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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

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SECTION
Engineer

DATE
02-Jul-03

Drawn

Check

Approved

rev. 1		rev. 4	
rev. 2		rev. 5	
rev. 3		rev. 6	
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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

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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

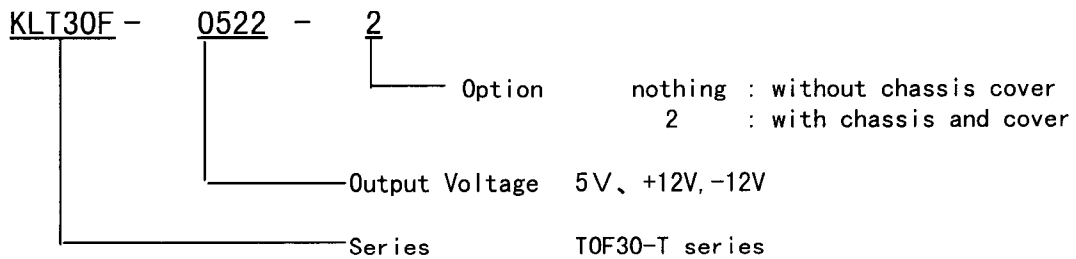
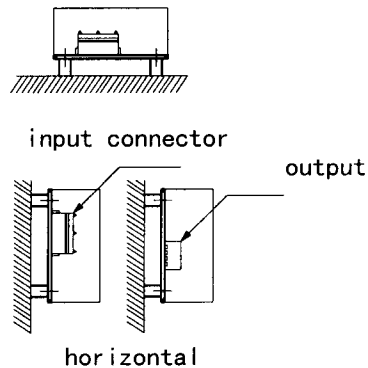
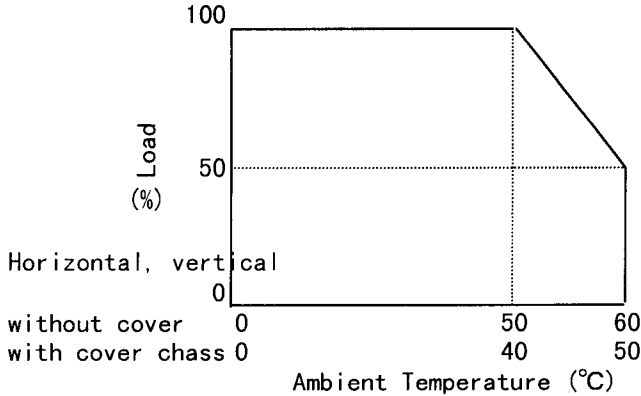


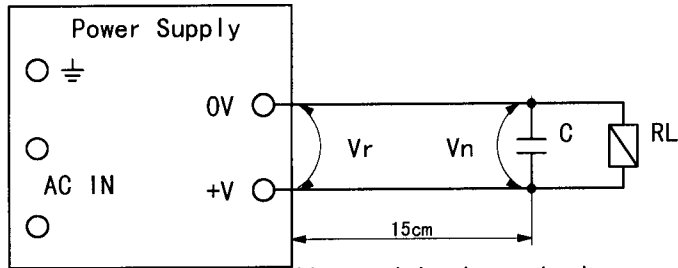
FIG. 1 Derating Curve (Load vs ambient Temperature) vertical



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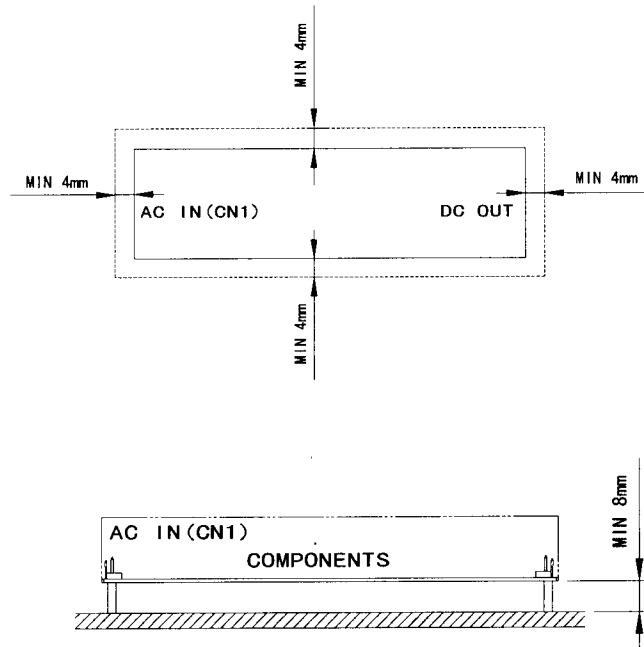
Measurement Circuit



V_r : Output voltage, line and load regulation
 V_n : Ripple and Noise (with Bayonet probe)
 C : 0.1 μ F film capacitor and 47 μ 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 μ 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.

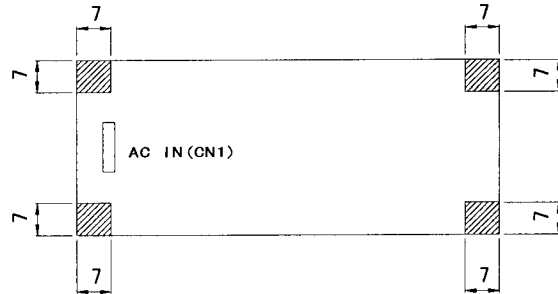


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Mounting

Use M3 screw for fix this unit.

 parts is permitted to use metal chassis and screw.



unit (mm)