

ATARI®

MEGAFILE 30
MEGAFILE 60

SERVICE MANUAL

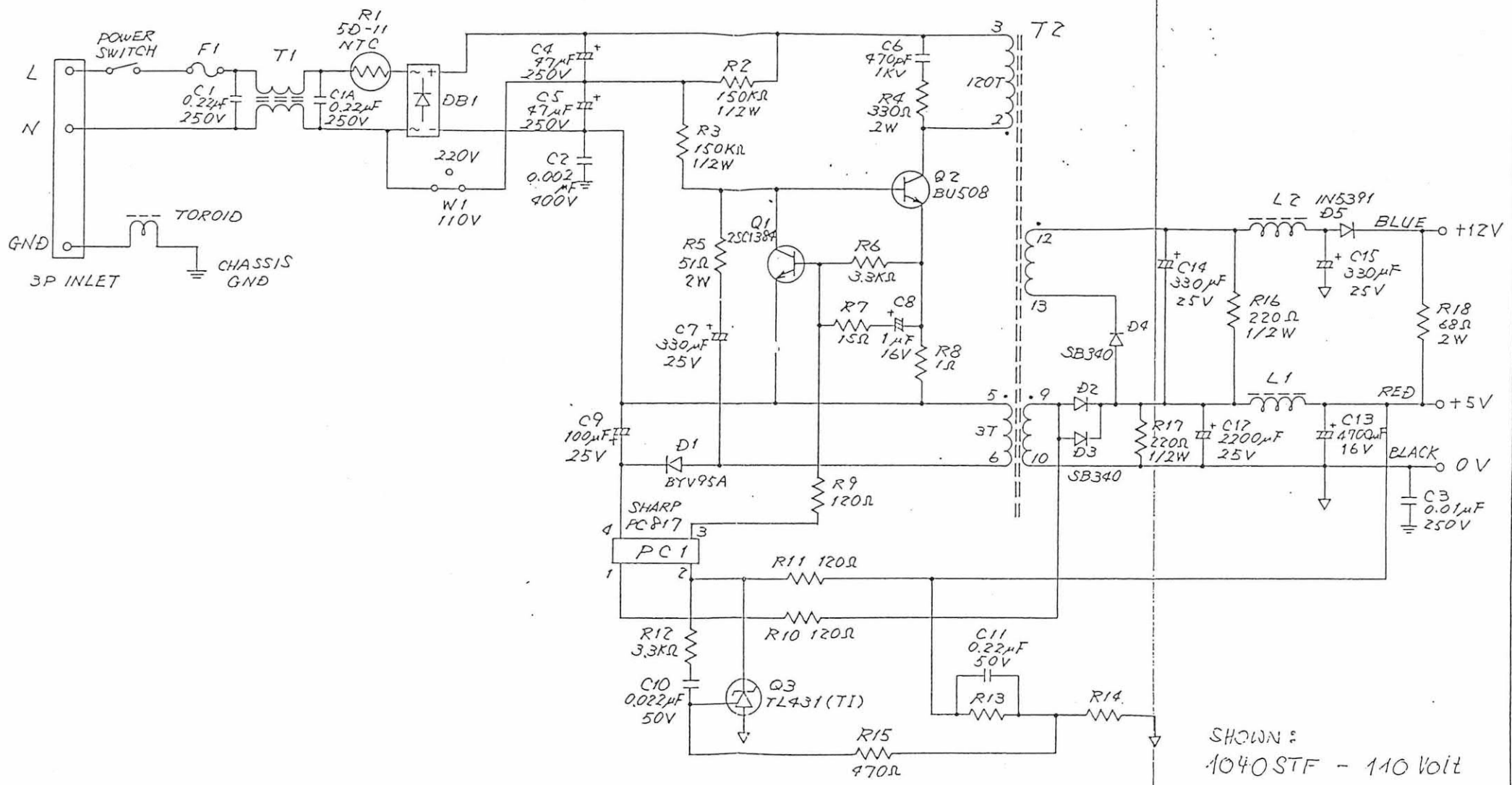
Schaltungsdienst Lange

Circuit-Diagram-Service in Germany

D-1000 Berlin 47

N7

REV	REVISIONS DESCRIPTION	DATE	APPROVED
A	PRODUCTION RELEASE	7/20/87	<i>Globe</i>



SHOWN :
1040STF - 110 Volt

TOLERANCES UNDER 30 ±0.1 30 THRU 300 ±0.2 OVER 300 ±0.4	USED ON	DRAWN BY	DATE	ATARI (JAPAN) CORPORATION Toranomon Kiyoshi Building 3F 4-3-10, Toranomon Minato-ku, Tokyo 105		
	ASP34-1	I. Yoshida	4/23/86			
	NEXT ASSY	CHECKED	DATE			
	MATERIAL	K. Kitagawa	9-18-86			
	FINISH	ENGINEER	DATE	TITLE		
		A. Shinagawa	10-23-86	SCHMATIC DIAGRAM (ASP34-1)		
		APPROVED	DATE	SIZE	DRAWING NO.	REV
		<i>Globe</i>	12/2/86	B	C070798	A
		APPROVED	DATE	SCALE	SHEET 1 OF 1	
				NONE		


NA

ASSY NO.	DESCRIPTION
CA200001 - 001	120V FOR ST (ASP34-1)(ASPF34-1)
- 002	220V FOR ST (ASP34-2)(ASPF34-2)
- 003	120V FOR SH204 (ASP34-3)
- 004	220V FOR SH204 (ASP34-4)
- 005	120V FOR SH205 (ASPF34-3)
CA200001 - 006	220V FOR SH205 (ASPF34-4)

REV.	REVISIONS DESCRIPTION	DATE	APPROVED
A	PRODUCTION RELEASE	7/2/87	[Signature]
B	REVISED PER ECO NO. 00947	7/2/87	[Signature]


NOTES-UNLESS OTHERWISE SPECIFIED :

USED ON ASP34-X ASPF34-X NEXT ASSY CA200000-XXX CA200003-XXX MATERIAL	DRAWN BY H. Kawamura 8-11-86 CHECKED K. Kitagawa 9-4-86 ENGINEER A. Shinagawa 1-21-87 APPROVED J. OKAZAKI 1/21/87 DATE [Signature] 7/1/87	DATE DATE DATE DATE DATE DATE DATE	ATARI (JAPAN) CORPORATION Toranomon Kiyoshi Building 3F 4-3-10, Toranomon Minato-ku, Tokyo 105 TITLE PCB ASSY SIZE DRAWING NO B CA200001-XXX SCALE SHEET 1 OF 7	ATARI REV B
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A/N: CA200001-XXX		REV. 5	TITLE: PCB ASSY	MODEL: ASP34-1/-2/-3/-4 ASPF34-1/-2/-3/-4	 ATARI (JAPAN) CORPORATION Toranomon Kiyoshi Building 3F 4-3-10, Toranomon Minato-ku, Tokyo 105
REV	REVISION DESCRIPTION	DATE	APPROVED	VERSION	
SEE SHEET 1.				STANDARD	
				MARKET	


A/N: CA200001-XXX SHEET 4 OF 7

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. REQUIRED PER VERSION						NOTE
			001	002	003	004	005	006	
97									
98									
99	C070810	PHOTO COUPLER; PCB17 (SHARP)	1	1	1	1			
100		PC1							
101	C070844	PHOTO COUPLER; CNY65		1	1	1			
102		PC1							
103									
104									
105	C070801	INDUCTOR; 1A, OUTPUT FILTER	1	1	1	1	1		
106		L2							
107	C070802	INDUCTOR; 3A, OUTPUT FILTER	1	1	1	1	1		
108		L1							
109									
110	C070803	LINE FILTER;	1	1	1	1	1		
111		T1							
112									
113									
114									
115	C070805	TRANSISTOR; 2SC1384	1	1	1	1	1		
116		Q1							
117	C070806	TRANSISTOR; BU508	1	1	1	1	1		
118		Q2							
119									
120									
121	C070807-001	THERMISTOR NTC; SD-11	1	1	1	1	1		
122		R1							
123	C070807-002	THERMISTOR NTC; NTH11D5R0LA	ALT	ALT	ALT	ALT	ALT		
124		(ALTERNATE FOR ITEM #121)							
125	C070807-003	THERMISTOR NTC;	ALT	ALT	ALT	ALT	ALT		
126		(ALTERNATE FOR ITEM #121)							
127									
128									
129									
130									
131									
132									
133									
134									
135									
136									
137	C070811	RECTIFIER BRIDGE; GI, W08M	1	1	1	1	1		
138		DB1							
139									
140									
141	C070813	SHR; TL431(TL)	1	1	1	1	1		
142		Q3							
143									
144									

AIN: CA200001-XXX		REV. 2	TITLE: PCB ASSY	MODEL: ASP34 - 1/-2/-3/-4 ASPF34 - 1/-2/-3/-4	 ATARI (JAPAN) CORPORATION Toranomon Kiyoshi Building 3F 4-3-10, Toranomon Minato-ku, Tokyo 105
REV	REVISION DESCRIPTION	DATE	APPROVED	VERSION	
SEE SHEET 1.				STANDARD	
				MARKET	

AIN: CA200001-XXX
SHEET 5 of 7

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. REQUIRED PER VERSION						NOTE
			001	002	003	004	005	006	
145	C070814	FUSE CLAMP	2	2	2	2	2	2	
146									
147	C070809-001	SCHOTTKY DIODE; SB340	1	1	1	1	1	1	
148		D2							
149	C070809-002	SCHOTTKY DIODE; SB340	1	1	1	1	1	1	
150		D3							
151	C070809-003	SCHOTTKY DIODE; SB340	1	1	1	1	1	1	
152		D4							
153	C070808	SCHOTTKY DIODE; BYV95A	1	1	1	1	1	1	
154		D1							
155	C017988	DIODE; 1N5391	1	1	-	-	-	-	
156		D5							
157									
158									
159	C070804-001	TRANSFORMER EI-33, UL, CSA	1	-	1	-	1	-	
160		T2							
161	C070804-002	TRANSFORMER	-	1	-	1	-	1	
162		T2							
163									
164									
165									
166									
167	C070819	HEAT SINK, TR	1	1	1	1	1	1	
168									
169									
170	C070845	HEAT SINK, DIODE	1	1	1	1	1	1	
171									
172									
173									
174									
175									
176	C070822	DC O/P PLUG ASSY, 6 WIRE	1	1	-	-	1	1	
177	C026189-002	DC O/P POWER HARNESS (3 WIRE)	-	-	1	1	-	-	
178	C026190-002	DC O/P POWER HARNESS (5 WIRE)	-	-	1	1	-	-	
179	C070921	DC O/P POWER HARNESS (2 WIRE)	-	-	1	1	-	-	
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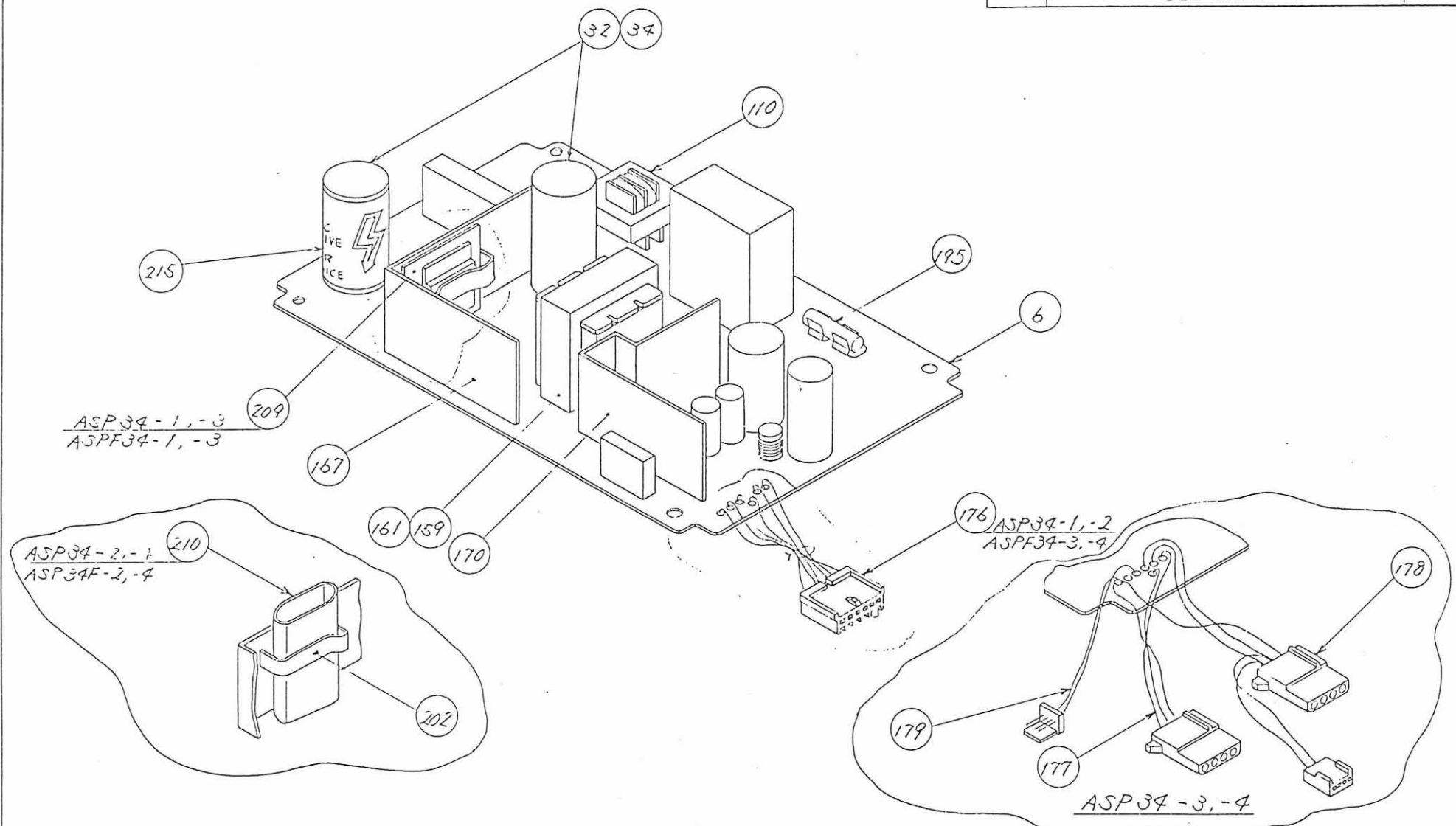
A/N: CA200001-XXX	REV. 5	TITLE: PCB ASSY	MODEL: ASP34-1/1-2/1-3/1-4 ASPF34-1/1-2/1-3/1-4	
REV	REVISION DESCRIPTION	DATE	APPROVED	 ATARI (JAPAN) CORPORATION Toranomon Kiyoshi Building 3F 4-3-10, Toranomon Minato-ku, Tokyo 105
SEE SHEET 1.				
		VERSION	STANDARD	MARKET

A/N: CA200001-XXX
SHEET 7 OF 7

ITEM NO.	PART NUMBER	DESCRIPTION	QTY. REQUIRED PER VERSION						NOTE
			001	002	003	004	005	006	
193									
194									
195	C070812-004	FUSE, 5MF, 2A, 250V, 5x20mm	1	1	1	1	1	1	
196		F1							
197									
198									
199									
200									
201									
202	C070820	TR, CLAMP	1	1	1	1	1	1	
203									
204									
205									
206									
207									
208									
209	C070821	TR, INSULATOR	1	-	1	-	1	-	
210	C070846	TR, INSULATOR	-	1	-	1	-	1	
211									
212									
213									
214									
215	C070837	CAUTION LABEL (RED)	1	1	1	1	1	1	
216									
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REV	REVISIONS DESCRIPTION	DATE	APPROVED
	SEE SHEET 1.		



NOTES—UNLESS OTHERWISE SPECIFIED:

		TOLERANCES		DRAWN BY DATE		ATARI (JAPAN) CORPORATION	
		UNDER 30	± 0.1	H. Kawamata 2-25-86		Toranomon Kiyoshi Building 3F	
		30 THRU 300	± 0.2	CHECKED DATE		4-3-10, Toranomon Minato-ku, Tokyo 105	
		OVER 300	± 0.4	K. Kitagawa 2-4-86		TITLE	
		MATERIAL		ENGINEER DATE		PCB ASSY	
CA200003-xxx ASP34-31-4		FINISH		A. Shinogawa 2-16-87		SIZE DRAWING NO. REV	
NEXT ASSY USED ON				APPROVED DATE		B CA2000001-xxx B	
APPLICATION				S. OKAZAKI 2/17/87		SCALE NONE SHEET 7 OF 7	
				APPROVED DATE		THIRD ANGLE SYSTEM, DIMENSION : mm	
				JLLC 7/20/87			

APPENDIX C MEGAFILE SPECIFICATIONS

Because Atari MEGAFILE hard disk drives may use parts from different manufacturers, individual drive specifications may vary. The list below is a summary of the standard MEGAFILE specifications.

	MEGAFILE 30	MEGAFILE 60
Formatted Storage Capacity	32,747,520 bytes	64,616,448 bytes
Disk Platters	2	3
Surfaces	4	6
Recording Heads	4	6
Cylinders	615	809
Number of Tracks	2460	4854
Track Density tracks per inch	588	753
Data Format	RLL	RLL
Data Transfer Speed megabits per second	7.5	7.5
Rotational Speed	3600 rpm \pm 1.0%	3600 rpm \pm 0.5%
Latency Time	8.33 ms	8.33 ms
Seek Time (average)	65 ms	61 ms
Power Supply	120V, 60 Hz (USA) 240V, 50 Hz (UK)	
Power Consumption	14.8 Watts	18.1 Watts

ST412 INTERFACE DRIVES USING RUN LENGTH
LIMITED (2,7) ENCODING AT 7.5 MEGABITS/SEC.

Product Information	ST138R	ST157R	ST238R	ST251R	ST277R	ST4144R
Formatted Capacity (Megabytes):	32	49	31	43	65	122
Read/Write Heads:	4	6	4	4	6	9
Data Cylinders:	615	615	615	820	820	1,024
Step Pulse Range (μ sec.):	3-200	3-200	5-200	3-200	3-200	3-70
Access Time (msec.):	28	28	65	40	40	28
Write Precompensation (cyl.):	N/A	N/A	N/A	N/A	N/A	N/A
Reduced Write Current (cyl.):	N/A	N/A	N/A	N/A	N/A	N/A
Power (Watts):	10	10	14.8	11	11	25.5

SCSI INTERFACE DRIVES

Product Information	ST138N	ST157N	ST225N	ST251N	ST277N
Formatted Capacity (Megabytes):	32	48	21	43	64
Sectors per Drive:	63,139	95,015	41,720	84,254	126,790
Access Time (msec.):	28	28	65	40	40
Power (Watts with termination):	12	12	16.8	13	13

Segate ST 238 R in der Megafle 30

Ambient Temperature	
Operating or Idle	50 to 122° F (10 to 50° C)
Storage	-40 to 135° F (-40 to 57° C)
Relative Humidity (operating, idle, or storage)	8 to 80% noncondensing
Altitude (from sea level)	
Operating	-200 to 10,000 ft. (-63 to 3,143 m)
Nonoperating	40,000 ft (12,572 m) maximum
Start Time	22 seconds (typically) from power up to ready
Stop Time	20 seconds from power down
Shock	
Nonoperating	40 g
Operating	4 g
Dimensions	
Height	2.75 in. (7 cm,
Width	13.4 in. (34 cm)
Depth	13.4 in. (34 cm)
Weight	9.4 lb. (4.27 kg)

Connector Pinouts

1 - Data 0	13 - Ground
2 - Data 1	14 - Acknowledge
3 - Data 2	15 - Ground
4 - Data 3	16 - A1
5 - Data 4	17 - Ground
6 - Data 5	18 - Read/Write
7 - Data 6	19 - Data Request
8 - Data 7	
9 - Chip Select	
10 - Interrupt Request	
11 - Ground	
12 - Reset	

