

VEH Series



- Energy Star, EISA & CEC 2008 Compliant
- Level V Compliant
- China Compulsory Certification (CCC) Qualified
- Single Outputs from 12 V to 30 V
- Universal Input
- No Load Input Power <0.5 W
- High Power Density

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.7 A max
Inrush Current	• 50 A max at 230 VAC
Earth Leakage Current	• <1 mA
Power Factor	• Meets EN61000-3-2, class A
Inrush Current	• 50 A max at 230 VAC
No Load Input Power	• <0.5 W

Output

Output Voltage	• See tables
Initial Set Accuracy	• $\pm 2\%$
Minimum Load	• No minimum load requirement
Hold Up Time	• 8 ms min at 115 VAC
Line Regulation	• $\pm 1\%$
Load Regulation	• See tables $\pm 5\%$
Ripple & Noise	• 200mv pk-pk max, 20 MHz BW (see note 2)
Overvoltage Protection	• See tables
Overload Protection	• 110 -180% hiccup/trip & restart mode with auto recovery
Short Circuit Protection	• Continuous
Temperature Coefficient	• $\pm 0.04\%/^{\circ}\text{C}$
Start Up Time	• 3s

General

Efficiency	• 85% minimum at 230 VAC & 100% load
Isolation	• 3000 VAC Input to Output, 1500 VAC Input to Ground.
Switching Frequency	• 60 kHz ± 10 kHz
MTBF	• 100,000 Hrs to MIL-HDBK-217E at 25 $^{\circ}\text{C}$

Environmental

Operating Temperature	• 0 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ derate linearly from 100% load at +40 $^{\circ}\text{C}$ to 50% load at +60 $^{\circ}\text{C}$,
Storage Temperature	• -10 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
Operating Humidity	• 10% to 90% RH Non Condensing

EMC & Safety

Emissions	• EN55022, Level B conducted & radiated
Harmonic Currents	• EN61000-3-2 Class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, Level 3 (air) 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	• EN61000-4-11, 70% U_T for 500 ms, 40% U_T for 100 ms, <5% U_T for 5000 ms Perf Criteria A, A, B
Safety Approvals	• EN60950-1:2001, UL/cUL60950-1, China Compulsory Certification (CCC) qualified, CE Mark.

Models and Ratings

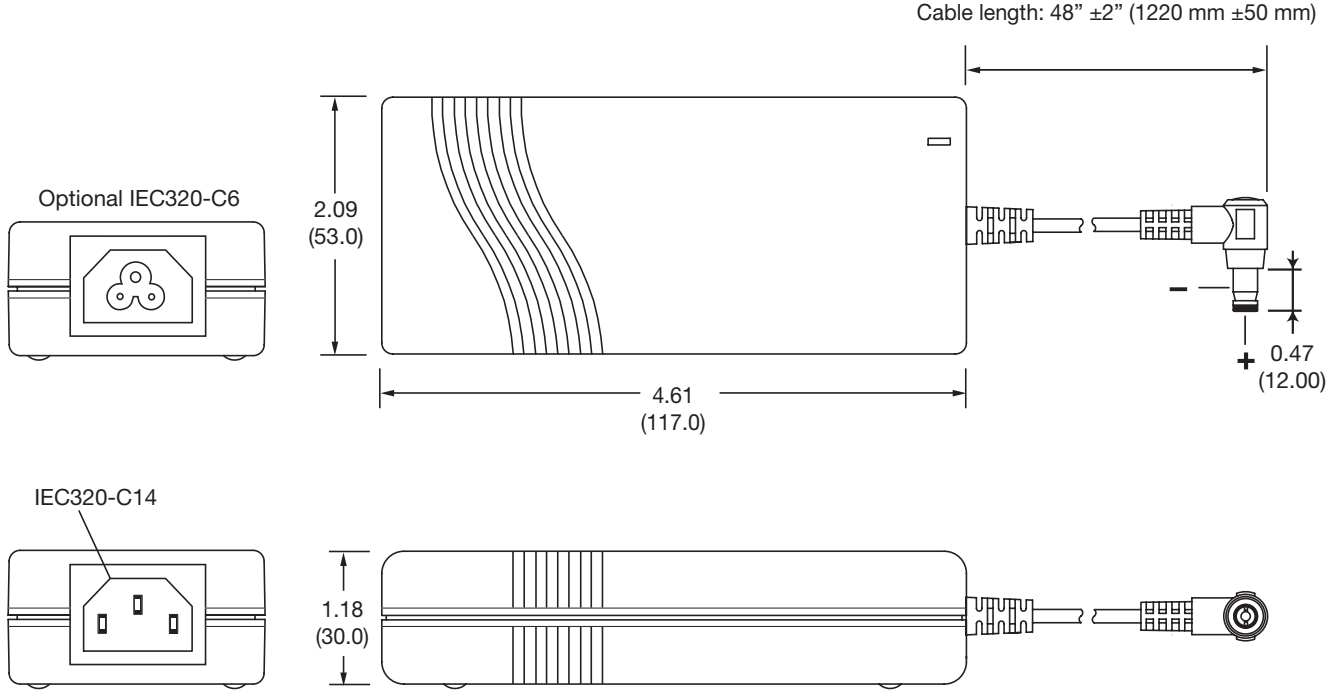
Output Power	Voltage	Current	OVP Setting	Effeciency	Model Number (1)
60 W	12.0 V	5.0 A	16 V	85 %	VEH60US12
60 W	15.0 V	4.0 A	18 V	85 %	VEH60US15
60 W	16.0 V	3.75 A	19 V	85 %	VEH60US16
60 W	18.0 V	3.33 A	24 V	85 %	VEH60US18
60 W	19.0 V	3.16 A	25 V	85 %	VEH60US19
60 W	20.0 V	3.0 A	26 V	85 %	VEH60US20
60 W	24.0 V	2.5 A	30 V	85 %	VEH60US24
60 W	30.0 V	2.0 A	36 V	85 %	VEH60US30

Notes

1. For optional IEC320-C6 input connector, add suffix 'C6' to end of part number.
2. Measured at the output connector with a 0.1 μF ceramic capacitor and a 10 μF electrolytic capacitor.

Mechanical Details

All dimensions shown in inches (mm).



Power Cord Order Part:
 UK - UK-MAINS-IEC
 European - EU-MAINS-IEC
 US - US-MAINS-IEC

Notes

- Output connector is 5.5mm dia. outer barrel, inner dia. is 2.5mm with a center + and outer shell - polarity.
 Optional output connectors available.
 Weight: 0.76 lbs (345 g) approx.