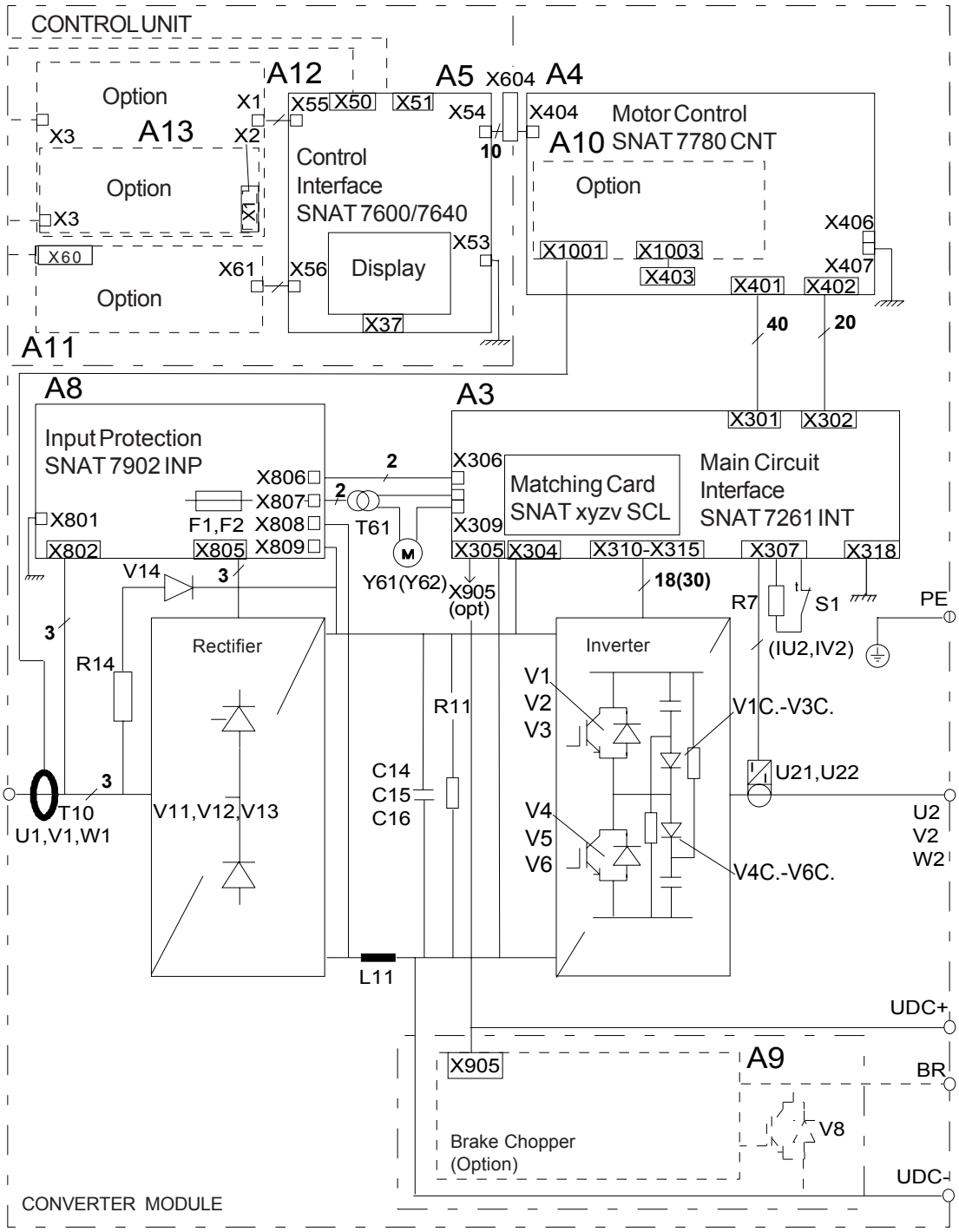


Figure 3-2. Block diagram of the Converter Module and the Control Unit (see tables 3-3 and 3-4).

Table 3-3. Part list of the Converter Module.

Part code	Description
R14, V14	Charging circuit
V11, V12, V13	Rectifier bridge
A8	Input Protection Card SNAT 7902 INP (SNAT 7903 INP for 600 V units). This card contains gate trigger circuits for the rectifier thyristors together with capacitors and varistors to protect the bridge as well as the fuses to protect the fan.
L11, C14.1... C16.N, R11	DC-filter choke and capacitors, discharge resistors (AC choke on line side in 600 V units)
V1 ... V6	Inverter insulated gate bipolar transistors (IGBT).
V1C. ... V6C	Clamp diodes.
A3	Main Circuit Interface Card SNAT 7261 INT (SNAT 7266 INT for 600 V units). This card contains mainly the power supply, transistor gate trigger circuits, DC-voltage and motor current measurement circuits.
A4	Motor Control Card SNAT 7780 CNT.
A7	Matching Card SNAT xyzv SCL. A small card on top of SNAT 7261 INT containing the power range programming information for that particular SAMI hardware. (SNAT xyzv SCL, where xyz = kVA rating and v = 3 in 400 V units, v = 5 in 500 V units and v = 6 in 600 V units.)
U21, U22	Current transducers
Y61, (Y62)	Cooling fan(s) and associated transformer T61. **Note!** The transformer connection has to be made according to the actual supply voltage.
R7	The temperature of the heatsink is measured by means of R7. A thermostat (S1) is in series with it providing thermal protection for those components that are not covered by R7.
(V8, A9)	Optional braking chopper: consisting of a transistor and its control card SNAT 7800 BRC. The braking resistor is mounted outside the module. In MD cubicle versions it is mounted in the adjoining cubicle. For ratings of the braking chopper and resistor, see Section 12 - Options.
(A10, T10)	Optional Earth Fault Protection SNAT 7670 EFS with current transformer at the line side (T10). For settings, see Section 12 - Options.

10.6 Service

Key to the serial numbers on the SAMI GS

There are name plates on various parts of the SAMI GS. In addition to the type and code of the part or unit in question, these plates have the serial number printed on them. When servicing a unit, it may be needed to decode the information given by the name plates.

Serial number of the SAMI (or Converter Module or Control Unit)

Example: SER NO: 2110003

2	1992
11	week 11
0003	third unit tested on that week

Serial number of Control Interface Card

Example: NO: 7600ABC2110093

7600	SNAT 7600
A	component/schematic revision
B	printed circuit card revision
C	software revision
2	1992
11	week 11
0093	93rd SNAT 7600 tested on that week

Name plates of other cards

Example: TYPE: SNAT 7261 ABC SER NO: 2110006

SNAT 7261	SNAT 7261 INT
A	part list revision
B	printed circuit card revision
C	schematic revision
2	1992
11	week 11
0006	6th SNAT 7261 INT tested on that week

Components in Converter Modules (380 V and 500 V units)

Order code	Item	ACS 50X-051-3	ACS 50X-061-3	ACS 50X-071-3	ACS 50X-100-3	ACS 50X-120-3	ACS 50X-140-3	ACS 50X-170-3	ACS 50X-210-3	ACS 50X-260-3	ACS 50X-061-5	ACS 50X-071-5	ACS 50X-100-5	ACS 50X-120-5	ACS 50X-140-5	ACS 50X-170-5	ACS 50X-210-5	ACS 50X-260-5	ACS 50X-320-5
58424048	Fan fuses (2 in a kit) A8:F1, F2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
58424064	Main Circuit Int. Card SNAT7261	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5842xxxx	Matching Card SNAT xyzv (one per unit)	4366	4374	4382	4391	4404	4412	4421	4439	4447	4455	4463	4471	4480	4498	4501	4510	4528	4536
58424081	Input Protection Card SNAT 7901*)	1	1	1	1	1	1	1	1	1									
58424099	Input Protection Card SNAT 7902	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
61027319	Cont. Interf. Card SNAT 7600/7640	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
61027289	Motor Control Card SNAT 7780	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
58424102	Current transducer (1 piece) U21..	2	2	2	2	2					2	2	2	2	2				
58424111	Current transducer (1 piece) U21..						2	2								2	2		
58424129	Current transducer (1 piece) U21..								2	2								2	2
58424137	Converter Module fan(s) Y61 (Y62)	1	2	2							1	2	2						
58424145	Converter Module fan(s) Y61 (Y62)				1	1								1	1				
58424153	Converter Module fan Y61						1	1								1	1		
58424161	Converter Module fan Y61								1	1								1	1
58424170	Charging resistor (1 piece) R14	1	1	1	1	1	1	2	2	2	1	1	1	1	1	2	2	2	3
58424234	Rectifier Module (1 ph. kit) V11..	3									3								
58424242	Rectifier Module (1 ph. kit) V11..		3	3								3	3						
58424251	Rectifier Module (1 ph. kit) V11..				3									3					
58424269	Rectifier Module (1 ph. kit) V11..					3	3								3	3			
58424277	Rectifier Module (1 ph. kit) V11..							3	3	3							3	3	3
58424285	IGBT (1-phase kit incl. gate components) V1..	3	3								3	3							
58424293	IGBT (1-phase kit incl. gate components) V1..			3			6	6					3			6	6		
58424307	IGBT (1-phase kit incl. gate components) V1..				3	3			6					3	3			6	
58424315	IGBT (1-phase kit incl. gate components) V1..									6									6
58424323	Clamping diode(s) kit V1C. ..V6C.	1.5	1.5	1.5	1.5	1.5	3	3	3	3	1.5	1.5	1.5	1.5	1.5	3	3	3	3
58424331	DC-capacitors (2 / kit) C14..	2	2																
58424340	DC-capacitors (2 / kit) C14..			2	3	3	3	4	5	6									
58424358	DC-capacitors (3 / kit) C14..										1	2	2	2	2	3	3	4	5

*) Instead of SNAT 7902; only relevant to SAMIs manufactured before December 1992 (see serial number) and having 1400 V rectifier modules.