

LXD42 series

LED Power Supply

Dimmable LED Power Supplies

LED Power
42W

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 ⁽²⁾	60-120V	350mA	90-305VAC	90.0%
LXD42-0450SW ⁽²⁾	47-94V	450mA	90-305VAC	89.0%
LXD42-0700SW ⁽²⁾	30-60V	700mA	90-305VAC	89.0%
LXD42-1050SW ⁽³⁾	20-40V	1050mA	90-305VAC	88.0%
LXD42-1280SW ⁽⁴⁾	17-32V	1280mA	90-305VAC	88.0%
LXD42-1400SW ⁽⁴⁾	15-30V	1400mA	90-305VAC	88.0%
LXD42-1750SW ⁽⁴⁾	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	3000			VAC
	Input to Chassis	1500			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



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 (8kV air discharge, 4kV contact discharge)		Compliant
Radiated RFI	EN61000-4-3		Compliant
Fast Transients - burst	EN61000-4-4		Level 3
Surge	EN61000-4-5 (AC Power Line: Line to Line 2KV)		Compliant
Conducted RFI	EN61000-4-6		Compliant
Power Freq Magnetic Field	EN61000-4-8		Compliant
Voltage Dips	EN61000-4-11		Compliant

Dimming Control

Parameter		Min	Nom	Max	Units
12V Output Voltage		10.8	12	13.2	V
12V Output Source Current		0		20	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		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

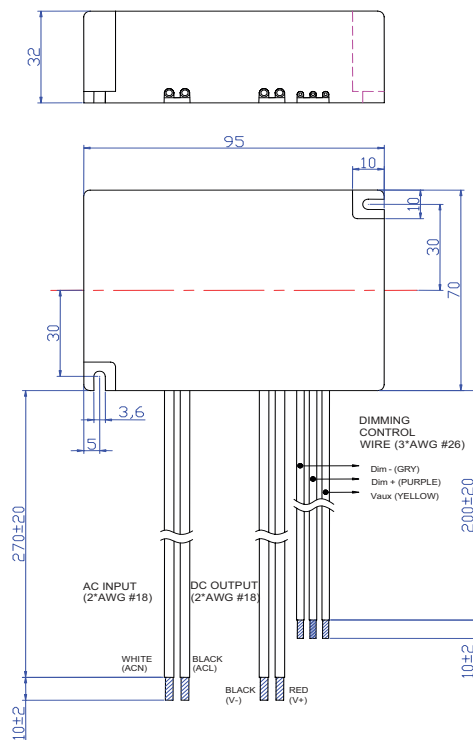
OUTPUT CABLE

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



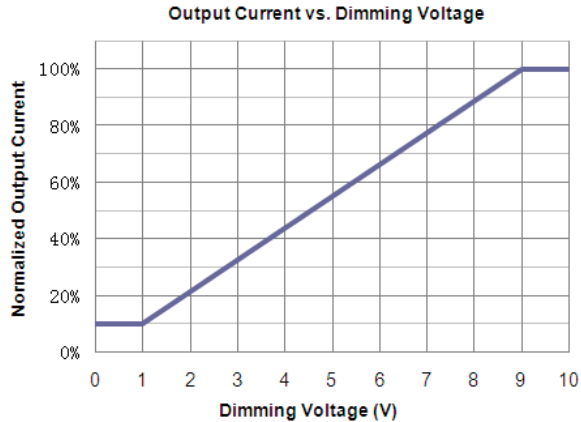
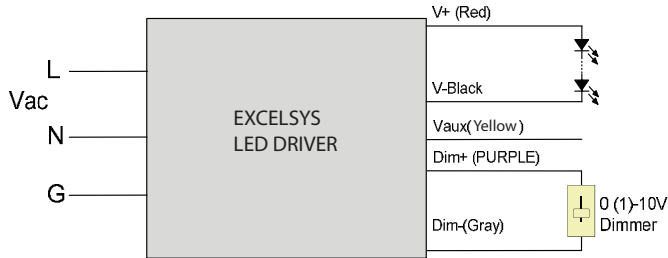
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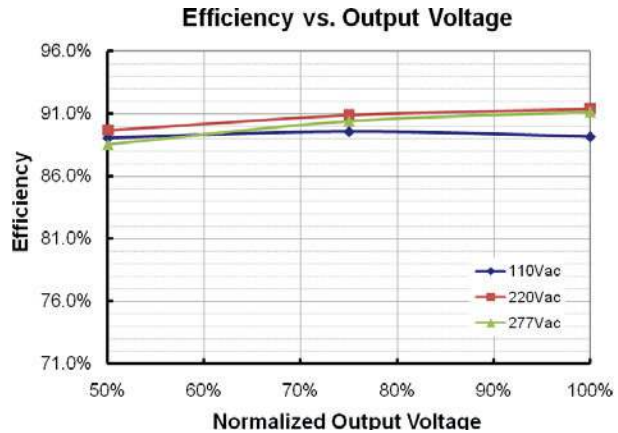
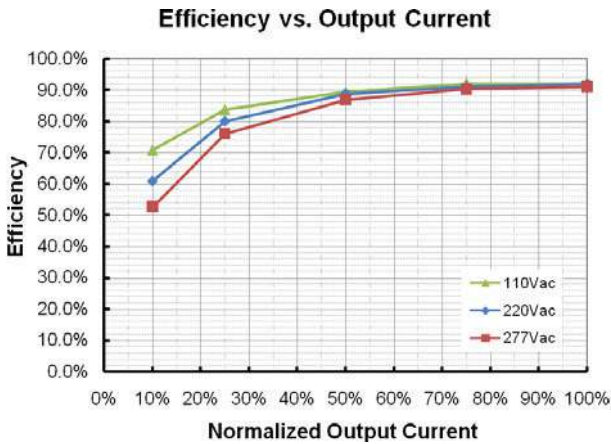
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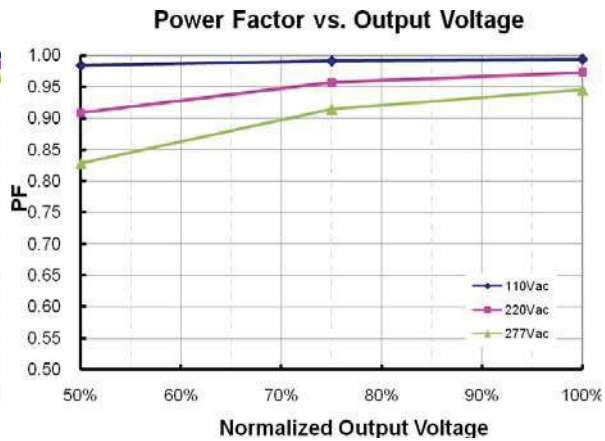
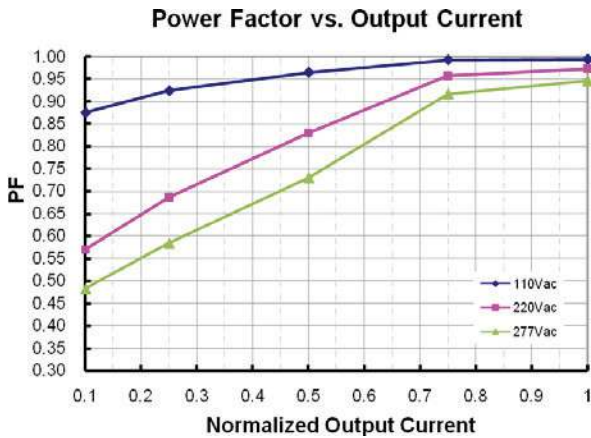
Dimming Implementation Diagrams



Efficiency V Load for 350mA Model



Power Factor Characteristics



Specifications are subject to change without notice

