LCE80 Series

AC-DC Power Supplies

XP Power

80 Watts

- Constant voltage, constant current mode
- Suitable for lighting and display applications
- Harmonics class C
- ITE & household approvals
- LPS for 12V and above
- 2″ by 4″ footprint
- Class I & class II operation
- Less than 0.5W no load input power
- 3 year warranty

GREEN XP POWER

Dimensions:

LCE80:
4.00 x 2.00 x 1.10″ (101.6 x 50.8 x 27.9 mm)

Models & Ratings

Output Power	Output Voltage	Output Current	Ripple & Noise	Efficiency[1]	Model Number
60 W	5.0 V	12.00 A	50 mV	%	LCE80US05
80 W	12.0 V	6.67 A	120 mV	%	LCE80US12
80 W	15.0 V	5.33 A	120 mV	%	LCE80US15
80 W	20.0 V	4.00 A	120 mV	%	LCE80US20
80 W	24.0 V	3.33 A	120 mV	%	LCE80US24
80 W	30.0 V	2.67 A	240 mV	%	LCE80US30
80 W	36.0 V	2.22 A	240 mV	%	LCE80US36
80 W	42.0 V	1.90 A	240 mV	%	LCE80US42
80 W	48.0 V	1.67 A	240 mV	%	LCE80US48
80 W	54.0 V	1.48 A	240 mV	%	LCE80US54

Notes

1. Minimum average efficiencies measured at 25%, 50%, 75% & 100% of 80W load and 230 VAC input.

Summary

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Range	85	115/230	305	VAC	Derate load from 100% at 90 VAC to 90% at 85 VAC
No Load Input Power			0.5	W	
Efficiency		93		%	230 VAC (see fig.1 & 2)
Operating Temperature	-20		+70	°C	See derating curve (fig.3)
EMC	Conducted: EN55032, Class B, Radiated: EN55032, Class B				
Safety Approvals	CB/EN/UL/CSA for ITE and CB for household				

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85	115/230	305	VAC	Derate output from 100% at 90VAC to 90% at 85VAC and 85% at 80 VAC.
Input Frequency	47	50/60	63	Hz	
Input Current - Full Load				A	115/230 VAC
Inrush Current				A	230 VAC cold start, 25 °C
Earth Leakage Current				µA	115/230 VAC/50 Hz (Typ), 264 VAC/60 Hz (Max)
No load Input Power			0.5	W	
Input Protection	F3.15 A/250 V Internal fuse fitted in line and neutral.				

Output - Main Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	5		54	VDC	See Models and Ratings table
Initial Set Accuracy			±0.5	%	50% load, 115/230 VAC
Output Voltage Adjustment	±5	±10		%	None
Minimum Load	0			A	No minimum load required
Start Up Delay			2	s	115/230 VAC full load.
Hold Up Time	20			ms	Min at full load, 115 VAC
Drift			±0.02	%	After 20 min warm up
Line Regulation			±1	%	90-264 VAC
Load Regulation			±1	%	0-95% load, 5% in constant current mode
Transient Response			4	%	Recovery within 1% in less than 500 µs or a 50-75% and 75-50% load step
Over/Undershoot			7	%	Full load
Ripple & Noise			50/120/200	mV pk-pk	5V/12-24V/30-54V. 20 MHz bandwidth and 10 µF electrolytic capacitator in parallel with 0.1 µF ceramic capacitator.
Overvoltage Protection	110		140	%	Vnom, recycle input to reset
Overload Protection	100		105	% I nom	Constant current down to 45% of nominal voltage. See fig. 1.
Short Circuit Protection					Trip & Restart
Temperature Coefficient			0.02	%/°C	

Output Characteristics
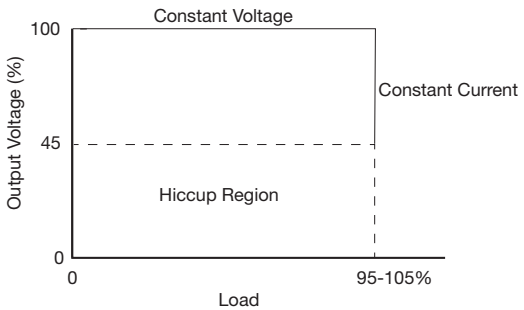
Figure 1