

HDT250 Series

250 Watts

Single Output Switching Power Supply

Features:

- * Small 6.30 X 4.72 X 1.50" U-Frame Package
- * Universal AC Input (47-63 Hz) with active Power Factor Correction
- * Remote Sense, DC OK Signal & 12V Fan Output
- * Active Current Sharing for Parallel & Redundant Operation
- * 100,000 hours MTBF (25°C Full Load Operation)
- * International Safety Approvals & CE Mark
- * Optional -40°C Operating Temperature
- * 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	6000mA @ 90 VAC / 2700mA @ 200 VAC Maximum
Input Reflected Ripple	FCC 68 part 15 Class B
Efficiency	75% Typical (depending on output model)
Input Protection	Single Fused (6.3 Amp / 250 V)
Hold-up Time	Half Cycle Minimum @ 120 VAC and 80% load
Leakage Current	<750 μ A maximum @ 264 VAC
Harmonics	EN61000-3-2 Class A

Output Specifications:

Adjustment Range	$\pm 10\%$ minimum
Minimum Load	See Output Table
Regulation	$V_1 = 3\% \mid V_2 = 10\%$ max
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	120-150%, latched shutdown

Emissions Standards

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

Status / Control Signals

Remote Sense	Compensates for <0.5 drop
DC OK	TTL Logic High = OK, Low = Bad (open collector)
Current Share	Single Wire, +/- 10% accuracy
Remote on/off	TTL Logic Low = On, High = Off (open collector)

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 A
Fluctuations & Flicker	EN61000-3-3

Environmental Specifications:

Operating Temp	0 ~ 50°C (De-Rate 2.5%/1°C Rise To +70°C)
Storage Temp	-20 ~ +85°C
Cooling	20 cfm airflow required for full load or derate 25%
Temp Co-Efficient	0.05% per degrees celsius
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 60950-1, File # E158470
	CSA 22.2 No. 60950-1
	CB Report (IEC 60950-1) File # E158470-A3-CB-1
	CE Mark (LVD)

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Output Table:

Model Number	Max Power	V1	Io Min	Io Max
HDT250-12V	250W	+12VDC	2.0A	20.0A
HDT250-24V	250W	+24VDC	1.0A	10.0A
HDT250-28V	250W	+28VDC	1.0A	8.5A
HDT250-36V	250W	+36VDC	1.0A	6.5A
HDT250-48V	250W	+48VDC	0.5A	5.0A

Notes:

* Load Connection is required prior to status & control signals to avoid damage to Remote Sense Circuits

* Reverse Logic Options for Remote on/off control:

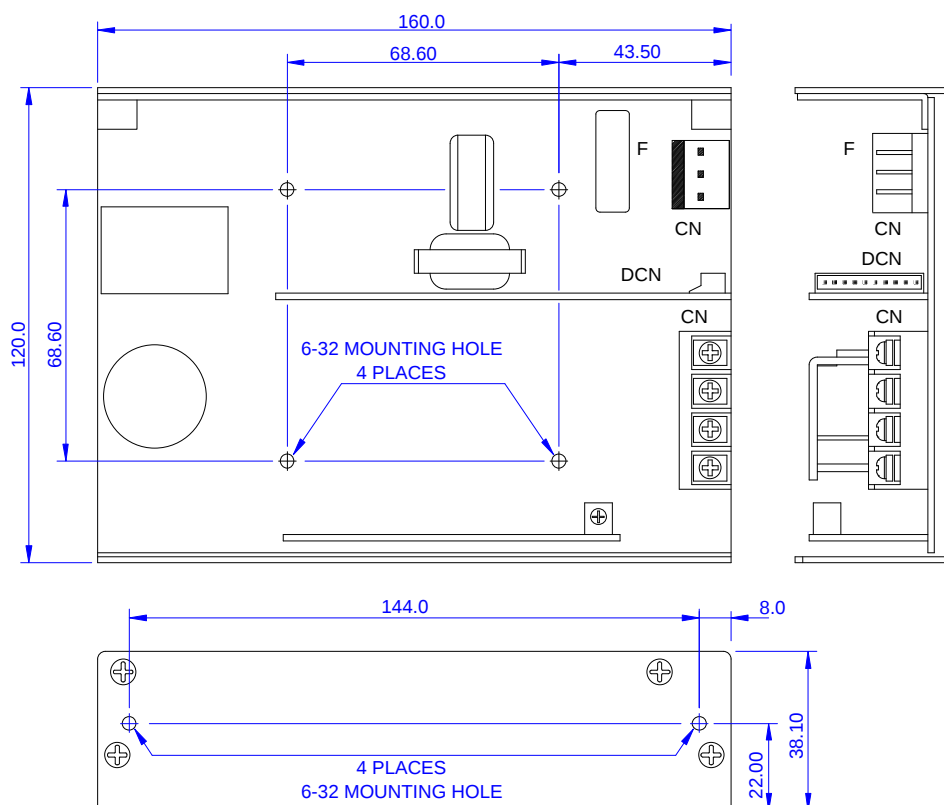
Suffix "-RA" = PS = On when AC Applied, Logic Low = Off / Logic High = On (Remote Sense circuits are disabled)

Suffix "-RA-S" = PS = On when AC Applied, Logic Low = Off / Logic High = On

Mechanical Specifications:

Construction: U-Frame

Weight: 1.540 lb / 0.696 kg



Input Pin Assignmnets:

CN1-1	Line
CN1-2	Neutral
CN1-3	Field Ground

Output Pin Assignmnets:

CN4-1	+V
CN4-2	+V
CN4-3	-V
CN4-4	-V

Status / Control Pin Assignmnets:

DCN3-1	+12V FAN
DCN3-2	+12V FAN
DCN3-3	-12V FAN
DCN3-4	-12V FAN
DCN3-5	REMOTE ON/OFF
DCN3-6	CURRENT SHARE
DCN3-7	- REMOTE SENSE
DCN3-8	+ REMOTE SENSE
DCN3-9	DC OK
DCN3-10	SIGNAL RETURN

Mating Connectors:

CN1 (AC Input) Mating Connector:
Molex 50-37-5103 (5264 series)

DCN3 (Signals) Mating Connector
JS-1135R-10 or equivalent

2 Fan Mating Connectors:
Molex 22-01-2021 (2659 series)

DC Outputs: Terminal Block

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