



Dual Output Half-Brick DC-DC Converters

- ◆ Industry Standard Footprint & Pinouts
- ◆ Telecom Approvals & Compliance
- ◆ Zero Pre-load Current
- ◆ 24 or 48VDC input
- ◆ Level B EMI with External Filtering
- ◆ Remote On / Off

RoHS

Key Market Segments & Applications

Central Office:	ATM, Sonet, DSL, ISDN, Frame relay
Broadband:	Switching Equipment, Routers
Wireless/Cellular:	Micro Cells Pico Cells
Remote Electronics:	Fixed Local Loop, Fiber Optic Transmission, Microwave Transmission, Wireless Local Loop
Customer Premise:	PBX, PABX, Datacomm, Voice Systems, Video Conferencing

PAH Features and Benefits

Feature

- ◆ Industry Standard footprint/pinout.
- ◆ ASIC Design
- ◆ No-preload requirements
- ◆ No potting materials used

Benefit

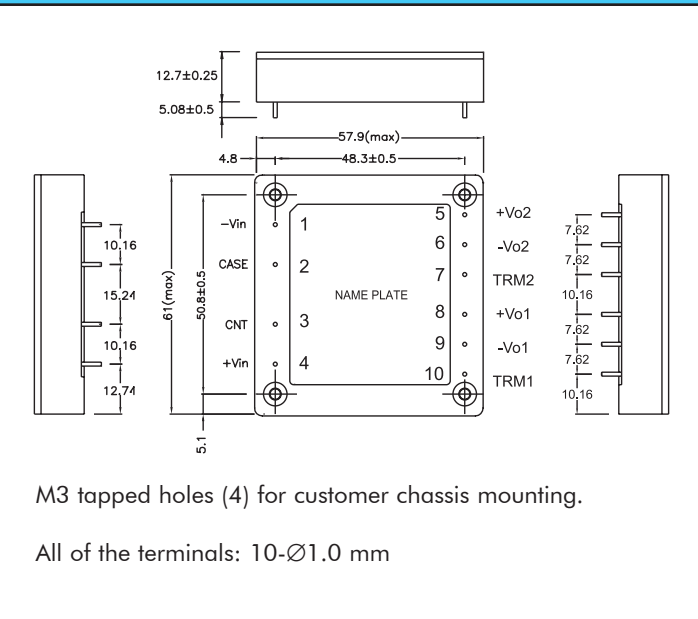
- ◆ Allows for multi-sourcing
- ◆ Increased reliability
- ◆ Eliminates the need for external components
- ◆ Less weight. Lower cost.

Specifications

MODEL ITEMS		2518		3318		3325		5033	
		Vo1	Vo2	Vo1	Vo2	Vo1	Vo2	Vo1	Vo2
Nominal Output Voltage	V	2.5	1.8	3.3	1.8	3.3	2.5	5.0	3.3
Output Current (Max)	A	15	15	15	15	15	15	15	15
Total Output Power (Max)	W	45		50		60		75	
Efficiency (Typ at 48VDC input)	%	74		78		78		82	
Input Voltage Range	-	36 ~ 76VDC				18 ~ 36VDC or 36 ~76VDC			
Input Current (Typ) 24/48Vnom	A	-1.06		-1.33		2.71/1.33		3.91/1.91	
Output Voltage Accuracy	%	±2							
Output Voltage Adjustment	V	2.5~2.75	1.8~1.98	2.97~3.63	1.8~1.98	2.97~3.63	2.25~2.75	4.5 ~ 5.5	2.97~3.63
Max Ripple & Noise	mV	75	75	100	75	100	75	100	100
Max Line Regulation	mV	±6.6	±6.6	±6.6	±6.6	±6.6	±6.6	±10	±6.6
Max Load Regulation	mV	±16.5	±16.5	±16.5	±16.5	±16.5	±16.5	±25	±16.5
Over Current Protection (*1)	%	105-165	105-165	105-165	105-165	105-165	105-165	105-165	105-165
	A	Vo2@0A	Vo1@5A	Vo2@0A	Vo1@5A	Vo2@0A	Vo1@5A	Vo2@0A	Vo1@5A
Over Voltage Protection	%	115-140	115-150	115-140	115-150	115-140	115-140	125-145	115-140
Operating Temperature	-	-40°C ~ +100°C (Baseplate)							
Cooling	-	Conduction cooled							
Isolation Voltage	-	Input-Output : 1.5kVDC, Input-Baseplate:1.5kVDC (20mA) for 1 min Output-Baseplate: 500VDC for 1 min							
Shock	m/s ²	196.1							
Safety Agency Approvals	-	UL60950-1, CSA60950-1, EN60950-1, CE Marking (48V input only)							
Weight (Typ.)	g	80							
Vibration	-	Non Operating, 10-55Hz (Sweep for 1min.)							
	-	Amplitude 0.825mm Constant (Maximum 49.0m/s ²) X, Y, Z 1 hour each							
Size (W×H×D)	mm	57.9 x 12.7 x 61 (Refer to outline drawing)							

*1: Other channel at output current specified.

Dual Output Outline Drawing

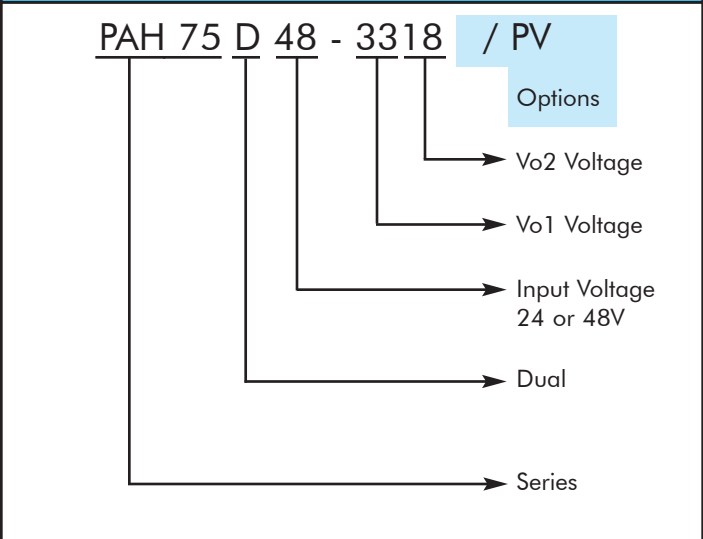


Options

Suffix	ON/OFF Control	OVP
-	Negative	Manual Reset
/P	Positive	Manual Reset
/V*	Negative	Auto Restart
/PV	Positive	Auto Restart

* standard US stock item

PAH Series Model Number Example



PAH Series Dual Output

PIN#	Description	Function
1	-Vin	Negative Input Terminal
2	CASE	Baseplate Terminal
3	CNT	ON/OFF Control Terminal
4	+Vin	Positive Input Terminal
5	+Vo2	Vo2 Positive Output Terminal
6	-Vo2	Vo2 Negative Output Terminal
7	TRM2	Vo2 Output Adjust. Terminal
8	+Vo1	Vo1 Positive Output Terminal
9	-Vo1	Vo1 Negative Output Terminal
10	TRM1	Vo1 Output Adjust. Terminal

For Additional Information, please visit
us.tdk-lambda.com/lp/products/pah-series.htm