

180 Watts

- 120W convection cooled -40°C to +70°C operation
- 180W with 10CFM forced air cooling -20°C to +70°C operation
- 4.3" x 2.5" footprint
- Low 1.16" profile U channel construction
- ITE & Medical (BF, 2 x MOPP) approvals
- Class B conducted & Class A radiated emissions
- Input voltage range 85 to 264VAC
- Output voltages from 12 to 48VDC
- No load input power <0.5W
- High efficiency, up to 94%
- 12V/0.5A fan output
- -40°C to +70°C operating temperature
- Full power to +50°C
- MTBF 300 khrs (MIL-HDBK-217F, +25°C GB)
- 3 year warranty



Dimensions:

UCP180:

4.24 x 2.47 x 1.16" (107.6 x 62.8 x 29.5 mm)

UCP180-C:

4.24 x 2.47 x 1.40" (107.6 x 62.8 x 35.5 mm)

The UCP180 series is designed to minimize the no load power consumption and maximize efficiency to facilitate equipment design to meet the latest environmental legislation. Approved for medical and ITE applications, this range of single output AC/DC power supplies are packaged in an ultra-low profile 1.16" height with a foot print of just 2.5" by 4.3". The UCP180 provides up to 180 W force-cooled or 120 W convection-cooled leading to very high power densities of 14.2 W/in³ or 9.4 W/in³ respectively. A 12 V, 500 mA fan supply is included in the design. The power supply contains two fuses and low leakage currents as required by medical applications and is safety approved to operate in a 70 °C ambient. The low profile and safety approvals covering ITE and medical standards along with conducted emissions to EN55011/32 level B enable the versatile UCP180 series to be suitable for a vast range of applications.

Models & Ratings

Output Voltage	Output Current		Fan Output ^(5,6)	Efficiency ⁽²⁾	Model Number ^(3,4)
	Convection-cooled	Forced-cooled ⁽¹⁾			
12.0 V	10.00 A	15.00 A	12 V/0.5 A	92%	UCP180PS12
15.0 V	8.00 A	12.00 A	12 V/0.5 A	92%	UCP180PS15
18.0 V	6.67 A	10.00 A	12 V/0.5 A	92%	UCP180PS18
24.0 V	5.00 A	7.50 A	12 V/0.5 A	92%	UCP180PS24
28.0 V	4.30 A	6.43 A	12 V/0.5 A	92%	UCP180PS28
36.0 V	3.33 A	5.00 A	12 V/0.5 A	92%	UCP180PS36
48.0 V	2.50 A	3.75 A	12 V/0.5 A	92%	UCP180PS48

Notes

1. Requires 10 CFM
2. Minimum average efficiencies measured at 25%, 50%, 75% & 100% of 180 W load and 230 VAC input
3. Add suffix -T for input and output screw terminals e.g. UCP180PS24-T

4. Add suffix -C for vented cover version e.g. UCP180PS24-C
5. Typical voltage, actual regulated voltage will be in range of 10.5 V to 11.3 V
6. Regulation of the fan output requires a minimum load of 10W on the main output.

Input

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Input Voltage - Operating	85	115/230	264	VAC	Derate output from 100% at 100 VAC to 90% at 90 VAC and 85% at 85 VAC. With optional convection cover fitted, derate from 120 W at 110 VAC to 100 W at 90 VAC
Input Frequency	47	50/60	63	Hz	
Power Factor		>0.9			230 VAC, 100% load. EN61000-3-2 class A
Input Current - Full Load		2.2/1.1		A	115/230 VAC
Inrush Current		120		A	230 VAC cold start, 25 °C
Earth Leakage Current		95/180	245	µA	115/230 VAC/50 Hz (Typ), 264 VAC/60 Hz (Max)
No load Input Power			0.5	W	
Input Protection	F3.15 A/250 V Internal fuse fitted in line and neutral.				

Output - Main Output

Characteristic	Minimum	Typical	Maximum	Units	Notes & Conditions
Output Voltage - V1	12		48	VDC	See Models and Ratings table
Initial Set Accuracy			±1	%	50% load, 115/230 VAC
Minimum Load	0			A	No minimum load required
Start Up Delay			2	s	115/230 VAC full load
Hold Up Time	10	19/13		ms	Min at full load, 115 VAC. Typical at 120 W/ 180 W
Drift			±0.02	%	After 20 min warm up
Line Regulation			±0.5	%	90-264 VAC
Load Regulation			±0.5	%	0-100% load
Transient Response			4	%	Recovery within 1% in less than 500 µs for a 50-75% and 75-50% load step
Over/Undershoot		5	10	%	Full load
Ripple & Noise			1	% pk-pk	20 MHz bandwidth and 10 µF electrolytic capacitor in parallel with 0.1 µF ceramic capacitor
Overvoltage Protection	110		140	%	Vnom, recycle input to reset
Overload Protection	110		175	%	Of forced cooled rating
Short Circuit Protection					Trip & Restart
Temperature Coefficient			0.02	%/°C	
Overtemperature Protection					Measured internally, Auto Resetting