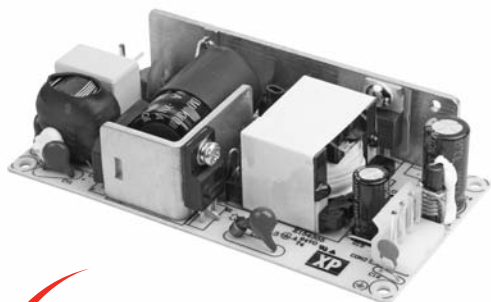


VCT Series



- Low Cost
- Single Outputs from 5 V to 30 V
- Universal Input
- Convection Cooled
- <0.5 W No Load Input Power
- 2" x 4" Foot Print
- Fits 1U Applications



Specification

Input

Input Voltage	• 85-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 1.7 A max at 115 VAC, 0.85 A max at 230 VAC
Inrush Current	• 60 A max at 230 VAC
Earth Leakage Current	• 500 μ A max
Power Factor	• Conforms to EN61000-3-2, Class A
No Load Input Power	• 0.48 W max

Output

Output Voltage	• See tables
Output Voltage Trim	• None
Initial Set Accuracy	• $\pm 2\%$ at 50 % load
Minimum Load	• No minimum load requirement
Start Up Delay	• 500 ms max
Start Up Rise Time	• 8 ms typical
Hold Up Time	• 8 ms typical at full load and 115 VAC
Line Regulation	• $\pm 0.5\%$ max
Load Regulation	• $\pm 1.0\%$ max, see note 1.
Transient Response	• 4% maximum deviation, recovering to less than 1% within 500 μ s for 50% step load
Ripple & Noise	• 1% max pk-pk, see note 2.
Overvoltage Protection	• See Tables
Overload Protection	• 133-166%
Short Circuit Protection	• Trip and restart (Hiccup)
Temperature Coefficient	• 0.02 %/°C

General

Efficiency	• See table
Isolation	• 3000 VAC Input to Output 1500 VAC Input to Ground 500 VDC Output to Ground
Switching Frequency	• 60 kHz $\pm$ 10 kHz
MTBF	• >250k Hrs to MIL-HDBK-217F

Environmental

Operating Temperature	• -10 °C to +70 °C derate from 100% load at 50 °C to 50% load at 70 °C
Cooling	• Natural Convection
Operating Humidity	• 5% to 90% RH, non condensing
Storage Temperature	• -10 °C to +85 °C
Shock	• IEC68-2-6, 30g, 11mins half sine, 3 times in each of 6 axes
Vibration	• IEC68-2-27, 10-500Hz, 2g 10 mins / sweep. 60 mins for each of 3 axes

EMC & Safety

Emissions	• EN55022, Level B conducted & radiated
Harmonic Currents	• EN61000-3-2 Class A
Voltage Flicker	• EN61000-3-3
ESD Immunity	• EN61000-4-2, level 3, Perf Criteria A
Radiated Immunity	• EN61000-4-3, 10 V/m, Perf Criteria A
EFT/Burst	• EN61000-4-4, level 3, Perf Criteria A
Surge	• EN61000-4-5, installation class 3, Perf Criteria A
Conducted Immunity	• EN61000-4-6, 10 V, Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% 10 ms, 60%, 100 ms, 100%, 5000 ms Perf Criteria A, B, B
Safety Approvals	• UL60950, IEC60950, EN60950

Models and Ratings

VCT Series **XP**

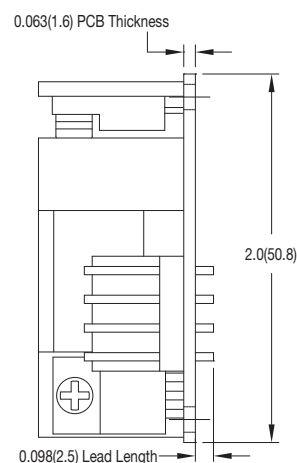
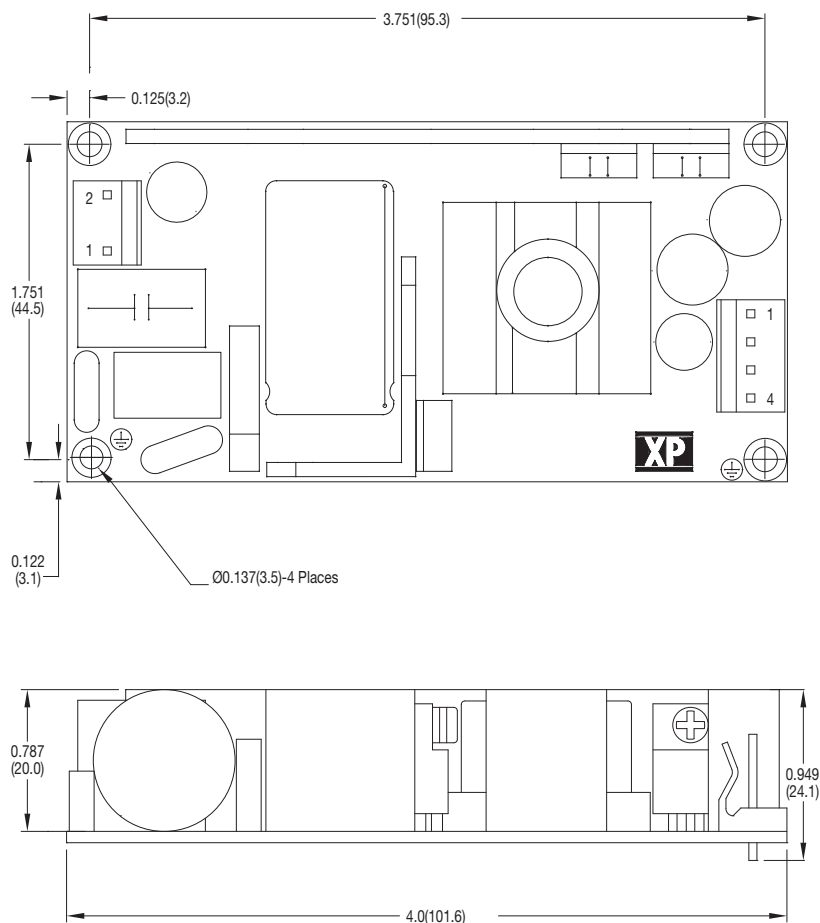
Output Voltage	Output Current		Over Voltage Trip Point ⁽⁵⁾	Typical Efficiency ⁽⁴⁾	Model Number
	Nominal	Peak ⁽³⁾			
5.0 V	8.00 A	10.0 A	7 V	82%	VCT40US05
5.3 V	7.55 A	9.5 A	7 V	82%	VCT40US053
12.0 V	5.00 A	6.3 A	13 V	87%	VCT60US12
15.0 V	4.00 A	5.0 A	17 V	87%	VCT60US15
16.0 V	3.75 A	4.7 A	18 V	87%	VCT60US16
18.0 V	3.33 A	4.2 A	21 V	87%	VCT60US18
19.0 V	3.16 A	4.0 A	22 V	87%	VCT60US19
20.0 V	3.00 A	3.8 A	23 V	87%	VCT60US20
24.0 V	2.50 A	3.1 A	29 V	88%	VCT60US24
30.0 V	2.00 A	2.5 A	33 V	88%	VCT60US30

Notes

1. Load regulation is measured from 60% to full load and from 60% to 20% load (60% $\pm$ 40% full load).
2. Measured at the output connector with a 0.1 μ F ceramic capacitor and a 10 μ F electrolytic capacitor.
3. Peak load lasting <30s with a maximum duty cycle of 10%, average output power not to exceed nominal.
4. Measured at 230 VAC input and full load output.
5. Typical trip point.

Mechanical Details

All dimensions shown in inches (mm).



Output Connector

1	+Vout
2	+Vout
3	-Vout
4	-Vout

Mates with: Molex Housing 43061-0006 and Molex Series 5194 crimp terminals

Input Connector

Pin 1	Neutral
Pin 2	Live

Mates with: Molex Housing 43061-0003 and Molex Series 5194 crimp terminals

Notes

Weight 0.29 (130 g) approx