

ADP Series Power Adapters

19V 40W/65W/90W

ADP 19V



Highlights & Features

- Energy Star Compliance (Level VI)
- IT safety approvals
- 100k Hours MTBF
- Over-Voltage/Load/Temperature & Short Circuit protections
- Low Leakage Current

Safety Standards



CB Certified for worldwide use

Model Information

ADP Series Power Adapters

| Model Number | Input Voltage Range | Output Voltage | Output Current |
|---------------|---------------------|----------------|----------------|
| ADP-40KD BBBM | 90-264Vac | 19Vdc | 2.1A |
| ADP-65JH HBAN | 90-264Vac | 19Vdc | 3.42A |
| ADP-90MD HDM | 90-264Vac | 19Vdc | 4.74A |

Specifications

Input Ratings / Characteristics

| | ADP-40KD BBBM | ADP-65JH HBAN | ADP-90MD HDM |
|-------------------------------------|--|----------------------------------|----------------------|
| Nominal Input Voltage | | 100-240Vac | |
| Input Voltage Range | | 90-264Vac | |
| Nominal Input Frequency | | 50-60Hz | |
| Input Frequency Rang | | 47-63Hz | |
| Input Current | 1.2A Max at 100Vac input voltage | 1.5A Max at 100Vac input voltage | |
| Inrush Current Limit (cold start) | | No Damage | |
| Efficiency at nominal input voltage | 85% | 84% | |
| Active Mode Efficiency @ 115Vac | | >88% | |
| Active Mode Efficiency @ 230Vac | >85.30% | >87% | >88% |
| No Load Power Consumption | <0.1W @ 115Vac/60Hz , <0.3W @ 230Vac/50Hz | <0.21W @ 115Vac/60Hz | |
| Leakage Current | <100uA at 240Vac/50Hz | <50uA at 240Vac/50Hz | <75uA at 240Vac/50Hz |

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Output Ratings / Characteristics

| | ADP-40KD BBBM | ADP-65JH HBAN | ADP-90MD HDM |
|-------------------------|--|---|--|
| Rated Voltage | 19V | | |
| Voltage Range | 18.05 ~ 19.95V | | |
| Current | 2.1A | 3.42A | 4.74A |
| Output Ripple and Noise | 350 mV pk-pk | 300mV pk-pk | 380mV pk-pk |
| Turn On delay time | 5 seconds @ 100-240Vac | 2 seconds @ 100-240Vac | |
| Hold-up Time | The output voltage shall be sustained 5mS within regulation requirement after loss 100Vac and maximum load. | | |
| Rise Time | DC output rise time from 10% to 90% of output voltage shall be less than 30mS at nominal line and maximum load | DC output rise time from 10% to 90% of output voltage shall be less than 100ms at nominal line and maximum load | |
| Transient Load Response | 0.1A to 100% load at 2.5A/us slew rate and frequency is 10Hz to 10KHz | | 0% to 50% and 50% to 100% 1.0A/us slew rate and frequency is 100Hz |

Environment

| | ADP-40KD BBBM | ADP-65JH HBAN | ADP-90MD HDM |
|---------------------------------------|--|---|--|
| Operating Temperature | 0 °C to +40 °C | | |
| Shipping/Storage Temperature | -30 °C to +80 °C | | -20 °C to +85 °C. |
| Operating Humidity | 8% to 90% RH (Non-Condensing) | | |
| Shipping/Storage Humidity | 5% to 95% RH (Non-Condensing) | | |
| Lightning Surge Immunity | IEC-1000-4-5 Level 3 Requirements L-N 1KV/1.2 * 50uS 5 times No damage | IEC-61000-4-5 Level 3 requirements L-N 1KV/1.2 * 50uS 5 times No function error L-FG 2KV/1.2 * 50uS 5 times No damage. | |
| Electric Fast Transients (EFT) | IEC-1000-4-4/1995 EN 61000-4-4 | | |
| Electrostatic Discharge (ESD) | ±15KV air discharge ±8KV contact discharge | | |
| Dielectric Withstand Voltage (HI-POT) | Between AC input and secondary AC 3KV test time 1 minute; 100% of line products of this Adapter shall be applied 3000Vac for 2 seconds between AC input terminals and output terminals. Cut off current 3mA. | Between AC input and secondary AC 3KV test time 1 minute; 100% of line products of this Adapter shall be applied 3000Vac for 2 seconds between AC input terminals and output terminals. Cut off current 10mA. | 100% of line products of this Adapter shall be applied 3000Vac for 1 seconds between AC input terminals and output terminals. Cut off current is 10mA. |
| Insulation Resistance | The insulation resistance shall be not less than 30M ohms after application of 500Vdc/10mA for 1 minute. | | The insulation resistance shall be not less than 20M ohms after application of 500Vdc/10mA for 1 minute |
| Electromagnetic Interference (EMI) | (a) FCC Class B (b) CISPR 22 Class B (c) VCCI Class B | (a) FCC Class B (b) CISPR 22 Class B (c) VCCI Class B | (a) FCC Class B (b) CISPR 22 Class B (c) VCCI Class B |
| MTBF | 150,000 hours | 100,000 hours | |
| Altitude | 5,000m (16,400 ft) | | |

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Protections

| | ADP-40KD BBBM | ADP-65JH HBAN | ADP-90MD HDM |
|------------------------|---|--|---|
| Over Voltage | The output shall be protected to latch off at over-voltage condition, maximum value can't be over 29V. | The output shall be protected to latch off at over-voltage condition, maximum value can't be over 27V. | The output shall be protected to latch off at over-voltage condition, maximum value shall be more than 22V and be less than 27V. |
| Overload / Overcurrent | The maximum constant current shall be more than 2.1A and be less than 5.0A at 90Vac and 264Vac. The adaptor shall be auto-recovery. | The maximum constant current shall be more than 4.1A. The adapter shall be Auto-recovery | The minimum constant current shall be more than 5.214A. The maximum constant current shall be less than 6.636A. The output shall be protected to latch off at over-current condition. |
| Over Temperature | Latch Mode | | |
| Short Circuit | Auto-Recovery | | |

Mechanical

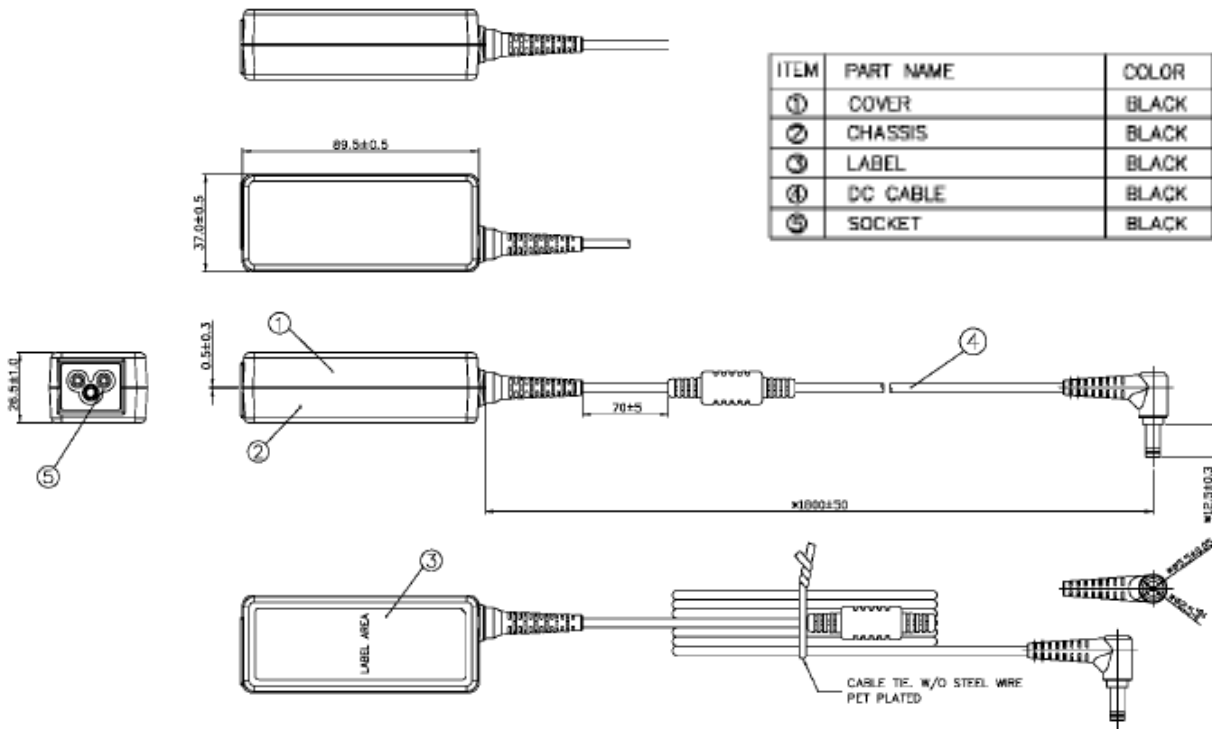
| | ADP-40KD BBBM | ADP-65JH HBAN | ADP-90MD HDM |
|--------------------------------|--|---|--|
| Color | Black | | |
| Outline Dimensions (L x W x D) | 89.5 * 37.0 * 26.5 mm 3.52 * 1.45 * 1.04 in | 108.0 * 46.0 * 29.5 mm 4.25 * 1.81 * 1.16 in | 127.0 * 51.0 * 30.5 mm 5.0 * 2.0 * 1.2 in |
| AC Inlet Type | Socket C6 type | | |
| DC Cable Type | UL 1571 22AWG | UL1571 #AWG18 | #AWG18 |
| DC Cable Length | 1800 mm | | |
| DC Connector - OD | 5.5 mm | 5.5 mm | 5.5 mm |
| DC Connector - ID | 2.5 mm | 2.5 mm | 1.7 mm |
| DC Connector - Length | 12.5 mm | 11 mm | 11 mm |

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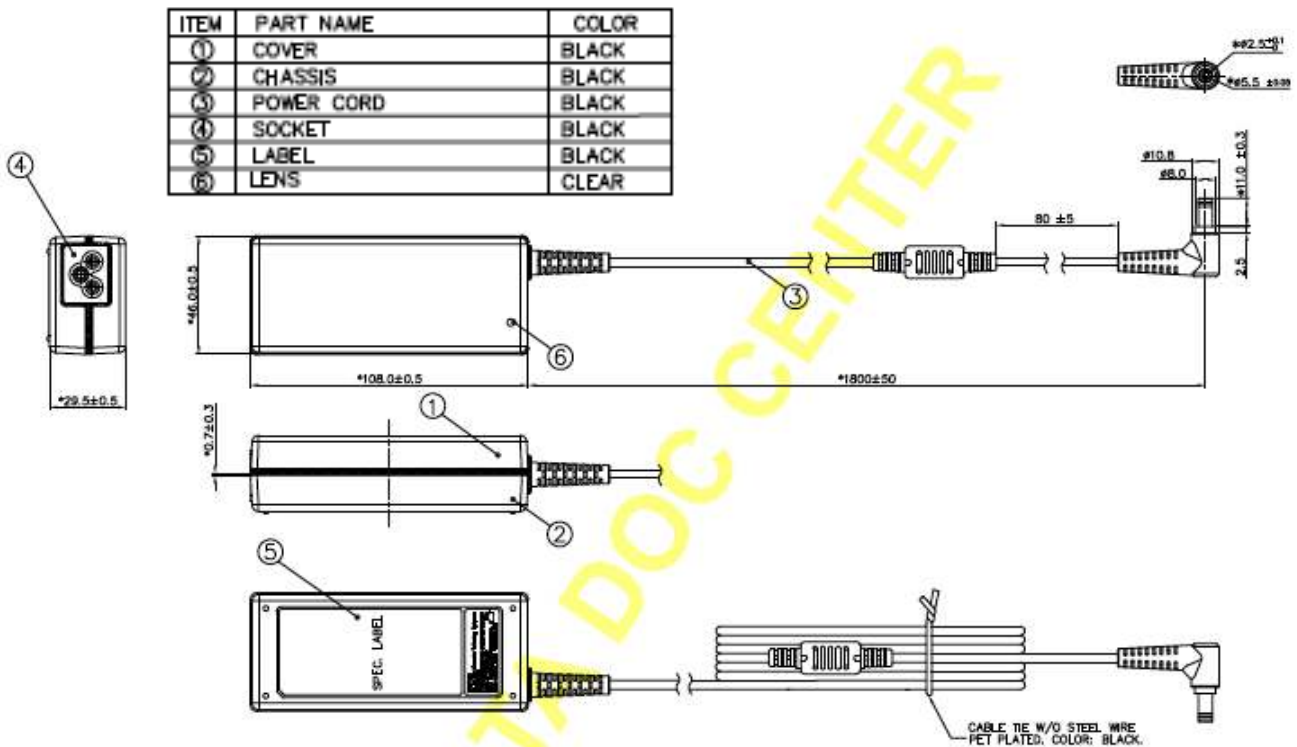
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Mechanical

ADP-40KD BBM



ADP-65JH HBAN



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ADP-90MD HDM

