

## ABNORMAL TEST RESULT

OF MODEL KL□A240F-24/-48

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 : 2/20 ~ 18/20)

( Abnormal Test Result: 19/20 ~ 20/20)

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)
C101	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0
C102	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0
C105	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0
C107	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C108	Open	Normal operation.	
	Short	Normal operation.	
C109	Open	No Hazard.	AVR1:0
	Short	No Hazard.	AVR1:0
C110	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C111	Open	Normal operation.	
	Short	Normal operation.	
C112	Open	Normal operation.	
	Short	Normal operation.	
C113	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C114	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C115	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode	Comment	Output Voltage (V)
C116	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C117	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C118	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C119	Open	Normal operation.	
	Short	Normal operation.	
C120	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
C121	Open	Normal operation.	
	Short	See 19 Page.	
C122	Open	Normal operation.	
	Short	See 19 Page.	
C160	Open	Normal operation.	
	Short	Normal operation.	
C161	Open	Normal operation.	
	Short	Normal operation.	
C201	Open	Normal operation.	
	Short	See 19 Page.	
C202	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Output voltage decreased. No hazard.	AVR1:decreased
C203	Open	Normal operation.	
	Short	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
C204	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
C205	Open		Normal operation.	
	Short		Normal operation.	
C206	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased
C207	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
C208	Open	only 48	Normal operation.	
	Short	only 48	No Hazard.	AVR1:0
C210	Open		Normal operation.	
	Short		Normal operation.	
C211	Open		Normal operation.	
	Short		Normal operation.	
C213	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased
C270	Open		See 19 Page.	
	Short		See 19 Page.	
C271	Open		See 19 Page.	
	Short		See 19 Page.	
C501	Open		See 19 Page.	
	Short		See 19 Page.	
C502	Open		See 19 Page.	
	Short		See 19 Page.	

F M E A

Component	Mode		Comment	Output Voltage (V)
C503	Open		See 19 Page.	
	Short		See 19 Page.	
C504	Open		See 19 Page.	
	Short		See 19 Page.	
C505	Open		Normal operation.	
	Short		See 19 Page.	
C510	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
C511	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
C512	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
C522	Open		Normal operation.	
	Short		Normal operation.	
C523	Open		Normal operation.	
	Short		Normal operation.	
C601	Open		Output voltage decreased. No hazard.	AVR1:decreased
	Short		Output voltage decreased. No hazard.	AVR1:decreased
C602	Open	only 24	Output voltage decreased. No hazard.	AVR1:decreased
	Short	only 24	Output voltage decreased. No hazard.	AVR1:decreased
C605	Open	only 48	Output voltage decreased. No hazard.	AVR1:decreased
	Short	only 48	Output voltage decreased. No hazard.	AVR1:decreased
C607	Open		Output voltage decreased. No hazard.	AVR1:decreased
	Short		No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
D101	Open	Normal operation.	
	Short	Normal operation.	
D102	Open	Normal operation.	
	Short	Normal operation.	
D103	Open	Normal operation.	
	Short	Normal operation.	
D104	Open	Normal operation.	
	Short	Normal operation.	
D105	Open	No Hazard.	AVR1:0
	Short	Normal operation.	
D106	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
D107	Open	Normal operation.	
	Short	F101 opened, No hazard.	AVR1:0
D108	Open	Normal operation.	
	Short	No Hazard.	AVR1:0
D109	Open	Normal operation.	
	Short	Normal operation.	
D201	Open	See 19 Page.	
	Short	See 19 Page.	
D202	Open	Output voltage decreased. No hazard.	AVR1:decreased
	Short	Normal operation.	
D203	Open	Normal operation.	
	Short	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
D205	Open		Normal operation.	
	Short		Normal operation.	
D206	Open		Normal operation.	
	Short		Normal operation.	
D207	Open		Normal operation.	
	Short		Normal operation.	
D208	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
D501	Open		Normal operation.	
	Short		See 19 Page.	
IC101	Open	1	No Hazard.	AVR1:0
		2	Normal operation.	
		3	Normal operation.	
		4	F101 opened, 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	No Hazard.	AVR1:0
		5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	F101 opened, No hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
IC201	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	No Hazard.	AVR1:0
		7	Normal operation.	
		8	Normal operation.	
	Short	1-2	Normal operation.	
		2-3	No Hazard.	AVR1:0
		3-4	Normal operation.	
		5-6	F101 opened, No hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
		7-8	No Hazard.	AVR1:0
IC601	Open	3	No Hazard.	AVR1:0
		4	No Hazard.	AVR1:0
		5	No Hazard.	AVR1:0
	Short	4-5	No Hazard.	AVR1:0
L101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
L102	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
L103	Open	4, 5	F101 opened, No hazard.	AVR1:0
		6, 7	No Hazard.	AVR1:0



F M E A

Component	Mode		Comment	Output Voltage (V)
L103	Open	9	Normal operation.	
		10	Normal operation.	
	Short	3-4, 5	See 19 Page.	
		9-10	See 19 Page.	
L507	Open		See 19 Page.	
	Short		No Hazard.	AVR1:0
LED501	Open		Normal operation.	
	Short		Normal operation.	
PC201	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
PC202	Open	A, K	Normal operation.	
		C, E	Normal operation.	
	Short	A-K	Normal operation.	
		C-E	No Hazard.	AVR1:0
PTH201	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
PTH202	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
SK101	Open		Normal operation.	
	Short		F101 opened, No hazard.	AVR1:0
SS101	Open		No Hazard.	AVR1:0
	Short		F101 opened, No hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
SS102	Open	Cathode	No Hazard.	AVR1:0
		Alternative	See 19 Page.	
	Short		F101 opened, No hazard.	AVR1:0
SS501	Open	Cathode	F101 opened, No hazard.	AVR1:0
		Alternative	See 19 Page.	
	Short		F101 opened, No hazard.	AVR1:0
SS502	Open	Cathode	See 20 Page.	
		Alternative	See 20 Page.	
	Short		No Hazard.	AVR1:0
SS503	Open	Cathode	See 20 Page.	
		Alternative	See 20 Page.	
	Short		No Hazard.	AVR1:0
T201	Open	1	No Hazard.	AVR1:0
		3	No Hazard.	AVR1:0
		5	Normal operation.	
		6	Output voltage decreased. No hazard.	AVR1:decreased
		7	See 20 Page.	
		8, 9, 10	See 20 Page.	
		12, 13, 14	See 20 Page.	
	Short	5-6	See 20 Page.	
		6-7	See 20 Page.	
TH101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
TR101	Open	D	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
TR101	Open	S	Normal operation.	
		G	Normal operation.	
	Short	D-S	No Hazard.	AVR1:0
		S-G	Normal operation.	
		G-D	No Hazard.	AVR1:0
TR102	Open	D	See 20 Page.	
		S	See 20 Page.	
		G	See 20 Page.	
	Short	D-S	See 20 Page.	
		S-G	See 20 Page.	
		G-D	See 20 Page.	
TR106	Open	D	Normal operation.	
		S	Normal operation.	
		G	Normal operation.	
	Short	D-S	Normal operation.	
		S-G	Normal operation.	
		G-D	Normal operation.	
TR107	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
TR108	Open	C	No Hazard.	AVR1:0

F M E A

Component	Mode		Comment	Output Voltage (V)
TR108	Open	E	No Hazard.	AVR1:0
		B	No Hazard.	AVR1:0
	Short	C-E	Normal operation.	
		E-B	No Hazard.	AVR1:0
		B-C	Normal operation.	
TR201	Open	D	See 20 Page.	
		S	See 20 Page.	
		G	See 20 Page.	
	Short	D-S	See 20 Page.	
		S-G	See 20 Page.	
		G-D	See 20 Page.	
TR205	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
VR601	Open	brush	Output voltage decreased. No hazard.	AVR1:decreased
			Output voltage decreased. No hazard.	AVR1:decreased
	Short		No Hazard.	AVR1:0
ZD101	Open		No Hazard.	AVR1:0
	Short		Normal operation.	
ZD102	Open		Normal operation.	
	Short		Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
ZD103	Open		Normal operation.	
	Short		Normal operation.	
ZD104	Open		Normal operation.	
	Short		Normal operation.	
ZD201	Open		Normal operation.	
	Short		Output voltage decreased. No hazard.	AVR1:decreased
ZD202	Open		Normal operation.	
	Short		Normal operation.	
ZD501	Open		Normal operation.	
	Short		No Hazard.	AVR1:0
ZD502	Open	only 48	Normal operation.	
	Short	only 48	No Hazard.	AVR1:0
ZD503	Open		Normal operation.	
	Short		Normal operation.	
ZD504	Open	only 48	Normal operation.	
	Short	only 48	Normal operation.	
ZD601	Open	only 48	No Hazard.	AVR1:0
	Short	only 48	Output voltage decreased. No hazard.	AVR1:decreased
R101	Open		Normal operation.	
R102	Open		Normal operation.	
R103	Open		Normal operation.	
R104	Open		Normal operation.	
R105	Open		Normal operation.	
R108	Open		No Hazard.	AVR1:0

F M E A

Component	Mode	Comment	Output Voltage (V)
R109	Open	No Hazard.	AVR1:0
R110	Open	No Hazard.	AVR1:0
R111	Open	No Hazard.	AVR1:0
R112	Open	No Hazard.	AVR1:0
R113	Open	Normal operation.	
R114	Open	Normal operation.	
R115	Open	Normal operation.	
R116	Open	Normal operation.	
R117	Open	Normal operation.	
R118	Open	Normal operation.	
R119	Open	Normal operation.	
R120	Open	Normal operation.	
R121	Open	Normal operation.	
R122	Open	Normal operation.	
R123	Open	Normal operation.	
R124	Open	Normal operation.	
R125	Open	Normal operation.	
R126	Open	Normal operation.	
R127	Open	Normal operation.	
R128	Open	Normal operation.	
R129	Open	Normal operation.	
R130	Open	Normal operation.	
R132	Open	No Hazard.	AVR1:0
R133	Open	No Hazard.	AVR1:0

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Component	Mode	Comment	Output Voltage (V)
R134	Open	Normal operation.	
R136	Open	No Hazard.	AVR1:0
R141	Open	Normal operation.	
R142	Open	Normal operation.	
R143	Open	Normal operation.	
R144	Open	No Hazard.	AVR1:0
R145	Open	No Hazard.	AVR1:0
R148	Open	Normal operation.	
R149	Open	No Hazard.	AVR1:0
R150	Open	No Hazard.	AVR1:0
R151	Open	No Hazard.	AVR1:0
R152	Open	See 20 Page.	
R153	Open	No Hazard.	AVR1:0
R154	Open	No Hazard.	AVR1:0
R155	Open	Normal operation.	
R160	Open	Normal operation.	
R161	Open	Normal operation.	
R162	Open	Normal operation.	
R163	Open	Normal operation.	
R190	Open	Normal operation.	
R201	Open	Normal operation.	
R202	Open	Normal operation.	
R203	Open	Normal operation.	
R204	Open	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
R205	Open		Normal operation.	
R206	Open		Normal operation.	
R207	Open		Normal operation.	
R211	Open		Normal operation.	
R212	Open		Normal operation.	
R213	Open		Normal operation.	
R214	Open		Normal operation.	
R215	Open		Normal operation.	
R216	Open		No Hazard.	AVR1:0
R217	Open		Normal operation.	
R218	Open	only 48	Normal operation.	
R219	Open		No Hazard.	AVR1:0
R220	Open		No Hazard.	AVR1:0
R221	Open		No Hazard.	AVR1:0
R222	Open		Normal operation.	
R223	Open		Normal operation.	
R224	Open		Normal operation.	
R225	Open		Output voltage decreased. No hazard.	AVR1:decreased
R227	Open		Output voltage decreased. No hazard.	AVR1:decreased
R228	Open		Output voltage decreased. No hazard.	AVR1:decreased
R235	Open		No Hazard.	AVR1:0
R236	Open		Normal operation.	
R237	Open		Normal operation.	
R239	Open		Normal operation.	



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Component	Mode	Comment	Output Voltage (V)
R240	Open	Normal operation.	
R241	Open	Normal operation.	
R271	Open	Normal operation.	
R272	Open	Normal operation.	
R273	Open	Normal operation.	
R274	Open	Normal operation.	
R277	Open	Normal operation.	
R278	Open	Normal operation.	
R279	Open	Normal operation.	
R280	Open	Normal operation.	
R501	Open	Normal operation.	
R502	Open	Normal operation.	
R503	Open	Normal operation.	
R504	Open	Normal operation.	
R505	Open	Normal operation.	
R506	Open	Normal operation.	
R507	Open	Normal operation.	
R508	Open	Normal operation.	
R509	Open	See 20 Page.	
R510	Open	Normal operation.	
R511	Open	Normal operation.	
R512	Open	Normal operation.	
R530	Open	Normal operation.	
R531	Open	Normal operation.	

F M E A

Component	Mode		Comment	Output Voltage (V)
R532	Open		Normal operation.	
R533	Open		Normal operation.	
R534	Open	only 24	Normal operation.	
R535	Open	only 24	Normal operation.	
R540	Open		Normal operation.	
R541	Open		Normal operation.	
R542	Open		Normal operation.	
R543	Open		Normal operation.	
R544	Open	only 48	Normal operation.	
R545	Open	only 48	Normal operation.	
R546	Open	only 48	Normal operation.	
R547	Open	only 48	Normal operation.	
R548	Open	only 48	Normal operation.	
R601	Open		Output voltage decreased. No hazard.	AVR1:decreased
R602	Open		Output voltage decreased. No hazard.	AVR1:decreased
R603	Open		Output voltage decreased. No hazard.	AVR1:decreased
R604	Open		Normal operation.	
R605	Open		Output voltage decreased. No hazard.	AVR1:decreased
R606	Open		No Hazard.	AVR1:0
R607	Open		No Hazard.	AVR1:0
R608	Open		Output voltage decreased. No hazard.	AVR1:decreased
R609	Open	only 24	No Hazard.	AVR1:0

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
C121	Short		F101 opened, No hazard.	AVR1:0
C122	Short		F101 opened, No hazard.	AVR1:0
C201	Short		No Hazard.	AVR1:0
C270	Open		Normal operation.	
	Short		Normal operation.	
C271	Open		Normal operation.	
	Short		Normal operation.	
C501	Open		Normal operation.	
	Short		Normal operation.	
C502	Open		Normal operation.	
	Short		Normal operation.	
C503	Open		Normal operation.	
	Short		Normal operation.	
C504	Open		Normal operation.	
	Short		Normal operation.	
C505	Short		Normal operation.	
D201	Open		No Hazard.	AVR1:0
	Short		No Hazard.	AVR1:0
D501	Short		Normal operation.	
L103	Short	3-4, 5	F101 opened, No hazard.	AVR1:0
		9-10	F101 opened, No hazard.	AVR1:0
L507	Open		F101 opened, No hazard.	AVR1:0
SS102	Open	Alternative	Normal operation.	
SS501	Open	Alternative	Normal operation.	

ABNORMAL TEST RESULT

Component	Mode		Comment	Output Voltage (V)
SS502	Open	Cathode	Normal operation.	
		Alternative	Normal operation.	
SS503	Open	Cathode	Normal operation.	
		Alternative	Normal operation.	
T201	Open	7	No Hazard.	AVR1:0
		8, 9, 10	Normal operation.	
		12, 13, 14	Normal operation.	
	Short	5-6	No Hazard.	AVR1:0
		6-7	No Hazard.	AVR1:0
TR102	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	F101 opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
TR201	Open	D	No Hazard.	AVR1:0
		S	No Hazard.	AVR1:0
		G	No Hazard.	AVR1:0
	Short	D-S	F101 opened, No hazard.	AVR1:0
		S-G	No Hazard.	AVR1:0
		G-D	F101 opened, No hazard.	AVR1:0
R152	Open		No Hazard.	AVR1:0
R509	Open		Normal operation.	