

VARI-WATT DRIVERS



JAYKAL

PROJECT NAME:

JAYKAL LED SOLUTIONS, INC.

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PROJECT NOTES:

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OVERVIEW

This multi-current output LED driver gives the installer the ability to field select the desired wattage for the fixture. Multiple output wattages are available using simple DIP switch settings.

The driver features integrated bi-level dimming with selections of 40%, 50%, 60% or disabled. The ability to disable the bi-level dimming function allows the driver to be used with 0-10V wall dimmers and controls.

FEATURES

- ◆ Bi-Level Dimming Settings: 60%, 50%, 40%, Disabled
- ◆ Output Wattage and Bi-Level Dimming Selectable by DIP Switch
- ◆ 0-10V Dimming



OPERATION

Beginning with the power off, select the desired output wattage by configuring the **Setting 1** DIP switches to the desired setting. Once the output current settings are set the driver will maintain this constant current output. Configure **Setting 2** DIP switches to the desired bi-level dimming setting.

To activate the bi-level dimming function simply turn on the light switch. The fixture will illuminate to the **Setting 2** defined level. To raise the level to 100% (Full ON), within 10 seconds of turning on the light switch, return the switch to the OFF position and immediately back to on. The next time the light switch is turned on, the fixture will return to the bi-level preset.



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Specifications are typical values and may change without notification

efficiency. illuminated.

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GENERAL SPECIFICATIONS	
INPUT VOLTAGE	100-277VAC 50/60Hz +/- 10%
INRUSH CURRENT	<25A
HARMONICS (NOMINAL CONDITIONS)	Fully complies with EN61000-3-2
THD	<15% at 120V, <15% at 208V, <15% at 277V.
INPUT CURRENT PROTECTION	Fuse (Internal)
CONTINUOUS FULL RANGE DIMMING	100% - 10% of full power (standard configuration), minimum 40W Analog dimming current draw 1.5mA per fixture. Maximum number of fixtures = sensor current / 1.5mA
DIMMING OPTIONS	0-10V analog dimming by relay, ambient sensor, daylight sensor or any other compatible sensor. Bi-level dimming by relay or dry contact closure Digital dimming - with individual light point control and real-time feedback
OPERATING TEMPERATURE RANGE	-40°C to +50°C / -40°F to 122°F
OPERATING HUMIDITY	0 to 90% RH Non-Condensing
MAXIMUM CASE TEMPERATURE (T _c)	85°C / 185°F
REMOTE INSTALLATION LOSSES	Dependent upon wire length, significantly lower than class II losses
FCC COMPLIANCE	FCC Part15 Subpart A Class A
SURGE PROTECTION	IEEE C62.41 Category C Low Between phase and neutral 6KV / 3KA Between line and ground 10KV / 1KA
SELF-PROTECTION MECHANISMS	In the event of a short circuit, or open circuit; If the LED fails to light; In the end of the LED's life; Input current protection by internal fuse; Advanced surge protection between phase and neutral and between line and ground; Advanced output protection against arching or shorting to ground.

DRIVER LIFETIME						
MODEL	LD(Hr)	T ₀ (°C)	T (°C)	ΔT	L(Hr)	YEARS
VW-1224	10,000	105	63	0.00038	183,796.47	20.98
VW-1836	10,000	105	67	0.00100	139,297.09	15.9
VW-2440	10,000	105	71.7	0.0004	100,563.65	11.48
VW-4060	10,000	105	80	0.0003	56,569.63	6.46

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MODEL JLS6810D-VW-1224-D-10-S-X-4 (12W,16W,20W,24W) (M1)				
Wattage Settings	24W	20W	16W	12W
Input Voltage	100-277VAC +/- 10%			
Input Current	0.096@277V	0.08A@277V	0.072A@277V	0.62A@277V
Power Factor @120V 60Hz	0.992	0.992	0.994	0.995
Power Factor @277V 60Hz	0.984	0.98	0.975	0.965
THD @ 120V 60Hz (%)	14.4	13.9	12.3	8.5
THD @ 277V 60Hz (%)	11.7	9.9	10.3	11.4
Efficiency @ 100-277V 60Hz (%)	85.9%			
Wattage@60% Dimming	14.4W	12W	9.6W	7.2W
Wattage@50% Dimming	12W	10W	8W	6W
Wattage@40% Dimming	9.6W	8W	6.4W	4.8W
Current@60% Dimming	0.057A@277V	0.047A@277V	0.043A@277V	0.037A@277V
Current@50% Dimming	0.047A@277V	0.039A@277V	0.036A@277V	0.031A@277V
Current@40% Dimming	0.038A@277V	0.041A@277V	0.028A@277V	0.025A@277V
Current Dimming Disabled	0.096@277V	0.08A@277V	0.072A@277V	0.062A@277V
FCC Compliance	FCC Part15 Subpart A Class A			

MODEL JLS6810D-VW-1836-D-10-S-X-4 (18W,24W,30W,36W) (M2)				
Wattage Settings	36W	30W	24W	18W
Input Voltage	100-277VAC +/- 10%			
Input Current	0.144A@277V	0.120A@277V	0.096@277V	0.071A@277V
Power Factor @ 120V 60Hz	0.988	0.99	0.933	0.994
Power Factor @ 277V 60Hz	0.979	0.975	0.967	0.975
THD @ 120V 60Hz (%)	13.9	12.3	8.5	12.3
THD @ 277V 60Hz (%)	9.9	10.3	11.4	10.3
Efficiency @ 100-277V 60Hz (%)	86.1%			
Wattage@60% Dimming	21.6W	18W	14.4W	10.8W
Wattage@50% Dimming	18W	15W	12W	9W
Wattage@40% Dimming	14.4W	12W	9.4W	7.2W
Current@60% Dimming	0.087A@277V	0.071A@277V	0.057A@277V	0.043A@277V
Current@50% Dimming	0.072A@277V	0.059A@277V	0.047A@277V	0.036A@277V
Current@40% Dimming	0.057A@277V	0.047A@277V	0.038A@277V	0.029A@277V
Current Dimming Disabled	0.144A@277V	0.120A@277V	0.096@277V	0.071A@277V
FCC Compliance	FCC Part15 Subpart A Class A			

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MODEL JLS6810D-VW-2440-D-S-X-4 (24W,30W,36W,40W) (M3)				
Wattage Settings	40W	36W	30W	24W
Input Voltage	100-277VAC +/- 10%			
Input Current	0.158A@277V	0.144A@277V	0.120A@277V	0.096@277V
Power Factor @ 120V 60Hz	0.998	0.988	0.99	0.993
Power Factor @ 277V 60Hz	0.981	0.979	0.975	0.967
THD @ 120V 60Hz (%)	14.4	13.9	12.3	8.5
THD @ 277V 60Hz (%)	11.7	9.9	10.3	11.4
Efficiency @ 100-277V 60Hz (%)	86.1%			
Wattage@60% Dimming	24W	21W	18W	14.4W
Wattage@50% Dimming	20W	18W	15W	12W
Wattage@40% Dimming	16W	14W	12W	9.4W
Current@60% Dimming	0.095A@277V	0.085A@277V	0.071A@277V	0.057A@277V
Current@50% Dimming	0.079A@277V	0.070A@277V	0.059A@277V	0.047A@277V
Current@40% Dimming	0.063A@277V	0.057A@277V	0.047A@277V	0.038A@277V
Current Dimming Disabled	0.158A@277V	0.144A@277V	0.120A@277V	0.096@277V
FCC Compliance	FCC Part15 Subpart A Class A			

MODEL JLS6810D-VW-4060-D-S-X-4 (40W,45W,50W,60W) (M4)				
Wattage Settings	60W	50W	45W	40W
Input Voltage	100-277VAC +/- 10%			
Input Current	0.241A@277V	0.201A@277V	0.178A@277V	0.158A@277V
Power Factor @ 120V 60 Hz	0.987	0.987	0.987	0.988
Power Factor @ 277V 60 Hz	0.977	0.976	0.973	0.968
THD @ 120V 60Hz (%)	14.8	15	14.7	14
THD @ 277V 60Hz (%)	13.3	11.1	9.4	9.5
Efficiency @ 100-277V 60Hz (%)	85.1%			
Wattage@60% Dimming	36W	30W	27W	24W
Wattage@50% Dimming	30W	25W	22.5W	20W
Wattage@40% Dimming	24W	20W	18W	16W
Current@60% Dimming	0.142A@277V	0.119A@277V	0.106A@277V	0.095A@277V
Current@50% Dimming	0.119A@277V	0.098A@277V	0.089A@277V	0.079A@277V
Current@40% Dimming	0.95A@277V	0.08A@277V	0.071A@277V	0.063A@277V
Current Dimming Disabled	0.241A@277V	0.201A@277V	0.178A@277V	0.158A@277V
FCC Compliance	FCC Part15 Subpart A Class A			

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