

LXD96 series

LED Power Supply

Dimmable LED Power Supplies

LED Power
96W

LED POWER

next generation power
source

FEATURES

- High Efficiency (up to 92%)
- Dimming Control
- UL1310 Class 2
- Active PFC (Typical 0.99)
- IP67 Waterproof
- OVP, SCP, OTP
- -35 to 70°C deg operation
- Universal Input 90-305VAC
- UL8750 compliant
- EN61347-1, -2-13 compliant

The LXD96 series of Class 2 dimmable LED power supplies from Excelsys Technologies can deliver up to 96W of output power in an extremely compact package size.

The LXD96 series of constant current power supplies provides up to 4000mA of output current and 274V output voltage solutions for specific LED requirements. With industry leading efficiencies, and an extensive protection feature set, the LXD96 series provides high reliability and high performance in a compact package.

Model Number	Output Voltage	Output Current	Input Voltage	OVP Latching max	Efficiency
LXD96-0350SW	137-274V	350mA	90-305VAC	310V	92.0%
LXD96-0450SW	106-213V	450mA	90-305VAC	250V	92.0%
LXD96-0700SW	68-137V	700mA	90-305VAC	170V	91.0%
LXD96-1050SW	46-92V	1050mA	90-305VAC	120V	91.0%
LXD96-1400SW	35-69V	1400mA	90-305VAC	100V	90.0%
LXD96-1750SW ^(H)	27-54.8V	1750mA	90-305VAC	75V	90.0%
LXD96-2100SW ^(H)	22-45.7V	2100mA	90-305VAC	60V	89.0%
LXD96-2450SW ^(L)	19-39.1V	2450mA	90-305VAC	55V	89.0%
LXD96-2800SW ^(L)	17-34.2V	2800mA	90-305VAC	50V	89.0%
LXD96-3150SW ^(L)	15-30.4V	3150mA	90-305VAC	45V	88.0%
LXD96-3500SW ^(L)	13-27.4V	3500mA	90-305VAC	40V	88.0%
LXD96-4000SW ^(L)	12-24V	4000mA	90-305VAC	35V	88.0%

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, 96W output			1.2	A
Leakage Current	277VAC in, 50Hz			1.0	mA
Inrush Current	230VAC in, 25°C, Cold Start			50	A
Power Factor	220VAC, 110VAC	0.96		0.99	
Output Specifications					
Parameter	Conditions/Description	Min	Nom	Max	Units
Line Regulation				±1	%
Load Regulation				±3	%
Voltage Range	See table of outputs				
Output Current Accuracy	% of I _{out}			±5	%
Ripple and Noise	20MHz Bandwidth. See Note H			3.0	% pk-pk
Overshoot				10	%
Turn-on Delay	Measured at 220VAC and full load		0.6	1	s
Short Circuit Protection	Auto Recovery				
Over Voltage Protection	Latching. See individual models OVP levels				
Over Temp Protection	Internal temperature		110		°C
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		90.5		%
Safety Agency Approvals	UL8750, EN61347-1, -2-13				
No load Power Dissipation	Measured at 230 VAC		1.0		W
MTBF	MIL-HDBK-217F, 110VAC input, 80% Load, 25°C		400,000		Hours
Lifetime	45°C, 110VAC Input, 80% Load		50,000		Hours
Weight			850		g
Operating Temperature	Maximum Case Temperature T _{case} = 89°C	-35		+70	°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		Compliant	
Radiated	EN55015		Compliant	
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	
Surge Immunity	EN61000-4-5		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
Control Voltage (1-10V input)	Voltage applied on 1-10V input wire	0		12	V
Source Current (1-10V input)	Source current on 1-10V input wire	0		0.5	mA

- Note A. If dimming function is not required, dimming wires are to be floating
- Note B. Primary to Secondary Isolation test not to be carried 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. See graphs for Dimming control. If Dimming Signal Voltage is 0-1V, output current is 10% rated current. If Dimming Signal Voltage is 9.0-10V, output current is 100% rated current
- Note F. See Dimming Implementation diagrams for various dimming methods.
- Note G. Do not connect GND of Dimming cable to Output.
- Note H. Class 2 (USR) and Non Class 2(CNR) for dry and damp locations
- Note I. Class 2 (USR and CNR) for dry and damp locations, CSA Class 2 for wet location.
- Note J. Class 2 (USR and CNR) for dry and damp locations and Class 2 (USR and CNR) for wet location.

INPUT / OUTPUT WIRING

INPUT CABLE

SJTW 18AWG 3C
Black (L), White(N), Green (G) 650±20mm

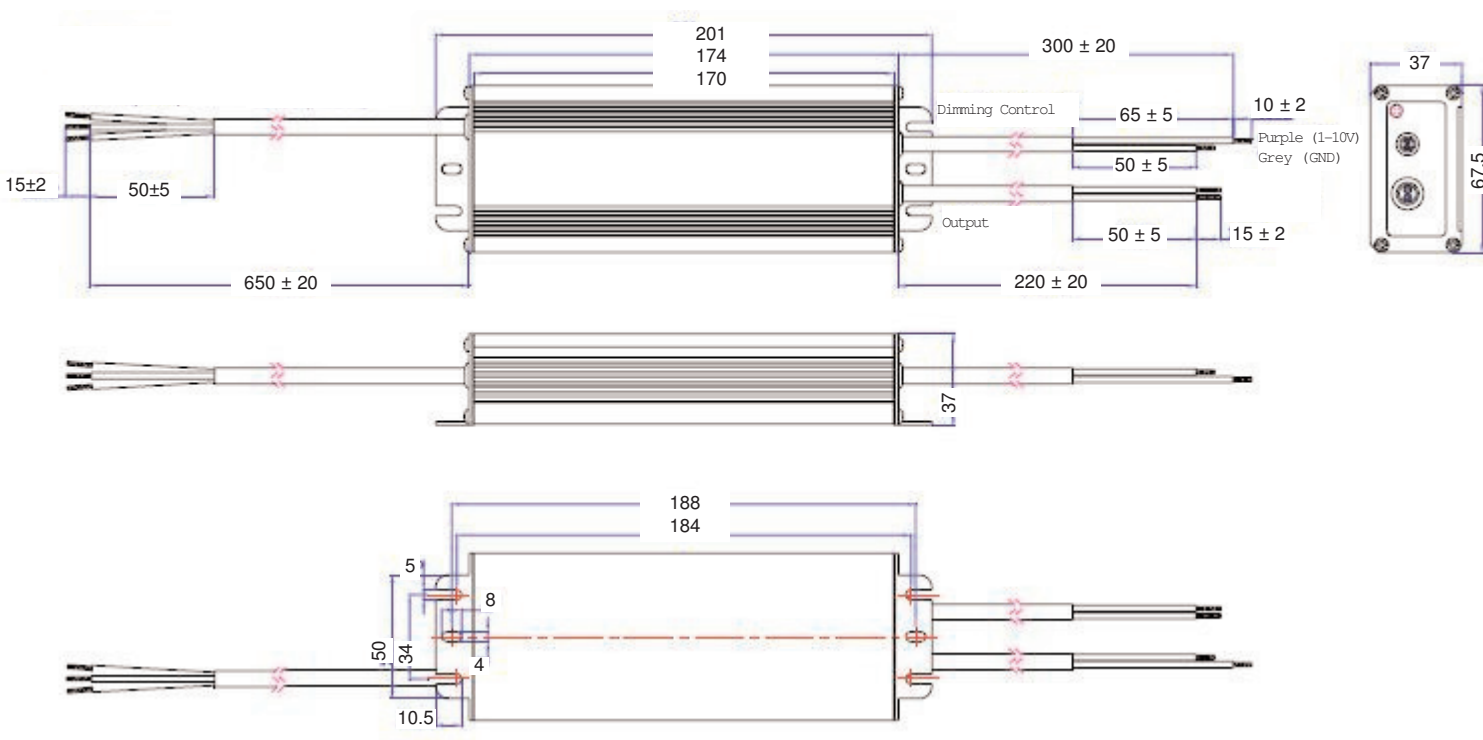
OUTPUT CABLE

SJTW 18AWG 2C
Black (-V) and Red (+V) 220±20mm

DIMMING CABLE

SJTW 22AWG 2C
Purple (1-10V), Grey (GND)

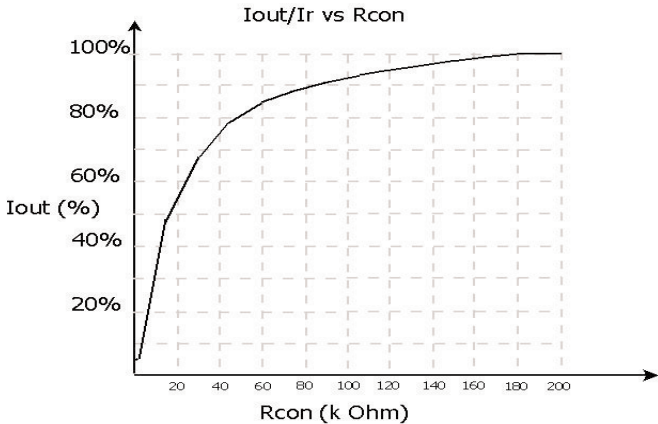
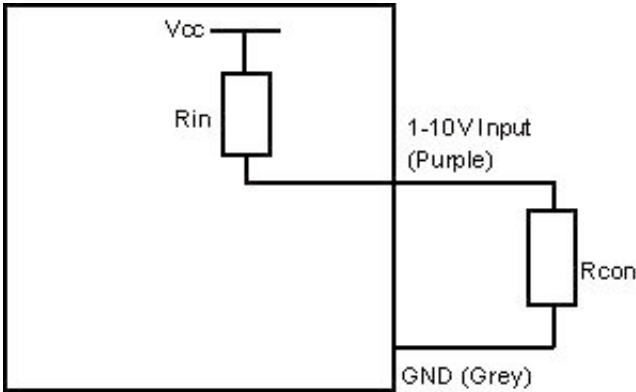
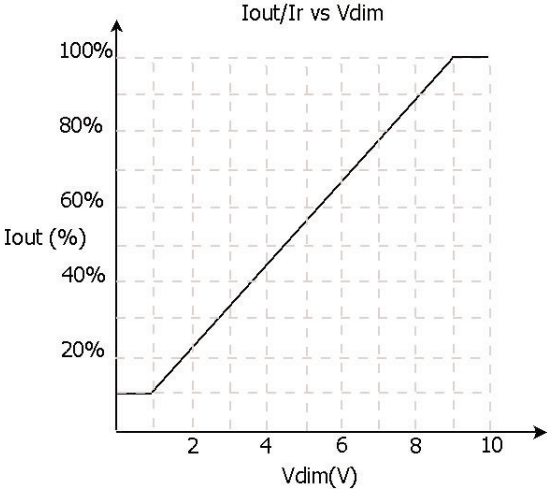
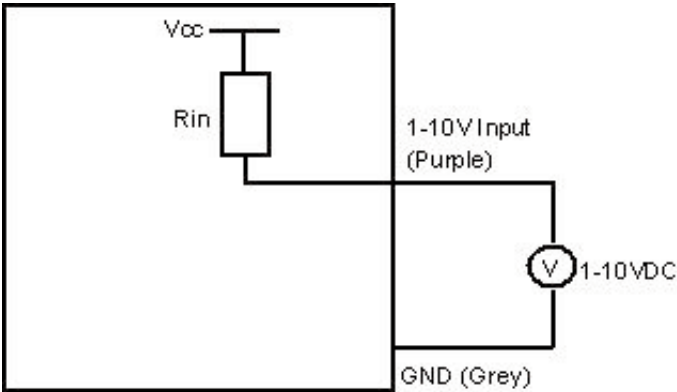
MECHANICAL SPECIFICATIONS



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Dimming Implementation Diagrams

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Specifications are subject to change without notice
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