





## ILPA40JUD SERIES



## 40W Dimmable Water-Proof Constant Current LED Driver

- Wide Input Voltage 90 to 305VAC, 47 to 63Hz
- Constant Output Current Available From 350mA To 3330mA
- Over Voltage, Short Circuit, Over Load Protection
- High Efficiency (up to 88%)
- Active Power Factor Correction (PFC) (92% typical)
- IP66 Waterproof Rating
- Comply with UL8750 & EN61347 Safety Regulation (Pending)

2 Year Warranty

Approvals: (Pending)    IP66 

### Single Output

Part Number	Output Current Range (Min. / Typ. / Max.)	Output Voltage (Min. / Max.)	Efficiency (220VAC, Full Load)	Over Voltage Protection (Min. / Typ. / Max.)	Max. Output Power
ILPA40JUD-S333DS	3164 / 3330 / 3497 mA	4 / 12 VDC	84%	13 / 15 / 17 VDC	35W
ILPA40JUD-S222DS	2109 / 2220 / 2331 mA	6 / 18 VDC	85%	22 / 24 / 26 VDC	36W
ILPA40JUD-S166DS	1577 / 1660 / 1743 mA	8 / 24 VDC	86%	30 / 32 / 34 VDC	38W
ILPA40JUD-S140DS	1330 / 1400 / 1470 mA	10 / 29 VDC	87%	36 / 38 / 40 VDC	36W
ILPA40JUD-S128DS	1216 / 1280 / 1344 mA	11 / 31 VDC	87%	41 / 43 / 45 VDC	38W
ILPA40JUD-S105DS	998 / 1050 / 1103 mA	12 / 36 VDC	87%	46 / 48 / 50 VDC	38W
ILPA40JUD-S070DS	665 / 700 / 735 mA	18 / 54 VDC	87%	68 / 70 / 72 VDC	38W
ILPA40JUD-S045DS	428 / 450 / 473 mA	30 / 89 VDC	88%	114 / 116 / 118 VDC	40W
ILPA40JUD-S035DS	333 / 350 / 368 mA	38 / 114 VDC	88%	146 / 148 / 150 VDC	40W

### Electrical Characteristics

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Input Voltage	Operating Voltage	90		305	VAC
Input Frequency		47		63	Hz
Output Power Range	Vin=90 to 305VAC	0		40	W
Input Current (Low Line)	Io=Full load, Vin=115VAC			0.48	A
Input Current (High Line)	Io=Full load, Vin=230VAC			0.23	A
High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC			20	A
Power Factor Correction	Vin=110VAC			99	%
Efficiency	Io=Full Load, Vin=220VAC			88	%
No Load Power Dissipation				3	W
Line Regulation	Io=Full Load			2	%
Load Regulation	Vin=230VAC			5	%
Over Voltage Protection	Latch mode. The power unit shall return to normal operation only after the power is turn-on again. (Please refer to output table.)				
Over Load Protection	Hiccup mode. The power supply shall be self-recovery when the fault condition is removed.		1.25		Po
Short Circuit Protection	No damage shall occur when any output operating in a short circuit condition. The power supply shall be self-recovery when the fault condition is removed.				
Output Overshoot / Undershoot	When power on or off			10	%
Start Up Time	Io=Full Load, Vin=100VAC		1.7	2	S
Ripple & Noise (Peak to Peak)	Measured by 20 MHz bandwidth oscilloscope and the output paralleled a 0.1 uF ceramic capacitor and a 10 uF electrolytic capacitor.			5	% Vo

## Conditions

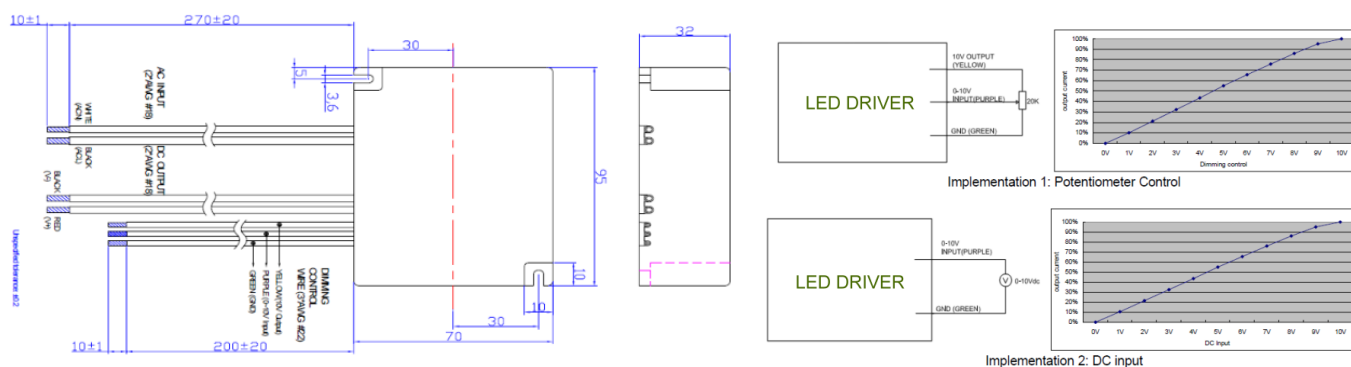
Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature	Humidity: 10% RH to 100% RH	-20		70	°C
Storage Temperature	Humidity: 5% RH to 100% RH	-40		85	°C
MTBF: Operation temperature at 25°C, calculated per MIL-HDBK-217F		0.487M			Hours
Life Time at 25°C ambient temperature		0.077M			Hours

## Approvals and Compliance

Parameter	Standards
EMI	EN55015
EMS	EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11, EN61547
Safety UL/c-UL, CE	(Pending) UL8750 Compliant to UL1310 ClaST 2, UL1012, UL935, CSA-C22.2 No. 0, CSA-C22.2 No. 107.1, CSA-C22.2 No.250.0, EN61347-1,EN61347-2-13
Waterproof	IP66 Rating

## Mechanical

Parameter	Specification
Dimension,	78x80x25mm (3.07x3.15x0.98 inches)
Net Weight	200g approx.



## Dimming Control

Parameter	Min.	Typ.	Max.	Unit
10V Output Voltage	9.8	10V	10.2	VDC
10V Output Source Current	-10	-	2	mA
Absolute Max. Voltage on the 1~10V Input Pin	-2	-	15	VDC
Source Current on 0-10V Input Pin	0	-	1	mA

The dimmer control may be operated from either a potentiometer or from an input signal of 0 ~ 10 Vdc. Two recommended implementations are provided above

### Notes:

- For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold (approx. 33% of the max. output voltage for any given model).
- If the output voltage is maintained above 50% of the maximum output voltage, the dimmer control may be operated over the entire 0-10V range with output current varying from 100% down to practically 0%.
- If the output voltage is maintained between 33-50% of the maximum output voltage, the dimmer control may be operated over 5-10V range with output current