

LXD50 series

LED Power Supply

Dimmable LED Power Supplies



LED Power
50W

LED POWER

next generation power source

FEATURES

- High Efficiency (up to 89%)
- Dimming Control
- Active PFC (Typical 0.98)
- IP67 Waterproof
- OVP, SCP
- -35 to 55°C deg operation
- Universal Input 90-305VAC
- UL8750 recognised
- EN61347-1, -2-13 compliant

The LXD50 series of dimmable LED power supplies from Excelsys Technologies can deliver up to 50W of output power in an extremely compact package size.

The LXD50 series of constant current power supplies provides up to 4200mA of output current and 142V output voltage solutions for specific LED requirements. With industry leading efficiencies, and an extensive protection feature set, the LXD50 series provides high reliability and high performance in a compact package

The LXD50 series carries the CE mark for safety and is also RoHS compliant.

For more details contact sales@excelsys.com

Model Number	Output Voltage	Output Current	Input Voltage	OVP Latching max	Efficiency	Ripple V
LXD50-0350SW	47-142V	350mA	90-305VAC	158V	89.0%	14V
LXD50-0450SW	36-110V	450mA	90-305VAC	120V	88.0%	11V
LXD50-0700SW	24-72V	700mA	90-305VAC	80V	87.0%	7V
LXD50-1100SW ^(H)	16-48V	1100mA	90-305VAC	56V	87.0%	5V
LXD50-1400SW ^(H)	12-36V	1400mA	90-305VAC	44V	87.0%	5V
LXD50-1750SW ^(H)	9-29V	1750mA	90-305VAC	37V	87.0%	5V
LXD50-2100SW ^(H)	8-24V	2100mA	90-305VAC	32V	86.0%	5V
LXD50-2800SW ^(H)	6-18V	2800mA	90-305VAC	26V	84.0%	5V
LXD50-3330SW ^(H)	5-15V	3330mA	90-305VAC	22V	84.0%	5V
LXD50-4200SW ^(H)	4-12V	4200mA	90-305VAC	18V	83.0%	5V

Input Specifications

Parameter	Conditions/Description	Min	Nom	Max	Units
Input Voltage Range	Universal Input	90		305	VAC
Input Frequency Range		47		63	Hz
Input Current	100VAC in, 50W output			0.7	A
Inrush Current	230VAC in, 25°C, Cold Start			60	A
Power Factor	220VAC, 110VAC	0.92		0.98	

Output Specifications

Parameter	Conditions/Description	Min	Nom	Max	Units
Line Regulation				±2	%
Load Regulation				±5	%
Voltage Range	See individual models	50		100	%
Output Current Range		20		100	% I out
Ripple and Noise	See individual models				
Overshoot			10	%	
Turn-on Delay	Measured at 220VAC and full load			3	s
Short Circuit Protection	Auto Recovery				
Over Voltage Protection	Hiccup, Auto recovery				

General Specifications

Parameter	Conditions/Description	Min	Nom	Max	Units
Isolation Voltage	Input to Output See Note B	3750			VAC
	Input to Chassis	1500			VAC
Efficiency	See individual models		88		%
Safety Agency Approvals	UL8750, EN61347-1, -2-13, UL1310 Note H				
No load Power Dissipation	Measured at 230 Vac			6.0	W
MTBF	MIL HDBK-217F, 110VAC input, 80% load, 25°C		487,000		Hours
Lifetime	45°C, 110VAC input, 80% load		66,000		Hours
Weight			480		g
Operating Temperature		-35		+55	°C
Storage Temperature		-40		+85	°C
Relative Humidity	Non-condensing (operating)	10		100	%RH



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EMC				
Parameter	Standard		Level	Units
Emissions				
Conducted	EN55015		Level B	
Radiated	EN55015		Level B	
Harmonic Distortion	EN61000-3-2		Compliant	
Flicker and Fluctuation	EN61000-3-3		Compliant	
Immunity				
ESD	EN61000-4-2		Level 4	
Radiated RFI	EN61000-4-3		Level 3	
Fast Transients - burst	EN61000-4-4		Level 4	
Conducted RFI	EN61000-4-6		Compliant	
Power Freq Magnetic Field	EN61000-4-8		Compliant	
Voltage Dips	EN61000-4-11			

Dimming Control					
Parameter		Min	Nom	Max	Units
10V Output Voltage		9.8	10.0	10.2	VDC
10V Output Source Current		-10		2	mA
Control Voltage (1-10V input)	Voltage applied on 1-10V input wire	-2		15	V
Source Current (1-10V input)	Source current on 1-10V input wire	0		1	mA

- Note A. If dimming function is not used, 10V(yellow) and 1-10V(purple)wire must be connected together.
- Note B. Primary to Secondary Isolation test not to be carried out on power supply.
- Note C. Load Voltage must be maintained above minimum voltage. See models for voltage range.
- Note D. Dimming range is 20%-100%. A Vdim voltage of 1V corresponds to 20% output current.
- Note E. Dimming Signal Voltage should be above 1V for linear dimming control. At Vdim voltage below 1V, flickering may occur.
- Note F. See Dimming Implementation diagrams for various dimming methods.
- Note G. Do not connect GND of Dimming cable to Output..
- Note H. UL1310 Class 2 outputs for US and Canada except LXD50-1400SW and LXD50-1100SW which are Class 2 in US only

INPUT / OUTPUT WIRING

INPUT CABLE

SJTW 18AWG 3C
Black (L),White(N), Green (G)310±20mm

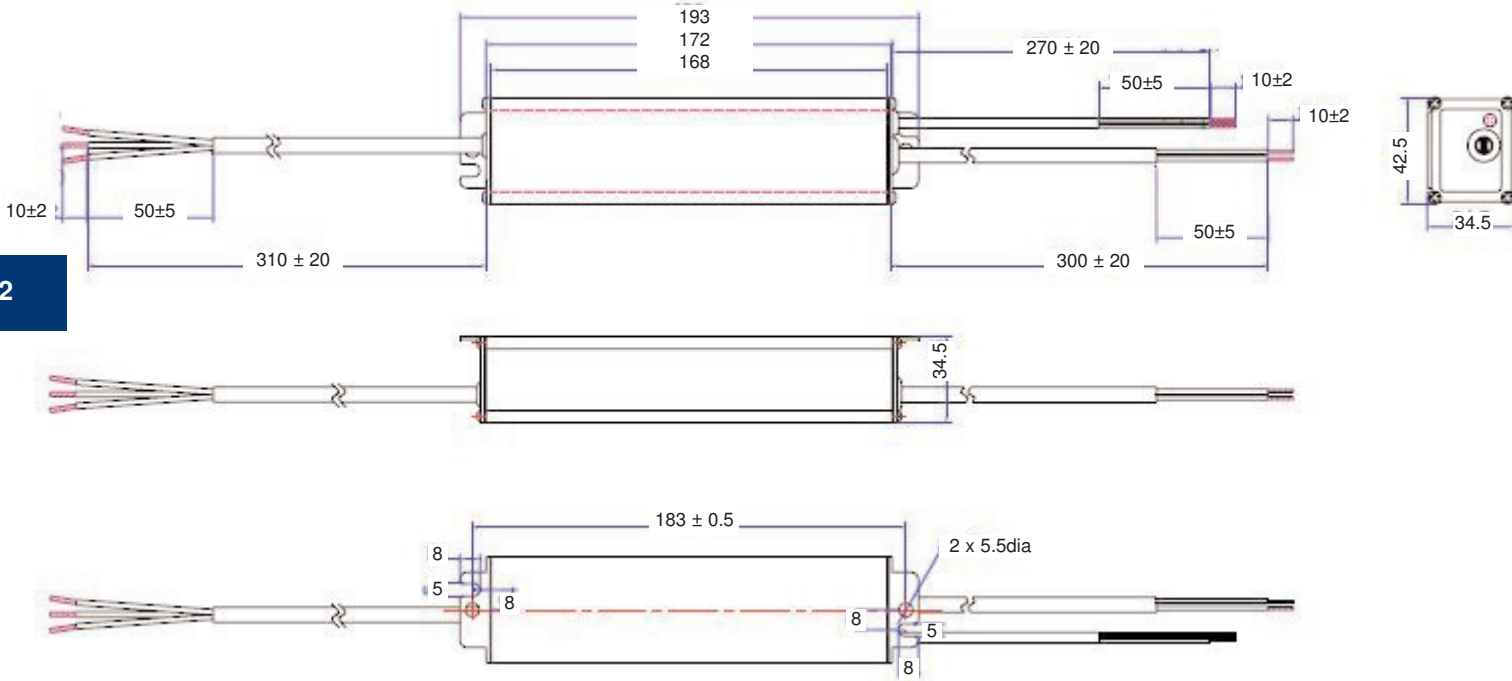
OUTPUT CABLE

SJTW 18AWG 2C
Black (-V) and Red (+V) 300±20mm

DIMMING CABLE

SJTW 22AWG 3C
Yellow (10V), Purple (0-10V), Green (GND)

MECHANICAL SPECIFICATIONS



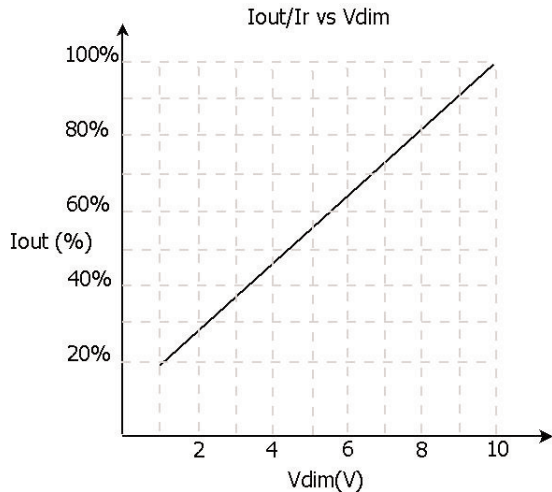
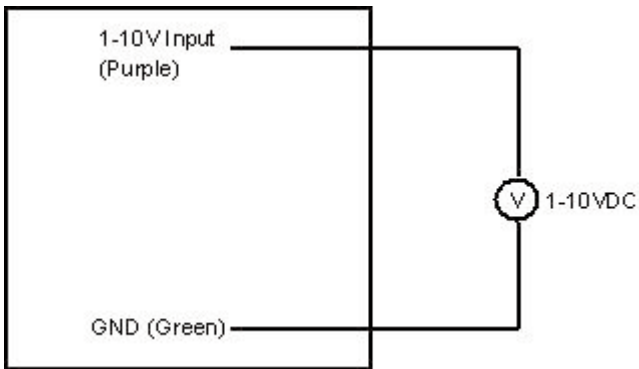
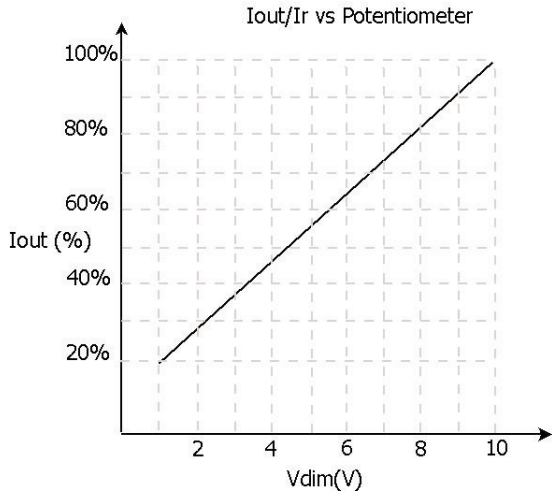
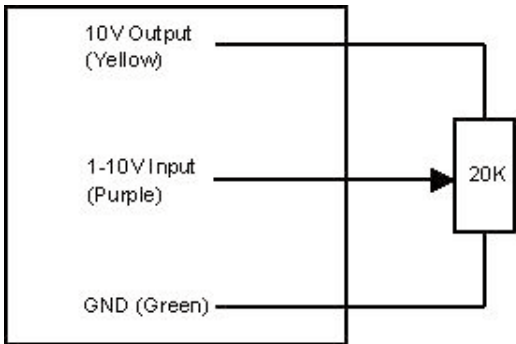
Specifications are subject to change without notice



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Dimming Implementation Diagrams

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