

Power Supply for Deuterium Lamps

Model No. MD310/MD330

1. These power supplies are designed for 30W Deuterium Lamps with the following features:

- High stability with high performance current control
- Compact size by using switching type power supply
- Workable with DC24V
- Insulated input for lighting start and output for lighting monitor are available, and those can be easily connected with Logic IC.

2. Characteristics

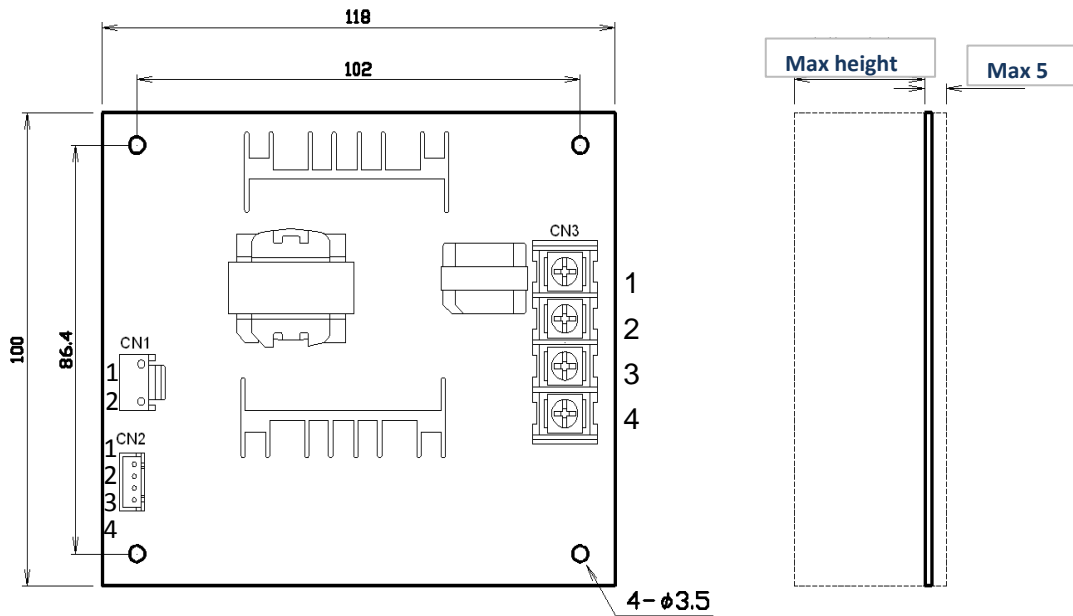
Based on 30 minutes after lighting lamp at the temperature of $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

Parameters			Requirement	
Input		Input voltage (DC)	$24 \pm 2.4\text{V}$	
		Input power during lighting	Max. 50W	
Output		Output voltage before lighting	Typ 200V	
		Output voltage during lighting	Typ 80V	
		Output current	$300 \pm 15\text{mA}$	
		Fluctuation of current	Typ 0.005%	
		Drift of current	Typ $\pm 0.02\%/h$	
		Pre-heating	$25 \pm 5 \text{ sec.}$	
		Trigger voltage	Min. 600V	
Filament	For 2.5V MD310	Pre-heating	Voltage $2.5 \pm 0.2\text{V}$	
		In operation	Current Typ 4A	
	For 10V MD330	Pre-heating	Voltage	$1 \pm 0.1\text{V}$
			Current	Typ 1.8A
		In operation	Voltage	$10 \pm 0.5\text{V}$
			Current	Typ 0.8A
In operation	Voltage	$7 \pm 0.4\text{V}$		
	Current	Typ 0.5A		
Cooling method			Air cooling	
Operating ambient temperature			$0 \sim 40^{\circ}\text{C}$	
Storage ambient temperature			$-10 \sim 60^{\circ}\text{C}$	
Operating & storage ambient humidity			Max 90%Rh	
Weight			250g	

3. Appearance and External dimensions



Appearance of power supply for Deuterium Lamps



External dimensions

4. Pin assignment of connectors

Connectors		Pin No.	Cable Color	Function
CN1	Power	1	red	DC24V (note 1)
		2	black	GND
CN2	Input & Output	1	red	Lamp's ON/OFF control (note 2)
		2	black	GND for above
		3	blue	Lighting status in operation (note 3)
		4	yellow	GND for above
CN3	Lamp Output	1	red(R)	Anode
		2	-	Shield (Sub-anode)
		3	blue(B2)	Filament
		4	blue(B1)	Filament & Cathode

note 1) If the lamp is not turned on with 50W (24V2.1A) power due to a rush current with DC24V or when the power is supplied, use 75W (24V3.2V) power.

note 2) About 10mA current is running at 5V operating voltage

note 3) 390Ω of open collector output

* These specifications are based on the data as of January 2016 and subject to change without notice.



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