



1350 Parts List

30 & 50 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
A	104874	Main fuses-150A Fast Acting	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104732	SAMT 4/750 Current Transducer *	1
K	104722	Diode (Puck Type) ** (Freewheeling)	3
L	104723	Diode (Puck Type) ** (Rectifier)	3
M	104729	Thyristor (Puck Type) ** (Main)	3
N	502533	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	501937	Fan Assembly	1

50 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
A	104982	Main fuses-80A Fast Acting	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104732	SAMT 4/750 Current Transducer *	1
K	104722	Diode (Puck Type) ** (Freewheeling)	3
L	104723	Diode (Puck Type) ** (Rectifier)	3
M	104729	Thyristor (Puck Type) ** (Main)	3
N	502533	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	501937	Fan Assembly	1

Items on this list are recommended as spare stock to provide materials for use in fault finding and repair.

* Items are only necessary if customer desires a more complete stock of spare components.

** Puck Type diodes and Thyristors require use of a Force Measuring Indicator for correct mounting force when replacing them. Improper mounting force can damage these devices and cause repeated failures.



66 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
A	104981	Main fuses-125A Fast Acting	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104732	SAMT 4/750 Current Transducer *	1
K	104722	Diode (Puck Type) ** (Freewheeling)	3
L	104723	Diode (Puck Type) ** (Rectifier)	3
M	104729	Thyristor (Puck Type) ** (Main)	3
N	502533	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	501937	Fan Assembly	1

83 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
A	104981	Main fuses-125A Fast Acting	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104732	SAMT 4/750 Current Transducer *	1
K	104722	Diode (Puck Type) ** (Freewheeling)	3
L	104723	Diode (Puck Type) ** (Rectifier)	3
M	104729	Thyristor (Puck Type) ** (Main)	3
N	502533	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	501937	Fan Assembly	1

Items on this list are recommended as spare stock to provide materials for use in fault finding and repair.

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100 & 130 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
A	104874	Main fuses-150A Fast Acting 100KVA	6
A	104849	Main fuses-200A Fast Acting 130KVA	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104732	SAMT 4/750 Current Transducer *	1
K	104722	Diode (Puck Type) ** (Freewheeling)	3
L	104723	Diode (Puck Type) ** (Rectifier)	3
M	104729	Thyristor (Puck Type) ** (Main)	3
N	502533	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	501937	Fan Assembly	1

160 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
A	104980	Main fuses-250A Fast Acting	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104733	SAMT 4/1500 Current Transducer *1	1
K	104721	Diode (Puck Type) ** (Rectifier)	3
L	104720	Diode (Puck Type) ** (Freewheeling)	3
M	104728	Thyristor (Puck Type) ** (Main)	3
N	104727	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	504354	Fan Assembly	1

Items on this list are recommended as spare stock to provide materials for use in fault finding and repair.

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** Puck Type diodes and Thyristors require use of a Force Measuring Indicator for correct mounting force when replacing them. Improper mounting force can damage these devices and cause repeated failures.



210 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>Qty.</u>
A	104979	Main fuses-350A Fast Acting	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104733	SAMT 4/1500 Current Transducer *	1
K	104721	Diode (Puck Type) ** (Rectifier)	3
L	104720	Diode (Puck Type) ** (Freewheeling)	3
M	104728	Thyristor (Puck Type) ** (Main)	3
N	104727	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	504354	Fan Assembly	1

270 kVA 460 VAC

<u>Item</u>	<u>Part No.</u>	<u>Description</u>	<u>QTY.</u>
A	104978	Main fuses-500A Fast Acting	6
B	104744	SAMC 1 SUP Supervision Card	1
C	104745	SAMC 2 LIM Limiting Reg. Card	1
D	104746	SAMC 4 OSC Oscillator Card	1
E	104747	SAMC 5 PRO Processor Card	1
F	104748	SAMC 6 DRV Driver Card	1
G	104749	SAMC 7 REL Signal Relay Card	1
H	104750	SAMC 11 POW Power Supply Card	1
I	104731	SAMT 1 Pulse Amplifier Card *	1
J	104733	SAMT 4/1500 Current Transducer *	1
K	104721	Diode (Puck Type) ** (Rectifier)	3
L	104720	Diode (Puck Type) ** (Freewheeling)	3
M	104728	Thyristor (Puck Type) ** (Main)	3
N	104727	Thyristor (Puck Type) ** (Auxiliary)	3
O	104845	Relay - U1 K1-K6	2
P		Option Cards *	1 ea.
Q	104832	Force Measuring Indicator	1
R	504354	Fan Assembly	1

Items on this list are recommended as spare stock to provide materials for use in fault finding and repair.

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340 kVA 460 VAC

<u>Item Part No.</u>	<u>Description</u>	<u>QTY.</u>
A 104977	Main fuses-600A Fast Acting	6
B 104744	SAMC 1 SUP Supervision Card	1
C 104745	SAMC 2 LIM Limiting Reg. Card	1
D 104746	SAMC 4 OSC Oscillator Card	1
E 104747	SAMC 5 PRO Processor Card	1
F 104748	SAMC 6 DRV Driver Card	1
G 104749	SAMC 7 REL Signal Relay Card	1
H 104750	SAMC 11 POW Power Supply Card	1
I 104731	SAMT 1 Pulse Amplifier Card *	1
J 104734	SAMT 4/3000 Current Transducer *	1
K 104721	Diode (Puck Type) ** (Rectifier)	3
L 104719	Diode (Puck Type) ** (Freewheeling)	3
M 104726	Thyristor (Puck Type) ** (Main)	3
N 104781	Thyristor (Puck Type) ** (Auxiliary)	3
O 104845	Relay - U1 K1-K6	2
P	Option Cards *	1 ea.
Q 104832	Force Measuring Indicator	1
R 504354	Fan Assembly	1

420 kVA 460 VAC

<u>Item Part No.</u>	<u>Description</u>	<u>QTY.</u>
A 104977	Main fuses	6
B 104744	SAMC 1 SUP Supervision Card	1
C 104745	SAMC 2 LIM Limiting Reg. Card	1
D 104746	SAMC 4 OSC Oscillator Card	1
E 104747	SAMC 5 PRO Processor Card	1
F 104748	SAMC 6 DRV Driver Card	1
G 104749	SAMC 7 REL Signal Relay Card	1
H 104750	SAMC 11 POW Power Supply Card	1
I 104731	SAMT 1 Pulse Amplifier Card *	1
J 104734	SAMT 4/3000 Current Transducer *	1
K 104735	SAMT 5 Relay Connection Card	1
L 501582	Terminal Block Card	1
M 104721	Diode (Puck Type) ** (Rectifier)	3
N 104719	Diode (Puck Type) ** (Freewheeling)	3
O 104726	Thyristor (Puck Type) ** (Main)	3
P 104781	Thyristor (Puck Type) ** (Auxiliary)	3
Q 104845	Relay - U1 K1-K6	2
R	Option Cards *	1 ea.
S 104832	Force Measuring Indicator	1
T 504354	Fan Assembly	1

Items on this list are recommended as spare stock to provide materials for use in fault finding and repair.

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** Puck Type diodes and Thyristors require use of a Force Measuring Indicator for correct mounting force when replacing them. Improper mounting force can damage these devices and cause repeated failures.



CIRCUIT BOARDS AND ELECTRONIC ASSEMBLIES

<u>PART #</u>	<u>DESCRIPTION</u>	<u>PART #</u>	<u>DESCRIPTION</u>
104731	SAMT 1 Pulse Amplifier Card	107389	SAMC 42 PCR Pulse Control Reference Card
104732	SAMT 4/750 Current Transducer	107390	SAMC 44 TRC Torque Control Regulator Card
104733	SAMT 4/1500 Current Transducer	107391	SAMT 2 Active R-C Snubber for Mod. IV
104734	SAMT 4/3000 Current Transducer	107392	SAMT 11 BG & BG Pulse Amplifier Card
104735	SAMT 5 Connection Unit (U1)	107393	SAMT 22 TMC D.C. Tach Matching Card
104736	SAMT 10 R-C Snubber Supervision Card	107394	SAMT 23 FCL Ribbon Cable Extension Card
104737	SAMT 14 MES Measuring Card	107395	SAMT 24 MTP Indicating Card (SAMC 31 MTP)
104738	SAMT 21 TBC Terminal Block Card	107396	SAMT 26 BGI BG E-Stop Connection Unit
104739	Simulator Dummy Connection Card	107397	SAMP 1 SUP Parallel Supervision Card
104740	SAMU Control Unit Rack A2.7	107398	SAMP 2 ARC Parallel Active R-C Snubber
104741	A2-A2 Current Measuring Assembly	107399	SAMP 3 DRV Parallel Driver Card
104742	A2-A1 Voltage Measuring Assembly	107400	SAMP 4 BUF Parallel Buffer Card
104744	SAMC 1 SUP Supervision Card	107401	SAMX 1 BUS Extension Rack w/Bus Card
104745	SAMC 2 LIM Limiting Regulator Card	108569	SAMC 15 TBQ Thyristor Bridge Control (BQ)
104746	SAMC 4 OSC Oscillator Card	108574	SAMC 15 TBG Thyristor Bridge Control (BG)
104747	SAMC 5 PRO Processor Card	108773	Shorting Jumper for Circuit Cards
104748	SAMC 6 DRV Driver Card	110972	SAMC 19 INF Thyristor Bridge Interfact
104749	SAMC 7 REL Signal Relay Card	111184	SAMX 2 Bus Extension Rack for BG & BQ
104750	SAMC 11 POW Power Supply Card	111185	SAMC 43 DAN Digital Analyzer Card
104751	SAMC 12 MOB Mother Board	111186	SAMC 47 LSV Load Supervision Card
104752	SAMC 13 MOB Mother Board	112587	SAMC 46 SPS Running Start Card
104753	SAMC 14 INF TBC Interface Card		
104754	SAMC 15 TBC Thyristor Bridge		
104755	SAMC 21 INP Input Card		
104756	SAMC 22 OUT Output Card 2 Channel		
104757	SAMC 23 TAL Torque and Accel. Limit Card		
104758	SAMC 24 CON Control Card		
104759	SAMC 25 TMX Torque Maximizing Card		
104760	SAMC 26 SAV Speed Actual Card		
104761	SAMC 27 STP Stall Protection Card		
104762	SAMC 28 PTM Power & Torque Measuring Card		
104763	SAMC 30 MLT Multiplier Card		
104764	SAMC 31 MTP Motor Thermal Protection Card		
104765	SAMC 32 CMP Comparator Card		
104767	SAMC 34 OUT Output Card 1 Channel		
104768	SAMC 35 INP Input Card		
104769	SAMC 36 LIC Limiter Card		
104770	SAMC 37 BUS Bus Card		
104771	SAME 1 Ground Fault Protection		
104772	SAME 2 Ground Fault Protection		
104773	SAME 3 Ground Fault Protection		
104880	Extension Card 64 Channel Single Level		
104815	Extension Card 64 Channel Bi-Level		
104988	SAMT 25 EFS Ground Fault Sensing Card		
107383	SAMC 17 BQS BQ Stabilization Card		
107384	SAMC 16 BGS BG Stabilization Card		
107385	SAMC 38 RVI Reference Value Integrator		
107386	SAMC 39 SCC Speed Regulator Card		
107387	SAMC 40 SYN Synchronous Transfer Signal Card		
107388	SAMC 41 SYN Synchronous Transfer Interface		

R-C SNUBBER ASSEMBLIES AND COMPONENTS

<u>PART #</u>	<u>DESCRIPTION</u>
104833	SAMRB 60B500 R-C Snubber Assembly (SAMI 50B460)
104834	SAMRB 80B500 R-C Snubber Assembly (SAMI 66B460)
104835	SAMRB 100B500 R-C Snubber Assembly (SAMI 83B460)
104836	SAMRB 120B500 R-C Snubber Assembly (SAMI 100B460)
104837	SAMRB 160B500 R-C Snubber Assembly (SAMI 130B460)
104838	SAMRB 200B500 R-C Snubber Assembly (SAMI 160B460)
104839	SAMRB 260B500 R-C Snubber Assembly (SAMI 210B460)
104840	SAMRB 420B500 R-C Snubber Assembly (SAMI 340B460)
104842	SAMRB 520B500 R-C Snubber Assembly (SAMI 420B460)

RESISTORS

<u>PART #</u>	<u>DESCRIPTION</u>
104821	Resistor 2.2 ohm 100 watts
104822	Resistor 12 ohm 100 watts
104823	Resistor 18 ohm 55 watts
104824	Resistor 18 ohm 100 watts
104825	Resistor 27 ohm 100 watts
104826	Resistor 100 ohm 100 watts
104827	Resistor 10K ohm 100 watts
104828	Resistor 18K ohm 100 watts
104829	Resistor 27K ohm 55 watts
104830	Resistor 27K ohm 100 watts
104831	Resistor 47K ohm 55 watts



CAPACITORS

PART #	DESCRIPTION
104798	Capacitor .1 uF 1000 volts
104799	Capacitor 10 uF 660 volts
104800	Capacitor 4.7 uF 800 volts
104801	Capacitor 15 uF 800 volts
104802	Capacitor 470 uF 750 volts
104803	Capacitor 1500 uF 750 volts
104804	Capacitor 2500 uF 750 volts
104816	Capacitor .22 uF 1000 volts
104817	Capacitor .33 uF 1000 volts
104818	Capacitor .47 uF 1000 volts
104819	Capacitor .68 uF 1000 volts
104820	Capacitor 6 uF 400 volts

THYRISTORS

104725	Thyristor, Rectifier 340-510 kVA
104726	Thyristor, Main 340-510 kVA
104727	Thyristor, Auxiliary 160-270 kVA
104728	Thyristor, Main 160-270 kVA
104729	Thyristor, Main 50-130 kVA
111187	Thyristor, Input Regen 50-270 kVA
111188	Thyristor, Input Regen BG, BQ 340-510 kVA
502533	Thyristor, Auxiliary 50-130 kVA
200723	Thyristor, Auxiliary 340 kVA

MAIN D.C. REACTORS

105347	Choke 1.6 uH, 50 kVA
105346	Choke 1.2 uH, 66 kVA
105345	Choke 1.2 uH, 83 kVA
105344	Choke, .8 uH, 100 kVA
105343	Choke, .6 uH, 130 kVA
105342	Choke, .5 uH, 160 kVA
105340	Choke, .35 uH, 210 kVA
105338	Choke, .3 uH, 270 kVA
105336	Choke, .25 uH, 340 kVA
105334	Choke, .17 uH, 420 kVA

DIODES

104719	Diode, Freewheeling 340-510 kVA
104720	Diode, Freewheeling 160-270 kVA
104721	Diode, Input 160-270 kVA
104722	Diode, Freewheeling 50-130 kVA
104723	Diode, Input 50-130 kVA
104724	Diode, Auxiliary (Stud)

FUSES/CIRCUIT BREAKERS

PART #	DESCRIPTION
104130	Circuit Breaker 3A, 250 Volts
104131	Circuit Breaker 5A, 250 Volts
101760	Fuse, FNQ 2A, 600 volts
104984	Fuse, 35A, 500 volts
104983	Fuse, 70A, 500 volts
104982	Fuse 80A, 500 volts
104981	Fuse 125A, 600 volts (66 & 83 kVA)
104874	Fuse, 150A, 500 volts (100 kVA)
104849	Fuse, 200A, 500 volts (130 kVA)
104980	Fuse, 250A, 500 volts (160 kVA)
104979	Fuse, 350A, 500 volts (210 kVA)
104978	Fuse, 500A, 500 volts (270 kVA)
104977	Fuse, 600A, 500 volts (340 kVA)

MISCELLANEOUS COMPONENTS

104845	U1/K1-K6 relays
104743	A2.3 F1-F2 Temperature Sensor
104832	SLZF Mounting Force Indicator
105463	K1, K2 Relay 240V coil
105483	K3 contactor
101316	HR1 Overload Relay
100851	T1 Transformer
104846	Frequency Meter 0-100 Hz Scale
104847	Load Meter 0-100% Scale
101060	Surge Suppressor 230 Volts
100209	Resistor/Pre-Charge R1-R4 100 ohm, 100 watt
105298	1 SOL Door Interlock

INVERTER UNITS

105241	SAMU 50B460 (50 kVA)
105242	SAMU 66B460 (66 kVA)
105243	SAMU 83B460 (83 kVA)
105244	SAMU 100B460 (100 kVA)
105245	SAMU 130B460 (130 kVA)
105246	SAMU 160B460 (160 kVA)
105247	SAMU 210B460 (210 kVA)
105248	SAMU 270B460 (270 kVA)
105249	SAMU 340B460 (340 kVA)
105250	SAMU 420B460 (420 kVA)

FANS

501937	Fan Assembly (50 - 130 kVA)
504354	Fan Assembly (160 - 420 kVA)