

LXD52 series

LED Power Supply

Dimmable LED Power Supplies



LED Power
52W

LED POWER

next generation power
source

FEATURES

- High Efficiency (up to 91%)
- Dimming Control
- Active PFC (Typical 0.98)
- IP67 Waterproof
- OVP, SCP
- -35 to 70°C deg operation
- Universal Input 90-305VAC
- UL8750 recognised
- EN61347-1, -2-13 compliant

The LXD52 series of dimmable LED power supplies from Excelsys Technologies can deliver up to 52W of output power in an extremely compact package size.

The LXD52 series of constant current power supplies provides up to 2100mA of output current and 149V output voltage solutions for specific LED requirements. With industry leading efficiencies, and an extensive protection feature set, the LXD52 series provides high reliability and high performance in a compact package

The LXD52 series carries the UL and CE mark for safety and is also RoHS compliant.

Model Number	Output Voltage	Output Current	Input Voltage	Efficiency
LXD52-0350SW ⁽¹⁾	75-149V	350mA	90-305VAC	91.0%
LXD52-0450SW ⁽¹⁾	58-116V	450mA	90-305VAC	90.0%
LXD52-0700SW ⁽¹⁾	38-75V	700mA	90-305VAC	89.0%
LXD52-1050SW ⁽²⁾	25-50V	1050mA	90-305VAC	89.0%
LXD52-1400SW ⁽³⁾	19-37V	1400mA	90-305VAC	89.0%
LXD52-2100SW ⁽³⁾	13-25V	2100mA	90-305VAC	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, 52W output			0.8	A
Inrush Current	230VAC in, 25°C, Cold Start			60	A
Power Factor	220VAC, 110VAC	0.95		0.98	
Output Specifications					
Parameter	Conditions/Description	Min	Nom	Max	Units
Line Regulation				±1	%
Load Regulation				±3	%
Voltage Range	See individual models				
Output Current Range	See Dimming Graph on Page 3	10		100	% I out
Output Current Ripple				50	%
Overshoot				10	%
Turn-on Delay	Measured at 110VAC and full load		0.6	1.0	s
Turn-on Delay	Measured at 220VAC and full load		0.3	0.5	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	3750			VAC
	Input to Chassis	1500			VAC
Efficiency	See individual models	88		91	%
Safety Agency Approvals	UL8750, EN61347-1, -2-13, UL1310 See Note 1, 2, & 3.				
No load Power Dissipation	Measured at 230 Vac			6.0	W
MTBF	MIL HDBK-217F, 110VAC input, 80% load, 25°C (2100mA)	321,000			Hours
Lifetime	Case Temperature 65°C, 110VAC input, 80% load	59,000			Hours
Weight			480		g
Operating Temperature	Derating 2% per °C from 55°C to 70°C	-35		+70	°C
Storage Temperature		-40		+85	°C
Relative Humidity	Non-condensing (operating)	10		100	%RH

NOTES:

1. Non-Class 2 Output US & Canada
2. Class 2 Output US - Non-Class 2 Output Canada
3. Class 2 Output US & Canada



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EMC					
Parameter	Standard		Level		Units
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		Level 4		
Radiated RFI	EN61000-4-3		Level 3		
Fast Transients - burst	EN61000-4-4		Level 4		
Surge Immunity	EN61000-4-5		Compliant		
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
12V Output Voltage		10.8	12.0	13.2	VDC
12V Output Source Current		10	15	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		0.2	mA

- 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 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%. A Vdim voltage of 1V corresponds to 20% output current.
 Note E. Dimming Signal Voltage should be above 1V for linear dimming control. At Vdim voltage below 1V, flickering may occur.
 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
 Black (L),White(N), Green (G)310±20mm

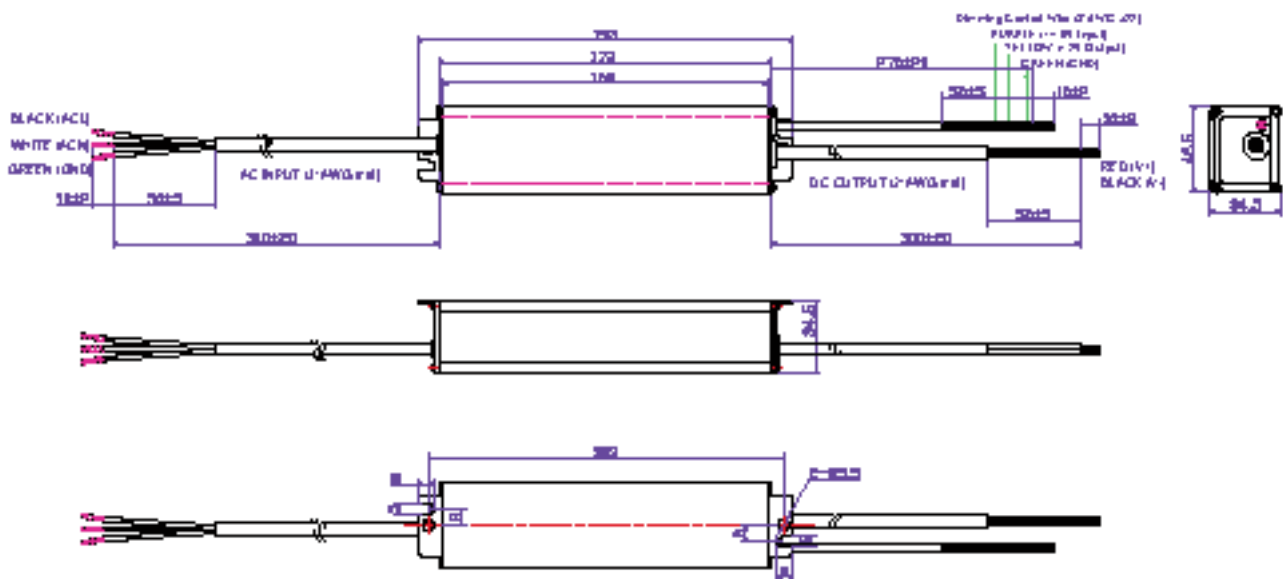
OUTPUT CABLE

SJTW 18AWG
 Black (-V) and Red (+V) 300±20mm

DIMMING CABLE

SJTW 22AWG
 Yellow (12V), Purple (1-10V), Green (GND) 270±20mm

MECHANICAL SPECIFICATIONS



Specifications are subject to change without



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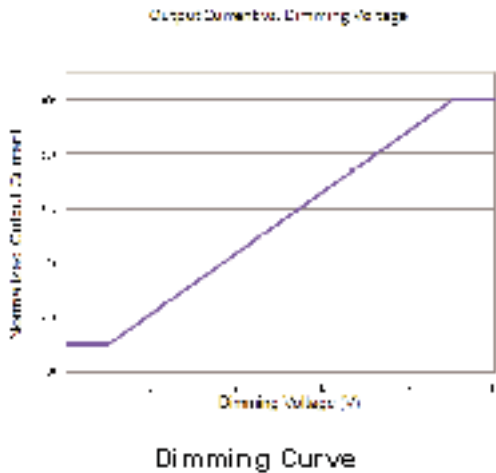
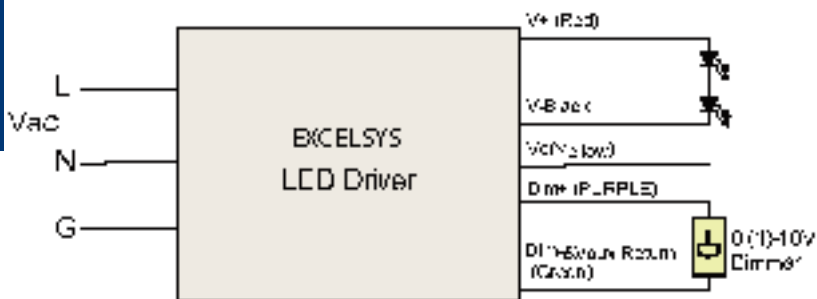
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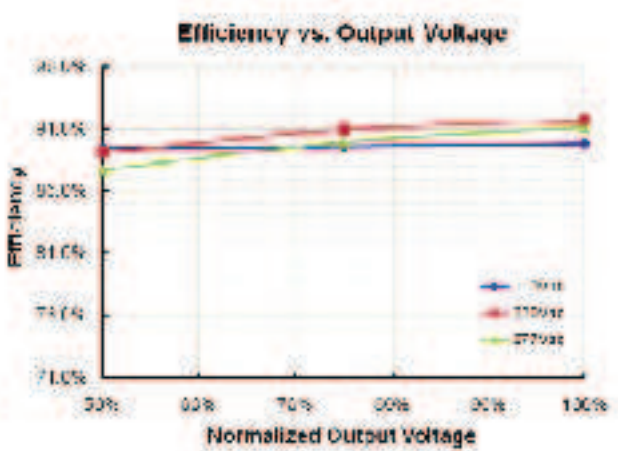
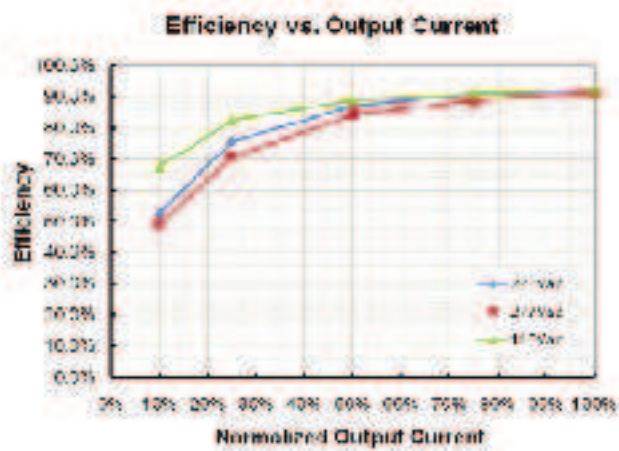
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LED Power
52W

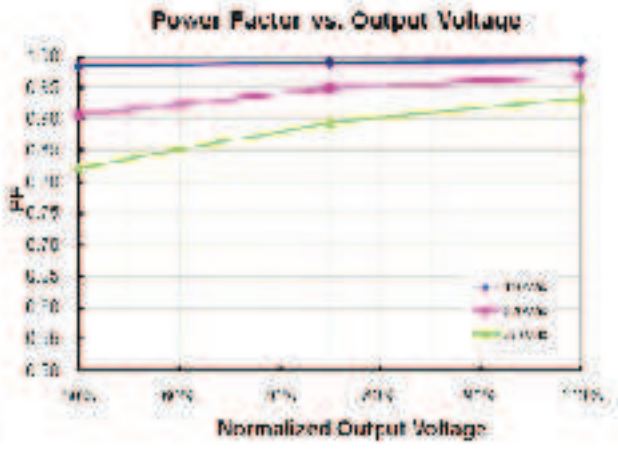
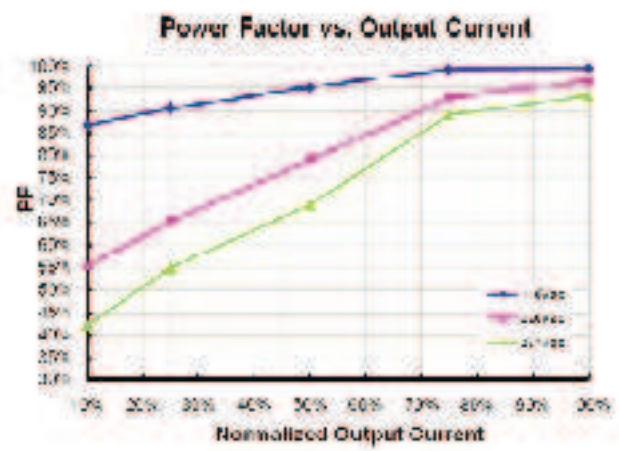
Dimming Implementation Diagrams



Efficiency V Load for 350mA Model



Power Factor Characteristics



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