5 Watts

VCP05 Series

- Energy Star, CEC & EISA Compliant
- ITE Approvals
- PCB Mount
- Class II Construction
- Compact Dimensions
- EN55022 Class B Emissions
- Low Cost

Specification

Input

Input Voltage	• 90-264 VAC
Input Frequency	• 47-63 Hz
Input Current	• 0.2 A max at 90 VAC
Inrush Current	• 40 A max at 240 VAC
Power Factor	• Conforms to EN61000-3-2, class A

Output

Output Voltage	• See table
Initial Set Accuracy	• ±5% at 50% load
Minimum Load	• No minimum load required
Start Up Delay	• 2 s max
Start Up Rise Time	• 100 ms typical
Hold Up Time	• 5 ms typical at full load and 115 VAC
Line Regulation	• ±0.5% max
Load Regulation	• ±5% max
Transient Response	• 10% max. deviation, recovery to <1% within 500 µs for a 50% step load change at 0.2 A/µs
Ripple & Noise	• See table
Overvoltage Protection	• See table
Overload Protection	• 120-180%, auto recovery
Short Circuit Protection	• Trip and restart (Hiccup mode)
Temperature Coefficient	• 0.2 %/°C

General

Efficiency	• See table
Isolation	• 3000 VAC Input to Output
Switching Frequency	• 60 kHz typical
MTBF	• 100 kHrs per MIL-HDBK-217F

Environmental

Operating Temperature	• 0 °C to +40 °C
Cooling	• Natural convection
Operating Humidity	• 10-90% RH, non-condensing
Storage Temperature	• -20 °C to +60 °C
Shock	• Able to survive 1m drop onto concrete on each of 6 axes
Vibration	• 10-300 Hz, 2 g 15 mins/sweep. 30 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, ±4kV contact, ±8kV air, Perf Criteria A
Radiated Immunity	• EN61000-4-3, 3 V/m, Perf Criteria A
EFT/Burst	• EN61000-4-4, level 2, Perf Criteria A
Surge	• EN61000-4-5, level 3, Perf Criteria A
Conducted Immunity	• EN61000-4-6, 3 V, Perf Criteria A
Magnetic Field	• EN61000-4-8, 1 A/m, Perf Criteria A
Dips & Interruptions	• EN61000-4-11, 30% 10 ms, 60% 100 ms, 100% 5000 ms, Perf Criteria A, B, B
Safety Approvals	• EN60950, cUL60950, IEC60950

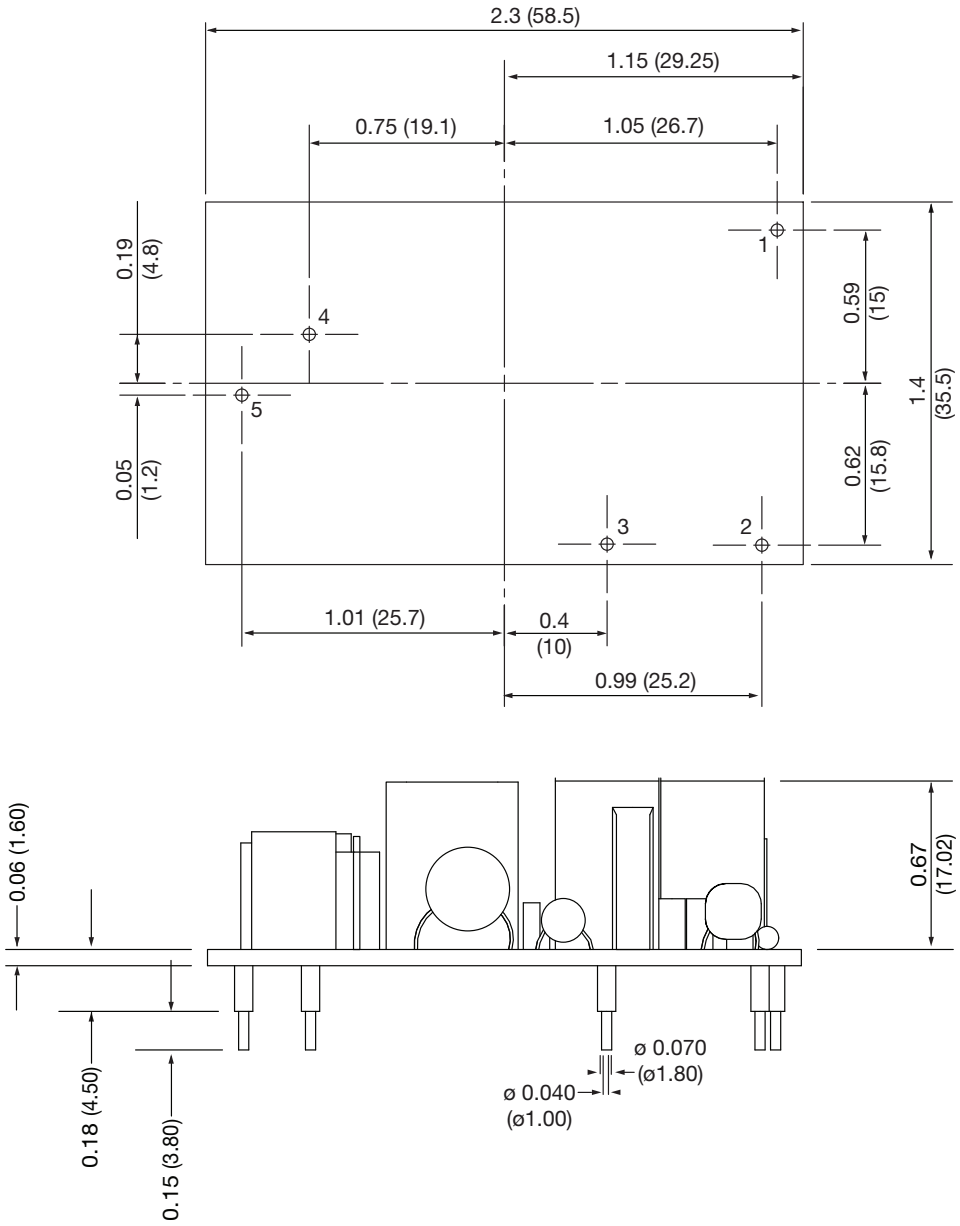
Models and Ratings

Output Power	Output Voltage	Output Current	Ripple & Noise[1]	Overvoltage Trip	Efficiency	Model Number
4 W	3.3 V	1.2 A	150 mV	10 V	55%	VCP05US033
5 W	5 V	1 A	150 mV	10 V	57%	VCP05US05
5 W	9 V	0.55 A	150 mV	18 V	65%	VCP05US09
4.8 W	12 V	0.4 A	150 mV	20 V	65%	VCP05US12
4.5 W	15 V	0.3 A	150 mV	25 V	65%	VCP05US15

Notes

1. Measured at DC output lead using 20 MHz band width and 0.1 µF ceramic capacitor in parallel with 10 µF electrolytic capacitor placed at connector terminals
2. Other voltages between 3.0 V and 15.0 V are available, consult sales for details.

Mechanical Details



Pin	Designation
1	Live
2	Neutral
3	No connection
4	Output -VE
5	Output +VE

Notes

1. All measurements are in inches (mm).
2. Weight: 20g approx.
3. Tolerance: x.x = ±0.02 (x.x = ±0.5), x.xx = ±0.01 (x.xx = ±0.25)