

# ADP Series Power Adapters

## 12V 25W/36W/66W

# ADP 12V

### Highlights & Features

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



### Model Information

#### ADP Series Power Adapters

Model Number	Input Voltage Range	Output Voltage	Output Current
ADP-25FW BB	90-264Vac	12Vdc	2.1A
ADP-36PH BH	90-264Vac	12Vdc	3A
ADP-66CR BE	90-264Vac	12Vdc	5.5A

### Specifications

#### Input Ratings / Characteristics

	25W	36W	66W
Nominal Input Voltage	115/230Vac	100-240Vac	115/230Vac
Input Voltage Range	90-264 Vac		
Nominal Input Frequency	50-60Hz		
Input Frequency Range	47-63Hz		
Input Current	1A Max @ 100Vac 600mA @ 240Vac	1A Max at 100Vac input voltage	2A Max at 100Vac input voltage
Inrush Current(Cold Start)	<50A at 120VAC	No Damage at 240Vac	<90A at 230Vac
Efficiency at nominal input voltage	86% @ 115Vac	84% min, max load and measured at the end of DC cable.	83%
Active Mode Efficiency @ 115Vac	86.38%	>87.4%	88%
Active Mode Efficiency @ 230Vac	N/A	>84.78	88%
No Load Power Consumption	<0.1W @ 115Vac	<0.1W @ 115Vac/60Hz and 230Vac/50Hz	0.21w
Hold Up Time at maximum load	>16.7milliseconds@115Vac >20 milliseconds@230Vac	5milliseconds@100Vac	10milliseconds minimum at 100Vac/50Hz.

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### Output Ratings / Characteristics

	25W	36W	66W
Rated Voltage	12V		
Voltage Range(All Models)	11.4 ~ 12.6V		
Current	0-2.1A	0-3A	0-5.5A
Output Ripple and Noise @20MHz. BW, with 0.1uF ceramic and 47uF Electrolytic Caps connected parallel to load.	<120mVp-p	450mV pk-pk	120mV pk-pk
Turn On delay time	2 seconds @ 120Vac	5 seconds @ 100-240Vac	3 seconds @ 90Vac/60Hz and -0°C to +45°C; OR 10 seconds at -20°C to 0°C.
Rise Time	<20ms	30mS	30ms
Max Load Capacitance (microfarads)	1000	470	1000
Load Transient Response	0%-50%-0% and 50%-100%-50% of full nominal load. frequency is 60Hz, 50% duty cycle and the slew rate shall be at 0.02A/us.	0.1~1.5A & 1.5A~3A load at 2.5A/us slew rate , 50% Duty cycle , Frequency be operated 100Hz ~ 10KHz	25 % step load change at 1 A/s.at frequency 500Hz with 50% duty.

### Environment, EMI and Immunity

	25W	36W	66W
Operating Temperature	0 °C to +40 °C		-20 °C to +45 °C
Shipping/Storage Temperature	-20 °C to +75 °C	-30 °C to +80 °C	-40 °C to +85 °C
Operating Humidity	Up to 95%	8% to 90% RH (Non-Condensing)	10% to 95% RH (Non-Condensing)
Shipping/Storage Humidity	5% to 95% RH (Non-Condensing)		10-95% RH (Non-Condensing)
Operating Altitude	Maximum of 3700 meters (12000 feet)	Maximum of 5000 meters	-150 to 3000 meters (-500 to 10000 feet)
Lightning Surge Immunity Per IEC-1000-4-5	L-N, L-G, N-G, IEEE C62.41.2, 0.5 μs – 100 kHz Ring Wave, 1.2/50 μs - 8/20 μs Combination Wave 6KV, Criterion B	Line –Neutral 1KV/1.2 * 50us Level 3 Criteria A	L-N, L-G, N-G Combination Wave 6KV, Criterion B
Electric Fast Transients (EFT)	EN61000-4-4 +/-1kV on input power lines; Criterion B	IEC-1000-4-4/1995 (EN 61000-4-4) Level 3 requirements	EN61000-4-4 +/-1kV on input power lines; Criterion B
Electrostatic Discharge (ESD) Per IEC-61000-4-2	Contact discharge : ±8KV Air discharge : ±15KV	+/-8kV air discharge; +/-6kV contact discharge;	
Dielectric Withstand Voltage (HI-POT)	3KV AC RMS from AC Input to Output		
Leakage Current	<250uA at 264 Vac	<100uA at 240Vac/50Hz	<250uA at 264 Vac
Insulation Resistance	The insulation resistance shall be not less than 4M ohms after application of 500Vdc/10mA for 1 minute.	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 10M ohms after application of 500Vdc/10mA for 1 minute.
Electromagnetic Interference (EMI)	CISPR 22/EN55022 Class B.	(a) FCC Class B (b) CISPR 22 Class B (c) VCCI Class B	CISPR 22 : 1997/EN55022(1998) Class B.
MTBF	200,000 hours of continuous operation at 25°C	80,000 hours of continuous operation at 25°C	150,000 hours of operation at 90% confidence level at 25degC
Electrolytic Capacitor Operating Life	7 years at 115VAC, 40C and 100% rated load	3 years at 115 Vac and 230 Vac, and 25degC 100% rated load	5 years at 115 Vac and 230 Vac, and 25degC 100% rated load

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### Protections

	25W	36W	66W
Overvoltage	<150% of nominal output voltage (Recovery mode)	Latch Mode	Latch Mode
Overload / Overcurrent	<150% maximum load current (Recovery mode)	Auto-Recovery	Auto-Recovery
Over Temperature	Recovery mode	Latch Mode	Auto-Recovery
Short Circuit	Recovery mode	Auto-Recovery	Auto-Recovery

### Mechanical

	25W	36W	66W
Color	Black		
Outline Dimensions (L x W x D)	102 * 36.8 * 49 mm	89.5.0 * 37.0 * 26.5 mm	132 * 62 * 34.1 mm
AC Inlet Type	Fixed 2 pin AC Blades	Socket C6 type	Socket C14 Type
DC Cable Type	UL2468 #AWG20	UL1571 #AWG17	UL1571 #AWG14
DC Cable Length	1500 mm	1800 mm	1500 mm
DC Connector - OD	2.1 mm	4.75 mm	2.5 mm
DC Connector - ID	5.5 mm	1.7 mm	5.5 mm
DC Connector - Length	10.5 mm	12.5 mm	9.5 mm

### Mechanical

#### ADP-25FW BB



