

# LXD42 series

LED Power  
42W

## LED Power Supply

### Dimmable LED Power Supplies



#### LED POWER

next generation power source

#### FEATURES

- High Efficiency (up to 90%)
- Dimmable Output Current
- Active PFC (Typical 0.95)
- IP66 Waterproof
- OVP, SCP
- -20 to 70°C deg operation
- Input 90-305VAC
- UL8750 compliant
- EN61347-1,-2-13 compliant

The LXD42 series of dimmable LED power supplies from Excelsys Technologies can deliver up to 42W of output power in an extremely compact package size.

The LXD42 series of constant current power supplies provides up to 1750mA of output current and 120V output voltage solutions for specific LED requirements. With industry leading efficiencies, and an extensive protection feature set, the LXD42 series provides high reliability and high performance in a compact package.

The LXD42 series carries the UL and CE mark for safety and is also RoHS compliant.

Model Number	Output Voltage	Output Current	Input Voltage	Efficiency
LXD42-0350SW <sup>(2)</sup>	60-120V	350mA	90-305VAC	90.0%
LXD42-0450SW <sup>(2)</sup>	47-94V	450mA	90-305VAC	89.0%
LXD42-0700SW <sup>(2)</sup>	28-56V	700mA	90-305VAC	89.0%
LXD42-1050SW <sup>(3)</sup>	20-38V	1050mA	90-305VAC	88.0%
LXD42-1280SW <sup>(4)</sup>	17-32V	1280mA	90-305VAC	88.0%
LXD42-1400SW <sup>(4)</sup>	15-30V	1400mA	90-305VAC	88.0%
LXD42-1750SW <sup>(4)</sup>	12-24V	1750mA	90-305VAC	87.0%

#### Input Specifications

Parameter	Conditions/Description	Min	Nom	Max	Units
Input Voltage Range	Wide Universal Input	90		305	VAC
Input Frequency Range		47		63	Hz
Input Current	100VAC in, 42W output			0.60	A
Inrush Current	230VAC in, 25°C, Cold Start			60	A
Power Factor	220VAC, 110VAC (also see graphs on page 3)	0.95		0.98	

#### Output Specifications

Parameter	Conditions/Description	Min	Nom	Max	Units
Line Regulation				±1	%
Load Regulation				±3	%
Voltage Range	See table of outputs				
Output Current Range	See Dimming Graph on Page 3			±5	%
Overshoot				10	%
Turn-on Delay	Measured at 110VAC		0.6	1.0	s
Turn-on Delay	Measured at 220VAC		0.3	0.5	s
Short Circuit Protection	Auto Recovery				
Over Temp Protection	Hiccup. Auto Recovery	95	110	125	°C

#### General Specifications

Parameter	Conditions/Description	Min	Nom	Max	Units
Isolation Voltage	Input to Output See Note 1 Input to Chassis	3000 1500			VAC VAC
Efficiency	See individual models (also see graphs on page 3)				%
Safety Agency Approvals	UL8750 compliant to UL1310 Class 2 EN61347-1, -2-13				
No load Power Dissipation	Measured at 120VAC and 220VAC			6.0	W
MTBF	MIL-HDBK-217F 110VAC,80% Ld,25°C,(LXD42-1750SW)		327,000		Hours
Lifetime	Case Temperature =70°C		71,000		Hours
Weight			350		g
Operating Temperature		-20		+70	°C
Storage Temperature		-40		+85	°C
Relative Humidity	Non-condensing (operating)	10		100	%RH

- Note 1. Primary to Secondary Isolation test not to be carried out on power supply. Please contact Excelsys for full test method.  
 Note 2. Non UL1310 Class 2  
 Note 3. UL1310 Class 2 outputs for US only Non Class 2 for Canada  
 Note 4. UL1310 Class 2 outputs for US and Canada



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Emissions				
<b>Conducted</b>	EN55015		Level B	
<b>Radiated</b>	EN55015		Level B	
<b>Harmonic Distortion</b>	EN61000-3-2		Compliant	
<b>Flicker and Fluctuation</b>	EN61000-3-3		Compliant	
Immunity				
<b>ESD</b>	EN61000-4-2 (8kV air discharge, 4kV contact discharge)		Compliant	
<b>Radiated RFI</b>	EN61000-4-3		Compliant	
<b>Fast Transients - burst</b>	EN61000-4-4		Level 3	
<b>Surge</b>	EN61000-4-5 (AC Power Line: Line to Line 2KV)		Compliant	
<b>Conducted RFI</b>	EN61000-4-6		Compliant	
<b>Power Freq Magnetic Field</b>	EN61000-4-8		Compliant	
<b>Voltage Dips</b>	EN61000-4-11		Compliant	

Dimming Control					
Parameter		Min	Nom	Max	Units
<b>12V Output Voltage</b>		10.8	12	13.2	V
<b>12V Output Source Current</b>		0		20	mA
<b>Control Voltage (1-10V input)</b>	Voltage applied on 1-10V input wire	-2		15	V
<b>Source Current (1-10V input)</b>	Source current on 1-10V input wire	0		200	uA

- Note A. If dimming function is not used, 12V(yellow) and 1-10V(purple)wire must be connected together.
- 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. 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 Dim - (Gray) cable to Output -V cable

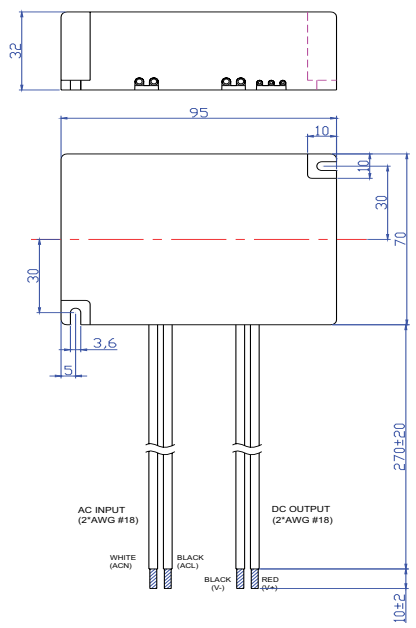
**INPUT / OUTPUT WIRING**

**INPUT CABLE**  
18AWG (UL1015 Rated)  
Black (L),White(N) 270±20mm

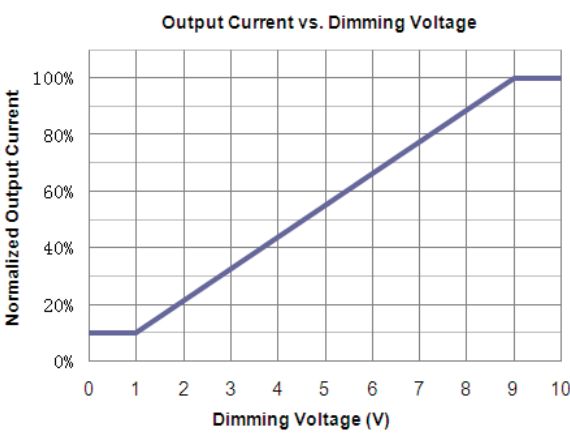
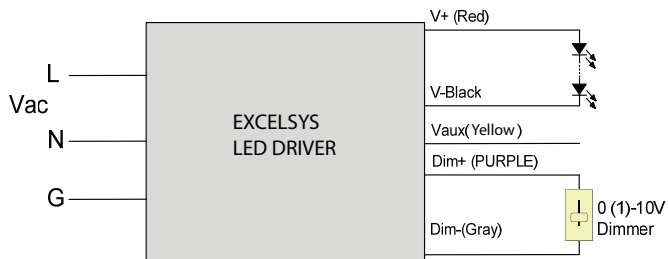
**OUTPUT CABLE**  
18AWG (UL1015 Rated)  
Black (-V) and Red (+V) 270±20mm

**DIMMING CABLE**  
22AWG (UL1015 Rated)  
Yellow (12V), Purple (1-10V), Gray (Dim - )  
200±20mm

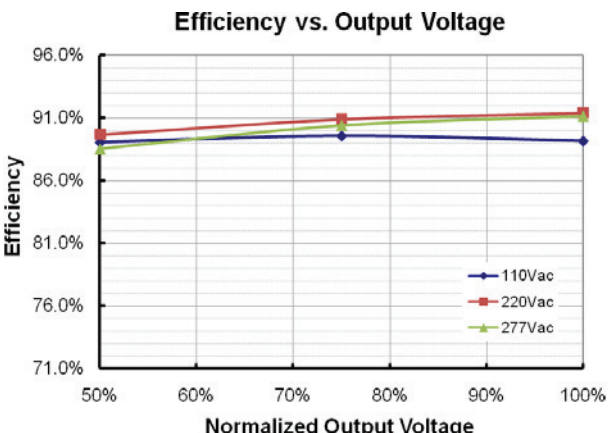
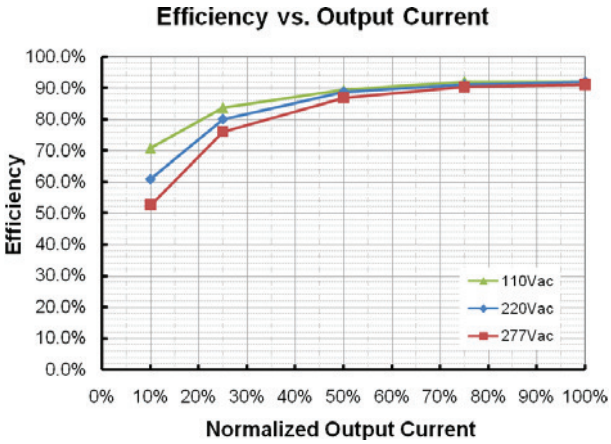
**MECHANICAL SPECIFICATIONS**



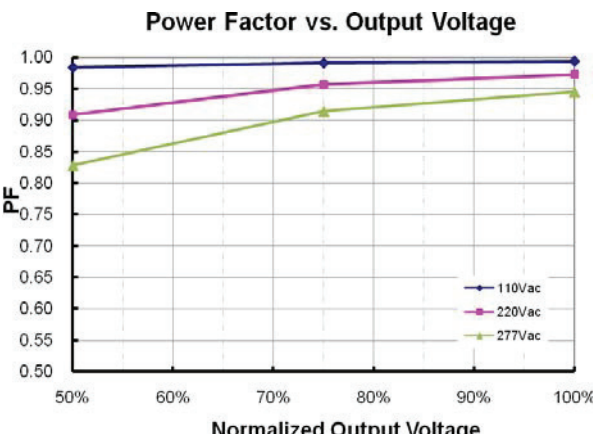
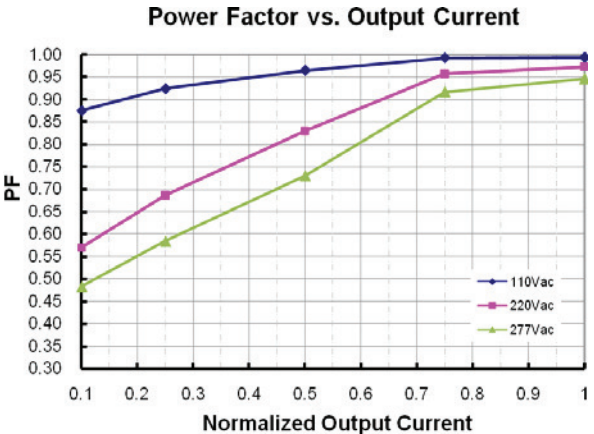
**Dimming Implementation Diagrams**



**Efficiency V Load for 350mA Model**



**Power Factor Characteristics**



Specifications are subject to change without

