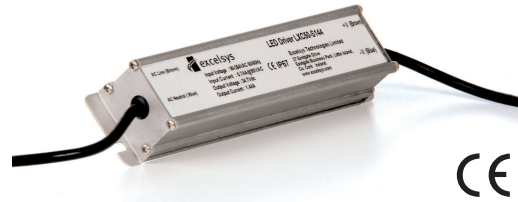


# LXD50 series

## 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](mailto:sales@excelsys.com)

Model Number	Output Voltage	Output Current	Input Voltage	OVP Latching max	Efficiency	Ripple V
LXD50-0350SW	47-142V	350mA	90-305VAC	187V	89.0%	14V
LXD50-0450SW	36-110V	450mA	90-305VAC	145V	88.0%	11V
LXD50-0700SW	24-72V	700mA	90-305VAC	96V	87.0%	7V
LXD50-1100SW(H)	16-48V	1100mA	90-305VAC	59V	87.0%	5V
LXD50-1400SW(H)	12-36V	1400mA	90-305VAC	42V	87.0%	5V
LXD50-1750SW(H)	9-29V	1750mA	90-305VAC	40V	87.0%	5V
LXD50-2100SW(H)	8-24V	2100mA	90-305VAC	34V	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		10		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 Input to Chassis	3750 1500			VAC 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	Telecordia SR-33, 25°C		2,000,000		Hours
Lifetime	25°C		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
<b>Emissions</b>				
Conducted	EN55015		Level B	
Radiated	EN55015		Level B	
Harmonic Distortion	EN61000-3-2		Compliant	
Flicker and Fluctuation	EN61000-3-3		Compliant	
<b>Immunity</b>				
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 10%-100%
- Note E. Dimming Signal Voltage should be above 1V for linear dimming control.
- 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

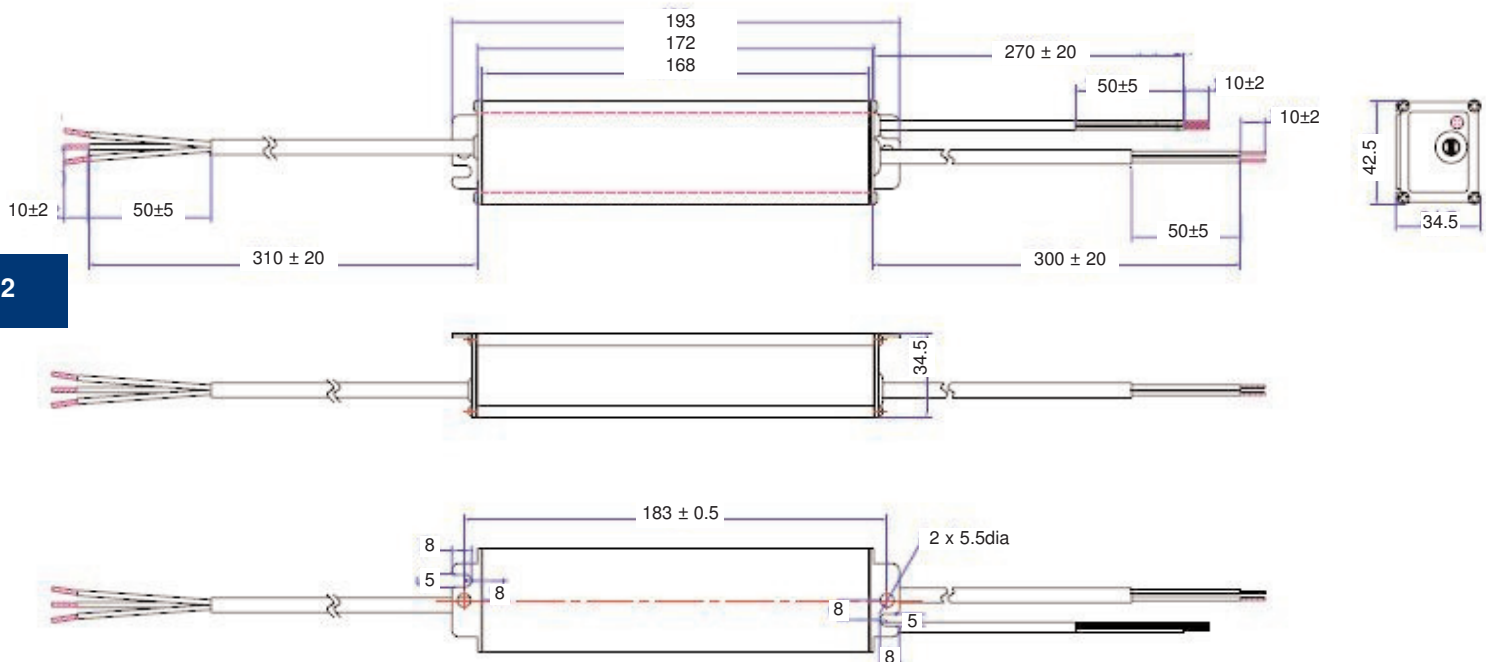
### OUTPUT CABLE

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



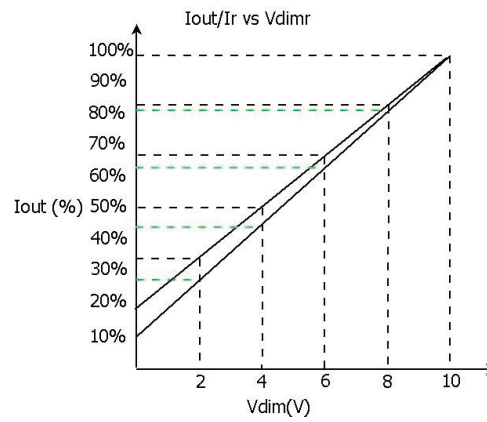
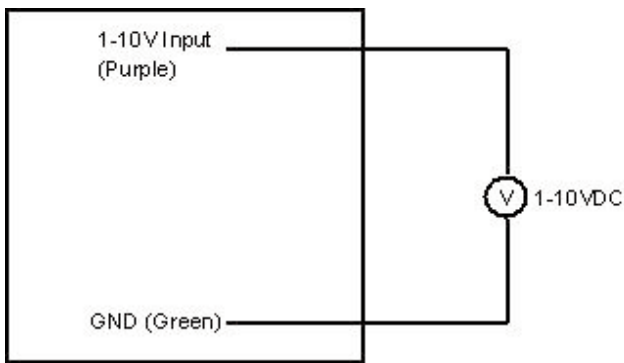
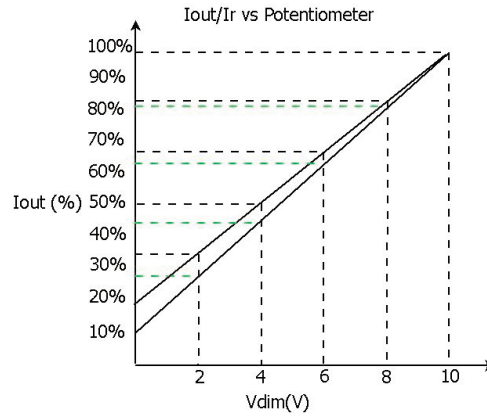
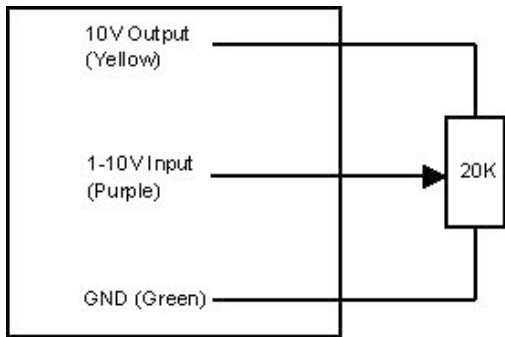
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## Dimming Implementation Diagrams

**LED Power  
50W**



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LXD50 tasheet Pre Release 13 December 2010



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