

## 300 to 700W AC-DC Power Module

### Features

- ◆ Low profile, small size
- ◆ 100°C baseplate temperature
- ◆ High power density
- ◆ High Efficiency
- ◆ Suitable for conduction cooling
- ◆ Power Factor Corrected (PFC)



### Key Market Segments & Applications



Specifications				
Model		PFE300S PFE500S	PFE700S	
AC Input	VAC	85 to 265VAC, 47-63Hz (up to 440Hz) (3)		
Input Current (100 / 220VAC)	A	4.0 / 2.0	8.8 / 4.4	
Model dependant		6.2 / 3.2		
Inrush Current (100 /200VAC) (1)	A	20 / 40 peak		
Power Factor	-	0.95 minimum, meets EN61000-3-2		
Output Voltage Setpoint Accuracy	-	±2%	±1V	
Ripple and Noise (1)	-	1%	4V	
Over Current Protection	%	105 - 140% (Automatic Recovery)		
Over Voltage Protection	-	125 - 145%	60 - 69.6V	
Series Operation	-	Yes		
Parallel Operation	-	No	Yes (Droop mode)	
Power On Signal (ENA)	-	Open collector (10mA sink current). Low (on) when output is present		
Auxiliary Supply	-	None	None	
Remote On/Off (Opto isolated)	-	None	None	
Overtemperature Protection	-	Yes		
Operating Baseplate Temp.	°C	-40 to +100°C (2)		
Storage Temperature	°C	-40 to +100°C		
Humidity (non condensing)	-	Operating: 20 - 95%RH, Non Operating: 10 - 95%RH		
Cooling	-	Conduction		
Withstand Voltage (1 min)	-	Input to Output 3kVAC, Input to Baseplate 2.5kVAC, Output to Baseplate 1.5kVDC		
Isolation Resistance	-	Output to baseplate: 100M Ohm at 500VDC, 25°C ambient, 70%RH		
Vibration (non operating)	-	10-55Hz (1 min sweep), constant amplitude 0.825mm (max 49m/s <sup>2</sup> ), X, Y, Z 1 hour each		
Shock	-	196.1m/s <sup>2</sup>		
Safety Certifications	-	UL60950-1, CSA60950-1 (cUL), EN60950-1, CE mark (LVD)		
Weight	g	250	250	
Size (WxHxL)	mm	61 x 12.7 x 116.8mm		
	in	2.4 x 0.5 x 4.6"		
Warranty	yrs	2 years		

Notes: (Consult Installation Manual for detailed specifications, test methods and application notes)

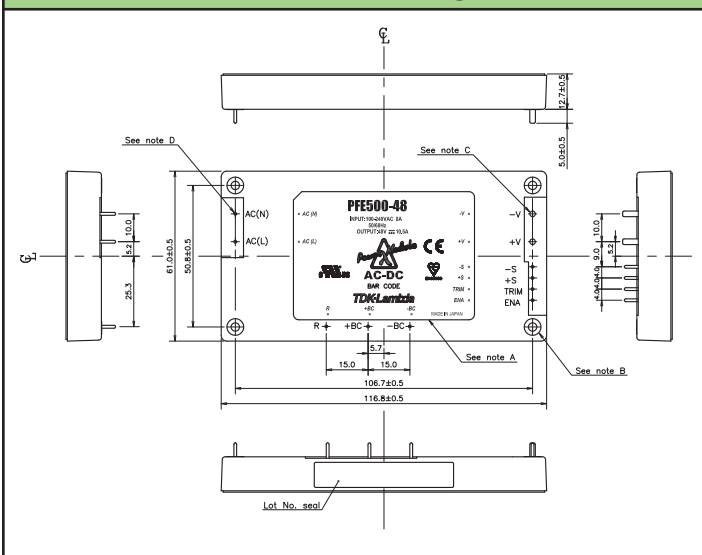
- 1) External components are required, consult Application Notes
- 2) PFE500S-12, -40 to 85°C. See instruction manuals for derating curves
- 3) Reduced PFC above 63Hz. Contact technical support for 440Hz operation.

## Specifications

Model	Output Voltage (V)	Adjust. Range (V)	Maximum Current (A)	Maximum Wattage (W)	Load Reg. (mV)	Line Reg. (mV)	Efficiency typ
PFE300S-12	12	9.6 - 14.4	25	300	48	48	81 / 83
PFE500S-12	12	9.6 - 14.4	33	396	48	48	82 / 83
PFE300S-28	28	22.4 - 33.6	10.8	302	56	56	83 / 85
PFE500S-28	28	22.4 - 33.6	18	504	56	56	84 / 86
PFE300S-48	48	38.4 - 57.6	6.3	302	96	96	84 / 86
PFE500S-48	48	38.4 - 57.6	10.5	504	96	96	84 / 86
PFE700S-48	51	None	14	714	50 - 57V (4)		86 / 89

(4) Total regulation range

## PFE500S Outline Drawing



## Heatsink Table

Heatsink	Size (mm)	PFE Module
HAF-10L	116.8 x 25.4 x 61	PFE300/500/700S
HAF-15L	116.8 x 38.1 x 61	PFE300/500/700S
HAF-15T	116.8 x 38.1 x 61	PFE300/500/700S
HAL-F12T	122 x 35 x 69.9	PFE500F
HAM-F10T	160 x 33.4 x 100	PFE1000F

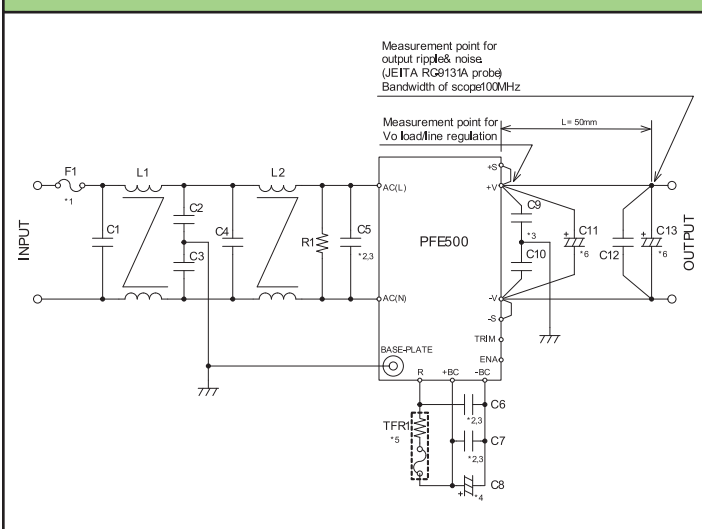
## Options

Suffix	Description
Blank	M3 tapped mounting inserts (4)
/T	3.3mm non-threaded inserts (4)

For Additional Information, please visit [us.tdk-lambda.com/lp/products/pfe-series.htm](http://us.tdk-lambda.com/lp/products/pfe-series.htm)



## PFE500S Basic connection



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