imall

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

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AC-DC Power Supplies



30 Watts

- Ultra Slim Design
- \bullet Ambient Operation from -25 °C to +70 °C
- High Efficiency
- Wide Output Adjustment Range
- 5 V to 24 V Nominal Outputs
- <0.3 W No Load Input Power
- 3 Year Warranty



Dimensions:

DPC30:

 $3.6 \times 0.89 \times 3.94''$ (90.0 \times 22.5 \times 100.0 mm)

Models & Ratings

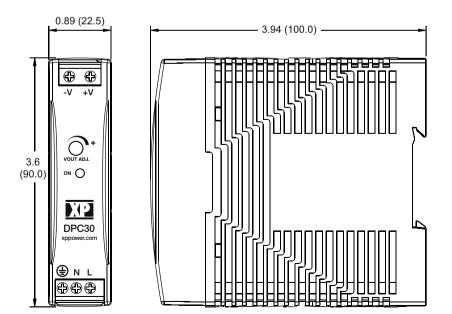
Output Voltage	Output Power	Output Voltage Trim ⁽²⁾	Output Current	Typical Efficiency ⁽¹⁾	Model Number
5V	20 W	4.5-5.5 V	4.00 A	82%	DPC30US05
12 V	24 W	11.4-15.6 V	2.00 A	85%	DPC30US12
24 V	30 W	22.5-28.5 V	1.25 A	86%	DPC30US24

Notes

1. Typical efficiency at 230 VAC and full load.

2. Output current should be limited so that nominal output power is not exceeded.

Mechanical Details





Input

•					
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85		264	VAC	See input voltage derating curve
Input Frequency	47	50/60	63	Hz	
Power Factor					Conforms to EN61000-3-2 Class A
Input Current - Full Load		0.55/0.35		A	115/230 VAC
Inrush Current			20/45	A	At 115/230 VAC
Earth Leakage Current			1	mA	At 264 VAC, 60 Hz
Input Protection	T2.0 A / 250 V ir	ternal in-line fuse			
No Load Input Power			0.3	W	

Output					
Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	5		24	VDC	See Models and Ratings table
Initial Set Accuracy	0		+1	%	At 100% load
Output Voltage Adjustment				%	See Models and Ratings table
Minimum Load	0			A	No minimum load required
Start Up Delay			1	s	
Start Up Rise Time			150	ms	
Hold Up Time		20/50		ms	At full load and 115 VAC/230 VAC
Line Regulation			±1	%	
Load Regulation			±1	%	
Transient Response - V1			4	%	Recovery within 1% in less than 2 ms for a 50% step load change at 0.2 A/µs
Ripple & Noise			100	mV pk-pk	Measured at 20 MHz bandwidth and >90 VAC input. 110 mV pk-pk at 85 VAC input
	6.5		8.5		5 V model
Overvoltage Protection	16.2		18	V	12 V model
	28.8		32.4		24 V model
Overload Protection	140			%	
Short Circuit Protection					Trip and Restart (Hiccup Mode)
Temperature Coefficient			0.03	%/°C	

General

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Efficiency		85		%	See Models & Ratings table
Isolation: Input to Output	3000			VAC	
Input to Ground	1500			VAC	
Output to Ground	500			VAC	
Switching Frequency		65		kHz	
Output LED	Green LED to indicate output on.				
Mean Time Between Failure	700			kHrs	BELLCORE issue 6 at 40 °C, GB
Weight		0.2 (140.0)		lb (g)	



Environmental

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Operating Temperature	-25		+70	°C	See thermal derating curve
Storage Temperature	-40		+85	°C	
Cooling					Natural convection
Operating Humidity	20		95	%RH	Non-condensing
Operating Altitude			5000	m	
Shock					IEC68-2-27, 15 g, 11 ms half sine, 3 times in each of 6 axes
Vibration					IEC68-2-6, 10-500 Hz, 2 g 10 mins/sweep. 60 mins for each of 3 axes

EMC: Emissions

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
Conducted	EN55032	Class B		
Radiated	EN55032	Class B		
Harmonic Current	EN61000-3-2	Class A		
Voltage Fluctuations	EN61000-3-3			

EMC: Immunity

Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD Immunity	EN61000-4-2	8 kV	A	Contact
ESD Immunity		15 kV	~	Air Discharge
Radiated Immunity	EN61000-4-3	10 V/m	A	
EFT/Burst	EN61000-4-4	4	A	
Surges	EN61000-4-5	Installation class 4	A	
Conducted	EN61000-4-6	10 V	A	
Magnetic Fields	EN61000-4-8	4	A	
		Dip: 100%, 10 ms	A	
Dips and Interruptions	EN55024	Dip: 30%, 10 ms	A	
		Dip: 60%, 100 ms	A/B	High Line/Low Line
		Int: 100%, 5000 ms	В	

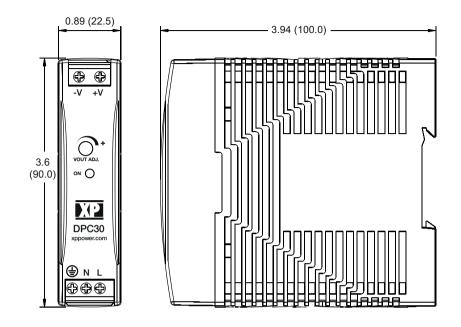
Safety Approvals

Safety Agency	Safety Standard Notes & Conditions	
UL	UL508	Industrial Control Equipment
cTUVus	UL60950-1	Information Technology
TUV	EN60950-1 A12	Information Technology

AC-DC Power Supplies



Mechanical Details



Notes

- 1. All dimensions in inches (mm)
- 2. Weight: 0.2 lbs (140 g)

3. Tolerance: ± 0.02 in (± 0.5 mm)

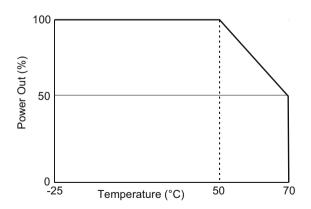
4. Screw terminal: 10-24 AWG cables size.

5. Connection screw maximum torque: 5.0ibs-in (0.56Nm).

Application Notes

Derating Curves

Ambient Temperature



Input Voltage

