5 Watts
VCP Series

- Low Cost
- Universal AC Input
- Output Voltage from 12V & 15V
- PCB Mount
- Class II Construction
- EN55022 Class B Emissions
- No Load Input Power <0.3 W

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, cold start at 25 °C
Power Factor	• EN61000-3-2, class A
No Load Input Power	• <0.3 W

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	• 2% max, 0-100% load
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	• 250 kHrs to MIL-HDBK-217F at 25 °C, GB

Environmental

Operating Temperature	• 0 °C to +70 °C, derate from 100% load at 50 °C to 50% load at 70 °C
Cooling	• Natural convection
Operating Humidity	• 10-90% RH, non-condensing
Storage Temperature	• -20 °C to +80 °C
Shock	• Able to survive 1 m 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	• EN55032, 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 installation class 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	• EN60950-1, cUL60950-1, IEC60950-1, EN62368-1, IEC62368-1, CE (Meets all applicable directives), UKCA (Meets all applicable legislation)

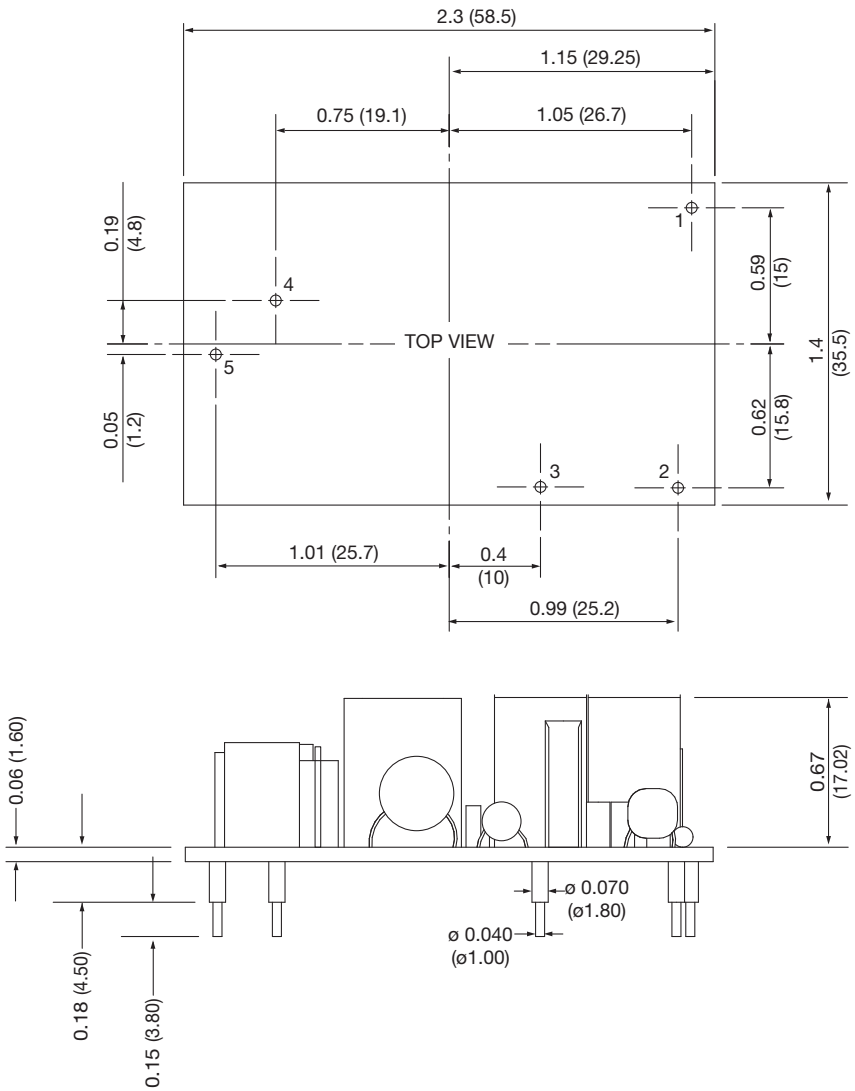
Models and Ratings

Output Power	Output Voltage	Output Current	Ripple & Noise[1]	OVP Setting[2]	Efficiency[3]	Model Number
5.0 W	5.0 V	1.0 A	150 mV	10.0 V	69%	VCP05US05[4]
4.8 W	12.0 V	0.4 A	150 mV	20.0 V	69%	VCP05US12
4.5 W	15.0 V	0.3 A	150 mV	25.0 V	69%	VCP05US15

Notes

1. Measured at DC output connector using 20MHz bandwidth and 0.1µF ceramic capacitor in parallel with 10µF electrolytic capacitor placed at connector terminals
2. Typical trip point.
3. Minimum average of efficiencies measured at 25%, 50%, 75% & 100% load and 230 VAC input.
4. **This model is no longer available, please use our website selector tool to find the most suitable alternative.**

Mechanical Details



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

Notes

1. All dimensions are in inches (mm).
2. Weight: 0.04 lbs (20 g) approx.
3. Tolerance: x.x = ±0.04 (x.x = ±1.0), x.xx = ±0.02 (x.xx = ±0.5)