

FEATURES

- Regulated Outputs
- Remote On/Off Control
- Industry Standard Pin-Out
- 500VDC Minimum I/O Isolation
- Redesigned for Higher Efficiency
- Ultra-Wide Input Voltage Range (4:1)
- Thermal Shutdown with Auto-Recovery
- Current Limiting Short Circuit Protection
- LC Input Filter for low Reflected Ripple Current
- Operating Temperature -40°C to +100°C Baseplate



DESCRIPTION

The CAH series of single, dual, and triple output dc/dc converters performs over an ultra-wide input voltage range (4:1), providing indefinite short-circuit and over-voltage protection. The CAH series design technology allows for up to 40 watts output power from a 3.0" x 3.0" x 0.55", or 3.6" x 3.0" x 0.55" with baseplate. These current mode control forward converters are designed for improved transient response and reduced stress on switching components.

SPECIFICATIONS: CAH Series

All specifications apply @ 25°C ambient unless otherwise noted

INPUT SPECIFICATIONS

Input Voltage Range	5V nominal input	4.5 - 9VDC
	24V nominal input.....	9 - 36VDC
	48V nominal input.....	18 - 75 VDC
Input Filter	LC input filter	
Remote On/Off Control	Open Collector TTL	

OUTPUT SPECIFICATIONS

Output Voltage	see table
External Output Trim.....	±10% (primary only)
Voltage Tolerance.....	±1% primary, ±2% auxiliary
Output Current	see table
Output Power	see table
Line Regulation	±0.5% primary, ±1% auxiliary
Load Regulation	±1% single outputs (see note 5)
Ripple/Noise (20MHz BW)	1% Vout (see note 7)
Transient Response	< 200µs to within ±1% Vout
Temperature Coefficient.....	0.02%/°C max.

PROTECTION SPECIFICATIONS

Short Circuit Protection	continuous, hiccup mode
Over Voltage Protection.....	Zener Clamp
Current Limiting	Power Foldback

GENERAL SPECIFICATIONS

Efficiency	85% typical
Switching Frequency	300kHz (typ)
Isolation Voltage (Input to Output)	500VDC (min)
Isolation Resistance (Input to Output).....	500MΩ

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature (ambient)	-40°C to +100°C Baseplate
Storage Temperature.....	-55°C to +100°C
Humidity (non-condensing).....	20% to 95% RH

PHYSICAL SPECIFICATIONS

Weight	Approximately 7.0 oz
Dimensions (L x W x H)	3.0 x 3.0 x 0.55 inches
Dimensions with Baseplate (L x W x H).....	3.6 x 3.0 x 0.55 inches
Case Material.....	Black coated metal, aluminum baseplate
Shielding	six - sided

Due to advances in technology, specifications subject to change without notice

MODEL SELECTION GUIDE

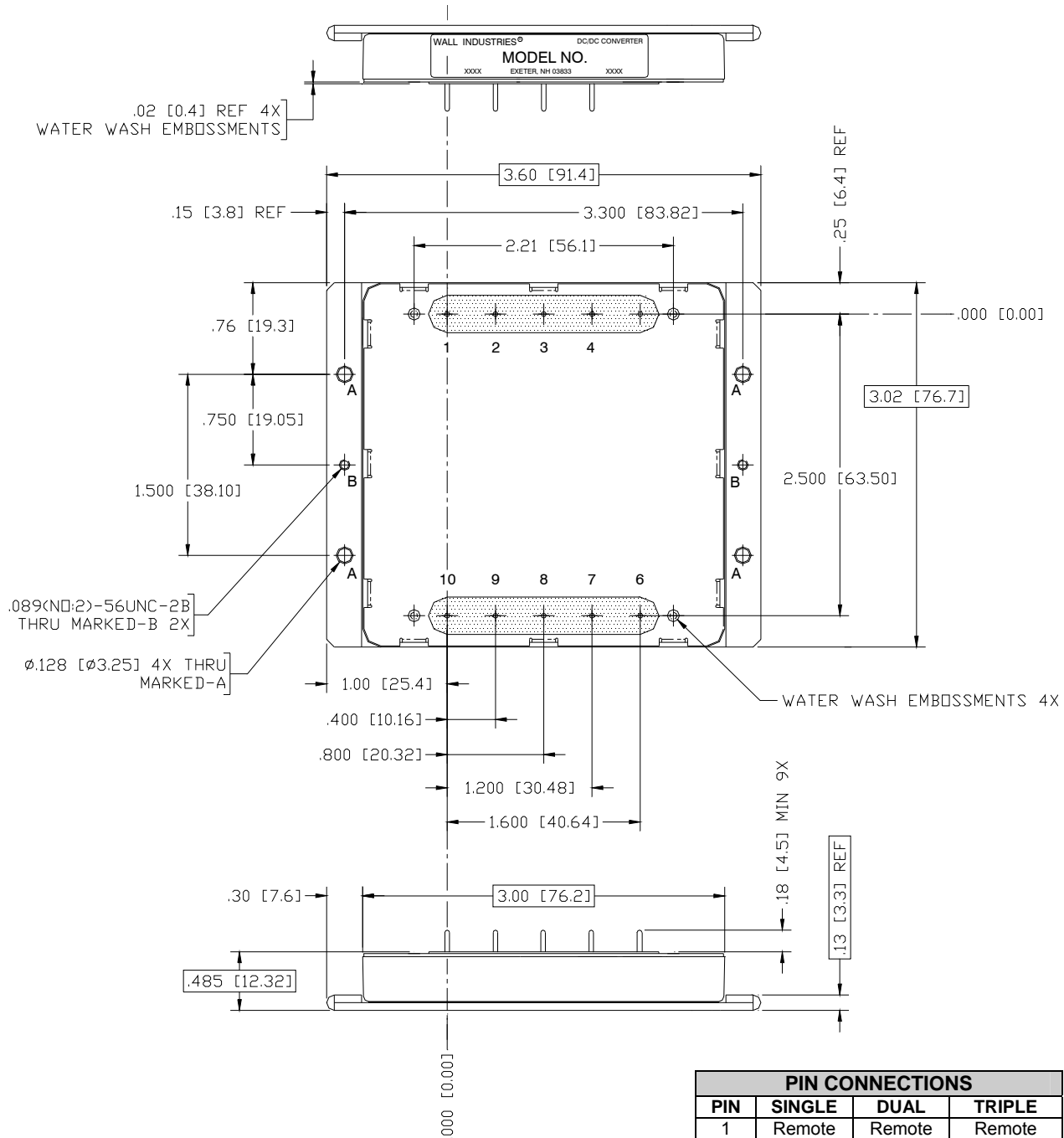
Model Number	Input Voltage Range	Output Voltage	Output Current	Over Voltage Set-Point	Output Power	
CAH5S3.3-25	5VDC (4.5 – 9 VDC)	3.3 VDC	7.58A	5.1 VDC	25W	
CAH5S5-25		5 VDC	5.0A	6.2 VDC	25W	
CAH5S12-25		12 VDC	2.0A	15 VDC	24W	
CAH5S15-25		15 VDC	1.6A	18 VDC	24W	
CAH5S18-25		18 VDC	1.38A	21 VDC	25W	
CAH5D5-25		±5 VDC	2.5A	6.2 VDC	25W	
CAH5D12-25		±12 VDC	1.04A	15 VDC	25W	
CAH5D15-25		±15 VDC	0.83A	18 VDC	25W	
CAH24S3.3-25		24VDC (9 – 36 VDC)	3.3 VDC	7.58A	5.1 VDC	25W
CAH24S5-25			5 VDC	5.0A	6.2 VDC	25W
CAH24S5-40	5 VDC		8.0A	6.2 VDC	40W	
CAH24S12-25	12 VDC		2.0A	15 VDC	24W	
CAH24S12-40	12 VDC		3.3A	15 VDC	40W	
CAH24S15-25	15 VDC		1.6A	18 VDC	24W	
CAH24S15-40	15 VDC		2.66A	18 VDC	40W	
CAH24S18-25	18 VDC		1.38A	21 VDC	25W	
CAH24S18-40	18 VDC		2.22A	21 VDC	40W	
CAH24D12-30	±12 VDC		1.25A	15 VDC	30W	
CAH24D12-40	±12 VDC		1.66A	15 VDC	40W	
CAH24D15-30	±15 VDC		1.0A	18 VDC	30W	
CAH24D15-40	±15 VDC		1.33A	18 VDC	40W	
CAH24T12-30	+5 / ±12 VDC		4.0 / ±0.42A	6.2 / 15 VDC	30W	
CAH24T15-30	+5 / ±15 VDC		4.0 / ±0.33A	6.2 / 18 VDC	30W	
CAH48S3.3-25	48VDC (18 – 75 VDC)		3.3 VDC	7.58A	5.1 VDC	25W
CAH48S5-25			5 VDC	5.0A	6.2 VDC	25W
CAH48S5-40			5 VDC	8.0A	6.2 VDC	40W
CAH48S12-25			12 VDC	2.0A	15 VDC	24W
CAH48S12-40			12 VDC	3.3A	15 VDC	40W
CAH48S15-25		15 VDC	1.6A	18 VDC	24W	
CAH48S15-40		15 VDC	2.66A	18 VDC	40W	
CAH48S18-25		18 VDC	1.38A	21 VDC	25W	
CAH48S18-40		18 VDC	2.22A	21 VDC	40W	
CAH48D12-30		±12 VDC	1.25A	15 VDC	30W	
CAH48D12-40		±12 VDC	1.66A	15 VDC	40W	
CAH48D15-30		±15 VDC	1.0A	18 VDC	30W	
CAH48D15-40		±15 VDC	1.33A	18 VDC	40W	
CAH48T12-30		+5 / ±12 VDC	4.0 / ±0.42A	6.2 / 15 VDC	30W	
CAH48T15-30		+5 / ±15 VDC	4.0 / ±0.33A	6.2 / 18 VDC	30W	

NOTES

- All case and pin dimensions reference only unless otherwise noted.
- Baseplate protrudes 0.02", two sides.
- PC pins 0.04" dia x 0.18" long minimum: typical nine places.
- Pin-to-pin tolerance ±0.01". Pin dimension tolerance ±0.005".
- 10% minimum load required on outputs.
Singles: ±1% min. to full load
Duals: ±1% min. to full load (balanced)
±5% min. to max load (unbalanced)
Triples: ±1% min. to full load (main output)
±5% min to full load aux (unbalanced)
- Significant capacitive load may inhibit start-up and operation, consult factory.
- Ripple & Noise is measured with a 0.1µF capacitor across the output.

MECHANICAL DRAWING

Unit: inches (mm)



1. All Dimensions are for reference only, unless otherwise noted
2. Pin-to-Pin Tolerance: ± 0.01 [0.2]
 Pin Diameter Tolerance: ± 0.005 [0.13]

PIN CONNECTIONS			
PIN	SINGLE	DUAL	TRIPLE
1	Remote	Remote	Remote
2	Case	Case	Case
3	+Vin	+Vin	+Vin
4	-Vin	-Vin	-Vin
5	No Pin	No Pin	No Pin
6	N/C	-Vout	Aux. -Vout
7	N/C	Common	Aux. +Vout
8	Common	Common	Common
9	+Vout	+Vout	+5Vout
10	Trim	Trim	Trim