

AL60, 80 & 100

60 to 100W IP66 Power Supplies



RoHS

- ◆ Small Size
- ◆ 90-305VAC input range
- ◆ Constant Current or Constant Voltage Versions
- ◆ Splash proof plastic case (non-rust)
- ◆ -40°C start up
- ◆ Conservative component ratings for long life

Key Market Segments & Applications

LED Lighting
Damp Environments

Specifications

MODEL		ALC	ALV
ITEMS			
AC Input	VAC/Hz	90 - 305VAC, 47 - 63Hz	
Inrush Current (100/200VAC)	A	25 / 50A, 25°C ambient, cold start	
Input Current (110/200VAC)	A	Model dependant	
Power Factor (1)	-	IEC61000-3-2 Class C, (50% - 100% loading) 0.99/0.95 at 115/230VAC ⁽¹⁾	
Output Accuracy	%	±5%	±3%
Total Regulation	%	±5%	±3%
Overcurrent Protection	-	Automatic Recovery	> 105% of rated power
Overvoltage Protection	%	> 110% (Cycle AC to reset)	
Turn on time	ms	< 1000ms	
Leakage Current (240VAC 60Hz)	uA	< 250uA	
Operating Temperature	°C	-30 to +70°C, (Guaranteed start up at -40°C). AL60; derate linearly to 70% load from 50 to 70°C, AL80; derate linearly to 60% load from 50 to 70°C, AL100; derate linearly to 50% load from 50 to 70°C	
Storage Temperature	°C	-30 to +85°C	
Operating Humidity	-	15 - 90% RH (non condensing)	
Storage Humidity	-	15 - 90% RH (non condensing)	
Cooling	-	Convection	
Withstand Voltage	-	Input to Output 3kVAC (Class II, no ground connection needed)	
Isolation Resistance	-	>100M at 25°C & 70%RH, Input to Output at 500VDC	
Vibration (non operating)	-	10 - 55Hz: 19.6m/s ² constant sweep 1 min X, Y, Z for 30 mins	
Shock	-	< 196.1 m/s ² (20G)	
Immunity	-	IEC61000-4-2 (lv 3), -3 (lv 3), -4 (lv 3), -5 (lv 4), -6 (lv 3), -8 (lv 4), -11	
Safety Agency Approvals	-	UL8750 (Class 2), EN61347-1, EN61347-2-13, CSA C22.2 No. 60950-1, CE Mark	
Conducted & Radiated EMI	-	EN55015-B, EN55022-B, CISPR 22-B, FCC-B	
IP Class	-	IP66	
Weight (Typ)	g	ALx60: 380g, ALx80, 100: 500g	
Size (LxWxH)	in(mm)	9.49 x 1.7 x 1.36" (241 x 43.1 x 35mm)	
Warranty	yrs	Three Years	

Notes

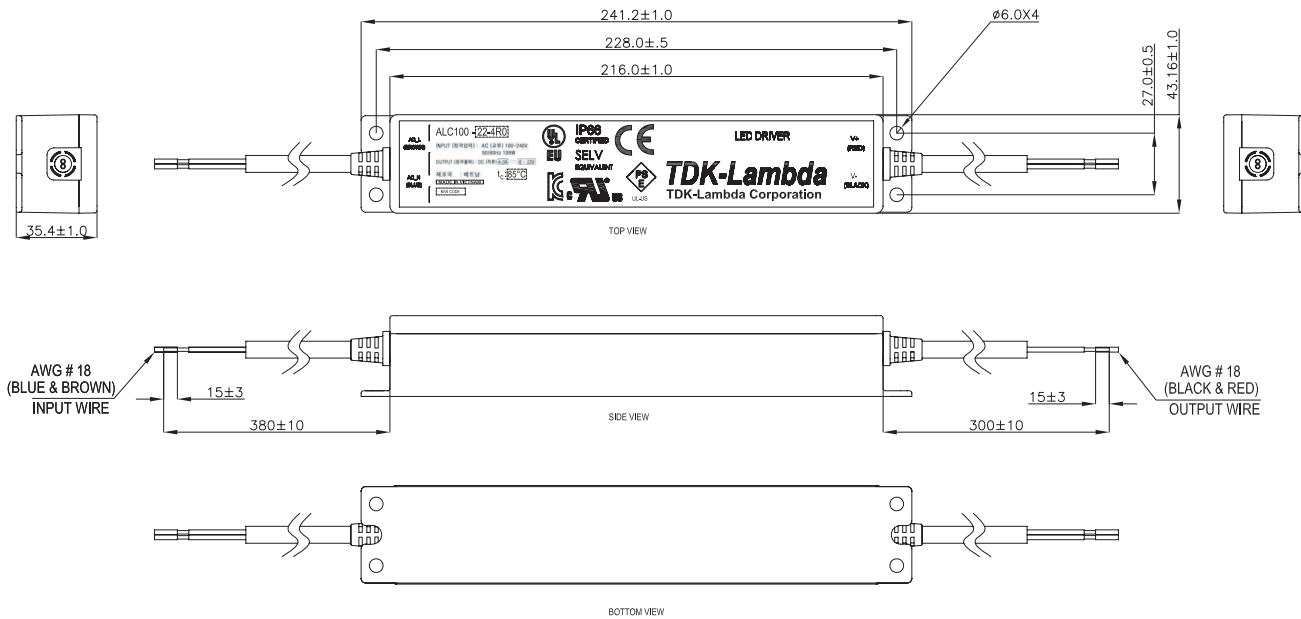
(1) 0.98/0.93 for ALx60 models

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Model Selector

Model	CV/CC	Output Voltage (V)	Output Current (A)	Efficiency	Maximum Average Power	Ripple & Noise
ALC60-48-1R05	CC	6 - 48V	1.05A	85%	50.4W	-
ALC60-42-1R4	CC	6 - 42V	1.4A	86%	58.8W	-
ALC80-48-1R7	CC	6 - 48V	1.7A	87%	81.6W	-
ALC80-24-3R3	CC	6 - 24V	3.3A	86%	79.2W	-
ALC100-22-4R0	CC	6 - 22V	4A	86%	88W	-
ALV60-12-5R0	CV	12V	5A	85%	60W	180mV
ALV60-24-2R5	CV	24V	2.5A	88%	60W	240mV
ALV60-36-1R7	CV	36V	1.7A	87%	61W	360mV
ALV80-12-6R5	CV	12V	6.5A	86%	78W	180mV
ALV100-24-3R8	CV	24V	3.8A	89%	91.2W	240mV
ALV100-36-2R5	CV	36V	2.5A	88%	90W	360mV

Outline Drawing



NOTES:

1. ALL DIMENSIONS ARE IN mm.
2. DRAWINGS ARE NOT SCALE.
3. FOUR MOUNTING SLOTS FOR M4 SCREWS.
4. CASE MATERIAL IS LEXAN 920.
5. MODEL NAME, INPUT VOLTAGE RANGE, MAX INPUT POWER, NOMINAL OUTPUT CURRENT AND OUTPUT VOLTAGE RANGE ARE SHOWN ON THE NAME PLATE IN ACCORDANCE WITH THE SPECIFICATIONS.

For Additional Information, please visit us.tdk-lambda.com/products/al-series.htm