

# 1351 Parts List

**Section Content:** This section provides a listing of recommended spare parts for each Drive size. Since design improvements are made periodically, the part number should be compared to the installed equipment.

**IMPORTANT:** The recommended spare parts lists only include standard components. Any optional devices must be added separately.

## Transistor Replacement

When replacing transistors, care should be taken that all devices in a leg are replaced. Therefore, all transistor part numbers include two (2) transistors.

**IMPORTANT:** Transistor modules must always be replaced in pairs and have identical EFE codes within each leg.

Use Pentrox A or GE Silicon Tube #G3226 or equivalent when mounting Power Semiconductor Devices.

## Part Lists by KVA

### 100 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133967		Fuse 1-3F, 160A, 660V	3	3
133966		Fuse, 6A, 600V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Driver PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
132617		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132621		Main Transistor *	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	6	
505857		Cap., .22uF, C21-C23	6	

\* When replacing main transistors, all devices in a leg should be replaced;  
 Part number includes two transistors.

## 125 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133967		Fuse 1-3F, 160A, 660V	3	3
133966		Fuse, 6A, 600V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Driver PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
132617		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132621 *		Main Transistor*	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	6	
505857		Cap., .22uF, C21-C23	6	

## 150 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133968		Fuse 1-3F, 200A, 660V	3	3
133966		Fuse 6A, 600V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Driver PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
131953		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132621*		Main Transistor *	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	6	
505857		Cap., .22uF, C21-C23	6	

## 200 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133969		Fuse 1 -3F, 250A, 660V	3	3
133966		Fuse 60A, 600V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Driver PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
131953		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132622*		Main Transistor*	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	8	
505857		Cap., .22uF, C21-C23	6	

## 250 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133970		Fuse 315A, 660V	3	3
133966		Fuse 60A, 600V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Driver PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
139329	SAPC 32 CUR	Current Supervision PCB	1	1
132618		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132623*		Main Transistor *	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	10	
505857		Cap., .22uF, C21-C23	9	

## 300 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133971		Fuse 1-3F, 400A, 660V	3	3
133966		Fuse 6A, 660V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Driver PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
139329	SAPC 32 CUR	Current Supervision PCB	1	1
132618		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132624*		Main Transistor*	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	12	
505857		Cap., .22uF, C21-C23	12	

### 320 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133972		Fuse 1-3F, 450A, 660V	3	3
133966		Fuse 6A, 600V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Drive PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
139329	SAPC 32 CUR	Current Supervision PCB	1	1
132618		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132624*		Main Transistor*	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	14	
505857		Cap., .22uF, C21-C23	14	

### 350 kVA

PART NO.	DESIG.	DESCRIPTION	QTY. USED	RCMD. SPARES
133972		Fuse 1-3F, 450A, 660V	3	3
133966		Fuse 6A, 660V	1	2
101690		Fuse, 10A, 250V, FRN	1	2
101719		Fuse, 6-1/4A, 600V, FRS	2	2
134338	SAPC 30 CON	Inverter Control PCB, A2	1	1
134339	SNAT 03	Program and Interface PCB, A3	1	1
501565	SAFT 110 POW	Power Supply PCB, A1	1	1
134341	SAPC 35 PAC	Pulse Amplifier PCB, A5	1	1
134342	SAPC 38 RCC	Snubber PCB ,A8	1	1
134343	SAPC 37 ADC	Auxiliary Driver PCB	3	1
134344	SAPC 33 IBC	Input Bridge Control PCB, A4	1	1
139329	SAPC 32 CUR	Current Supervision PCB	1	1
132618		Thyristor/Diode	3	1
131954		Driver Transistor	6	2
132624*		Main Transistor*	6	2
505859		Bus Caps, 3300uF C2.1-C3.3	14	
505857		Cap., .22uF, C21-C23	14	

\* When replacing main transistors, all devices in a leg should be replaced;  
Part number includes two transistors.



## FUSES

Part Number	Description	KVA where Used							
		100	125	150	200	250	300	320	350
133967	Input Fuse, 160A, 660V	X	X						
133968	Input Fuse, 200A, 660V			X					
133969	Input Fuse, 250A, 660V				X				
133970	Input Fuse, 315A, 660V					X			
133971	Input Fuse, 400A, 660V						X		
133972	Input Fuse, 450A, 660V							X	X
101690	Fuse, 10A, 250V, FRN	X	X	X	X	X	X	X	X
101719	Fuse 6-1/4A, 600V, FRS	X	X	X	X	X	X	X	X
101760	Fuse, 2A, 500V, FNQ	X	X	X	X				
101643	Fuse, 6A, 250V, NON	X	X	X	X				
133966	Fuse, 6A, 600V	X	X	X	X	X	X	X	X
501663	Fuse, 1A, Glass, 1200V	X	X	X	X	X	X	X	X
501109	Fuse, 1A, Glass, 250V	X	X	X	X	X	X	X	X
501102	Fuse, 4A, Glass, 250V	X	X	X	X	X	X	X	X

## CIRCUIT BOARDS

Part Number	Description	KVA where Used							
		100	125	150	200	250	300	320	350
134338	Inverter Control PCB, A2	X	X	X	X	X	X	X	X
134339	Program and Interface PCB, A3	X	X	X	X	X	X	X	X
501565	Power Supply PCB, A1	X	X	X	X	X	X	X	X
134341	Pulse Amplifier PCB, A5	X	X	X	X	X	X	X	X
134342	Snubber PCB, A8	X	X	X	X	X	X	X	X
134343	Auxiliary Drive PCB	X	X	X	X	X	X	X	X
134344	Input Bridge PCB, A4	X	X	X	X	X	X	X	X
134345	I/O Expander PCB (Option)	X	X	X	X	X	X	X	X
134346	PI Control PCB (Option)	X	X	X	X	X	X	X	X
139329	Current Supervision PCB					X	X	X	X

## Semiconductors

Part Number	Description	KVA where Used							
		100	125	150	200	250	300	320	350
132617	Thyristor/Diode	X	X						
131953	Thyristor/Diode			X	X				
132618	Thyristor/Diode					X	X	X	X
131954	Driver Transistor	X	X	X	X	X	X	X	X
132621	(2) Main Transistors	X	X	X					
132622	(2) Main Transistors				X				
132623	(2) Main Transistors					X			
132624	(2) Main Transistors						X	X	X

## Overload Relays

Part Number	Description	KVA where Used							
		100	125	150	200	250	300	320	350
125148	Overload Relay, 592-TPD200	X	X	X					
125150	Overload Relay, 592-TPD400				X	X	X	X	X
113963	Overload Relay, 592-EOV16	X							
132484	Lug Kit #6-4/0	X	X	X					
132486	Lug Kit (2) 1/0-350 mcm				X	X	X	X	X

## Contactors and Starters

Part Number	Description	KVA where Used							
		100	125	150	200	250	300	320	350
120485	AC Contactor, 180A	X	X	X					
122487	AC Contactor, 250A				X	X			
122486	AC Contactor, 400A						X	X	X
118322	AC Contactor, 110A	X	X						
503959	AC Contactor, 300A					X			
120486	Aux Contact NO/NC	X	X	X	X	X	X	X	X
125498	Aux Contact 2-NO	X	X	X	X	X	X	X	X

## Circuit Breakers (MCPs)

Part Number	Description	KVA where Used							
		100	125	150	200	250	300	320	350
122811	250 Amp MCP	X	X	X					
125049	400 Amp MCP				X	X			
104600	600 Amp MCP						X	X	X
115207	Lugs (4)350 mcm	X	X	X					
120061	Lugs (2) 310-250 mcm				X	X			
104601	Lugs (2) 250 mcm-500 mcm						X	X	X
131162	Operator Mechanism	X	X	X					
120056	Operator Mechanism				X	X			
101867	Operator Mechanism						X	X	X
120047	Operator Handle	X	X	X	X	X	X	X	X
124964	Operator Rod	X	X	X	X	X	X	X	X

## Miscellaneous

Part Number	Description	KVA where Used							
		100	125	150	200	250	300	320	350
100843	750 VA Transformer	X	X	X	X	X	X	X	X
100842	500 VA Transformer	X	X	X	X				
101059	Surge Suppressor, Disc	X	X	X	X	X	X	X	X
116418	Surge Suppressor, Bulletin 199	X	X	X	X	X	X	X	X
115619	Surge Suppressor, hybrid	X	X	X	X	X	X	X	X
130348	4-Pole Relay DT	X	X	X	X	X	X	X	X
117222	4-Pole Relay 2NO, 2NC	X	X	X	X	X	X	X	X
116879	Timer Relay	X	X	X	X	X	X	X	X
117221	4-Pole Relay 4NO	X	X	X	X	X	X	X	X
130844	Relay Socket	X	X	X	X	X	X	X	X
132636	Locking Handle	X	X	X	X	X	X	X	X
105289	Door Latch	X	X	X	X	X	X	X	X
132480	Filter	X	X	X	X	X	X	X	X
133936	Instruction Manual	X	X	X	X	X	X	X	X
501592	Current Transducer SAFW-2500					X	X	X	X

## MISCELLANEOUS SPARE PARTS

<b>PART #</b>	<b>DESCRIPTION</b>	<b>DESIGNATION</b>
505847	Choke, 420uH	(L1) 100-125 kva
505848	Choke, 350uH	(L1) 150 kva
505849	Choke, 290uH	(L1) 200 kva
505850	Choke, 200uH	(L1) 250-300 kva
505851	Choke, 130uH	(L1) 350 kva
505852	Diode, SKN 60F15	V21-V23 100-200 kva
505853	Diode, SKN 141F17	V21-V23 250-350 kva
505854	Diode, SKR 60F15	V24-V26 100-200 kva
505855	Diode, SKR 141F17	V24-V26 250-350 kva
505856	Diode, Power	V41-V46
503560	Cap., 18uF	C10
104799	Cap., 10uF	C9
503549	Cap., 2.2uF	C11-C16
505857	Cap., .22uF	C21-C23
505858	Cap., 1uF	C31-C33
137896	Cap., .33uF	200 kva
137895	Cap., .47uF	C51-C53
505859	Cap., 3300uF	C2.1-C3.3 Bus Caps
505860	Breaker, 2A	F3
505861	Fan, 220V, 1.8A	(M1) 125-200 kva
505862	Fan, 220V, 2.0A	(M1) 250-350 kva
505863	Resistor, .47 ohm	R1.1-R1.2 100-150 kva
505864	Resistor, 1.1 ohm	R1.1-R1.4 200-300 kva
505865	Resistor, 2.2 ohm	R1.1-R1.6 350 kva
505866	Resistor, 1.2k ohm	R2-R3
505867	Transformer, 500VA	T1
505868	Thermistor, 330 ohm	F10