

VHD300 Series

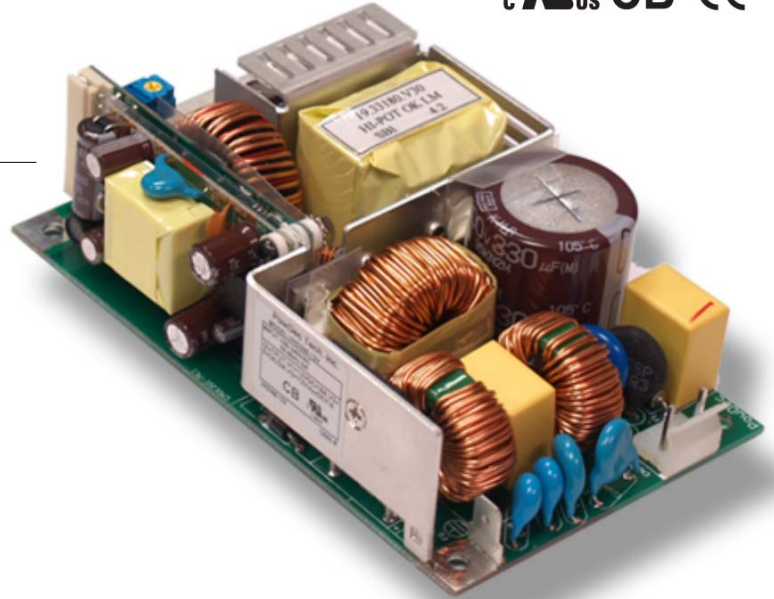
300 Watts

Single Output Switching Power Supply



Features:

- * High Density 3 x 5" Open Frame Switcher
- * Universal AC Input with Active Power Factor Correction
- * 300 Watts with 20 cfm Airflow
- * 150 Watts Convection Cooled Operation
- * Remote on/off, Remote Sense, and DC OK Functions
- * 5VSB and 12V Fan Outputs
- * 100,000 hours MTBF (25°C Full Load Operation)
- * Optional -40°C Operating Temperature
- * International Safety Approvals & CE Mark
- * Class B Emissions
- * 3 Year Warranty



Input Specifications:

Input Range	Universal VAC (90-264 VAC) & 120-370 VDC
Input Frequency	47-63 Hz or DC
Inrush Current	25A @ 115VAC / 50A @ 230VAC max (cold start)
Input Current	5A @ 90 VAC / 2.5A @ 200 VAC Maximum
Input Reflected Ripple	FCC 68 part 15 Class B
Efficiency	85% Typical @ 120 VAC (depending on output model)
Input Protection	Single Fused (10 Amp / 250 V)
Hold-up Time	One Cycle Minimum @ 120 VAC and 80% load
Leakage Current	<750 μ A maximum @ 264 VAC
Harmonics	EN61000-3-2 Class D

Output Specifications:

Adjustment Range	$\pm 10\%$ of Main Output
Minimum Load	None
Regulation	3% Maximum (Line, Load & Temp)
Ripple / Noise	$\pm 1\%$ pk-pk max (20MHz)
Transient Response	+/- 5% Deviation / < 1msec recovery
Set-Point Accuracy	$\pm 2\%$
Short Circuit Protection	Continuous
Over Load Protection	125-150%, automatic recovery
Over Voltage Protection	115-135%, latched shutdown (toggle control to reset)

Emissions Standards

FCC Part 15J, Part 2	Within Class B Limits
EN55022 / CISPR22	Within Class B Limits

Status / Control Signals

Standby	5VSB (1A Convection / 2A with 20cfm airflow)
Fan Output	12V (0.5A Convection / 1A with 20 cfm airflow)
Remote Sense	Compensates for up to 250mV drop
DC OK	TTL Compatible (High = OK)
Remote on/off	On = High (2.9-5V) or Open Off = Low (0- 0.3VDC) or short to common

Electromagnetic Compatibility:

Electrostatic Discharge	EN61000-4-2, ± 4 KV Contact / ± 8 KV Air Discharge
Radiated Susceptibility	EN61000-4-3, 26-1000MHz, 10V/M, 80% AM
EFT / Bursts	EN61000-4-4, ± 2 KV
Surges	EN61000-4-5, ± 2 KV Line-Earth, ± 1 KV Line-Line
Conducted Immunity	EN61000-4-6, 0.15 - 800MHz, 10V, 80% AM
Voltage Dips	EN61000-4-11, 95% Dip & 10ms, 30% Dip & 500ms
Voltage Interruptions	EN61000-4-11, 95% Reduction, 5s
Radiated Emissions	FCC 68 part 15 Class B
Conducted Emissions	FCC 68 part 15 Class B
Harmonic Current	EN61000-3-2 Class D
Fluctuations & Flicker	EN61000-3-3

Environmental Specifications:

Operating Temp	-20 ~50°C (De-Rate 2.5%/1°C Rise To +70°C)
Storage Temp	-20 ~ +85°C
Cooling	20 cfm airflow required for full, or derate 50%
Temp Co-Efficient	0.4% per °C
Humidity	5 to 95% RH Non-Condensing
Vibration	3 Axes 1 Oct/min, 5 min at 4 Res. 0.75G Pk, 5-500Hz
Shock	20G Peak Acceleration
Reliability	>100k hours MTBF (Full Load and 25°C Operation)

International Safety Approvals

Qualified to Meet	UL 60950 (3rd Edition) File # E158470 CSA 22.2 No. 60950 CB Report (IEC 60950 3rd Edition) File # E158470 CE Mark (LVD)
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Output Table:

Model Number	Vout	--- Output Current Max--- Convection 20 cfm	
VHD300-12V	12V	9.0A	18.0A
VHD300-18V	18V	6.5A	13.0A
VHD300-24V	24V	5.5A	11.0A
VHD300-36V	36V	3.75A	7.5A
VHD300-48V	48V	3.0A	6.0A

Mechanical Specifications:

Construction: Open Frame

Weight: 0.903lb / 0.410 kg

CN1 Mating Connector:

Mates with Molex 09-50-2030

CN1 AC Input

CN1-1 Line

CN1-3 Neutral

Tab 0.250"x 0.032" for field ground

CN2 Mating Connector:

Mates with Molex 39-01-2120

CN2-1 ~6 V1

CN2-7 ~12 V1-RTN

WCN3 Mating Connector:

Mates with Molex 50-37-5103

WCN3-1 5Vsb

WCN3-2 5Vsb

WCN3-3 5Vsb & Signal Return

WCN3-4 5Vsb & Signal Return

WCN3-5 - Remote Sense

WCN3-6 + Remote Sense

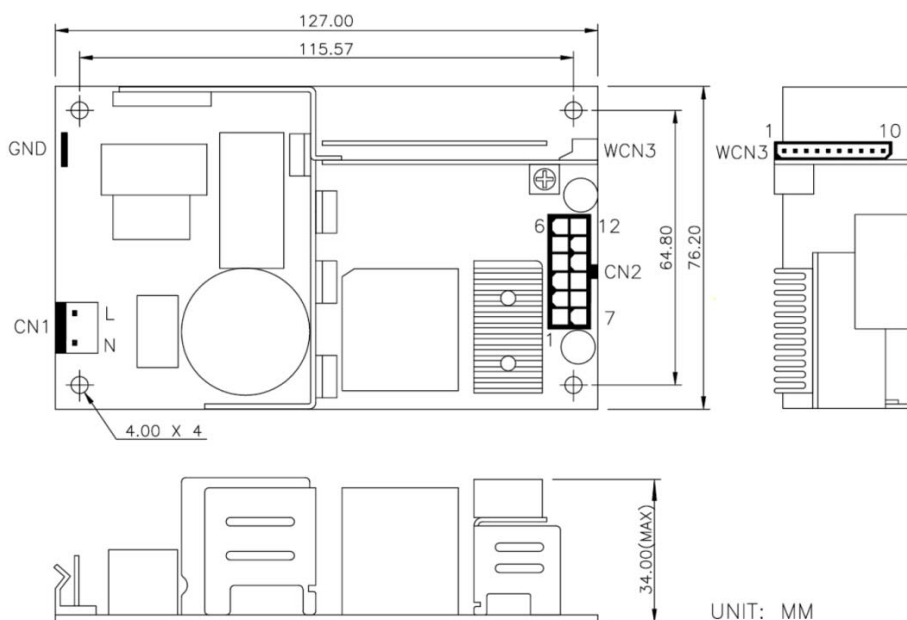
WCN3-7 I/O / Remote On/Off

WCN3-8 DC.OK / Power Good

WCN3-9 FAN (12V)

WCN3-10 FAN-RTN (12V)

Note: V1-RTN, 5Vsb/Signal Return, and 12V Fan Return are isolated to others.



UNIT: MM