



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



AEB Series



- CEC2008 & EISA2007 Compliant
- Low Profile
- Single Outputs from 5 V to 48 V
- High Power Density
- Universal Input
- China Compulsory Certification (CCC) Qualified
- 3 Year Warranty

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• AEB36: 1.00 A max AEB45: 1.20 A max AEB70: 1.50 A max AEB100: 1.85 A max
Inrush Current	• AEB36: 60 A max at 240 VAC AEB45: 70 A max at 240 VAC AEB70: 80 A max at 240 VAC AEB100: 120 A max at 240 VAC
Power Factor	• EN61000-3-2, class A
Earth Leakage Current	• <3.5 mA (AEB45/70/100)
Input Protection	• Fitted with an internal fuse AEB36 T1A/250 VAC, AEB45/70/100 T2A/250 VAC
No Load Input Power	• <0.5 W

Output

Output Voltage	• See tables
Initial Set Accuracy	• $\pm 2\%$, set at 60% load
Minimum Load	• No minimum load required
Start Up Delay	• 3 s max
Start Up Rise Time	• 20 ms
Hold Up Time	• AEB36/45/70: 8 ms at 115 VAC AEB100: 20 ms at 115 VAC
Drift	• $\pm 0.05\%$
Line Regulation	• $\pm 1\%$
Load Regulation	• See tables
Ripple & Noise	• 1% pk-pk max, 20 MHz bandwidth, (see note 2)
Transient Response	• 5% max deviation, recovery to within 1% in 500 μ s for a 25% load change
Overvoltage Protection	• Typical 125% max, latching
Overload Protection	• Trip & restart mode (hiccup mode)
Short Circuit Protection	• Continuous
Temperature Coefficient	• $\pm 0.04\%/^{\circ}\text{C}$

General

Efficiency	• See tables
Energy Efficiency	• AEB70: Level V All other models: Level IV
Isolation	• AEB36: 3000 VAC Input to Output AEB45/70/100: 3000 VAC Input to Output, 1500 VAC Input to Ground. Negative output is connected to ground. For optional 500 VAC output to ground isolation add suffix '-F' to model number
Switching Frequency	• AEB36: 60 kHz typical, AEB45: 100 kHz typical, AEB70: 65 kHz typical, AEB100: 80 kHz typical PFC converter 45 kHz typical main converter
Power Density	• AEB36: 5.34 W/in ³ , AEB45: 3.81 W/in ³ , AEB70: 4.92 W/in ³ , AEB100: 4.45 W/in ³
MTBF	• AEB36: >360 kHrs, AEB45: >300 kHrs, AEB70: >200 kHrs, AEB100: >150 kHrs to MIL-HDBK-217F at 25 $^{\circ}\text{C}$, GB

Environmental

Operating Temperature	• AEB36/45/70: 0 $^{\circ}\text{C}$ to +60 $^{\circ}\text{C}$ derate linearly from 100% load at +40 $^{\circ}\text{C}$ to 60%, load at +60 $^{\circ}\text{C}$, AEB100: 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	• -20 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$
Operating Humidity	• 93% 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 2 (contact) Perf Criteria A 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 2 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, 30% 10 ms, 60% 100 ms, 100% 5000 ms Perf Criteria A, B, B
Safety Approvals	• EN60950-1:2006+A11, UL/cUL60950-1, China Compulsory Certification (CCC) qualified (AEB36/70 only)

Models and Ratings

AEB36

Output Power	Output Voltage	Output Current	Load Regulation ⁽¹⁾	Efficiency ⁽³⁾	Model Number
20 W	5.0 V	4.00 A	±6%	73%	AEB36US05
27 W	9.0 V	3.00 A	±5%	77%	AEB36US09
30 W	12.0 V	2.50 A	±5%	78%	AEB36US12
32 W	13.5 V	2.40 A	±5%	80%	AEB36US13
36 W	15.0 V	2.40 A	±3%	80%	AEB36US15
36 W	18.0 V	2.00 A	±2%	81%	AEB36US18
36 W	24.0 V	1.50 A	±2%	81%	AEB36US24
36 W	48.0 V	0.75 A	±2%	83%	AEB36US48

Notes

1. Load regulation is measured from 60% to full load and from 60% to 20% load (60% ±40% full load).
2. Measured at the output connector with a 0.1 µF ceramic capacitor and a 10 µF electrolytic capacitor.
3. Minimum average of efficiencies measured at 25%, 50%, 75% & 100% load.

AEB45

Output Power	Output Voltage	Output Current	Load Regulation ⁽¹⁾	Efficiency ⁽⁴⁾	Model Number ⁽³⁾
45 W	12.0 V	3.75 A	±3%	84%	AEB45US12
45 W	15.0 V	3.00 A	±3%	85%	AEB45US15
45 W	18.0 V	2.50 A	±2%	85%	AEB45US18
45 W	19.0 V	2.37 A	±2%	85%	AEB45US19
45 W	24.0 V	1.88 A	±2%	86%	AEB45US24
48 W	48.0 V	1.00 A	±2%	87%	AEB45US48

Notes

1. Load regulation is measured from 60% to full load and from 60% to 20% load (60% ±40% full load).
2. Measured at the output connector with a 0.1 µF ceramic capacitor and a 10 µF electrolytic capacitor.
3. For optional 500 VAC output to ground isolation add suffix '-F' to model number.
4. Minimum average of efficiencies measured at 25%, 50%, 75% & 100% load.

AEB70

Output Power	Output Voltage	Output Current	Load Regulation ⁽¹⁾	Efficiency ⁽⁵⁾	Model Number ⁽³⁾
66 W	12.0 V	5.50 A	±5%	82%	AEB70US12
69 W	15.0 V	4.60 A	±3%	84%	AEB70US15 ⁽⁴⁾
70 W	18.0 V	3.90 A	±2%	84%	AEB70US18 ⁽⁴⁾
72 W	19.0 V	3.70 A	±2%	84%	AEB70US19 ⁽⁴⁾
72 W	24.0 V	3.00 A	±2%	85%	AEB70US24 ⁽⁴⁾
72 W	48.0 V	1.50 A	±2%	87%	AEB70US48 ⁽⁴⁾

Notes

1. Load regulation is measured from 60% to full load and from 60% to 20% load (60% ±40% full load).
2. Measured at the output connector with a 0.1 µF ceramic capacitor and a 10 µF electrolytic capacitor.
3. For optional 500 VAC output to ground isolation add suffix '-F' to model number.
4. Energy efficiency level V.
5. Minimum average of efficiencies measured at 25%, 50%, 75% & 100% load.

AEB100

Output Power	Output Voltage	Output Current	Load Regulation ⁽¹⁾	Efficiency ⁽⁴⁾	Model Number ⁽³⁾
100 W	12.0 V	8.34 A	±4%	85%	AEB100PS12
100 W	12.5 V	8.00 A	±4%	85%	AEB100PS125
100 W	15.0 V	6.67 A	±4%	85%	AEB100PS15
100 W	24.0 V	4.17 A	±2%	85%	AEB100PS24
100 W	48.0 V	2.08 A	±2%	85%	AEB100PS48

Notes

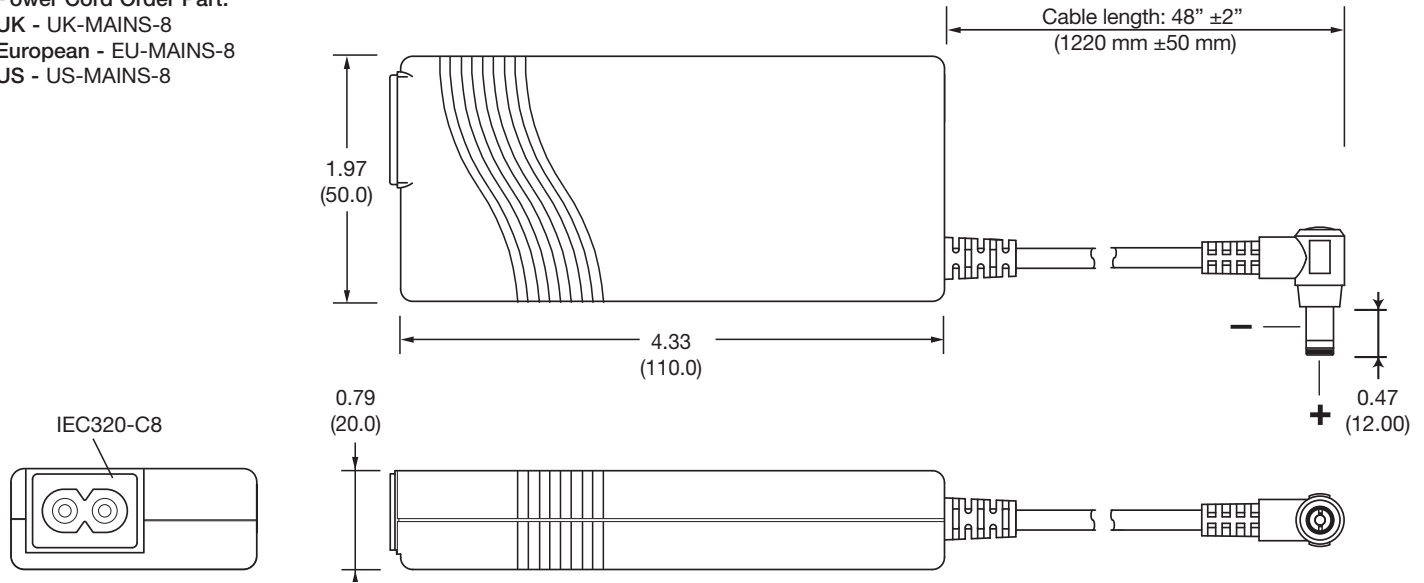
1. Load regulation is measured from 60% to full load and from 60% to 20% load (60% ±40% full load).
2. Measured at the output connector with a 0.1 µF ceramic capacitor and a 10 µF electrolytic capacitor.
3. For optional 500 VAC output to ground isolation add suffix '-F' to model number.
4. Minimum average of efficiencies measured at 25%, 50%, 75% & 100% load.



Mechanical Details

AEB36

Power Cord Order Part:
 UK - UK-MAINS-8
 European - EU-MAINS-8
 US - US-MAINS-8

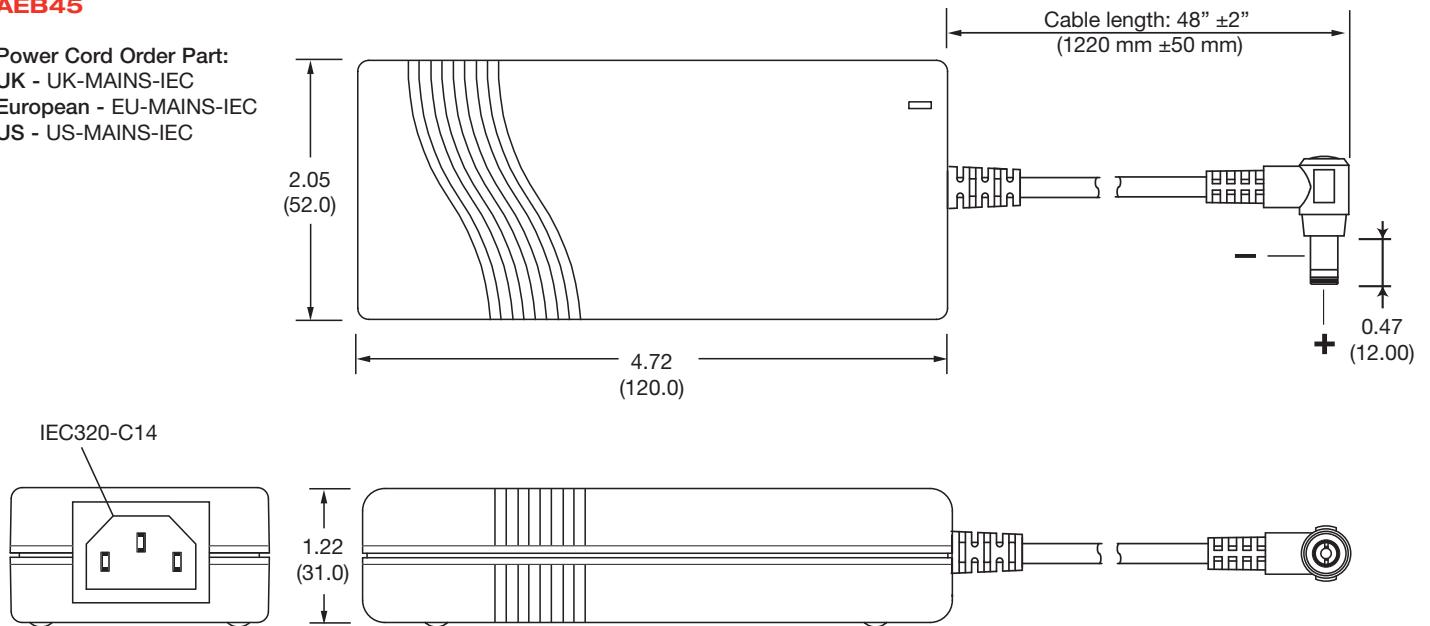


Notes

1. All dimensions shown in inches (mm).
2. Weight: 0.42 lbs (190 g) approx.
3. Tolerance is ±0.02 (±0.5) maximum, except output cable length.
4. Output connector is 5.5 mm dia. outer barrel, inner dia. is 2.5 mm with a center + and outer shell - polarity.
5. Optional output connectors available, contact sales for details.
6. Length of mains lead: 76 inches (1930 mm) approx

AEB45

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



Notes

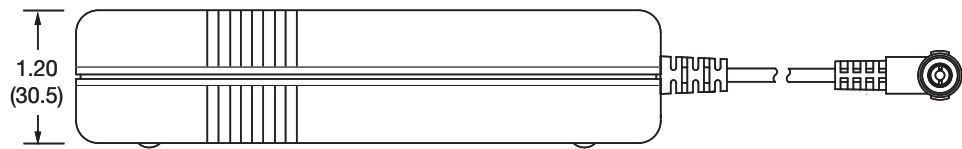
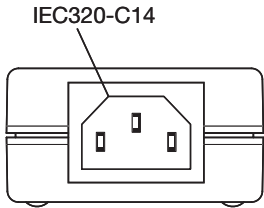
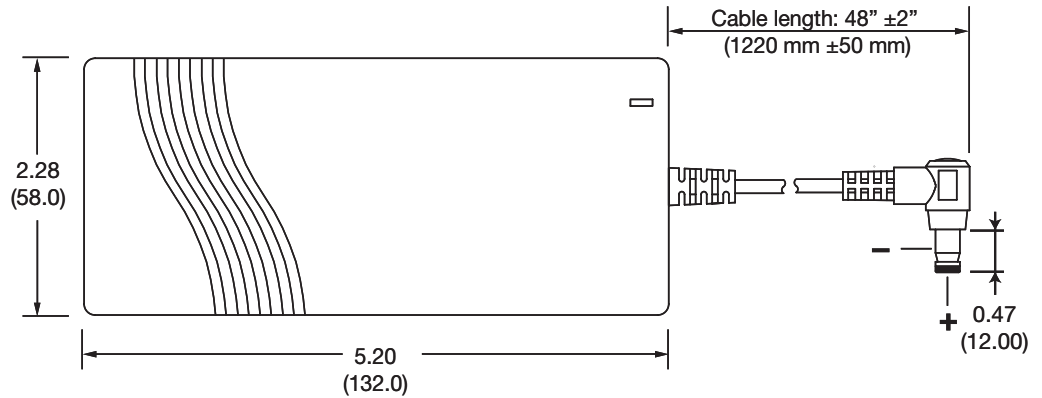
1. All dimensions shown in inches (mm).
2. Weight: 0.62 lbs (280 g) approx.
3. Tolerance is ±0.02 (±0.5) maximum, except output cable length.
4. Output connector is 5.5 mm dia. outer barrel, inner dia. is 2.5 mm with a center + and outer shell - polarity.
5. Optional output connectors available, contact sales for details.
6. Length of mains lead: 76 inches (1930 mm) approx

Mechanical Details

AEB70/100 XP

AEB70

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

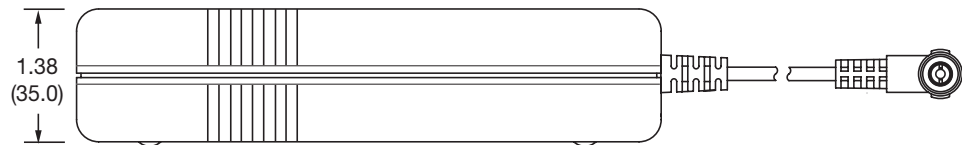
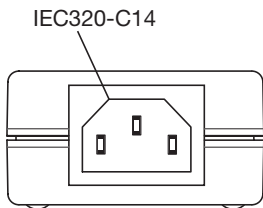
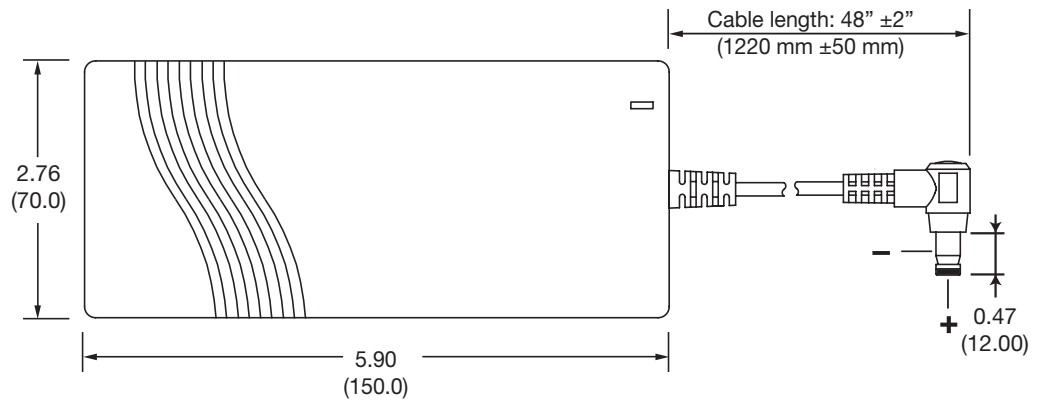


Notes

1. All dimensions shown in inches (mm).
2. Weight: 0.76 lbs (345 g) approx.
3. Tolerance is ± 0.02 (± 0.5) maximum, except output cable length.
4. Output connector is 5.5 mm dia. outer barrel, inner dia. is 2.5 mm with a center + and outer shell - polarity.
5. Optional output connectors available, contact sales for details.
6. Length of mains lead: 76 inches (1930 mm) approx

AEB100

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



Notes

1. All dimensions shown in inches (mm).
2. Weight: 1.36 lbs (600 g) approx.
3. Tolerance is ± 0.02 (± 0.5) maximum, except output cable length.
4. Output connector is 5.5 mm dia. outer barrel, inner dia. is 2.5 mm with a center + and outer shell - polarity.
5. Optional output connectors available, contact sales for details.
6. Length of mains lead: 76 inches (1930 mm) approx