DPC30 Series

AC-DC Power Supplies

XP Power

30 Watts

- Ultra Slim Design
- 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

GREEN XP POWER



Dimensions:

DPC30:
3.6 x 0.89 x 3.94" (90.0 x 22.5 x 100.0 mm)

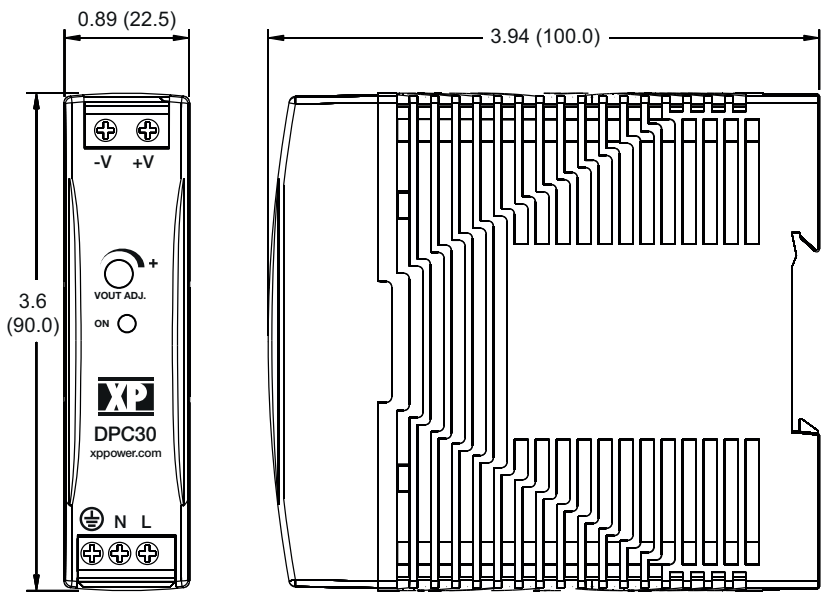
Models & Ratings

Output Voltage	Output Power	Output Voltage Trim[2]	Output Current	Typical Efficiency[1]	Model Number
5 V	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



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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 internal 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
Overvoltage Protection	6.5		8.5	V	5 V model
	16.2		18		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)	

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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

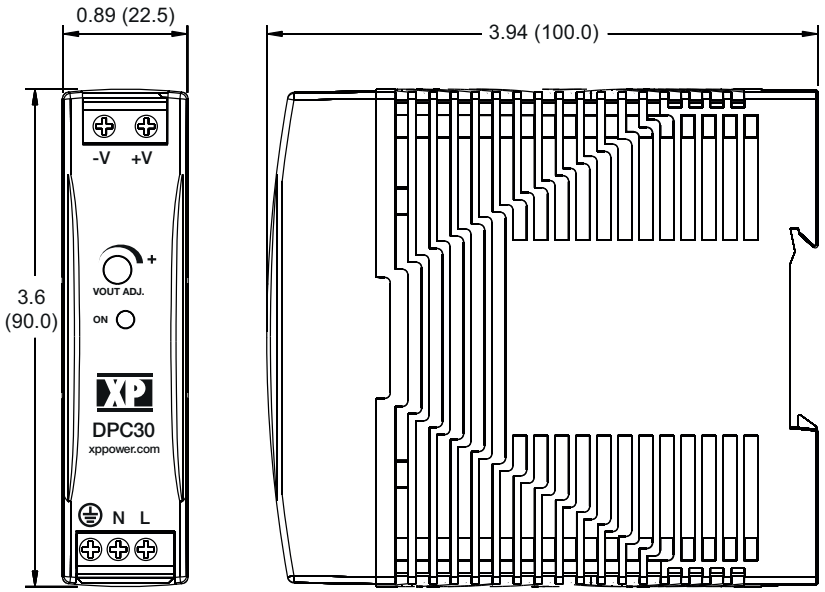
Phenomenon	Standard	Test Level	Criteria	Notes & Conditions
ESD Immunity	EN61000-4-2	8 kV	A	Contact
		15 kV		Air Discharge
Radiated Immunity	EN61000-4-3	10 V/m	A	
EFT/Burst	EN61000-4-4	4	A	
Surges	EN61000-4-5	Installation class 4	A	
Conducted	EN61000-4-6	10 V	A	
Magnetic Fields	EN61000-4-8	4	A	
Dips and Interruptions	EN55035	Dip: 100%, 10 ms	A	
		Dip: 30%, 10 ms	A	
		Dip: 60%, 100 ms	A/B	High Line/Low Line
		Int: 100%, 5000 ms	B	

Safety Approvals

Safety Agency	Safety Standard	Notes & Conditions
UL	UL508	Industrial Control Equipment
TUV	UL60950-1, UL62368-1	Information Technology
EN	EN62368-1	Information Technology
CE	Meets all applicable directives	
UKCA	Meets all applicable legislation	

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Mechanical Details



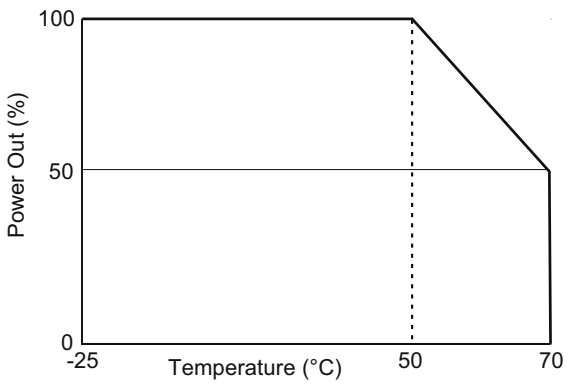
Notes

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).

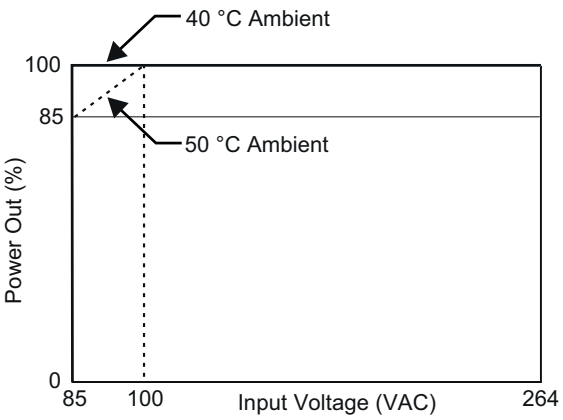
Application Notes

Derating Curves

Ambient Temperature



Input Voltage



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