

Enclosed or L Bracket
PCB Mount
Non Isolated

DC-DC Selector

Nominal Input Voltage	# of Outputs	Output Power (W)							
		3	10	30	50	100	150	300	600
5V	Single	CC-E							
		iAC, iBA							
12V	Dual	CC-E							
	Single	CC-E							
		iA, iBC							
			PXD,PXE,PXF						
	Dual	CC-E							
			PXD,PXE,PXF						
24V	Triple			PXF					
	Single	CC-E							
			PXD,PXE,PXF						
					PH-F				
					PH-S				
						iQ		PAH300	
								PAF	
	Dual	CC-E							
			PXD,PXE,PXF						
	Triple				PAH75D*				
48V	Single			PXF					
		CC-E							
			PXD,PXE,PXF						
				iSA, PAE*, iE, iP*					
				iQ, PAQ*					
				PH-F					
				PH-S					
					iH, PAH				
	Dual							PAF	
		CC-E							
			PXD,PXE,PXF						
					PAQ*				
					PAH75D*				
	Triple			PXF					
	Multiple							Vega*	
82-185VDC	Single				PH-F				
					PH-S				
200-400VDC	Single				PH-F				
					PH-S				
								PAF	

* See website

TDK-Lambda PAH300-450 Series



300W to 450W Half Brick Converters

- ◆ Standard Half Brick Footprint
- ◆ 18-36 or 36-76VDC Inputs
- ◆ 12V 29A - 48V 9.4A Nominal Outputs
- ◆ Through Hole Mounting
- ◆ Low 12.7mm Profile

RoHS

Key Market Segments & Applications

Base Station Power Amplifiers
Bus converters for Distributed Power Architectures

PAH Features and Benefits

Feature

- ◆ High operating efficiencies (up to 92%)
- ◆ Constant switching frequency
- ◆ Baseplate cooling

Benefit

- ◆ Reduced system heating, smaller size
- ◆ Easier system filtering
- ◆ Allows improved thermal management with optional heatsink

Specifications

ITEM		MODELS	PAH300S, 350S, 450S (see model selector)		
Nominal Output Voltage	VDC		12V	28V	48V
Input Voltage range	VDC		18-36 or 36-76		
Input Current (Max)	A		6.8-17.4A (model dependant)		
Output Voltage Adjustment	VDC		7.2 - 13.2	16.8 - 33	28.8 - 57.6 (5)
Ripple & Noise (max) (pk to pk)	mV		200	280(1)	480
Line Regulation (max)	mV		24	56	96
Load Regulation (max)	mV		24	56	96
Overload Protection	%		105 - 140%, constant current with auto recovery		
Overvoltage Protection (3)	%		115-135%	125-140%(2)	125-145% (6)
Remote Sense	-		Yes		
Remote On / Off (See options)	-		Standard; Low = ON, Open = OFF /P option; Low = OFF, Open = ON		
Temperature (operating)	°C		-40°C to +100°C baseplate, full power(4)		
Temperature (storage)	°C		-40°C to +100°C		
Temperature Coefficient	-		0.02%/°C		
Humidity (operating)	-		5-95% RH Non condensing		
Humidity (storage)	-		5-95% RH Non condensing		
Cooling	-		Conduction (See Installation Manual for heatsink selection)		
Isolation Voltage	VDC		1500VDC Input to output & baseplate, 500VDC Output to baseplate		
Vibration	-		Non Operating, 10-55Hz (sweep for 1 min.)		
Amplitude	-		0.825mm constant (Max 49 m/s ²) X,Y,Z 1 hour each		
Shock	-		196.1m/s ²		
Safety Agency Approvals	-		UL60950-1, CSA60950-1, EN60950-1, CE LVD (48V input models only)		
Weight (Typ)	g		110		
Size (WxHxD)	in(mm)		2.4x0.5x2.28 (61x12.7x57.9) See outline drawing		
Warranty	yrs		2 Years		

Note: See Installation Manual for full details, test methods of parameters and application notes

(1) 240mV for PAH300

(2) 125-145% for PAH450S48-28

(3) Manual reset

(4) PAH350S24-28 & -48: derate linearly to 85% load from 90°C to 100°C

(5) 28.8-52.8 PAH350S28-48

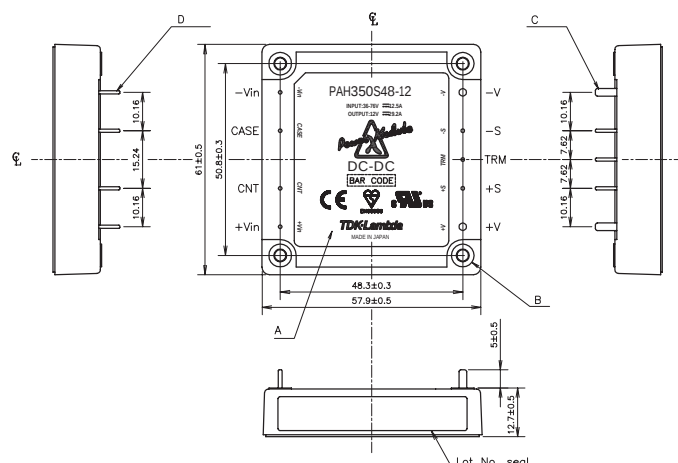
(6) 115-140% PAH350S28-48

TDK-Lambda PAH300-450 Series

Model Selector

Model	Input Voltage (V)	Output Voltage (V)	Max. Curr. (A)	Max. Output Power (W)	Efficiency Typ. (%)
PAH300S24-12	18 - 36	12	25	300	87
PAH300S48-12	36 - 76	12	25	300	90
PAH350S48-12	36 - 76	12	29.2	350	89
PAH300S24-28	18 - 36	28	11	308	88
PAH350S24-28	18 - 36	28	12.5	350	88
PAH350S24-48	18 - 36	48	7.3	350	87
PAH300S48-28	36 - 76	28	11	308	90
PAH350S48-28	36 - 76	28	12.5	350	89
PAH450S48-28	36 - 76	28	16	448	92
PAH450S48-48	36 - 76	48	9.4	451	92

Outline Drawing



Pinout

Pin Description	Function
-Vin	Negative Input Terminal
+Vin	Positive Input Terminal
CNT	On / Off Control terminal
+V	Positive Output Terminal
-V	Negative Output Terminal
TRIM	Output adjustment Trim pin
+S	Positive Remote sense
-S	Negative Remote sense

Options

Suffix	Description
-	M3 Tapped inserts for mounting
/T	M3 clearance inserts for mounting
/P	Positive logic remote On/Off (Not on PAH450S)

Other Lambda DC-DC Products

PAF	400-700W Full brick DC-DC
PAH	Other half brick DC-DC converters
PAQ	Quarter brick DC-DC converters
PAE	Eighth brick DC-DC converters
PX	10-48W, 12-48V DC-DC
iA,iB	Non isolated DC-DC