

ABNORMAL TEST RESULT

OF MODEL KL□A120F-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 : 2/18 ~ 16/18)

(Abnormal Test Result: 17/18 ~ 18/18)

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 |
| C103 | Open | See 17 Page. | |
| | Short | F101 opened, No hazard. | AVR1:0 |
| C106 | Open | Normal operation | |
| | Short | No hazard. | AVR1:0 |
| C109 | Open | Normal operation | |
| | Short | Normal operation | |
| C110 | 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 | Normal operation | |
| C115 | Open | Normal operation | |
| | Short | Normal operation | |
| C116 | Open | Normal operation | |
| | Short | Normal operation | |
| C120 | Open | See 17 Page. | |
| | Short | No hazard. | AVR1:0 |

F M E A

| Component | Mode | Comment | Output Voltage (V) |
|-----------|-------|------------------|--------------------|
| C121 | Open | See 17 Page. | |
| | Short | No hazard. | AVR1:0 |
| C201 | Open | Normal operation | |
| | Short | No hazard. | AVR1:0 |
| C202 | Open | Normal operation | |
| | Short | No hazard. | AVR1:0 |
| C204 | Open | Normal operation | |
| | Short | No hazard. | AVR1:0 |
| C205 | Open | Normal operation | |
| | Short | No hazard. | AVR1:0 |
| C206 | Open | Normal operation | |
| | Short | Normal operation | |
| C207 | Open | Normal operation | |
| | Short | Normal operation | |
| C209 | Open | Normal operation | |
| | Short | No hazard. | AVR1:0 |
| C220 | Open | Normal operation | |
| | Short | Normal operation | |
| C221 | Open | Normal operation | |
| | Short | Normal operation | |
| C226 | Open | Normal operation | |
| | Short | Normal operation | |
| C501 | Open | Normal operation | |
| | Short | Normal operation | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|---------|---------------------------|--------------------|
| C502 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C503 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C504 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C505 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C506 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C507 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C508 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C513 | Open | Only 48 | Normal operation | |
| | Short | Only 48 | Normal operation | |
| C514 | Open | Only 48 | Normal operation | |
| | Short | Only 48 | Normal operation | |
| C515 | Open | | Output voltage decreased. | AVR1:decreased |
| | Short | | Output voltage decreased. | AVR1:decreased |
| C516 | Open | | Output voltage decreased. | AVR1:decreased |
| | Short | | Output voltage decreased. | AVR1:decreased |
| C518 | Open | | Normal operation | |
| | Short | | Normal operation | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|---------|---------------------------|--------------------|
| C519 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C520 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C521 | Open | | Normal operation | |
| | Short | | Normal operation | |
| C522 | Open | | Output voltage decreased. | AVR1:decreased |
| | Short | | Output voltage decreased. | AVR1:decreased |
| C523 | Open | Only 48 | Output voltage decreased. | AVR1:decreased |
| | Short | Only 48 | Output voltage decreased. | AVR1:decreased |
| C602 | Open | | Output voltage decreased. | AVR1:decreased |
| | Short | | Normal operation | |
| C606 | Open | Only 24 | Output voltage decreased. | AVR1:decreased |
| | Short | Only 24 | Output voltage decreased. | AVR1:decreased |
| D101 | Open | | No hazard. | AVR1:0 |
| | Short | | F101 opened, No hazard | AVR1:0 |
| D102 | Open | | Normal operation | |
| | Short | | No hazard. | AVR1:0 |
| D103 | Open | | See 17 Page. | |
| | Short | | Normal operation | |
| D104 | Open | | Normal operation | |
| | Short | | No hazard. | AVR1:0 |
| D105 | Open | | Normal operation | |
| | Short | | Normal operation | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|---|---------------------------|--------------------|
| D106 | Open | | Normal operation | |
| | Short | | Normal operation | |
| D107 | Open | | Normal operation | |
| | Short | | Normal operation | |
| D201 | Open | | Output voltage decreased. | AVR1:decreased |
| | Short | | See 17 Page. | |
| D202 | Open | | See 17 Page. | |
| | Short | | Normal operation | |
| D203 | Open | | Normal operation | |
| | Short | | Normal operation | |
| D204 | Open | | Normal operation | |
| | Short | | No hazard. | AVR1:0 |
| D205 | Open | | Normal operation | |
| | Short | | Normal operation | |
| D206 | Open | | See 17 Page. | |
| | Short | | Normal operation | |
| D210 | Open | | Normal operation | |
| | Short | | See 17 Page. | |
| IC201 | Open | 1 | Output voltage decreased. | AVR1:decreased |
| | | 2 | No hazard. | AVR1:0 |
| | | 3 | Output voltage decreased. | AVR1:decreased |
| | | 4 | No hazard. | AVR1:0 |
| | | 5 | Normal operation | |
| | | 6 | See 17 Page. | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|-------|---------------------------|--------------------|
| IC201 | Open | 7 | No hazard. | AVR1:0 |
| | | 8 | See 17 Page. | |
| | | 9 | No hazard. | AVR1:0 |
| | | 10 | See 17 Page. | |
| | | 11 | Normal operation | |
| | | 12 | Output voltage decreased. | AVR1:decreased |
| | | 13 | No hazard. | AVR1:0 |
| | | 14 | No hazard. | AVR1:0 |
| | | 16 | Normal operation | |
| | Short | 1-2 | See 17 Page. | |
| | | 2-3 | No hazard. | AVR1:0 |
| | | 3-4 | See 17 Page. | |
| | | 4-5 | No hazard. | AVR1:0 |
| | | 5-6 | See 17 Page. | |
| | | 6-7 | See 17 Page. | |
| | | 7-8 | See 17 Page. | |
| | | 9-10 | No hazard. | AVR1:0 |
| | | 10-11 | Normal operation | |
| | | 11-12 | No hazard. | AVR1:0 |
| | | 12-13 | See 17 Page. | |
| | | 13-14 | No hazard. | AVR1:0 |
| | | 14-15 | Normal operation | |
| | | 15-16 | Normal operation | |
| IC601 | Open | 1 | Normal operation | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|---------|---------------------------|--------------------|
| IC601 | Open | 2 | Normal operation | |
| | | 3 | No hazard. | AVR1:0 |
| | | 4 | No hazard. | AVR1:0 |
| | | 5 | No hazard. | AVR1:0 |
| | Short | 2-3 | Output voltage decreased. | AVR1:decreased |
| | | 4-5 | No hazard. | AVR1:0 |
| J501 | Open | Only 24 | Normal operation | |
| J502 | Open | Only 24 | Normal operation | |
| J601 | Open | Only 24 | No hazard. | AVR1:0 |
| J602 | Open | | No hazard. | AVR1:0 |
| L101 | Open | | No hazard. | AVR1:0 |
| | Short | | Normal operation | |
| L102 | Open | | No hazard. | AVR1:0 |
| | Short | | Normal operation | |
| L103 | Open | 11 | See 17 Page. | |
| | | 12 | See 17 Page. | |
| | | 9 | No hazard. | AVR1:0 |
| | | 1 | No hazard. | AVR1:0 |
| | Short | 11-12 | No hazard. | AVR1:0 |
| L501 | Open | | See 17 Page. | |
| | Short | | Normal operation | |
| LED501 | Open | | Normal operation | |
| | Short | | Normal operation | |
| PC201 | Open | A, K | No hazard. | AVR1:0 |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|-------------|---------------------------|--------------------|
| PC201 | Open | C, E | No hazard. | AVR1:0 |
| | Short | A-K | No hazard. | AVR1:0 |
| | | C-E | Output voltage decreased. | AVR1:decreased |
| 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 | |
| SK101 | Open | | Normal operation | |
| | Short | | F101 opened, No hazard. | AVR1:0 |
| SS101 | Open | | No hazard. | AVR1:0 |
| | Short | | F101 opened, No hazard. | AVR1:0 |
| SS501 | Open | Cathod | No hazard. | AVR1:0 |
| | | Alternative | See 17 Page. | |
| | Short | C-A | No hazard. | AVR1:0 |
| T201 | Open | 1 | No hazard. | AVR1:0 |
| | | 2 | No hazard. | AVR1:0 |
| | | 3 | Normal operation | |
| | | 4 | See 17 Page. | |
| | | 5 | See 17 Page. | |
| | | 7, 8, 9 | No hazard. | AVR1:0 |
| | | 10, 11 | No hazard. | AVR1:0 |
| | Short | 1-2 | F101 opened, No hazard | AVR1:0 |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|----------------|------------------------|--------------------|
| T201 | Short | 2-3 | No hazard. | AVR1:0 |
| | | 3-4 | See 17 Page. | |
| | | 4-5 | F101 opened, No hazard | AVR1:0 |
| | | 7, 8, 9-10, 11 | See 17 Page. | |
| TH101 | Open | | Normal operation | |
| | Short | | Normal operation | |
| TR101 | Open | D | No hazard. | AVR1:0 |
| | | S | No hazard. | AVR1:0 |
| | | G | See 18 Page. | |
| | Short | D-S | See 18 Page. | |
| | | S-G | No hazard. | AVR1:0 |
| | | G-D | See 18 Page. | |
| TR201 | Open | D | See 18 Page. | |
| | | S | See 18 Page. | |
| | | G | See 18 Page. | |
| | Short | D-S | See 18 Page. | |
| | | S-G | See 18 Page. | |
| | | G-D | See 18 Page. | |
| TR202 | Open | S(1) | Normal operation | |
| | | G(2) | Normal operation | |
| | | D(3) | Normal operation | |
| | | S(4) | Normal operation | |
| | | G(5) | Normal operation | |
| | | D(6) | Normal operation | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|-------|---------------------------|--------------------|
| TR202 | Short | 1-2 | Normal operation | |
| | | 2-3 | Normal operation | |
| | | 4-5 | Normal operation | |
| | | 5-6 | Normal operation | |
| TR203 | Open | C | See 18 Page. | |
| | | E | See 18 Page. | |
| | | B | See 18 Page. | |
| | Short | C-E | Normal operation | |
| | | E-B | Normal operation | |
| | | B-C | Normal operation | |
| TR206 | 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. | AVR1:decreased |
| | | | Output voltage decreased. | AVR1:decreased |
| | Short | | No hazard. | AVR1:0 |
| ZD101 | Open | | Normal operation | |
| | Short | | Normal operation | |
| ZD102 | Open | | Normal operation | |
| | Short | | Normal operation | |
| ZD202 | Open | | Normal operation | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|---------|------------------|--------------------|
| ZD202 | Short | | See 18 Page. | |
| ZD501 | Open | Only 48 | Normal operation | |
| | Short | Only 48 | No hazard. | AVR1:0 |
| ZD502 | Open | | Normal operation | |
| | Short | | 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 | No hazard. | AVR1:0 |
| R101 | Open | | Normal operation | |
| R102 | Open | | Normal operation | |
| R103 | Open | | Normal operation | |
| R104 | Open | | Normal operation | |
| R105 | Open | | Normal operation | |
| R106 | Open | | No hazard. | AVR1:0 |
| R107 | Open | | No hazard. | AVR1:0 |
| R108 | Open | | No hazard. | AVR1:0 |
| R109 | Open | | No hazard. | AVR1:0 |
| R110 | Open | | Normal operation | |
| R111 | Open | | Normal operation | |
| R112 | Open | | Normal operation | |
| R115 | Open | | See 18 Page. | |

F M E A

| Component | Mode | Comment | Output Voltage (V) |
|-----------|------|---------------------------|--------------------|
| R119 | Open | No hazard. | AVR1:0 |
| R120 | Open | Normal operation | |
| R121 | Open | Normal operation | |
| R123 | Open | Normal operation | |
| R124 | Open | Normal operation | |
| R125 | Open | Normal operation | |
| R126 | Open | Output voltage decreased. | AVR1:decreased |
| R127 | Open | Output voltage decreased. | AVR1:decreased |
| R128 | Open | Output voltage decreased. | AVR1:decreased |
| R130 | Open | Normal operation | |
| R131 | Open | No hazard. | AVR1:0 |
| R132 | Open | No hazard. | AVR1:0 |
| R133 | Open | No hazard. | AVR1:0 |
| R134 | Open | No hazard. | AVR1:0 |
| R135 | Open | No hazard. | AVR1:0 |
| R136 | Open | No hazard. | AVR1:0 |
| R137 | Open | No hazard. | AVR1:0 |
| R138 | Open | Normal operation | |
| R139 | Open | Normal operation | |
| R140 | Open | Normal operation | |
| R150 | Open | Normal operation | |
| R151 | Open | No hazard. | AVR1:0 |
| R152 | Open | Normal operation | |
| R153 | Open | Normal operation | |

F M E A

| Component | Mode | Comment | Output Voltage (V) |
|-----------|------|---------------------------|--------------------|
| R154 | Open | Normal operation | |
| R155 | Open | Normal operation | |
| R201 | Open | Normal operation | |
| R202 | Open | Normal operation | |
| R203 | Open | See 18 Page. | |
| R204 | Open | See 18 Page. | |
| R205 | Open | No hazard. | AVR1:0 |
| R206 | Open | Normal operation | |
| R208 | Open | Normal operation | |
| R209 | Open | No hazard. | AVR1:0 |
| R210 | Open | Normal operation | |
| R211 | Open | Normal operation | |
| R212 | Open | No hazard. | AVR1:0 |
| R213 | Open | No hazard. | AVR1:0 |
| R215 | Open | No hazard. | AVR1:0 |
| R216 | Open | Normal operation | |
| R217 | Open | Output voltage decreased. | AVR1:decreased |
| R218 | Open | Output voltage decreased. | AVR1:decreased |
| R219 | Open | Normal operation | |
| R230 | Open | Normal operation | |
| R231 | Open | Normal operation | |
| R232 | Open | Normal operation | |
| R233 | Open | Normal operation | |
| R234 | Open | Normal operation | |

F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|------|---------|---------------------------|--------------------|
| R235 | Open | | Normal operation | |
| R236 | Open | | Normal operation | |
| R237 | Open | | Normal operation | |
| R238 | Open | | Normal operation | |
| R239 | Open | | Normal operation | |
| R240 | Open | | Normal operation | |
| R241 | Open | | Normal operation | |
| R246 | Open | | Normal operation | |
| R247 | Open | | Normal operation | |
| R248 | Open | | Normal operation | |
| R501 | Open | | Normal operation | |
| R502 | Open | | Normal operation | |
| R503 | Open | | Normal operation | |
| R504 | Open | | Normal operation | |
| R510 | Open | Only 48 | Normal operation | |
| R520 | Open | | Normal operation | |
| R521 | Open | | Normal operation | |
| R522 | Open | | Normal operation | |
| R523 | Open | | Normal operation | |
| R601 | Open | | Output voltage decreased. | AVR1:decreased |
| R602 | Open | | Output voltage decreased. | AVR1:decreased |
| R604 | Open | | Normal operation | |
| R605 | Open | | Output voltage decreased. | AVR1:decreased |
| R606 | Open | | No hazard. | AVR1:0 |



F M E A

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|------|---------|---------------------------|--------------------|
| R607 | Open | | No hazard. | AVR1:0 |
| R608 | Open | | Output voltage decreased. | AVR1:decreased |
| R609 | Open | Only 24 | Output voltage decreased. | AVR1:decreased |
| R610 | Open | | Output voltage decreased. | AVR1:decreased |

ABNORMAL TEST RESULT

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|-------------|------------------------|--------------------|
| C103 | Open | | Normal operation. | |
| C120 | Open | | Normal operation | |
| C121 | Open | | Normal operation | |
| D103 | Open | | Normal operation | |
| D201 | Short | | Normal operation | |
| D202 | Open | | Normal operation | |
| D206 | Open | | Normal operation | |
| D210 | Short | | Normal operation | |
| IC201 | Open | 6 | Normal operation | |
| | | 8 | Normal operation | |
| | | 10 | No hazard. | AVR1:0 |
| | Short | 1-2 | No hazard. | AVR1:0 |
| | | 3-4 | No hazard. | AVR1:0 |
| | | 5-6 | Normal operation | |
| | | 6-7 | Normal operation | |
| | | 7-8 | No hazard. | AVR1:0 |
| | | 12-13 | No hazard. | AVR1:0 |
| L103 | Open | 11 | Normal operation | |
| | | 12 | Normal operation | |
| L501 | Open | | No hazard. | AVR1:0 |
| SS501 | Open | Alternative | Normal operation | |
| T201 | Open | 4 | No hazard. | AVR1:0 |
| | | 5 | No hazard. | AVR1:0 |
| | Short | 3-4 | F101 opened, No hazard | AVR1:0 |

ABNORMAL TEST RESULT

| Component | Mode | | Comment | Output Voltage (V) |
|-----------|-------|-------------|---------------------------|--------------------|
| T201 | Short | 8, 9-10, 11 | F101 opened, No hazard | AVR1:0 |
| TR101 | Open | D | Normal operation | |
| | | S | Normal operation | |
| | | G | F101 opened, No hazard | AVR1:0 |
| | Short | D-S | F101 opened, No hazard | AVR1:0 |
| | | S-G | Normal operation | |
| | | G-D | F101 opened, No hazard | AVR1:0 |
| TR201 | Open | D | No hazard. | AVR1:0 |
| | | S | F101 opened, No hazard | AVR1:0 |
| | | G | F101 opened, 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 |
| TR203 | Open | C | No hazard. | AVR1:0 |
| | | E | No hazard. | AVR1:0 |
| | | B | No hazard. | AVR1:0 |
| ZD202 | Short | | No hazard. | AVR1:0 |
| R115 | Open | | Normal operation | |
| R203 | Open | | No hazard. | AVR1:0 |
| R204 | Open | | Output voltage decreased. | AVR1:decreased |