90					
FSP150-60SF, FSP150-60SP, FSP150-60SP(PF)	100-120/ 200-240	60/50	0	12R	4.2R	50.4R	3	950	20B	6,2	0
				3.3R	10R	33					
				-5R	0.3R	1.5R					
				-12R	0.3R	3.6R					
				+5VsbR	3R	15R					
				5R	5R	—					
FSP170-50PNA(PF)	115/230	60/50	0	+12R	2R	170W	3	950	20B	0	1
				+3.3R	5R	—					
				-12R	0.4R	—					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP180-50NI(VPF)	115/230	60/50	0	+5VsbR	2R	—	3	950	20B	0	1
FSP180-50NI(V)				230	50	+12R					
FSP180-51NI(VPF)	115/230	60/50	0	+5R	16R	MAX	3	950	20B	0	1
FSP180-51NI(V)				230	50	+12R					
FSP200-60SF	100-120/ 200-240	50/60	0	+3.3R	16.7R	—	3	950	20B	6.2	1
FSP200-60SP				200-240	50/60	-5R					
FSP200-61GI	115/230	60/50	0	-12R	0.3R	—	3	950	20	0	0
FSP200-61GN				230	50	+5VsbR					
FSP200-61GT	115/230	60/50	0	5R	21R	105R	3	950	20B	6.2	1
FSP200-61GW				230	50	12R					
FSP200-60GZW(b)	115/230	60/50	0	3.3R	12R	39.6R	3	950	20B	6.2	1
FSP200-60GLA				230	50	-5R					
FSP200-60GNA	115/230	60/50	0	-12R	0.5R	6R	3	950	20B	6.2	1
FSP200-60GTA				230	50	+5VsbR					
FSP150-601U	100-240	50/60	0	+5.1	42	165.06	3	950	20B	0	0
FSP200-601U				240	50/60	13.6					
FSP200-601U	100-240	50/60	0	3.5	35	62.4	3	950	20B	0	0
FSP200-601U				240	50/60	-5					
FSP200-601U(12V)	100-240	50/60	0	-12.54	7	50.96	3	950	20B	2.6	0
FSP200-601U				240	50/60	+4.98					
FSP200-60U1	115-230	50/60	0	5.2	64	200	3	950	20B	0	0
FSP200-60U1				230	50/60	13					
FSP250-601U	100-240	60-50	0	3.4	45	64	3	950	20B	0	1
FSP250-601U				240	60-50	-5					
FSP300-601U	100-240	60-50	0	-12.4	9	46	3	950	20B	0	1
FSP300-601U				240	60-50	5					
FSP300-601U	100-240	60-50	0	5	14	70	3	950	20B	0	0
FSP300-601U				240	60-50	12					
FSP300-601U	100-240	60-50	0	3.3	10	33	3	950	20B	0	0
FSP300-601U				240	60-50	-5					
FSP300-601U	100-240	60-50	0	-12	0.8	9.6	3	950	20B	0	0
FSP300-601U				240	60-50	5sb					
FSP300-601U	100-240	60-50	0	5.6	51	205	3	950	20B	0	0
FSP300-601U				240	60-50	12.6					
FSP300-601U	100-240	60-50	0	3.4	34	84	3	950	20B	0	0
FSP300-601U				240	60-50	-5.1					
FSP300-601U	100-240	60-50	0	-12.7	12	66	3	950	20B	2.6	0
FSP300-601U				240	60-50	5.1sb					
FSP300-60U1	115-230	50/60	0	5.17	30	130	3	950	20B	2.6	0
FSP300-60U1				230	50/60	3.39					
FSP300-60U1	115-230	50/60	0	13.3	18	196	3	950	20B	0	0
FSP300-60U1				230	50/60	5.11					
FSP300-60U1	115-230	50/60	0	12.14	1.5	14.6	3	950	20B	0	0
FSP300-60U1				230	50/60	5.15					
FSP300-60U1	115-230	50/60	0	5.78	50	202	3	950	20B	0	0
FSP300-60U1				230	50/60	12.51					
FSP300-60U1	115-230	50/60	0	3.32	48	74	3	950	20B	0	1
FSP300-60U1				230	50/60	-5.18					
FSP300-60U1	115-230	50/60	0	-14.81	11	61	3	950	20B	0	1
FSP300-60U1				230	50/60	5.08sb					
FSP300-60U1	100-240	60-50	0	+5.25	63.7	269	3	950	20B	0	1
FSP300-60U1				240	60-50	+3.41					
FSP300-60U1	100-240	60-50	0	+14.3	32.1	365	3	950	20B	0	1
FSP300-60U1				240	60-50	-5.2					
FSP300-60U1	100-240	60-50	0	-12.4	1.4	15.9	3	950	20B	0	1
FSP300-60U1				240	60-50	+5.02					
FSP300-60U1	100-240	60-50	0	+5.43	64.3	270	3	950	20B	0	1
FSP300-60U1				240	60-50	+3.39					
FSP300-60U1	100-240	60-50	0	+14.2	35	390	3	950	20B	0	1
FSP300-60U1				240	60-50	-5.19					
FSP300-60U1	100-240	60-50	0	-12.32	1.34	15.7	3	950	20B	0	1
FSP300-60U1				240	60-50	+5.02					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP200-60PNA(PF)	115-230	60/50	0	+5R +12R +3.3R -12R +5VsbR	25R 4.5R 7.6R 0.8R 2.0R	MAX 200W — — —	3	950	20B	6,2	1
FSP350-601U	100-240	60-50	0	+5R +12R +3.3R -5R -12R +5VsbR	25.0R 20.0R 20.0R 0.3R 0.8R 2.0R	Max 350 — — — —	3	60950	20B	0	1
FSP215-60PNA(PF)	115/230	60/50	0	+5R +12R +3.3R -12R +5VsbR	28R 5.5R 5R 0.4R 2.0R	MAX 215W — — —	3	950	20B	6,2	1
@FSP235-60PN, FSP235-60PT, FSP200-60PT, FSP200-60PA, FSP160-60P,	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	950	20	6,2	1
FSP235-61GI, FSP235-61GN, FSP235-61GT, FSP235-60GZW(b)	100-120	50/60	0	+5.2 13.6 3.5 -12.54 +4.98	45 17 35 7 2	177.7 193.0 62.4 50.96 9.04	3	950	20	0	0
FSP235-60GIA, FSP235-60GNA, FSP235-60GTA FSP235-60PNA,	115/230	60/50	0	5.2 13 3.4 -5 -12.4 5	64 21 45 7 9 3.6	200 221 64 12 46 17	3	950	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	950	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	950	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	950	20B	0	0
FSP250-60GIA, FSP250-60GNA, FSP250-60GTA	115/230	+5 Vsb 60/50	0	+4.99 5.2 13 3.4 -5 -12.4 5	3.9 64 21 45 7 9 3.6	17.3 200 221 64 12 46 17	3	950	20B	6,2	1
FSP250-60GTA(UMDN)	115	60	0	+5R +12R	25R 13R	250 —	3	950	20B	0	1

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
				+3.3R	16R	—					
				-5R	0.3R	—					
				-12R	0.8R	—					
				+5VsbR	2R	—					
@FSP250-60PN, FSP250-60PT, FSP200-60PN, FSP160-60PN, FSP145-60PN	100-240	47-63	0	5.22	48	226.08	3	950	20	6,2	1
				3.35	32	82.96					
				3.38	34	70.56					
				5.04	2	9.04					
				12.13	1.5	17.67					
FSP250-61GI, FSP250-61GN, FSP250-61GT	115/230	60/50	0	+5.2	45	177.7	3	950	20	0	0
				13.6	17	193.0					
				3.5	35	62.4					
FSP250-61GN(AMD), FSP250-61GN(A), FSP250-61GT(A), FSP250-61GT(AMD)	115/230	60/50	0	5.2	45	177.7	3	950	20B	0	0
				13.6	17	193					
				3.5	35	62.4					
				-5	4.8	12.88					
				-12.54	7	50.96					
				4.98	2	9.04					
FSP250-60GNV(PF), FSP250-60GTV(PF), FSP250-60GNV, FSP250-60GTV	115/230	60/50	0	+5R	27R	MAX	3	950	20B	6,2	1
				+12R	13R	250W					
				+3.3R	20R	—					
				-5R	0.3R	—					
				-12R	0.8R	—					
				+5VsbR	2.0R	—					
FSP280-60FS	115/230	60/50	0	+5R	22.0R	—	3	950	20B	0	1
				+12R	10.0R	—					
				+3.3R	20.0R	—					
				-5R	0.3R	—					
				-12R	0.8R	—					
				+5sbR	1.0R	—					
FSP300-60BR**	115/230	50/60	0	+5R	30R	180R	3	950	20B	0	0
				+12R	9R	108R					
				-12R	0.8R	9.6R					
				+3.3R	28R	92.4R					
				-5R	0.3R	1.5R					
		+5 Vsb		+5R	1-1.6R	8R					
FSP300-60BN, FSP300-60BT	115/230	50/60	0	+5R	30R	—	3	950	20B	0	0
				+12R	11R	—					
				+3.3R	16R	—					
FSP300-60BN(PF)				-5R	0.3R	—					
FSP300-60BT(PF)				-12R	0.8R	—					
FSP300-60BN(12V)				+5Vsb	2/3R	—					
FSP300-60BT(12V)											
FSP300-60GRA	115/230	60/50	0	+5.6	127	331.2	3	950	20	0	1
				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					
FSP300-60BNV, FSP300-60BTV, FSP300-60BTV, FSP300-60BTV(PF)	115/230 230	60/50 50	0	+5.43	49	197	3	950	20B	0	1
				+12.66	21	236					
				+3.51	52	107					
				-5.05	2.4	10					
				-12.42	12	75					
				+5.1	3.5	16					
FSP300-60PNA(PF)	115/230	60/50	0	+5R	30R	150R	3	950	20B	0	0
				+12R	15R	180R					
				+3.3R	15R	49.5R					
				-5R	0.3R	1.5R					
				-12R	0.8R	9.6R					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP300-60U2	115/230	60/50	0	+5R			3	950	20B	0	0
				+5Vsb							
				+5.62	72	269					
				+3.47	60	104					
				+12.68	29	321					
				-14.60	18	53					
FSP300-602U, FSP300-60SU, SP302-2C	100-240	60-50	0	-5.16	2.3	11	3	950	20B	2.6	1
				5.14	3.3	15.3					
				5.6	34.2	143					
				3.4	49.1	106					
				14.1	32.1	360					
				-12.1	2.5	23.1					
FSP330-60BN***, FSP330-60BT***	115/230	50/60	0	-5.2	1.2	4.4	3	950	20B	0	0
				5.2 Vsb	5.4	24.6					
				+5R	32R	160R					
				+12R	8R	96R					
				-12R	0.8R	9.6R					
				+3.3R	28R	92.4R					
FSP350-60BN****, FSP350-60BT****	115/230	50/60	0	-5R	0.3R	1.5R	3	950	20B	0	0
				+5R	1-1.6R	8R					
				+5.17	87	256					
				+12.52	34	350					
				-12.45	5.9	56.8					
				+3.32	50	26.5					
*FSP350-60BT(PF)	115/230 or 230	60-50 50	0	-5.13	3.6	21.5	3	950	20B	0	0
				+4.99	4.3	18.3					
				+5R	32	MAX					
				+12R	16	350					
				+3.3R	28						
				-5R	0.3						
FSP390-40AT	100-240	60-50	0	-12R	0.8		3	950	20B	2.6	0
				+5VsbR	2						
				+5R	40R	MAX					
				+12R	15R	390					
				-5R	0.3R	—					
				-12R	0.8R	—					
FSP400-60PFN	100-240	60-50	0	+5R	40R	MAX	3	950	20B	2.6	0
				+12R	15R	400W					
				+3.3R	28R	—					
				-5R	0.3R	—					
				-12R	0.8R	—					
				+5VsbR	2.0R	—					
FSP400-60GN(c)(d)	115/230	50/60	0	5.45	43.6	176.7	3	950	20B	0	1
				3.46	44.2	110.1					
				12.73	16.9	201.5					
				-12.0	2.2	23.2					
				-5.12	0.5	1.9					
				5.17	3.2	15.7					
FSP530-60GNA	115/230	50/60	0	5.7	48	215	3	950	20B	2.6	1
				3.5	45	128					
				12.8	22	232					
				5.1	0.5	2					
				12.1	2.5	25					
				5	3.5	17					
FSP530-60GN, FSP530-60GL	115/230	50/60	0	5.51	52	201	3	950	20B	2.6	1
				12.16	35	348					
				3.46	48	126					
				5.22	0.6	1.8					
				12.17	2.5	24					
				5.4	58	173					
FSPxxx-60PFN, FSP300-60PFN(1), FSP300-60PFN(12V)	100/240	50-60	0	3.4	52	108	3	950	20B	2.6	0

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
ST250PFC, ST250PFCN, ST300PFC, ST300PFCN where xxx=150, 200, 250, 235 or 300				13.1	22	210					
				-12.1	2.4	21.6					
				-5.2	1.6	7.4					
				5.1	5.4	26.8					
Optional appliance outlet	115/230	60/50	0	—	—	—	1	950	20B	5,6	1
FSP300-60PFNI	100-240	50-60	0	+5R	30R	MAX	3	950	20B	2,6	0
				+3.3R	28R	300W					
				+12R	15R	—					
				-5R	0.3R	—					
				-12R	0.8R	—					
				+5VsbR	2.0R	—					
FSP250-60PFN	100-240	50-60	0	+5R	25R	MAX	3	950	20B	2,6	0
				+3.3R	16R	250W					
				+12R	13R	—					
				-5R	0.3R	—					
				-12R	0.8R	—					
				+5VsbR	2.0R	—					
FSP250-60PFN(12V)	100-240	50-60	0	+5R	25R	MAX	3	950	20B	2,6	0
				+3.3R	20R	250W					
				+12R	13R	—					
				-5R	0.3R	—					
				-12R	0.8R	—					
				+5VsbR	2.0R	—					
FSP250-40PFN	100-240	50-60	0	+5R	30R	MAX	3	950	20B	2,6	0
				+12R	13R	250W					
				-5R	0.3R	—					
				-12R	0.8R	—					
FSP245-60GP	100/240	60/50	0	5.1	42	165	3	950	20	0	1
				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	950	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	950	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	950	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)					
FSP028-40MS	90-264	47-63	0	5.1	19.2	50.8	3	950	20	2	0
				12.0	1.7	16.9					
				12.3	1.3	15.1					
				5.03	1.45	7.2					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP060-1S04XX, where X may be any alphanumeric character or blank	100-240	50/60	0	24.4	5.8	118	3	950	20	2	0
FSP060-2P02XX, where X may be any alphanumeric character or blank	100-240	50/60	0	3.3 12.8	23.0 6.1	52.0 58.0	3	950	20	2	0
FSP060-2P03XX, where X may be any alphanumeric character or blank	100-240	50/60	0	3.3 13.0	15.0 3.9	53.0 31.0	3	950	20	2	0
FSP060-4P01XX, FSP060-4P02XX	100-240	50/60	0	5.11 12.6 -5.0 -12.1	18.5 8.0 1.3 1.28	60.3 67.8 6.4 15.3	3	950	20B	0	0
FSP060-4P03XX	100-240	50/60	0	5.0 12.7 12.9 5.17	17 8.4 5.3 5.5	57.9 61.9 42.0 23.0	3	950	20B	0	0
FSP030-2P01XX	100-240	50/60	0	+5 +12	4.5 0.5	28 —	3	950	20B	0	1
FSP030-2P02XX	100-240	50/60	0	— +5	3.5 1.0	29 —	3	950	20B	0	1
FSP030-2P03XX	100-240	50/60	0	+12 —	1.0 1.0	17 —	3	950	20B	0	1
FSP090-50DE, FSP145-50DL	115/230	60/50	0	+5.37 +3.3 +11.97 -12.22 +5.01 -4.99	29 23 10.9 15 3.2 1.2	114 41 121 15.6 15.5 6.1	3	950	20B	0	1
FSP090-50MA, FSP090-50MI, FSP090-50ML, FSP090-50MP	115/230	60/50	0	+5R +12R +3.3R -12R +5R	10R 1.5R 6R 0.2R 0.72R	50R 18R 19.8R 2.4R 3.6R	3	950	20	2,3	0
FSP110-50MA, FSP110-50MI	115/230	60/50	0	+5R +12R +3.3R -12R +5R	10R 2R 8R 0.5R 0.8R	50R 24R 26.4R 6R 4R	3	950	20	2,3	0
FSP145-50DE,	115/230	60/50	0	+5.35 +3.41 +12.15 -12.08 +4.98 -5.03	37.7 16.9 13.4 1.6 3.2 1.2	149 32 150 16.7 15.5 5.7	3	950	20B	0	1
FSP145-60AI, FSP145-60AN, FSP145-60AT	100-120 200-240	60/50	0	5 12 -5 -12 3.3 5Vsb	18 4 0.2 0.3 12 2.0/ 1.6/1.0	145W max	3	950	20B	0	1
FSP145-60PFN(SAXX)	100-240	60/50	0	3.3(R)	8.0(R)	145W	3	950	20B	2	1

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
FSP180-60PFN(SAXX) 100-240	60/50	0	+5(R)	15(R)	180 Max	3	950	20B	2	1	
			+12(R)	4.2(R)							
			-12(R)	0.3(R)							
			-5(R)	0.2(R)							
			+5Vsb(R)	2.0(R)							
			+3.3(R)	10.0(R)							
			+5(R)	18.0(R)							
FSP200-60PFN(SAXX) 100-240	60/50	0	+12(R)	6.0(R)	175 210 24 75 31 4	3	950	20B	2	1	
			-12(R)	0.3(R)							
			-5(R)	0.2(R)							
			+5Vsb(R)	2.0(R)							
			5.1	44							
			12.1	19.3							
			5.2	5							
FSP200-60AI, FSP200-60AN, FSP200-60AT	100-120 200-240	60/50	0	3.4	28.4	200W max	3	950	20B	0	1
				-11.4	3.2						
				-5.2	0.9						
				5	20						
				12	7						
				-5	0.3						
				-12	0.5						
FSP235-60AI, FSP235-60AN, FSP235-60AT	100-120 200-240	60/50	0	3.3	14	235W max	3	950	20B	0	1
				5Vsb	2.0/ 1.6/1.0						
				5	22						
				12	8						
				-5	0.3						
				-12	0.5						
				3.3	14						
FSP250-60AI, FSP250-60AN, FSP250-60AT	115/230	60/50	0	5Vsb	2.0/ 1.6/1.0	229.1 186.2 89.1 6.29 17.88 16.1	3	950	20B	0	1
				5.96	58						
				12.9	19						
				3.68	35						
				5.09	138						
				12.34	1.5						
				5.1	3.3						
FSP150-60PFN(PAXX) 100-240	50/60	0	3.38	31.6	76 185 214 47.7 7.1 24.5	3	950	20B	2	1	
				5.3							46.8
				12.17							20.5
				-11.6							8.4
				-5.03							1.77
				+5.12Vsb							5.2
				+5R							8R
FSP060-3S01XX	100-240	50/60	0	+12R	3.5R	(e)	3	950	20B	0	1
				-12R	1R						
				+12	21						
FSP200-60SPV, FSP200-60SPV(PF)	115/230	60/50	0	+12	21	120	3	950	20B	2	0
FSP250-60XYZ	100-240	50/60	0	+3.4	38.4	98 120 132 22 6 15.8	3	950	20B	2,6	1
				+5.0	29.6						
				+12.3	19.6						
				-12.0	2.0						
				-5.1	1.4						
				+5.0 Vsb	4.7						
				+3.3	46.4						
FSP300-60XYZ	100-240	50/60	0	+5.0	35.7	113 134 180 23 5.2	3	950	20B	2,6	1
				+12.4	16.5						
				-12.1	1.95						
				-5.2	1.2						
				+5.1 Vsb	4.4						
FSP350-60XYZ	100-240	50/60	0	+3.3	51.0	110 176	3	950	20B	2,6	1
				+5.0	50.4						

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
				+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	950	20B	0	1
FSP007-1P002AXX	100-240	50-60	0	3.3	4.27	13.93	3	950	20B	0	1
FSP007-1P002AXX	100-240	50-60	0	5.0	5.6	25.0	3	60950	20B	2,6	1
				12.0	3.6	34.0					
FSP180-60AV	115/230	60/50	0	+5R	16R	Max	3	950	20B	0	1
FSP180-60AV(PF)				+12R	10R	180W					
				+3.3R	16.7R						
				-5R	0.2R						
				-12R	0.3R						
				+5VsbR	2R						
				+12VsbR	1R						
FSP200-50PSXX	115/230	60/50	0	5.15	26.5	120	3	950	20B	2,6	1
				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	950	20B	0	1
FSP200-60ATV(PF)				+5R	21R	200W					
				+12R	10R						
				-5R	0.3R						
				-12R	0.5R						
				+5VsbR	2.0R						
FSP060-2P06XX,	100-240	50/60	0	14.9	4.1	49	3	950	20B	2	1
where X can be any alphanumeric character or blank				15.9	4.1	48.8					
FSP200-50SNV	115/230	60/50	0	+3.3R	16.7	Max	3	60950	20B	0	1
				+5R	16	200W					
				+12R	10	—					
				-12R	0.5	—					
				-5R	0.3	—					
				+5VsbR	2	—					
FSP150-50SNV	115/230	60/50	0	+3.3R	12	Max	3	60950	20B	0	1
				+5R	10	150W					
				+12R	4	—					
				-12R	0.3	—					
				-5R	0.2	—					
				+5VsbR	2	—					
MPS1083-000	100-240	50-60	0	-51.0	4.6	72.3	3	950	20B	2	2
FSP550-60PLNXX	100-240	50-60	0	+3.2	34.0	88	3	950	20B	2	1
				+4.9 V	36.0	146					
				+12 V	24.0	262					
				12.1 V	23.5	273					
				-12.3 V	1.1	14					
				-5.1 V	1.4	6.4					
				+4.97 V	4.2	13.9					
				sb							
FSP550-60PLGXX	100-240	50-60	0	+3.2	34.0	88	3	950	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	4.2	13.9					
				sb							
FSP250-60PNA(PF)	115/230	60/50	0	5.3	43	168	3	950	20B	0	1
				12.67	19	198					

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
				3.36	73	147					
				-12.94	7.2	58					
				5.12	3.5	16					
				14.1	8.3	15					
FSP250-60MDN-120US,10-120 FSP250-60MDN-120US(1)	50-60	60	0	3.49	69	159	3	950	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						
				+5VsbR	2R						
*FSP150-60DL(48V)	36-72	—	6	+3.3R	10R	Max	3	60950	20B	0	0
				+5R	14R	150 W					
				+12R	4.2R						
				-12R	0.3R						
				-5R	0.3R						

Model No.	Rated Input		SC	Output			OC	SP	EP	FC	GC
	V	Hz		Max V	Max A	Max VA					
*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	950	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	950	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	950	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).
 @ - Indicates optional AC outlet 115/230 47-63 0 115/230 2/1(rated) 0 1950 20B 5 1.
 R - Rated values.

Marking: Company name (trade-mark or symbol), model designation and Recognized Component Mark for Canada 

See General Information Preceding These Recognitions

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