

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 ²), X, Y, Z 1 hour each		
Shock	-	196.1m/s ²		
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)

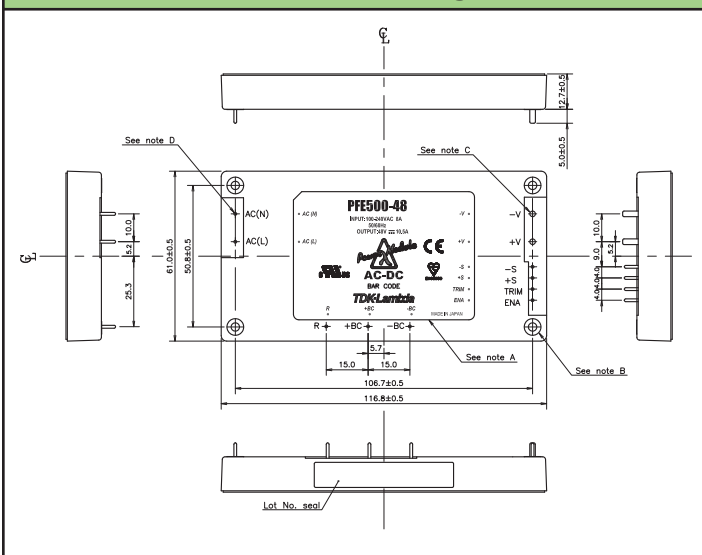
- 1) External components are required, consult Application Notes
- 2) PFE500S-12, -40 to 85°C. See instruction manuals for derating curves
- 3) Reduced PFC above 63Hz. Contact technical support for 440Hz operation.

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



PFE500S Basic connection

