

# 2500HN series

17 to 25 watts



## Key Features:

- **Unencapsulated construction**
- **Single, Dual & Triple Output Models**
- **Industry Standard 1.6" x 2.0" x .375" Footprint (Singles & Duals)**

## Ideally Suited For:

- **Telecom equipment**
- **Mixed analog/digital subsystems**
- **Distributed power networks**

## Input Characteristics

Input Voltage Range:	9-18, 18-36, 36-75 VDC
Input Under Voltage Shutdown	8V (9-18), 16V (18-36), 33V (36-75) VDC
Input Over Voltage Shutdown	20V (12Vin), 40V (24Vin), 80V (48Vin)
Input Filtering:	Pi Network
Efficiency:	See Available Models Chart
No Load Input Current:	15mA

## Output Characteristics

Output Voltage Accuracy (Singles & Duals):	+/-1%
Output Voltage Accuracy (Triples):	+/-1% (V1), +/-3% (V2 & V3)
Output Voltage Adjustment:	+/-10%
Total Error Band (Singles & Duals):	+/-2% Max. (Singles), +/-3% Max. (Duals)
Total Error Band (Triples):	+/-3% Max (V1), +/-5% Max (V2 & V3)
Minimum Load Requirements:	0% (Singles), 10% (Duals & Triples)
Line Regulation:	+/-0.5% Low Line to High Line
Load Regulation (Singles & Duals):	+/-0.5% (Singles), +/-2.0% (Duals), Min Load to Full Load
Load Regulation (Triples):	+/-1% (V1), +/-5% (V2 & V3), Min Load to Full Load
Ripple and Noise:	50mV or 1% pk-pk, 20MHz Bandwidth
Transient Response/Recovery Time:	200µS, 25% Load Step
Temperature Coefficient:	+/-0.02% / °C
Short Circuit Protection:	Continuous (Hiccup Mode)
Over Voltage Protection:	Standard

## Environmental Characteristics

Operating Temperature Range (Ambient):	-40°C to +85°C, See 2500HN Series Data Sheet for Derating curves.
Storage Temperature Range:	-55°C to +125°C
Maximum Case Temperature:	105°C Baseplate
Thermal Shutdown:	115°C Baseplate
Humidity:	Up to 95%, Non-condensing
Vibration:	5Grms, 5Hz to 2KHz
Reliability (MTBF per Mil-HDBK-217):	>1,200,000 hours, +25°C, Ground Benign
Demonstrated MTBF:	>5,000,000 hours, +40°C

## General Characteristics

Switching Frequency:	400KHz, Fixed
Isolation (Input to Output):	1500VDC minimum (1 minute)
Isolation Capacitance:	1200pF
Weight:	1.2oz (34g)
Case Material:	Aluminum baseplate with black anodized aluminum case
Agency Approvals	UL, CSA, TUV and CE (LVD, 48 Vin Models)

## Additional Features

Remote Shutdown	
Supply On:	Open or >3.5 VDC
Supply Off:	<0.8 VDC



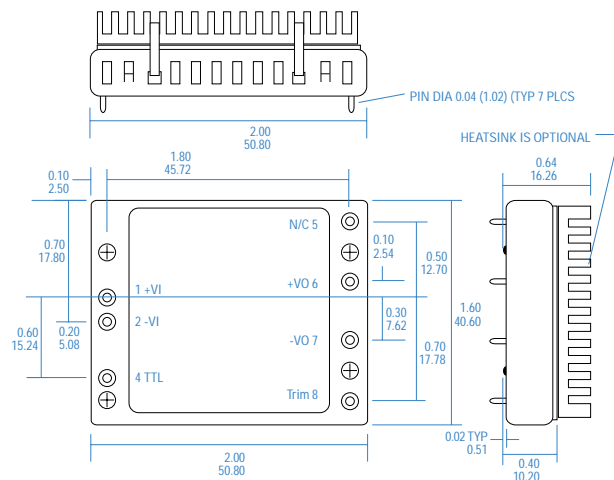
## Available Models

Model	Nominal Input Voltage (VDC)	Input Voltage Range (VDC)	Output Voltage (VDC)	Max. Output Current (mA)	Efficiency @ Full-Load (%)
2503S12HN	12	9-18	3.3	5000	77
2505S12HN	12	9-18	5.0	4000	81
2512S12HN	12	9-18	12.0	1700	83
2515S12HN	12	9-18	15.0	1300	85
2505D12HN	12	9-18	+/-5.0	+/-2500*	81
2512D12HN	12	9-18	+/-12.0	+/-1000*	83
2515D12HN	12	9-18	+/-15.0	+/-800*	84
2505/12T12HN	12	9-18	+5 / +/-12	4000 / +/-600*	83
2505/15T12HN	12	9-18	+5 / +/-15	4000 / +/-500*	83
2503S24HN	24	18-36	3.3	6000	77
2505S24HN	24	18-36	5.0	5000	79
2512S24HN	24	18-36	12.0	2100	83
2515S24HN	24	18-36	15.0	1700	85
2505D24HN	24	18-36	+/-5.0	+/-3000*	81
2512D24HN	24	18-36	+/-12.0	+/-1000*	83
2515D24HN	24	18-36	+/-15.0	+/-800*	84
2505/12T24HN	24	18-36	+5 / +/-12	4000 / +/-600*	84
2505/15T24HN	24	18-36	+5 / +/-15	4000 / +/-500*	84
2503S48HN	48	36-75	3.3	6000	79
2505S48HN	48	36-75	5.0	5000	81
2512S48HN	48	36-75	12.0	2100	85
2515S48HN	48	36-75	15.0	1700	88
2505D48HN	48	36-75	+/-5.0	+/-3000*	83
2512D48HN	48	36-75	+/-12.0	+/-1000*	85
2515D48HN	48	36-75	+/-15.0	+/-800*	86
2505/12T48HN	48	36-75	+5 / +/-12	4000 / +/-600*	85
2505/15T48HN	48	36-75	+5 / +/-15	4000 / +/-500*	85

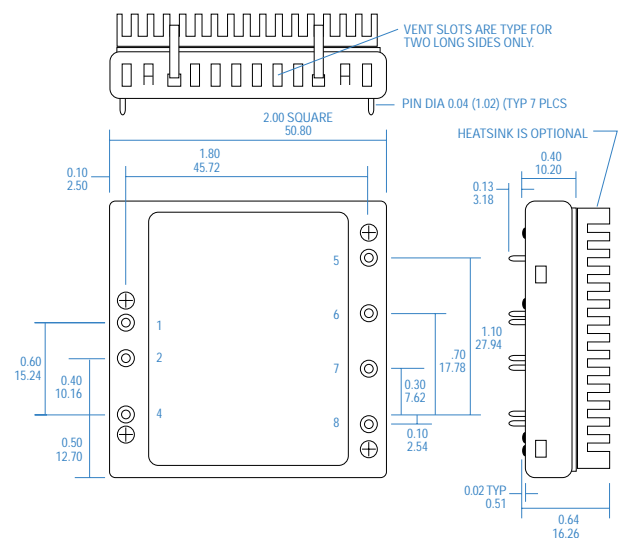
\*Total output power not to exceed 25W (20W for 12Vin models.)

## Outline Drawing

## SINGLE (Consult factory for DUAL pin-outs)



## TRIPLES (Consult factory for pin-outs)



All specifications are typical at 25 degrees C with nominal input voltage and full output unless otherwise noted. Specifications are subject to change without notice. All dimensions are typical.