



ABNORMAL TEST RESULT

OF MODEL TUNS1200F

1. Did Cheese Cloth or Paper Glow?

No.

2. Did Ground Fuse Open?

No.

3. Dielectric breakdown?

No.

4. Other Results?

See the following pages .

(FMEA : 2/52 ~ 50/52)

(Abnormal Test Result: 51/52 ~ 52/52)

There was no emission of flame, molten metal, ignition of cheesecloth, dielectric breakdown, opening of the ground fuse, other indication of a shock or fire hazard.



F M E A

Component	Mode	Comment	Output Voltage (V)
C11	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C12	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C13	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C14	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C15	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C16	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C17	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C18	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C21	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C22	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C23	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C31	Open	Normal operation.	
	Short	Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)
C32	Open	Normal operation.	
	Short	Normal operation.	
C33	Open	Normal operation.	
	Short	Normal operation.	
C34	Open	Normal operation.	
	Short	Normal operation.	
C35	Open	Normal operation.	
	Short	Normal operation.	
C51	Open	Normal operation.	
	Short	Normal operation.	
C52	Open	Normal operation.	
	Short	Normal operation.	
C61	Open	Normal operation.	
	Short	Normal operation.	
C62	Open	Normal operation.	
	Short	Normal operation.	
C71	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C72	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C73	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C74	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C75	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C76	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C77	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C78	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C79	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C80	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C81	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C82 (Except:12)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C83 (Except:12)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C84 (Except:12)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C85	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C86	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C87 (Only 48, 65)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C88 (Only 48, 65)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C89 (Only 48, 65)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C90 (Only 48, 65)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C91 (Only 48, 65)	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C92	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:0
C101	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C102	Open	Normal operation.	
	Short	Normal operation.	
C103	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C104	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C106	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C107	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)
C108	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C109	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C110	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C111	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C112	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C113	Open	Normal operation.	
	Short	Normal operation.	
C121	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C131	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C133	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C134	Open	Normal operation.	
	Short	Normal operation.	
C143	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
C151	Open	Normal operation.	
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C161	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C171	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C172	Open	Normal operation.	
	Short	Normal operation.	
C173	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C175	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C201	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C202	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C203	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C261	Open	Normal operation.	
	Short	Normal operation.	
C281	Open	Normal operation.	
	Short	Normal operation.	
C301	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C302	Open	Normal operation.	
	Short	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C303	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C311	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C321	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C322	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C331	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C341	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C351	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C352	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C353	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C354	Open	Normal operation.	
	Short	Normal operation.	
C355	Open	Normal operation.	
	Short	Normal operation.	
C356	Open	Normal operation.	
	Short	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C361	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0
C362	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0
C364	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C365	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C366	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C367	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C368	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C381	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C382	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Normal operation.	
C383	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Normal operation.	
C384	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Normal operation.	
C385	Open	Normal operation.	
	Short	Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)
C386	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C401	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C402	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C404	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C405	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C406	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C407	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C411	Open	Normal operation.	
	Short	Normal operation.	
C412	Open	Normal operation.	
	Short	Normal operation.	
C413	Open	Normal operation.	
	Short	Normal operation.	
C414	Open	Normal operation.	
	Short	Normal operation.	
C421	Open	Normal operation.	
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C601	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C602	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C603	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C604	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C605	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C606	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C611	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C701	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C702	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C703	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C705	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C706	Open	Normal operation.	
	Short	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
C711	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C712	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C713	Open	Normal operation.	
	Short	Output voltage increased. No Hazard.	AVR1:Increased(120%)
C714	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C715	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C716	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C717	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C721	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C722	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C723	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C724	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C725	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)
C727	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C728	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C730	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C731	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C741	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C742	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0
C744	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Normal operation.	
C745	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C746	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C747	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C748	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C750	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
C752	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C753	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C754	Open	Normal operation.	
	Short	Normal operation.	
C755	Open	Normal operation.	
	Short	Normal operation.	
C756	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C781	Open	Normal operation.	
	Short	Normal operation.	
C791	Open	Normal operation.	
	Short	Normal operation.	
C792	Open	Normal operation.	
	Short	Normal operation.	
C793	Open	Normal operation.	
	Short	Normal operation.	
C794	Open	Normal operation.	
	Short	Normal operation.	
C795	Open	Normal operation.	
	Short	Normal operation.	
C796	Open	Normal operation.	
	Short	Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)
C801	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C811	Open	Normal operation.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
C901	Open	Normal operation.	
	Short	Normal operation.	
C902	Open	Normal operation.	
	Short	Normal operation.	
C911	Open	Normal operation.	
	Short	Normal operation.	
C912	Open	Normal operation.	
	Short	Normal operation.	
D11	Open	No Hazard.	AVR1:0
	Short	External Fuse opened, No Hazard.	AVR1:0
D12	Open	No Hazard.	AVR1:0
	Short	External Fuse opened, No Hazard.	AVR1:0
D13	Open	No Hazard.	AVR1:0
	Short	External Fuse opened, No Hazard.	AVR1:0
D14	Open	No Hazard.	AVR1:0
	Short	External Fuse opened, No Hazard.	AVR1:0
D21	Open	See page 51.	
	Short	See page 51.	
D22	Open	See page 51.	
	Short	See page 51.	

F M E A

Component	Mode	Comment	Output Voltage (V)
D23	Open	Normal operation.	
	Short	Normal operation.	
D24	Open	Normal operation.	
	Short	Normal operation.	
D31	Open	Normal operation.	
	Short	Normal operation.	
D51 (Only 65)	Open	See page 51.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
D52 (Only 65)	Open	See page 51.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
D61 (Only 65)	Open	See page 51.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
D62 (Only 65)	Open	See page 51.	
	Short	Output voltage decreased. No Hazard.	AVR1:decreased
D101	Open	Normal operation.	
	Short	External Fuse opened, No Hazard.	AVR1:0
D171	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
D261	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Normal operation.	
D271	Open	See page 51.	
	Short	Normal operation.	
D281	Open	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
D291	Open	See page 51.	
	Short	Normal operation.	
D361	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D362	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D401	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D402	Open	No Hazard.	AVR1:0
	Short	Normal operation.	
D411	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
D601	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
D711 (Only 48, 65)	Open	Normal operation.	
	Short	Normal operation.	
D712 (Only 48, 65)	Open	Normal operation.	
	Short	Normal operation.	
D713	Open	Normal operation.	
	Short	Normal operation.	
D714	Open	Normal operation.	
	Short	Normal operation.	
D715	Open	Normal operation.	
	Short	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC101	Open	1	Normal operation.	
		2	No Hazard.	AVR1:0
		3	Normal operation.	
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	Normal operation.	
		7	Normal operation.	
		8	External Fuse opened, No Hazard.	AVR1:0
		9	External Fuse opened, No Hazard.	AVR1:0
		10	Output voltage decreased. No Hazard.	AVR1:decreased
		11	Normal operation.	
		12	Normal operation.	
		13	Output voltage decreased. No Hazard.	AVR1:decreased
		14	Output voltage decreased. No Hazard.	AVR1:decreased
		15	No Hazard.	AVR1:0
		16	No Hazard.	AVR1:0
		17	Output voltage decreased. No Hazard.	AVR1:decreased
		18	Normal operation.	
		19	Normal operation.	
		20	Normal operation.	
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC101	Short	5-6	Output voltage decreased. No Hazard.	AVR1:decreased
		6-7	Output voltage decreased. No Hazard.	AVR1:decreased
		7-8	Normal operation.	
		8-9	Normal operation.	
		9-10	Normal operation.	
		11-12	Normal operation.	
		12-13	Normal operation.	
		13-14	External Fuse opened, No Hazard.	AVR1:0
		14-15	External Fuse opened, No Hazard.	AVR1:0
		15-16	No Hazard.	AVR1:0
		16-17	Output voltage decreased. No Hazard.	AVR1:decreased
		17-18	Output voltage decreased. No Hazard.	AVR1:decreased
		18-19	Output voltage decreased. No Hazard.	AVR1:decreased
		19-20	Normal operation.	
IC131	Open	1	External Fuse opened, No Hazard.	AVR1:0
		2	External Fuse opened, No Hazard.	AVR1:0
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	External Fuse opened, No Hazard.	AVR1:0
		5	Output voltage decreased. No Hazard.	AVR1:decreased
		6	External Fuse opened, No Hazard.	AVR1:0
		7	External Fuse opened, No Hazard.	AVR1:0
		8	External Fuse opened, No Hazard.	AVR1:0
	Short	1-2	External Fuse opened, No Hazard.	AVR1:0
		2-3	External Fuse opened, No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC131	Short	3-4	External Fuse opened, No Hazard.	AVR1:0
		5-6	External Fuse opened, No Hazard.	AVR1:0
		6-7	External Fuse opened, No Hazard.	AVR1:0
		7-8	Output voltage decreased. No Hazard.	AVR1:decreased
IC201	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	Normal operation.	
		4	No Hazard.	AVR1:0
		5	Normal operation.	
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	
		2-3	No Hazard.	AVR1:0
		3-4	Normal operation.	
		5-6	Normal operation.	
		6-7	Normal operation.	
		7-8	No Hazard.	AVR1:0
IC301	Open	1	No Hazard.	AVR1:0
		2	Normal operation.	
		3	Normal operation.	
		4	No Hazard.	AVR1:0
		5	Normal operation.	
		6	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Open	7	Normal operation.	
		8	Normal operation.	
		9	Normal operation.	
		10	Normal operation.	
		11	No Hazard.	AVR1:0
		12	No Hazard.	AVR1:0
		13	Normal operation.	
		14	No Hazard.	AVR1:0
		15	Normal operation.	
		16	No Hazard.	AVR1:0
		17	No Hazard.	AVR1:0
		18	Output voltage decreased. No Hazard.	AVR1:decreased
		19	Output voltage decreased. No Hazard.	AVR1:decreased
		20	No Hazard.	AVR1:0
		21	Normal operation.	
		22	No Hazard.	AVR1:0
		23	No Hazard.	AVR1:0
		24	Normal operation.	
		25	Normal operation.	
		26	Normal operation.	
		27	Normal operation.	
		28	No Hazard.	AVR1:0
		29	Output voltage decreased. No Hazard.	AVR1:decreased
		30	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Short	1-2	Normal operation.	
		2-3	Normal operation.	
		3-4	Normal operation.	
		4-5	Normal operation.	
		5-6	Normal operation.	
		6-7	No Hazard.	AVR1:0
		7-8	Normal operation.	
		8-9	Normal operation.	
		9-10	No Hazard.	AVR1:0
		10-11	No Hazard.	AVR1:0
		11-12	No Hazard.	AVR1:0
		12-13	Normal operation.	
		13-14	Normal operation.	
		14-15	Output voltage decreased. No Hazard.	AVR1:decreased
		16-17	No Hazard.	AVR1:0
		17-18	No Hazard.	AVR1:0
		18-19	No Hazard.	AVR1:0
		19-20	No Hazard.	AVR1:0
		20-21	No Hazard.	AVR1:0
		21-22	No Hazard.	AVR1:0
		22-23	No Hazard.	AVR1:0
		23-24	Normal operation.	
		24-25	Normal operation.	
		25-26	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
IC301	Short	26-27	No Hazard.	AVR1:0
		27-28	No Hazard.	AVR1:0
		28-29	Normal operation.	
		29-30	Normal operation.	
IC361	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
IC362	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	Output voltage decreased. No Hazard.	AVR1:decreased
		5	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
IC363	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	Output voltage decreased. No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC363	Open	5	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	Output voltage decreased. No Hazard.	AVR1:decreased
		2-3	Output voltage decreased. No Hazard.	AVR1:decreased
		4-5	Output voltage decreased. No Hazard.	AVR1:decreased
IC364	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0
		4-5	No Hazard.	AVR1:0
IC401	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	Normal operation.	
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	Normal operation.	
		7	Normal operation.	
		8	Normal operation.	
		9	Normal operation.	
		10	Normal operation.	
	Short	1-2	No Hazard.	AVR1:0
		2-3	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC401	Short	3-4	No Hazard.	AVR1:0
		4-5	Normal operation.	
		6-7	Normal operation.	
		7-8	Normal operation.	
		8-9	Normal operation.	
		9-10	Normal operation.	
IC601	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	Normal operation.	
		4	No Hazard.	AVR1:0
		5	Normal operation.	
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	
		2-3	No Hazard.	AVR1:0
		3-4	Normal operation.	
		5-6	Normal operation.	
		6-7	Normal operation.	
		7-8	No Hazard.	AVR1:0
IC701	Open	1	No Hazard.	AVR1:0
		2	Normal operation.	
		3	Normal operation.	
		4	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage (V)
IC701	Open	5	Normal operation.	
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	Normal operation.	
		9	Normal operation.	
		10	Normal operation.	
		11	No Hazard.	AVR1:0
		12	No Hazard.	AVR1:0
		13	Normal operation.	
		14	Normal operation.	
		15	No Hazard.	AVR1:0
		16	No Hazard.	AVR1:0
		17	No Hazard.	AVR1:0
		18	No Hazard.	AVR1:0
		19	Output voltage decreased. No Hazard.	AVR1:decreased
		20	Output voltage decreased. No Hazard.	AVR1:decreased
		21	Output voltage decreased. No Hazard.	AVR1:decreased
		22	Normal operation.	
		23	Normal operation.	
		24	Normal operation.	
		25	Normal operation.	
		26	Normal operation.	
		27	Normal operation.	
		28	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage (V)
IC701	Open	29	Output voltage decreased. No Hazard.	AVR1:decreased
		30	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	Normal operation.	
		2-3	Normal operation.	
		3-4	Normal operation.	
		4-5	Normal operation.	
		5-6	Normal operation.	
		6-7	Normal operation.	
		7-8	No Hazard.	AVR1:0
		8-9	Normal operation.	
		9-10	No Hazard.	AVR1:0
		10-11	No Hazard.	AVR1:0
		11-12	No Hazard.	AVR1:0
		12-13	Normal operation.	
		13-14	Normal operation.	
		14-15	Normal operation.	
		16-17	No Hazard.	AVR1:0
		17-18	Output voltage decreased. No Hazard.	AVR1:decreased
		18-19	Output voltage decreased. No Hazard.	AVR1:decreased
		19-20	Output voltage decreased. No Hazard.	AVR1:decreased
		20-21	Output voltage decreased. No Hazard.	AVR1:decreased
		21-22	Normal operation.	
		22-23	Normal operation.	
		23-24	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
IC701	Short	24-25	Normal operation.	
		25-26	Normal operation.	
		26-27	Normal operation.	
		27-28	No Hazard.	AVR1:0
		28-29	Output voltage decreased. No Hazard.	AVR1:decreased
		29-30	Normal operation.	
IC721	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	
		2-3	No Hazard.	AVR1:0
		3-4	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
IC722	Open	1	Normal operation.	
		2	Normal operation.	
		3	No Hazard.	AVR1:0
		4	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage (V)
IC722	Open	5	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	Normal operation.	
		2-3	Normal operation.	
		3-4	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	Output voltage decreased. No Hazard.	AVR1:decreased
		7-8	No Hazard.	AVR1:0
IC723	Open	1	Normal operation.	
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	Output voltage decreased. No Hazard.	AVR1:decreased
		5	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	Normal operation.	
		2-3	Output voltage decreased. No Hazard.	AVR1:decreased
		4-5	No Hazard.	AVR1:0
IC731	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
		6	Output voltage decreased. No Hazard.	AVR1:decreased



F M E A

Component	Mode		Comment	Output Voltage (V)
IC731	Open	7	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		2-3	Normal operation.	
		3-4	No Hazard.	AVR1:0
		5-6	Output voltage decreased. No Hazard.	AVR1:decreased
		6-7	Normal operation.	
		7-8	No Hazard.	AVR1:0
L11	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	Normal operation.	
	Short	1-3	External Fuse opened, No Hazard.	AVR1:0
		2-3	Normal operation.	
L12	Open	1	Output voltage decreased. No Hazard.	AVR1:decreased
		2	Output voltage decreased. No Hazard.	AVR1:decreased
		3	No Hazard.	AVR1:0
	Short	1-3	Normal operation.	
		2-3	External Fuse opened, No Hazard.	AVR1:0
L51	Open		No Hazard.	AVR1:0
	Short		Output voltage decreased. No Hazard.	AVR1:decreased
PC171	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
PC341	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	No Hazard.	AVR1:0
PC342	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	No Hazard.	AVR1:0
PC361	Open	A, K	No Hazard.	AVR1:0
		C, E	No Hazard.	AVR1:0
	Short	A-K	No Hazard.	AVR1:0
		C-E	No Hazard.	AVR1:0
PC901	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	No Hazard.	AVR1:0
PC912	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	Normal operation.	
R11	Open		Normal operation.	
R12	Open		Normal operation.	
R31	Open		Output voltage decreased. No Hazard.	AVR1:decreased
R50	Open		Normal operation.	



F M E A

Component	Mode	Comment	Output Voltage (V)
R51	Open	Normal operation.	
R52	Open	Normal operation.	
R53	Open	Normal operation.	
R54	Open	Normal operation.	
R55	Open	Normal operation.	
R56	Open	Normal operation.	
R57	Open	Normal operation.	
R60	Open	Normal operation.	
R61	Open	Normal operation.	
R62	Open	Normal operation.	
R63	Open	Normal operation.	
R64	Open	Normal operation.	
R65	Open	Normal operation.	
R66	Open	Normal operation.	
R67	Open	Normal operation.	
R71	Open	No Hazard.	AVR1:0
R80	Open	Normal operation.	
R81	Open	Normal operation.	
R82	Open	Normal operation.	
R83	Open	Normal operation.	
R84	Open	Normal operation.	
R85	Open	Normal operation.	
R86 (Only 65)	Open	Normal operation.	
R101	Open	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
R102	Open	Normal operation.	
R103	Open	Normal operation.	
R104	Open	Normal operation.	
R105	Open	Normal operation.	
R106	Open	Normal operation.	
R108	Open	Normal operation.	
R109	Open	Normal operation.	
R111	Open	No Hazard.	AVR1:0
R112	Open	No Hazard.	AVR1:0
R113	Open	No Hazard.	AVR1:0
R114	Open	No Hazard.	AVR1:0
R115	Open	Normal operation.	
R116	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R117	Open	Normal operation.	
R118	Open	Normal operation.	
R119	Open	Normal operation.	
R120	Open	Normal operation.	
R121	Open	No Hazard.	AVR1:0
R122	Open	No Hazard.	AVR1:0
R123	Open	No Hazard.	AVR1:0
R124	Open	No Hazard.	AVR1:0
R125	Open	No Hazard.	AVR1:0
R126	Open	Normal operation.	
R131	Open	External Fuse opened, No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
R132	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R133	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R135	Open	Normal operation.	
R136	Open	No Hazard.	AVR1:0
R137	Open	Normal operation.	
R138	Open	External Fuse opened, No Hazard.	AVR1:0
R141	Open	External Fuse opened, No Hazard.	AVR1:0
R142	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R143	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R147	Open	Normal operation.	
R148	Open	External Fuse opened, No Hazard.	AVR1:0
R151	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R152	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R153	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R154	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R155	Open	Normal operation.	
R161	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R162	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R163	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R164	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R165	Open	Normal operation.	
R171	Open	No Hazard.	AVR1:0
R172	Open	Normal operation.	
R173	Open	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
R174	Open	Normal operation.	
R175	Open	No Hazard.	AVR1:0
R176	Open	No Hazard.	AVR1:0
R177	Open	No Hazard.	AVR1:0
R181	Open	Normal operation.	
R182	Open	Normal operation.	
R206	Open	No Hazard.	AVR1:0
R261	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R262	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R263	Open	Normal operation.	
R264	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R271	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R272	Open	See page 51.	
R273	Open	Normal operation.	
R281	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R282	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R283	Open	Normal operation.	
R284	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R291	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R292	Open	See page 51.	
R293	Open	Normal operation.	
R301	Open	No Hazard.	AVR1:0
R302	Open	Normal operation.	
R311	Open	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
R312	Open	No Hazard.	AVR1:0
R313	Open	No Hazard.	AVR1:0
R314	Open	No Hazard.	AVR1:0
R315	Open	No Hazard.	AVR1:0
R316	Open	Normal operation.	
R321	Open	No Hazard.	AVR1:0
R322	Open	No Hazard.	AVR1:0
R323	Open	No Hazard.	AVR1:0
R324	Open	No Hazard.	AVR1:0
R325	Open	No Hazard.	AVR1:0
R326	Open	No Hazard.	AVR1:0
R327	Open	Normal operation.	
R328	Open	Normal operation.	
R331	Open	No Hazard.	AVR1:0
R332	Open	No Hazard.	AVR1:0
R341	Open	No Hazard.	AVR1:0
R342	Open	No Hazard.	AVR1:0
R351	Open	No Hazard.	AVR1:0
R352	Open	Normal operation.	
R353	Open	Normal operation.	
R354	Open	Normal operation.	
R355	Open	Normal operation.	
R361	Open	Normal operation.	
R362	Open	Output voltage decreased. No Hazard.	AVR1:decreased



F M E A

Component	Mode	Comment	Output Voltage (V)
R363	Open	Normal operation.	
R364	Open	Normal operation.	
R381	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R382	Open	Normal operation.	
R383	Open	Normal operation.	
R384	Open	Normal operation.	
R385	Open	Normal operation.	
R386	Open	Normal operation.	
R387	Open	Normal operation.	
R388	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R389	Open	No Hazard.	AVR1:0
R390	Open	Normal operation.	
R391	Open	Normal operation.	
R401	Open	No Hazard.	AVR1:0
R402	Open	No Hazard.	AVR1:0
R403	Open	No Hazard.	AVR1:0
R407	Open	Normal operation.	
R410	Open	Normal operation.	
R411	Open	No Hazard.	AVR1:0
R412	Open	No Hazard.	AVR1:0
R421	Open	No Hazard.	AVR1:0
R422	Open	Normal operation.	
R601	Open	Normal operation.	
R602	Open	No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
R603	Open	Normal operation.	
R611	Open	Normal operation.	
R612	Open	Normal operation.	
R613	Open	No Hazard.	AVR1:0
R614	Open	Normal operation.	
R701	Open	No Hazard.	AVR1:0
R702	Open	Normal operation.	
R704	Open	No Hazard.	AVR1:0
R705	Open	No Hazard.	AVR1:0
R711	Open	No Hazard.	AVR1:0
R712 (Only 48, 65)	Open	No Hazard.	AVR1:0
R713	Open	No Hazard.	AVR1:0
R714	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R715	Open	Output voltage increased. No Hazard.	AVR1:Increased(110%)
R716	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R717	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R718	Open	No Hazard.	AVR1:0
R719 (Only 48, 65)	Open	Normal operation.	
R720 (Only 48, 65)	Open	Normal operation.	
R721	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R722	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R723	Open	No Hazard.	AVR1:0
R724	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R725	Open	Output voltage decreased. No Hazard.	AVR1:decreased

F M E A

Component	Mode	Comment	Output Voltage (V)
R726	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R727	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R728	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R729	Open	No Hazard.	AVR1:0
R730	Open	No Hazard.	AVR1:0
R731	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R732	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R733	Open	Normal operation.	
R734	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R735	Open	No Hazard.	AVR1:0
R736 (Only 12, 28)	Open	Normal operation.	
R737 (Only 12, 28)	Open	Normal operation.	
R738	Open	No Hazard.	AVR1:0
R739	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R741	Open	No Hazard.	AVR1:0
R742	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R743	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R744	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R745	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R746	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R747	Open	No Hazard.	AVR1:0
R748	Open	Normal operation.	
R749	Open	No Hazard.	AVR1:0
R750	Open	No Hazard.	AVR1:0



F M E A

Component	Mode	Comment	Output Voltage (V)
R751	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R752	Open	No Hazard.	AVR1:0
R753	Open	Normal operation.	
R754	Open	No Hazard.	AVR1:0
R755	Open	No Hazard.	AVR1:0
R761	Open	Normal operation.	
R762	Open	Normal operation.	
R763	Open	Normal operation.	
R781	Open	Normal operation.	
R782	Open	Normal operation.	
R784	Open	No Hazard.	AVR1:0
R791	Open	No Hazard.	AVR1:0
R793	Open	Normal operation.	
R794	Open	Normal operation.	
R801	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R802	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R811	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R812	Open	Output voltage decreased. No Hazard.	AVR1:decreased
R901	Open	Normal operation.	
R902	Open	No Hazard.	AVR1:0
R911	Open	Normal operation.	
R912	Open	Normal operation.	
R914	Open	Normal operation.	
R916	Open	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
R917	Open		Normal operation.	
SCR11	Open	A	No Hazard.	AVR1:0
		K	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	A-K	Normal operation.	
		A-G	Normal operation.	
		K-G	No Hazard.	AVR1:0
SS51 (Except:65)	Open		See page 51.	
	Short		Output voltage decreased. No Hazard.	AVR1:decreased
SS52 (Except:65)	Open		See page 51.	
	Short		Output voltage decreased. No Hazard.	AVR1:decreased
SS61 (Except:65)	Open		See page 51.	
	Short		Output voltage decreased. No Hazard.	AVR1:decreased
SS62 (Except:65)	Open		See page 51.	
	Short		Output voltage decreased. No Hazard.	AVR1:decreased
T11	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		3	Output voltage decreased. No Hazard.	AVR1:decreased
		4	No Hazard.	AVR1:0
		5	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	See page 51.	
		3-4	See page 51.	
		4-5	See page 51.	
T301	Open	1	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
T301	Open	2	No Hazard.	AVR1:0
		6	Output voltage decreased. No Hazard.	AVR1:decreased
		7	Output voltage decreased. No Hazard.	AVR1:decreased
		9	Output voltage decreased. No Hazard.	AVR1:decreased
		10	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-2	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		9-10	No Hazard.	AVR1:0
T401	Open	1	No Hazard.	AVR1:0
		2	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		6	No Hazard.	AVR1:0
		8	No Hazard.	AVR1:0
		11	No Hazard.	AVR1:0
	Short	1-2	No Hazard.	AVR1:0
		4-6	See page 51.	
		8-11	No Hazard.	AVR1:0
TH11	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
TR11	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	See page 51.	
	Short	D-S	See page 51.	
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
TR11	Short	G-D	See page 51.	
TR12	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	See page 51.	
	Short	D-S	See page 52.	
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	See page 52.	
TR21	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	See page 52.	
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	See page 52.	
TR22	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	See page 52.	
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	See page 52.	
TR23	Open	D	See page 52.	
		S	See page 52.	
		G	See page 52.	
	Short	D-S	See page 52.	
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
TR23	Short	G-D	See page 52.	
TR24	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	See page 52.	
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	See page 52.	
TR121	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	AVR1:0
		S-G	Normal operation.	
		G-D	No Hazard.	AVR1:0
TR151	Open	C	Output voltage decreased. No Hazard.	AVR1:decreased
		E	Output voltage decreased. No Hazard.	AVR1:decreased
		B	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	C-E	External Fuse opened, No Hazard.	AVR1:0
		E-B	Normal operation.	
		B-C	External Fuse opened, No Hazard.	AVR1:0
TR152	Open	C	Normal operation.	
		E	See page 52.	
		B	See page 52.	
	Short	C-E	Output voltage decreased. No Hazard.	AVR1:decreased
		E-B	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR152	Short	B-C	See page 52.	
TR161	Open	C	Output voltage decreased. No Hazard.	AVR1:decreased
		E	Output voltage decreased. No Hazard.	AVR1:decreased
		B	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	C-E	External Fuse opened, No Hazard.	AVR1:0
		E-B	Normal operation.	
		B-C	External Fuse opened, No Hazard.	AVR1:0
TR162	Open	C	Normal operation.	
		E	See page 52.	
		B	See page 52.	
	Short	C-E	Output voltage decreased. No Hazard.	AVR1:decreased
		E-B	Normal operation.	
		B-C	See page 52.	
TR171	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	Normal operation.	
		S-G	No Hazard.	AVR1:0
		G-D	Normal operation.	
TR172	Open	C	No Hazard.	AVR1:0
		E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	Normal operation.	
		E-B	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
TR172	Short	B-C	Normal operation.	
TR181	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	Normal operation.	
		G-D	Normal operation.	
TR261	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	Output voltage decreased. No Hazard.	AVR1:decreased
TR281	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	Output voltage decreased. No Hazard.	AVR1:decreased
TR351	Open	S (1)	Output voltage decreased. No Hazard.	AVR1:decreased
		G (2)	Output voltage decreased. No Hazard.	AVR1:decreased
		D (3)	Output voltage decreased. No Hazard.	AVR1:decreased
		S (4)	Output voltage decreased. No Hazard.	AVR1:decreased
		G (5)	Output voltage decreased. No Hazard.	AVR1:decreased

F M E A

Component	Mode		Comment	Output Voltage (V)
TR351	Open	D (6)	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G (1-2)	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	G-D (2-3)	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G (4-5)	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D (5-6)	Output voltage decreased. No Hazard.	AVR1:decreased
TR352	Open	S (1)	Output voltage decreased. No Hazard.	AVR1:decreased
		G (2)	Output voltage decreased. No Hazard.	AVR1:decreased
		D (3)	Output voltage decreased. No Hazard.	AVR1:decreased
		S (4)	Output voltage decreased. No Hazard.	AVR1:decreased
		G (5)	Output voltage decreased. No Hazard.	AVR1:decreased
		D (6)	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	S-G (1-2)	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D (2-3)	Output voltage decreased. No Hazard.	AVR1:decreased
		S-G (4-5)	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D (5-6)	Output voltage decreased. No Hazard.	AVR1:decreased
TR361	Open	1 (1)	Normal operation.	
		1 (2)	Normal operation.	
		2 (3)	Normal operation.	
		2 (4)	Normal operation.	
		2 (5)	Normal operation.	
		1 (6)	Normal operation.	
	Short	1-1 (1-2)	Normal operation.	
		1-2 (2-3)	Normal operation.	
		2-2 (4-5)	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
TR361	Short	2-1 (5-6)	No Hazard.	AVR1:0
TR381	Open	1 (1)	Output voltage decreased. No Hazard.	AVR1:decreased
		1 (2)	Output voltage decreased. No Hazard.	AVR1:decreased
		2 (3)	Normal operation.	
		2 (4)	Normal operation.	
		2 (5)	Normal operation.	
		1 (6)	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	1-1 (1-2)	Normal operation.	
		1-2 (2-3)	Output voltage decreased. No Hazard.	AVR1:decreased
		2-2 (4-5)	Normal operation.	
		2-1 (5-6)	Normal operation.	
TR382	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	AVR1:0
		S-G	Normal operation.	
		G-D	No Hazard.	AVR1:0
TR383	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	
		B-C	No Hazard.	AVR1:0
TR721	Open	C	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR721	Open	E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	No Hazard.	AVR1:0
		E-B	Normal operation.	
		B-C	No Hazard.	AVR1:0
TR722	Open	C	Normal operation.	
		E	Normal operation.	
		B	Normal operation.	
	Short	C-E	No Hazard.	AVR1:0
		E-B	Output voltage decreased. No Hazard.	AVR1:decreased
		B-C	No Hazard.	AVR1:0
TR741	Open	D	Output voltage decreased. No Hazard.	AVR1:decreased
		S	Output voltage decreased. No Hazard.	AVR1:decreased
		G	Output voltage decreased. No Hazard.	AVR1:decreased
	Short	D-S	Normal operation.	
		S-G	Output voltage decreased. No Hazard.	AVR1:decreased
		G-D	Output voltage decreased. No Hazard.	AVR1:decreased
TR761	Open	1 (1)	Normal operation.	
		1 (2)	Normal operation.	
		2 (3)	Normal operation.	
		2 (4)	Normal operation.	
		2 (5)	Normal operation.	
		1 (6)	Normal operation.	
	Short	1-1 (1-2)	Normal operation.	



F M E A

Component	Mode		Comment	Output Voltage (V)
TR761	Short	1-2 (2-3)	No Hazard.	AVR1:0
		2-2 (4-5)	Normal operation.	
		2-1 (5-6)	Normal operation.	
TR912	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	Normal operation.	
		G-D	Normal operation.	
ZD171	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
ZD261	Open		Normal operation.	
	Short		Normal operation.	
ZD281	Open		Normal operation.	
	Short		Normal operation.	
ZD351	Open		Normal operation.	
	Short		Output voltage decreased. No Hazard.	AVR1:decreased
ZD352	Open		Normal operation.	
	Short		Output voltage decreased. No Hazard.	AVR1:decreased
ZD761	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
ZD801	Open		Normal operation.	
	Short		No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
D21	Open		External Fuse opened, No Hazard.	AVR1:0
	Short		External Fuse opened, No Hazard.	AVR1:0
D22	Open		External Fuse opened, No Hazard.	AVR1:0
	Short		External Fuse opened, No Hazard.	AVR1:0
D51	Open		Normal operation.	
D52	Open		Normal operation.	
D61	Open		Normal operation.	
D62	Open		Normal operation.	
D271	Open		No Hazard.	AVR1:decreased
D291	Open		No Hazard.	AVR1:decreased
R272	Open		No Hazard.	AVR1:decreased
R292	Open		No Hazard.	AVR1:decreased
SS51	Open		Normal operation.	
SS52	Open		Normal operation.	
SS61	Open		Normal operation.	
SS62	Open		Normal operation.	
T11	Short	1-2	No Hazard.	AVR1:decreased
		3-4	No Hazard.	AVR1:decreased
		4-5	No Hazard.	AVR1:decreased
T401	Short	4-6	No Hazard.	AVR1:0[V]
TR11	Open	G	External Fuse opened, No Hazard.	AVR1:0
	Short	D-S	External Fuse opened, No Hazard.	AVR1:0
		G-D	External Fuse opened, No Hazard.	AVR1:0
TR12	Open	G	External Fuse opened, No Hazard.	AVR1:0



ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
TR12	Short	D-S	External Fuse opened, No Hazard.	AVR1:0
		G-D	External Fuse opened, No Hazard.	AVR1:0
TR21	Short	D-S	No Hazard.	AVR1:decreased
		G-D	No Hazard.	AVR1:decreased
TR22	Short	D-S	No Hazard.	AVR1:decreased
		G-D	No Hazard.	AVR1:decreased
TR23	Open	D	No Hazard.	AVR1:decreased
		S	No Hazard.	AVR1:decreased
		G	No Hazard.	AVR1:decreased
	Short	D-S	No Hazard.	AVR1:decreased
		G-D	No Hazard.	AVR1:decreased
	Short	D-S	No Hazard.	AVR1:decreased
		G-D	No Hazard.	AVR1:decreased
TR24	Short	D-S	No Hazard.	AVR1:decreased
		G-D	No Hazard.	AVR1:decreased
TR152	Open	E	External Fuse opened, No Hazard.	AVR1:0
		B	External Fuse opened, No Hazard.	AVR1:0
	Short	B-C	External Fuse opened, No Hazard.	AVR1:0
TR162	Open	E	External Fuse opened, No Hazard.	AVR1:0
		B	External Fuse opened, No Hazard.	AVR1:0
	Short	B-C	External Fuse opened, No Hazard.	AVR1:0