

LXD100 series

LED Power Supply

Dimmable LED Power Supplies



LED Power
100W



LED POWER

next generation power
source

FEATURES

- High Efficiency (up to 91%)
- Dimming Control
- Active PFC (Typical 0.99)
- IP67 Waterproof
- OVP, SCP
- -35 to 65°C deg operation
- Universal Input 90-305VAC
- UL8750 compliant
- EN61347-1, -2-13 compliant

The LXD100 series of dimmable LED power supplies from Excelsys Technologies can deliver up to 100W of output power in an extremely compact package size.

The LXD100 series of constant current power supplies provides up to 4200mA of output current and 286V output voltage solutions for specific LED requirements. With industry leading efficiencies, and an extensive protection feature set, the LXD100 series provides high reliability and high performance in a compact package.

Model Number	Output Voltage	Output Current	Input Voltage	OVP Latching max	Efficiency
LXD100-0350SW	172-286V	350mA	90-305VAC	401V	91.0%
LXD100-0450SW	132-222V	450mA	90-305VAC	311V	91.0%
LXD100-0700SW	86-143V	700mA	90-305VAC	200V	90.5%
LXD100-1050SW	57-95V	1050mA	90-305VAC	133V	90.5%
LXD100-1400SW	43-71V	1400mA	90-305VAC	101V	90.5%
LXD100-1750SW	34-57V	1750mA	90-305VAC	80V	90.5%
LXD100-2100SW	29-48V	2100mA	90-305VAC	67V	90.5%
LXD100-2450SW	25-41V	2450mA	90-305VAC	58V	90.5%
LXD100-2800SW	22-36V	2800mA	90-305VAC	51V	90.0%
LXD100-3150SW	19-32V	3150mA	90-305VAC	45V	90.0%
LXD100-3570SW	17-28V	3570mA	90-305VAC	40V	90.0%
LXD100-4200SW	14-24V	4200mA	90-305VAC	34V	90.0%

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, 100W output			1.3	A
Inrush Current	230VAC in, 25°C, Cold Start			65	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 Range	% of Vout			±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				
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, 110VAC input, 80% load, 25°C		394,000		Hours
Lifetime	45°C, 110VAC Input, 80% Load		118,000		Hours
Weight			1000		g
Operating Temperature		-35		+65	°C
Storage Temperature		-40		+85	°C
Relative Humidity	Non-condensing (operating)	10		100	%RH



Europe/Asia
Excelsys Technologies Ltd
27 Eastgate Drive
Eastgate Business Park
Little Island, Cork, Ireland
IRELAND
t: +353 21 4354716
f: +353 21 4354864
e: sales@excelsys.com

North America
Excelsys Technologies
519 Interstate 30, #309
Rockwall, TX 75087
USA
t: (972) 771 4544
f: (972) 421 1805
e: salesusa@excelsys.com

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
10V Output Voltage		9.8	10.0	10.2	VDC
10V Output Source Current		-10		10	mA
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		1	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 8.5-10V, 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..

INPUT / OUTPUT WIRING

INPUT CABLE

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

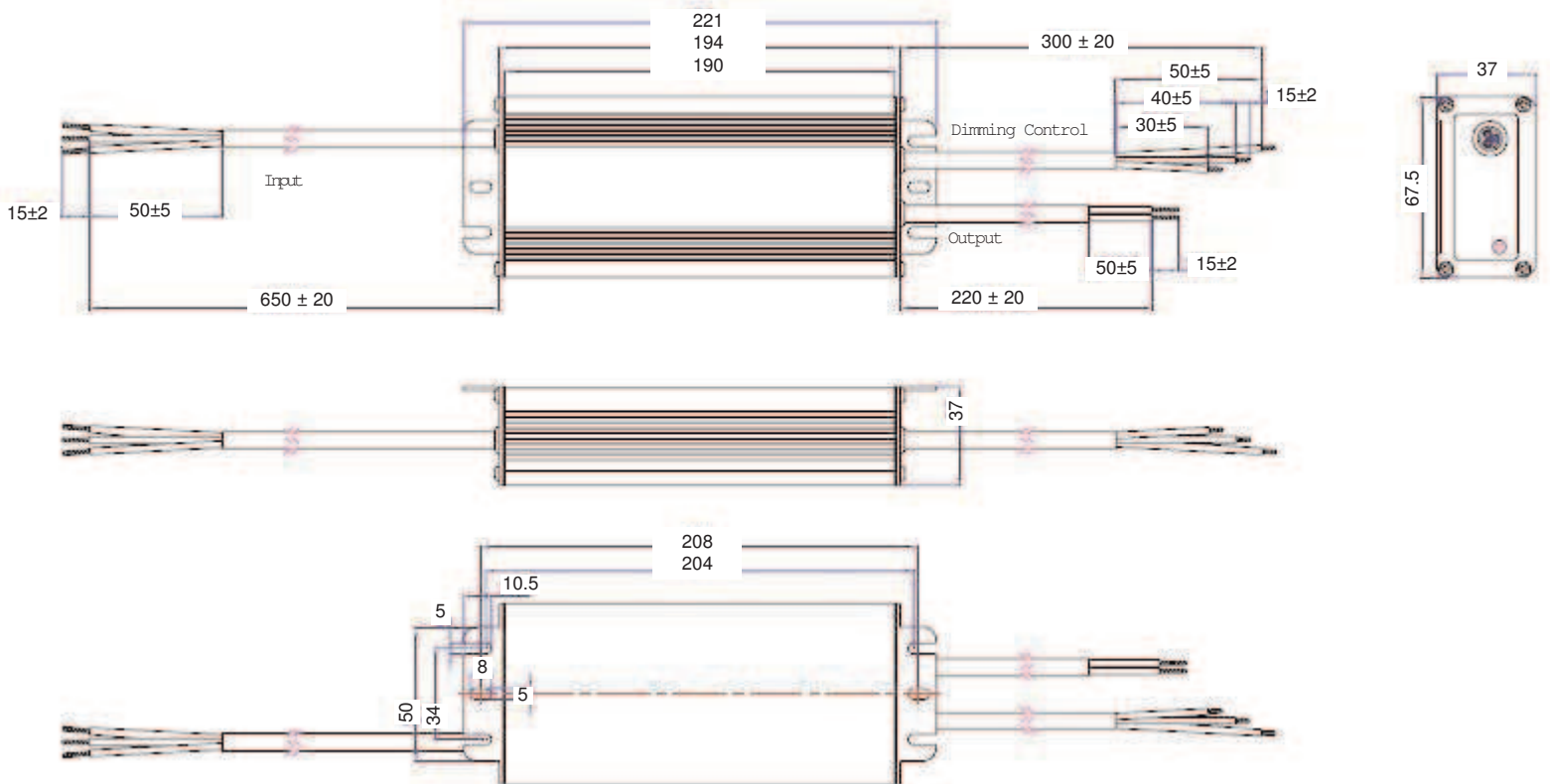
OUTPUT CABLE

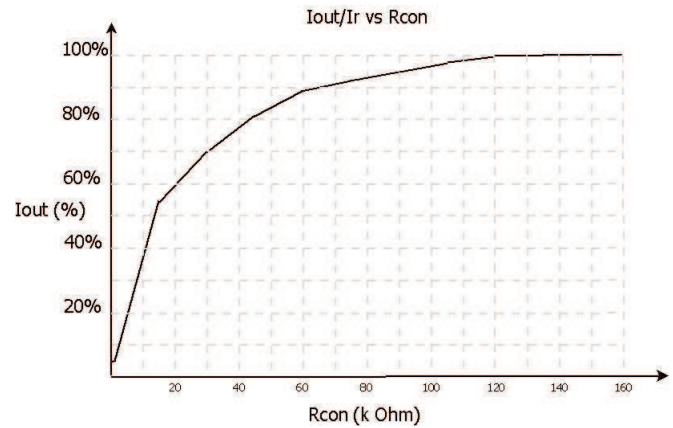
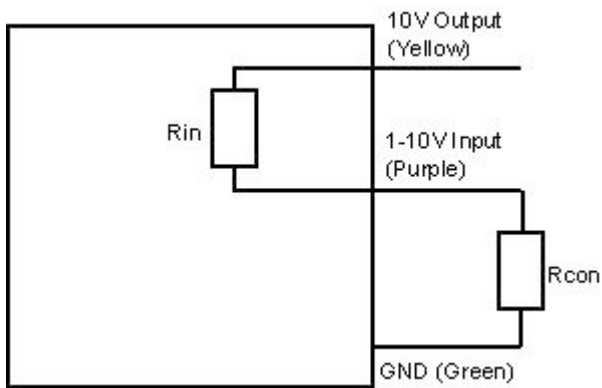
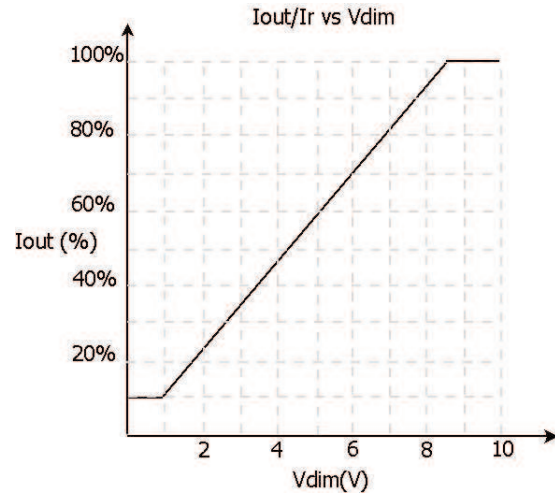
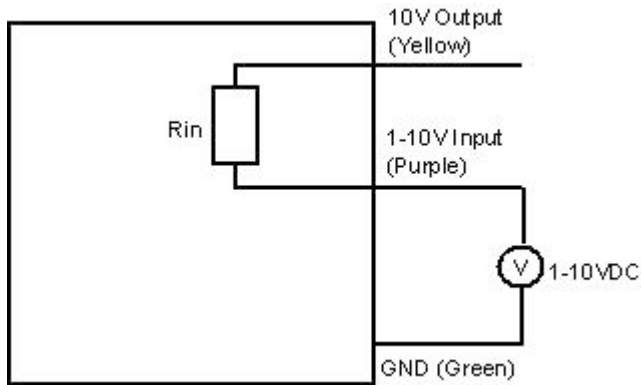
SJTW 18AWG 2C
 Black (-V) and Red (+V) 220±20mm

DIMMING CABLE

SJTW 22AWG 3C
 Yellow (10V), Purple (1-10V), Green (GND)

MECHANICAL SPECIFICATIONS



Dimming Implementation Diagrams**LED Power
100W**

Specifications are subject to change without notice
 LXD100 Datasheet Release 8 April 2011

Europe/Asia

Excelsys Technologies Ltd t: +353 21 4354716
 27 Eastgate Drive f: +353 21 4354864
 Eastgate Business Park e: sales@excelsys.com
 Little Island, Cork, Ireland
 IRELAND

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 519 Interstate 30, #309 f: (972) 421 1805
 Rockwall, TX 75087 e: salesusa@excelsys.com
 USA