Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

VEC40 Series

AC-DC Power Supplies

XP Power

40 Watts

- Energy Efficiency Level VI
- CoC Tier 2
- Limited Power Source Approved
- <0.075 W Standby Power
- Optional Inlet Connector
- China Compulsory Certficiation (CCC) Qualified
- 0 °C to 65 °C Operation
- High Power Density
- Low Cost

GREEN XP POWER

Dimensions:

VEC40:
4.58 x 2.06 x 1.23" (116.3 x 52.4 x 31.3 mm)

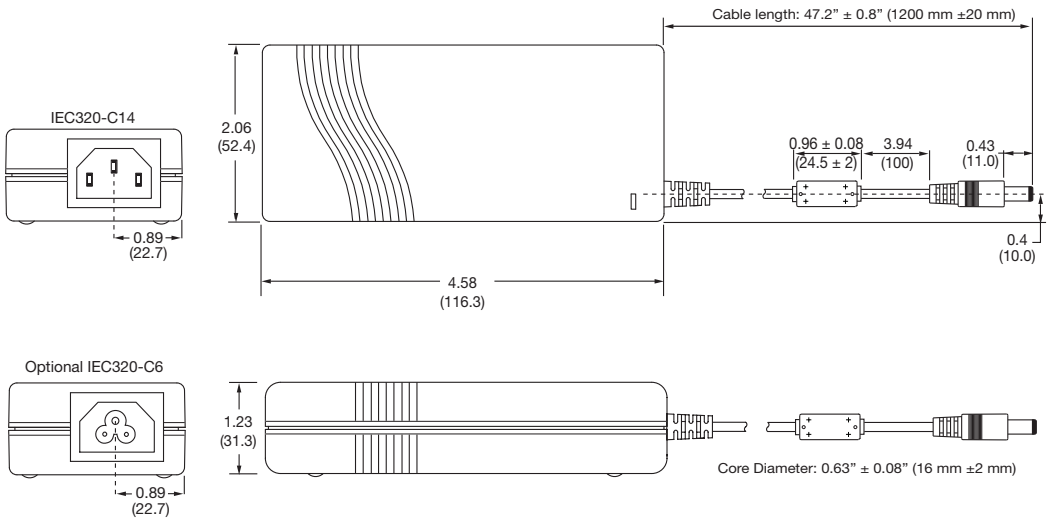
Models & Ratings

Output Power	Output Voltage	Output Current	Total Regulation	Efficiency[1]	Model Number
40 W	12.0 V	3.33 A	±5%	89%	VEC40US12
	15.0 V	2.67 A		89%	VEC40US15
	24.0 V	1.67 A		89%	VEC40US24

Notes

1. Typical average of efficiencies measured at 25%, 50%, 75% and 100% load and 230 VAC input.

Mechanical Details



Power Cord for C14 inlet, Order Part:
UK - UK-MAINS-IEC
European - EU-MAINS-IEC
US - US-MAINS-IEC

Power Cord for C6 inlet, Order Part:
UK - UK-MAINS-5
European - EU-MAINS-5
US - US-MAINS-5

Notes

1. All dimensions are shown in inches (mm), Tolerance is 0.04" (±1.0) max except output lead.
2. Weight: 0.52 lbs (240 g) approx.
3. Output connector is barrel type with 11 mm length, 5.5 mm dia. outer, 2.5 mm dia. inner with center + and outer shell - polarity.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage	90		264	VAC	
Input Frequency	47		63	Hz	
Input Current		0.8/0.6		A	Measured at 115/230 VAC
Inrush Current			70	A	230 VAC, cold start at 25 °C
Power Factor					EN61000-3-2 Class A
Earth Leakage Current			0.7	mA	264 VAC, 60 Hz
No Load Input Power			0.1	W	
Input Protection	T3.15A/250 VAC internal fuse in line				

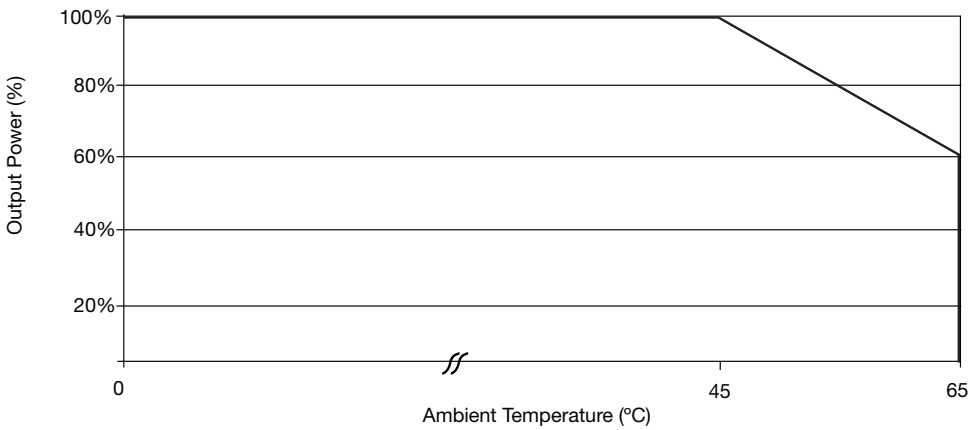
Output

Characteristic	Min.	Typ.	Max.	Units	Notes & Conditions
Output Voltage	12		24	VDC	See Models and Ratings table
Minimum Load					No minimum load required
Start Up Delay			3	s	
Start Up Rise Time		8		ms	
Hold Up Time	8			ms	Full load and 115 VAC
Line Regulation			±0.5	%	
Total Regulation			±5	%	Including initial set accuracy
Transient Response			4	%	Maximum deviation, recovering to less than 1% within 500 µs for 25% step load
Ripple and Noise			240	mV pk-pk	Measured with 20 MHz Bandwidth and 22 µF electrolytic in parallel with 0.1 µF ceramic capacitor.
Overshoot		5		%	At turn on / turn off
Overload Protection	110		170	%	
Overvoltage Protection		150		%	Recycle mains to reset
Short Circuit Protection	Trip and restart (hiccup), auto resetting				
Temperature Coefficient		±0.04		%/°C	

Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	0		+65	°C	Derate from 100% load at 45 °C to 50% load at 65 °C
Cooling	Natural convection				
Operating Humidity	5		90	%RH	Non-condensing
Storage Temperature	-20		+85	°C	
Operating Altitude			5000	m	
Shock	IEC68-2-27, 30 g, 11 ms half sine, 3 times in each of 6 axes				
Vibration	IEC68-2-6, 10-500 Hz, 2 g 10 mins/sweep, 60 mins for each of 3 axes				

Derating Curve

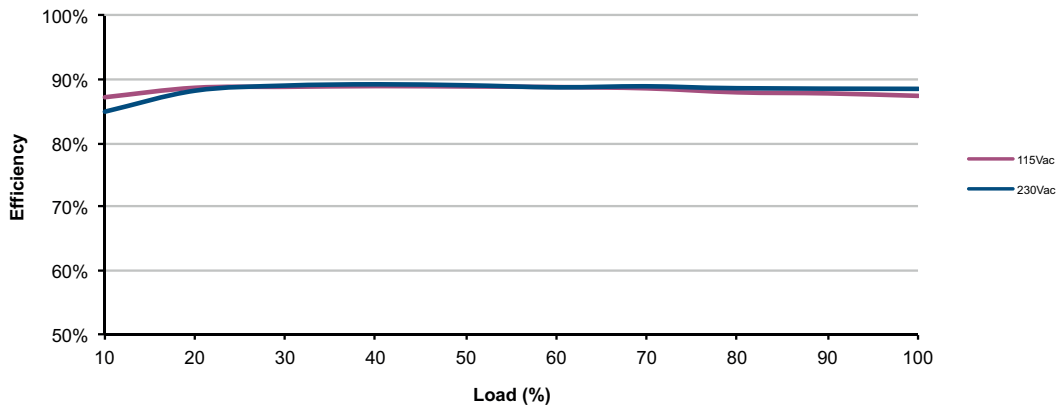


General

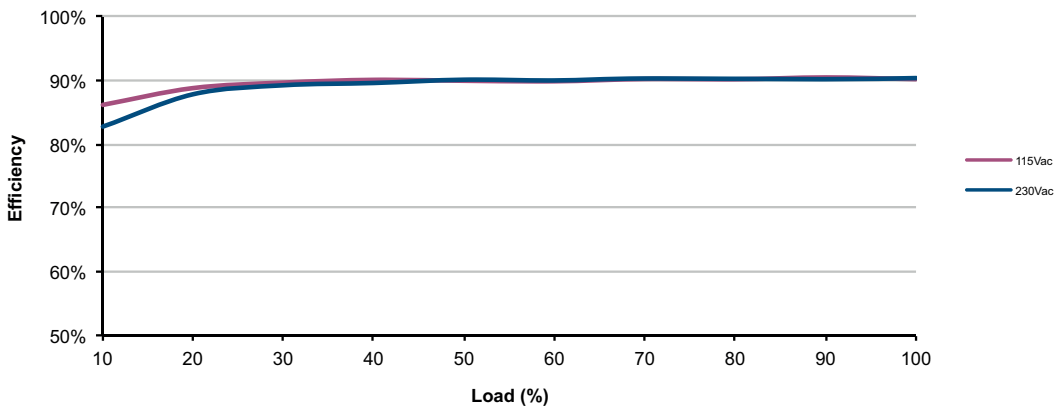
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		89		%	See Models and Ratings table and curves.
Isolation: Input to Output			3000	VAC	
Input to Ground			1500	VAC	
Output to Ground					Negative output is connected to ground
Switching Frequency		65		kHz	±10 kHz
Power Density			3.14	W/in^3	
Mean Time Between Failure		>200		kHrs	MIL-HDBK-217F at 25 °C GB
Weight		0.52 (240)		lb (g)	

Efficiency Curves

VEC40US12



VEC40US24



EMC: Emissions

Phenomenon	Standard	Test Level	Notes & Conditions
Emissions	EN55022	Level B	Conducted & Radiated
Harmonic Current	EN61000-3-2	Class A	
Voltage Flicker	EN61000-3-3		

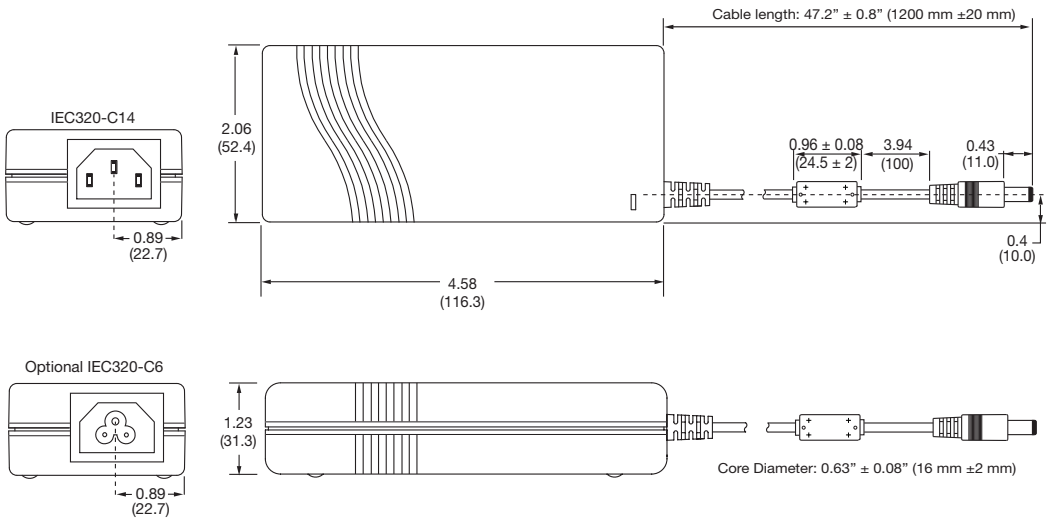
EMC: Immunity

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD	EN61000-4-2	±8 kV Air, ±4 kV contact	A	
Radiated	EN61000-4-3	3 V/m	A	
EFT/Burst	EN61000-4-4	3	A	
Surge	EN61000-4-5	Installation Class 3	A	
Conducted	EN61000-4-6	3 V	A	
Magnetic Fields	EN61000-4-8	3 A/m	A	
Dips and Interruptions	EN61000-4-11	Dip: 30% 500 ms	A/B	High Line/Low Line
		Dip: 60% 200 ms	A/B	High Line/Low Line
		Int:100% 5000 ms	B	

Safety Approvals

Safety Agency	Safety Standard	Notes & Conditions
UL/CSA	cUL60950-1	Approved at Limited Power Source (LPS)
TUV	EN60950-1	
CB	IEC60950-1	
CCC	China Compulsory Certification (CCC)	

Mechanical Details



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