

TITLE	SPECIFICATION NUMBER	Rev.	Page
KLT30F SERIES SPECIFICATIONS	H00060N	0	1/5

**MODEL NUMBER, RATINGS**

MODEL NUMBER	Input Ratings	Output Voltage and Current * 1					
		CH1		CH2		CH3	
		Voltage(V)	Current(A)	Voltage(V)	Current(A)	Voltage(V)	Current(A)
KLT30F-0522	100-230V 50-60Hz	+5	0~4	+12	0~1.2	-12	0~0.5
KLT30F-0533	100-230V 50-60Hz	+5	0~4	+15	0~1.0	-15	0~0.5

\*1: Total output wattage not exceed 30W.

**MAXIMUM RATINGS**

ITEMS	MIN	MAX	UNIT
Input Voltage	85	264	Vac
Input Frequency	47	63	Hz
Output Power	0	30	W
Isolation Resistance	Pri. - Sec. DC 500V	100	MΩ
	Pri. - Case DC 500V	100	
	Sec. - Case DC 500V	100	
Isolation Voltage	Pri. - Sec. 10mA	3000	Vac 1min.
	Pri. - Case 10mA	1500	
	Sec. - Case 20mA	500	
Operating temperature	*2	0	60 °C
Storage Temperature		-20	85 °C
Humidity	*3	20	85 %Rh

\*2: See derating curve FIG.1.

\*3: No condensing

**Electrical Characteristics (Common Items) Ta=25°C, AC100/230V, 50/60Hz, TYP Output**

ITEMS	CONDITIONS	MIN	TYP	MAX	UNIT
Input Regulation	Vin=85~132, 170~264	—	—	50	mV
Input Current	Vin=100V	—	0.8	—	A
	Vin=230V	—	0.4	—	A
In-rush Current	Vin=100V, 50Hz	—	15	—	A
	Vin=230V, 50Hz	—	30	—	A
Rise-up Time	Vin=100V	—	—	100	ms
	Vin=230V	—	—	100	ms
Hold-up Time	CH1	—	20	—	ms
	CH2, CH3	—	20	—	ms
Leakage Current	Vin=100V, 60Hz	—	—	0.5	mArms
	Vin=230V, 60Hz	—	—	0.75	mArms
OCP point		105	—	—	%
Drift	8H, after 1H	—	—	0.5%+15	mV
Tem. coefficient		—	—	0.02	%/°C

**KAGA COMPONENTS CO., LTD.**  
**NIIGATA FACTORY**

SECTION

Engineer

DATE

02-Jul-03

Drawn

Check

Approved

rev. 1		rev. 4	
rev. 2		rev. 5	
rev. 3		rev. 6	
TITLE		SPECIFICATION NUMBER	Rev.
KLT30F SERIES SPECIFICATIONS		H00060N	0
			Page
			2/5

Electrical Characteristics (Model by)

KLT30F-0522 Ta=25°C, AC100/230V, 50/60Hz, TYP Output

ITEMS	CONDITION		MIN	TYP	MAX	UNIT
OVP point	CH1 only		5.75	—	—	V
Output Voltage		CH1	—	5.0	5.25	V
		CH2	11.4	12.0	12.6	V
		CH3	11.4	12.0	12.6	V
Output Current	*4 *5	CH1	—	3	4	A
		CH2	—	0.8	1.2	A
		CH3	—	0.45	0.5	A
Load Regulation		CH1	—	—	100	mV
		CH2	—	—	120	mV
		CH3	—	—	120	mV
Ripple	BW=DC~100MHz	CH1	—	—	100	mV
		CH2	—	—	100	mV
		CH3	—	—	100	mV
Ripple and Noise	BW=DC~100MHz	CH1	—	—	150	mV
		CH2	—	—	150	mV
		CH3	—	—	150	mV
Efficiency	Vin=100V		—	70	—	%
	Vin=230V		—	70	—	%

KLT30F-0533 Ta=25°C, AC100/230V, 50/60Hz, TYP Output

ITEMS	CONDITION		MIN	TYP	MAX	UNIT
OVP point	CH1 only		5.75	—	—	V
Output Voltage		CH1	—	5.0	5.25	V
		CH2	14.25	15.0	15.75	V
		CH3	14.25	15.0	15.75	V
Output Current	*4 *5	CH1	—	3	4	A
		CH2	—	0.65	1	A
		CH3	—	0.35	0.5	A
Load Regulation		CH1	—	—	100	mV
		CH2	—	—	120	mV
		CH3	—	—	120	mV
Ripple	BW=DC~100MHz	CH1	—	—	100	mV
		CH2	—	—	100	mV
		CH3	—	—	100	mV
Ripple and Noise	BW=DC~100MHz	CH1	—	—	150	mV
		CH2	—	—	150	mV
		CH3	—	—	150	mV
Efficiency	Vin=100V		—	70	—	%
	Vin=230V		—	70	—	%

\*4 : Total output wattage do not exceed 30W

\*5 : Using less than 10% of rated output, it is possible that regulation and ripple noise

TITLE	SPECIFICATION NUMBER	Rev.	Page
KLT30F SERIES SPECIFICATIONS	H00060N	0	3/5

**Vibration and Shock**    Vibration    10~55Hz 0.5mm 3direction each 30min.  
                                  Shock            20G (3direction each 3 times)

**Additional function**    Over Current Protection    Automatic Recovery  
                                  Over Voltage Protection    CH1 only Zener limiter  
                                  Voltage adjust                CH1

**Safety**                    UL60950  
                                  CSA22.2 No.60950  
                                  CE(LVD)

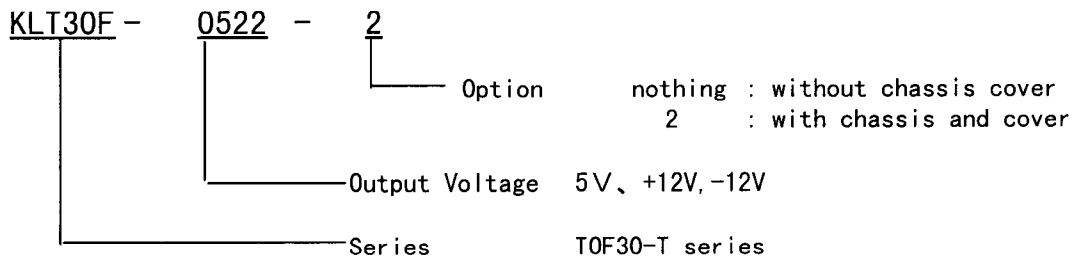
**EMI**                      FCC Part15                    EN55022                    VCCI (B)                    meet

**Warranty**                3 years

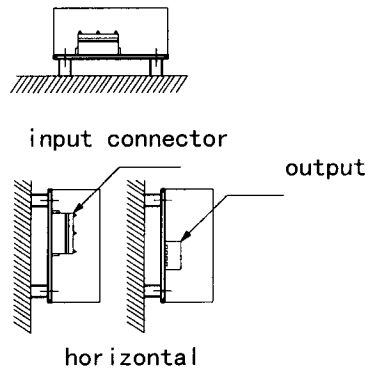
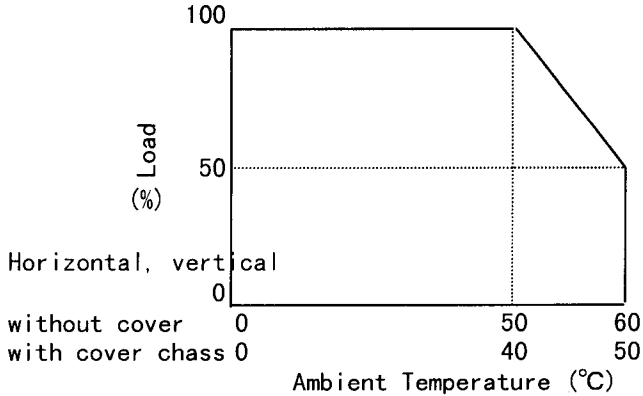
**Cautions**

- ☆ Avoid sustained dead short condition
- ☆ CH1 separated CH2, CH3
- ☆ Units may not rise-up over 10,000uF capacitor add output.
  
- ☆ Do not exceed total output power 30W.

**Model designation**



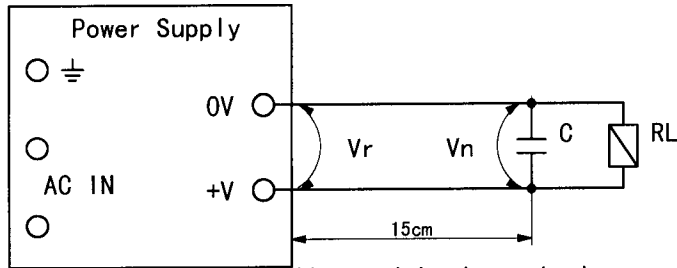
**FIG. 1 Derating Curve (Load vs ambient Temperature) vertical**



**KAGA COMPONENTS CO., LTD.**  
**NIIGATA FACTORY**

TITLE	SPECIFICATION NUMBER	Rev.	Page
KLT30F SERIES SPECIFICATIONS	H00060N	0	4/5

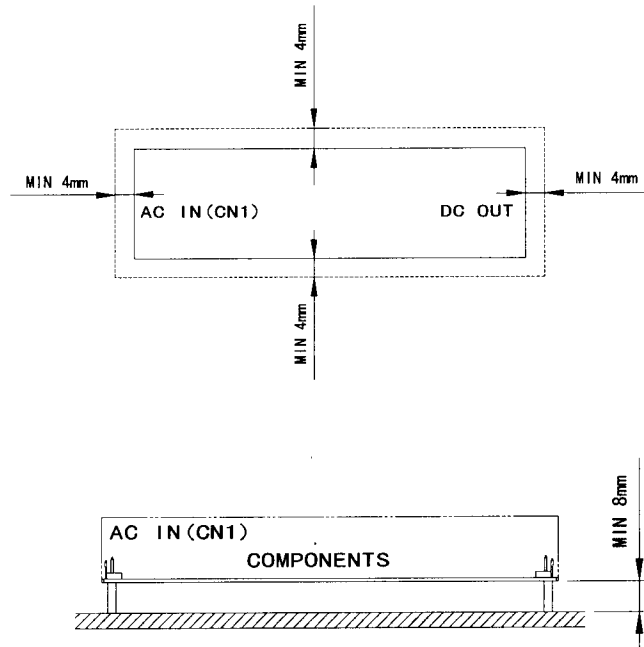
**Measurement Circuit**



$V_r$ : Output voltage, line and load regulation  
 $V_n$ : Ripple and Noise (with Bayonet probe)  
 $C$ : 0.1 $\mu$ F film capacitor and 47  $\mu$ F electrolytic capacitor)

**Caution**


- \* Do not use in overcurrent condition or short mode.
- \* There are differ ground line from CH1 to CH2, CH3.
- \* Using too large of capacitor (10,000 $\mu$ F) on your load may prevent the power supply from providing the rated output voltage.
- \* Do not use output wattage of CH1, Ch2, CH3 more than rated wattage
- \* When installing the components or laying out the pattern around the unit, maintain the distance below. If this distance can not be kept, insert an insulation sheet between them.

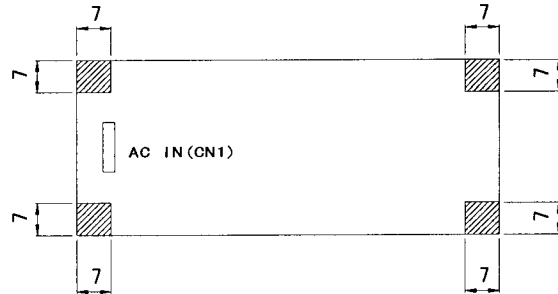


TITLE	SPECIFICATION NUMBER	Rev.	Page
KLT30F SERIES SPECIFICATIONS	H00060N	0	5/5

**Mounting**

Use M3 screw for fix this unit.

 parts is permitted to use metal chassis and screw.



unit (mm)