

Model LS-530

12 Volt Input

Dual Tube CCFT Inverter

Brightness Control

RoHS COMPLIANT

Physical Specifications

Dimensions:	20mm x 130mm x 14mm (0.787" x 5.12" x 0.551")
Weight:	36g (1.28 oz.)
Operating Temp:	0 to 60°C, convection cooling
Relative Humidity:	20% to 90%, non-condensing
Storage:	-20 to 85°C/5-95% RH
Impact Resistance:	50G half wave per 2 msec
Vibration Resistance:	10-55-10 Hz/min @ 1.5mm



Input Specifications*

Item	Condition	Standard
Input Voltage Rated Tolerance	— Continuous Operation Starting Condition (Discharge Starting Voltage)	12 Vdc 9.6 Vdc - 14.4 Vdc 9.6 Vdc - 14.4 Vdc
Input Current	$V_{IN} = 12.0 \text{ Vdc}$, $V_{BR} = 0 \text{ V}$ Luminance @ Max.	0.65 A
Rush Current	$V_{IN} = 14.4 \text{ Vdc}$ Luminance @ Max.	5.0 Azero-p/20 μS or less
Max. Input Power	$V_{IN} = 12.0 \text{ Vdc}$, $V_{BR} = 0 \text{ V}$ Luminance @ Max.	8 W
On/Off Input Current	On/Off $L = 0.0 - 0.4 \text{ Vdc}$ $V_{IN} = 14.4 \text{ Vdc}$	$I_{LOW} = -0.45 \text{ mA}$ or more (Lamp Lighting)
	On/Off H = Open or V_{IN}	— (Lamp Off)

*Above Specifications Occur @ 25 $\pm$ 5°C

Output Specifications*

Item	Condition	Standard		
		MIN	TYP	MAX
Output Voltage (Vrms)	$V_{IN} = 9.6 \text{ Vdc}$, $V_{BR} = 0 \text{ V}$	1500	—	—
Tube Current (mAmps)	Luminance @ Max. ($V_{IN} = 12.0 \text{ V}$, $V_{BR} = 0 \text{ V}$) Luminance @ Min. ($V_{IN} = 12.0 \text{ V}$, $V_{BR} = 2.5 \text{ V}$)	—	7.0 3.0	—
Max. Power Output (W)	$V_{IN} = 12 \text{ Vdc}$ /Luminance @ Max.	—	—	4.0
Ignition Frequency (kHz)	Luminance @ Max.	—	60	—

*Above specifications occur @ 25 $\pm$ 5°C & $V_{IN} = 9.6 - 15 \text{ Vdc}$.

Model

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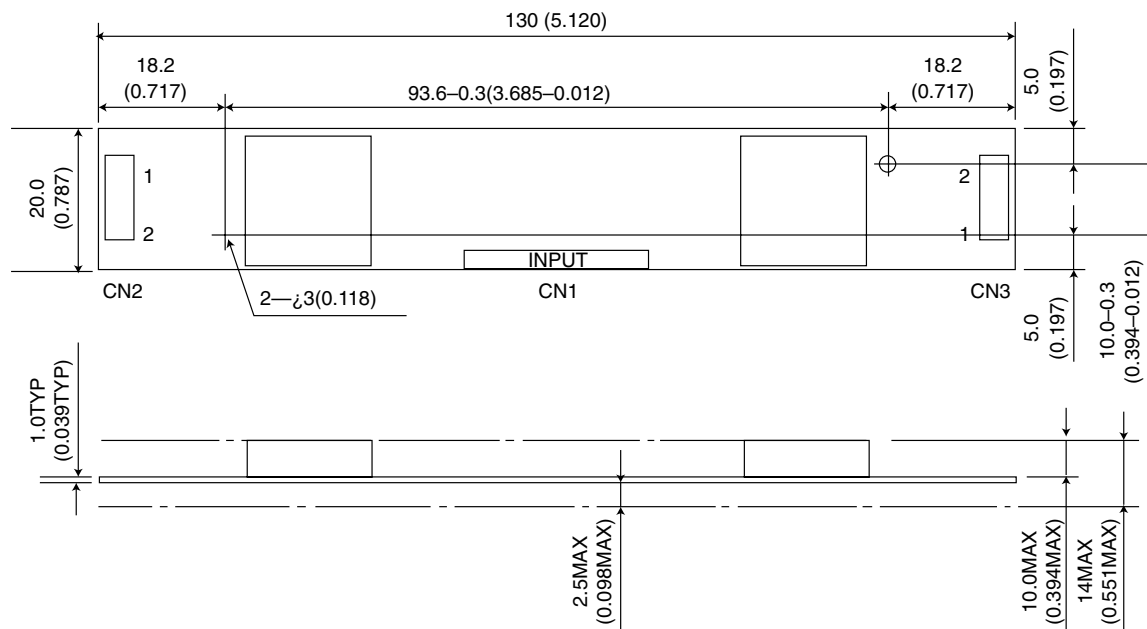
Insulating Withstand Voltage

Item	Rating Description	
Insulating Withstand Voltage	Primary - Secondary	2.0 kVA Impulse
Insulating Resistance	Primary - Secondary Winding - Core	500 Vdc More than 100 MΩ

* Apply voltage to pin 6.

Luminance Variance

Item	Condition	Applied Voltage	Output Current
Luminance @ Max.	Btwn. pin 6 & 7	Vbr = 0.0 V	7.0 mA
Luminance @ Min.	Btwn. pin 6 & 7	Vbr = 2.5 V	3.0 mA



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TAIYO YUDEN

TAIYO YUDEN (U.S.A.), INC.
1770 La Costa Meadows Drive, San Marcos, CA 92078
(760) 510-3200 / Fax: (760) 471-4021
(800) 493-6835 www.t-yuden.com powerproducts@t-yuden.com

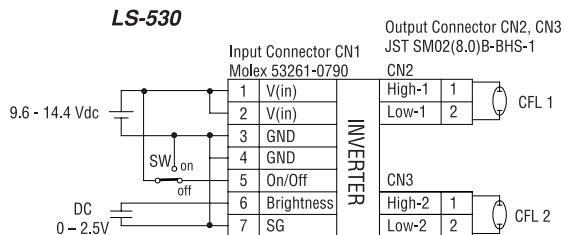


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Tech Notes

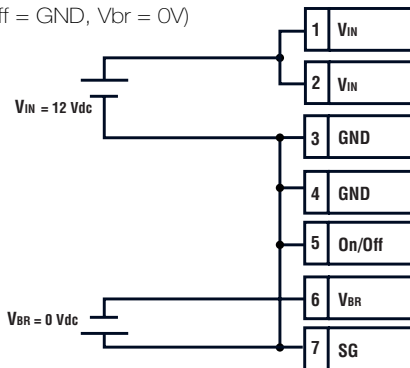
Connection Diagram



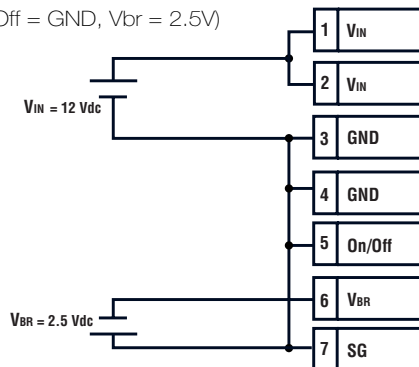
DC Brightness Control Method*

Maximum output current can be adjusted by applying bias voltage or using a variable resistor as shown below.

$I_{out} = 7mA$ ($V_{in} = 12V$, On/Off = GND, $V_{br} = 0V$)



$I_{out} = 3mA$ ($V_{in} = 12V$, On/Off = GND, $V_{br} = 2.5V$)



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