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

65 Watts
VEF Series

- Energy Efficiency Level V
- CEC 2008 / EISA 2007 / ErP Compliant
- China Compulsory Certfication (CCC) Qualified
- Single Outputs from 12 V to 24 V
- Optional Inlet Connectors
- No Load Input Power <0.3 W
- High Power Density

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.7 A max
Inrush Current	• 70 A max at 230 VAC, cold start at 25 °C
Earth Leakage Current	• <0.7 mA at 240 VAC/50 Hz
No Load Input Power	• <0.3 W
Input Protection	• Internal T4.0A/250 V fuse in line

Output

Output Voltage	• See table
Initial Set Accuracy	• ±5% at 50% load
Minimum Load	• No minimum load required
Hold Up Time	• 8 ms min at 115 VAC, full load
Start Up Delay	• 3 s max
Start Up Rise Time	• 8 ms typical
Transient Response	• 4% maxiumum deviation, recovering to less than 1% within 500 µs for a 50% step load change
Line Regulation	• ±0.5% max
Load Regulation	• ±5% max
Ripple & Noise	• 240 mv pk-pk max, 20 MHz bandwidth (see note 1)
Overvoltage Protection	• See table
Overload Protection	• 110 -170%
Short Circuit Protection	• Continuous (hiccup/trip & restart mode with auto recovery)
Temperature Coefficient	• ±0.04%/°C

General

Efficiency	• See table
Energy Efficiency	• Level V
Isolation	• 3000 VAC Input to Output, 1500 VAC Input to Ground. Negative Output is connected to Ground.
Switching Frequency	• 65 kHz ±10 kHz
MTBF	• >700 kHrs to Bell Core iss. 6

Environmental

Operating Temperature	• -10 °C to +60 °C derate linearly from 100% load at +40 °C to 50% load at +60 °C
Storage Temperature	• -20 °C to +85 °C
Operating Humidity	• 5% to 90% RH non-condensing
Storage Humidity	• 5% to 95% RH non-condensing
Shock	• 6 random drops from 0.7 m with no damage, 50 g for 20 ms in each of 3 axes
Vibration	• 2 g variable frequency from 20 Hz to 30 Hz

EMC & Safety

Emissions	• EN55022, level B conducted & radiated
Harmonic Currents	• EN61000-3-2
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 3 Perf Criteria A
Radiated Immunity	• EN61000-4-3, 3 V/m Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3 Perf Criteria A
Surge	• EN61000-4-5, installation class 3, Perf Criteria B
Conducted Immunity	• EN61000-4-6, level 2 Perf Criteria A
Magnetic Field	• EN61000-4-8, 3 A/m Perf Criteria A
Dips & Interruptions	• EN55024, 100% 10 ms, 30% 500 ms, 100% 5000 ms Perf Criteria A, B, B
Safety Approvals	• IEC60950-1, EN60950-1, UL/cUL60950-1, China Compulsory Certification (CCC) qualified, Approved as Limited Power Source

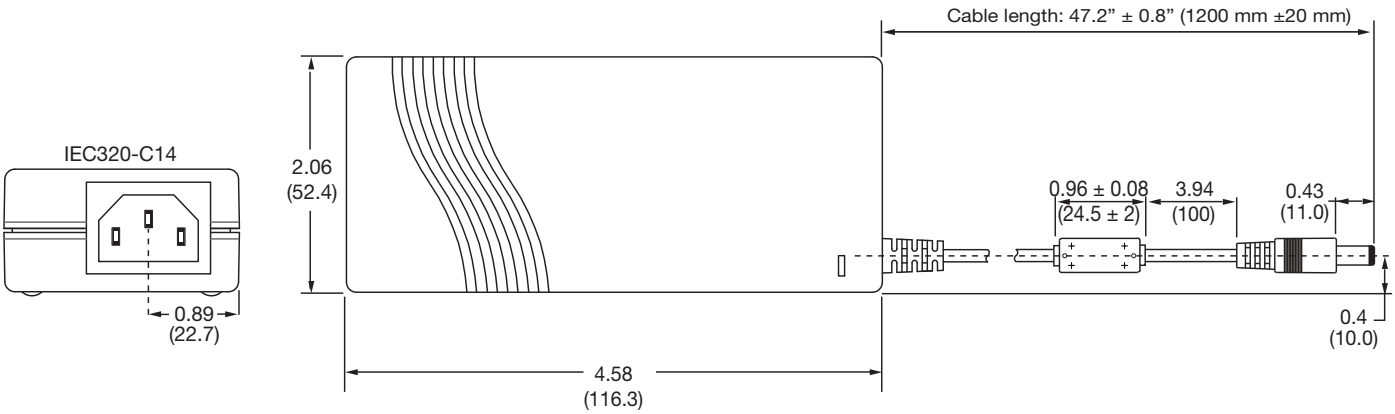
Models and Ratings

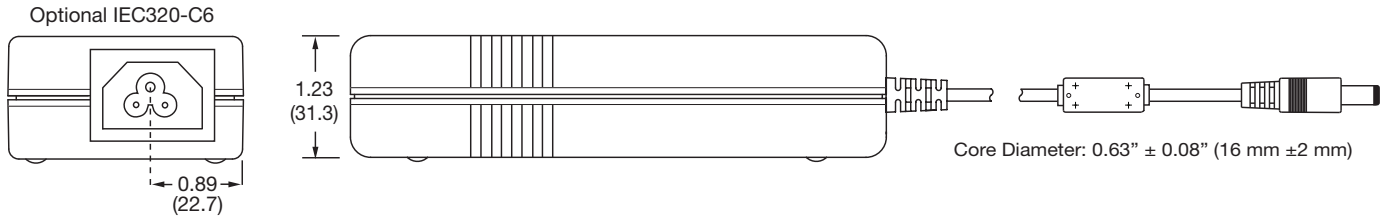
Output Power	Output Voltage[5]	Output Current	OVP Setting[2]	Efficiency[3]	Model Number[4]
65 W	12.0 V	5.41 A	18.5 V	88%	VEF65US12
65 W	19.0 V	3.42 A	28.5 V	89%	VEF65US19
65 W	24.0 V	2.71 A	36.0 V	89%	VEF65US24

Notes

1. Measured at the output connector with a 0.1 µF ceramic capacitor and a 10 µF electrolytic capacitor.
2. Typical values.
3. Average of efficiencies measured at 25%, 50%, 75% and 100% load and 230 VAC input.
4. For optional IEC320-C6 input connector, add suffix 'C6' to end of the part number, e.g. VEF65US24C6. Contact sales for details.
5. Other voltages between 12 V and 30 V available on request, contact sales for details.

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: 0.76 lbs (345 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.
4. Optional output connectors available.