ILPA35JUD SERIES

35W Dimmable Water-Proof Constant Current LED Driver

- Wide Input Voltage 90 to 305VAC, 47 to 63Hz
- Dimming Control, Constant Current Output
- Over Voltage, Short Circuit, Lighting, and Over Temperature Protection
- High Efficiency (up to 88%)
- Active Power Factor Correction (PFC)
- IP67 Waterproof Rating, Metal Housing
- Comply with UL8750 & EN61347 Safety Regulation

3 Year Warranty

Approvals: c UL us CE IP67 RoHS

Single Output

Part Number	Output Current Range (Min. / Typ. / Max.)	Output Voltage Range (Min. / Max.)	Efficiency (220VAC, Full Load)	Over Voltage Protection (Min/Typ/Max)	Max. Output Power
ILPA35JUD-S290DT	2755 / 2900 / 3045 mA	4 / 12 VDC	82%	13 / 15 / 17 VDC	35W
ILPA35JUD-S245DT	2328 / 2450 / 2573 mA	5 / 15 VDC	83%	16 / 18 / 20 VDC	35W
ILPA35JUD-S210DT	1995 / 2100 / 2205 mA	6 / 18 VDC	84%	19 / 21 / 23 VDC	35W
ILPA35JUD-S175DT	1663 / 1750 / 1838 mA	7 / 20 VDC	84%	23 / 25 / 27 VDC	35W
ILPA35JUD-S140DT	1330 / 1400 / 1470 mA	8 / 24 VDC	85%	30 / 32 / 34 VDC	35W
ILPA35JUD-S105DT	998 / 1050 / 1103 mA	11 / 33 VDC	86%	39 / 41 / 43 VDC	35W
ILPA35JUD-S070DT	665 / 700 / 735 mA	17 / 50 VDC	86%	57 / 58 / 59 VDC	35W
ILPA35JUD-S045DT	428 / 450 / 473 mA	26 / 78 VDC	87%	95 / 97 / 99 VDC	35W
ILPA35JUD-S035DT	333 / 350 / 368 mA	33 / 100 VDC	88%	118 / 120 / 122 VDC	35W

Item -S290DT, -S245DT, -S210DT, -S175DT, -S140DT, -S105DT are Class 2 output (USR & CNR).
Item -S070DT is Class 2 output (USR), Non-Class 2 output (CNR)
Item -S045DT, -S035DT is Non-Class 2 output (USR & CNR)

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 264VAC	0		35	W
Input Current (Low Line)	Io=Full load, Vin=115VAC			0.49	A
Input Current (High Line)	Io=Full load, Vin=230VAC			0.25	A
High Line Inrush Current	Io=Full load, 25°C, Cool start, Vin=230VAC			20	A
Power Factor Correction	Vin=110VAC		92		%
Efficiency	Io=Full Load, Vin=230VAC	82		88	%
No-Load Power Consumption	No Load, VIn=230VAC			6	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.)				
Over Temperature Protection			110		°C
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=110VAC		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.			10	% Vo

Conditions

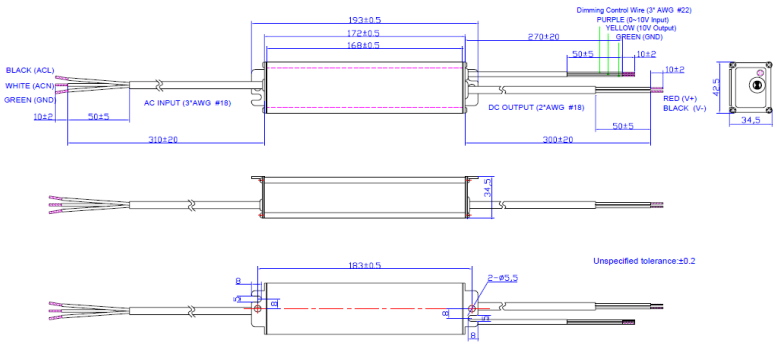
Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Operating Temperature	Humidity: 10% RH to 100% RH	-35		55	°C
Storage Temperature	Humidity: 5% RH to 100% RH	-40		85	°C
MTBF (Operation temperature at 25°C, calculated per MIL-HDBK-217F)		0.541M			Hours
Life Time (measured at 110VAC, 45°C ambient temperature, 80% load for 2900mA output model)		0.087M			Hours
No output power derating from -35°C to 55°C					

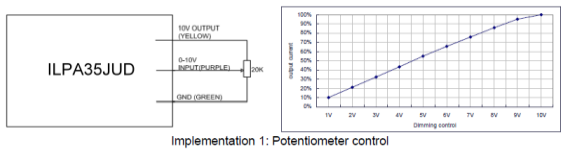
Approvals and Compliance

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	UL8750 Compliant to UL1310 Class 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	IP67 Rating

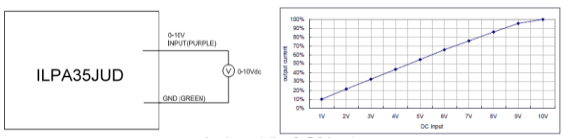
Mechanical

Parameter	Specification
Dimension,	172x34.5x42.5mm (6.77x1.36x1.67 inches)
Net Weight	480g





Implementation 1: Potentiometer control



Implementation 2: DC input

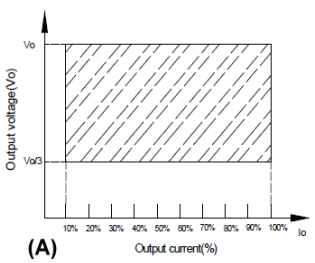
Dimming Control

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:

1. 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).
2. If the input voltage is within 90-175Vac, the output current can be varied from 100% down to 10%. (Refer to right figure **A**)
3. If the input voltage is within 175-305Vac, the output current can be varied from 100% down to 20%. (Refer to right figure **B**)



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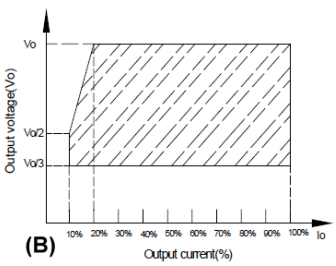

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