

# PFE300-700 SERIES

AC / DC Single Output: 300~700 Watts



## Features

- Full brick AC/DC Power Module in one package
- Harmonic input correction: EN61000-3-2
- Universal input 85~264vac with PFC
- Fully regulated outputs:– PFE300S, PFE500S / F
- Unregulated 50-57vdc output: PFE700
- Single wire power share / parallel capability-PFE500F
- Wide baseplate temperature -40°C to +100°C
- OVP, OCP and Over temperature protection
- Safety UL1950, EN60950
- Fully isolated input-output
- External components required for operation, refer to instruction manual.
- PCB mounting
- Suitable for battery charging applications.

## General Specifications

<b>Input Voltage</b>	85 ~ 264 VAC, 47 ~ 63Hz
<b>Power Factor</b>	Typically 0.95
<b>Output Voltage</b>	12V, 28V, 48V
<b>Output Voltage Range</b>	See table PFE700: Unregulated (50-57)
<b>Output Power</b>	300 ~ 700 watts
<b>Efficiency</b>	Model dependant 82~88%
<b>Load Regulation</b> ( PFE300-500 )	12v: 48mV 28v: 56mV 48v: 96mV
<b>Load Regulation</b> ( PFE700 )	50 ~57V
<b>Ripple &amp; Noise</b>	12V: 120mV, 28V: 280mV, 48V: 480mV
<b>Protection</b>	Overload Constant current, with auto recovery Over voltage protection. Over temperature.
<b>Isolation Voltage</b>	Input-Output: 3000VAC
<b>Safety</b>	UL60950-1, EN60950-1, CSA60950-1
<b>EMC</b>	N / A
<b>Parallel Operation</b>	PFE700S: Droop Mode ) PFE500F: Single wire power share ) PFE300S / PFE500S: N/A
<b>Remote Sense</b>	Yes
<b>Operating Temp.</b>	12V: -40°C to +85°C Baseplate temperature 24 / 48V: -40°C to +100°C Baseplate temperature
<b>Operating Humidity</b>	20-95% RH ( No Dewdrop )
<b>Cooling</b>	Conduction cooled
<b>Isolation Voltage</b>	Input-Output/ Baseplate: 3000VAC / 2500VAC Output-Baseplate: 500Vdc
<b>Size &amp; Weight</b>	PFE300S / 500S: 117 x 61 x 12.7mm 250g PFE700S: 117 x 61 x 12.7mm 250g PFE500F: 122 x 70 x 12.7mm 300g

## Description

The innovative **PFE** series is a “Full Brick” AC input power supply module , capable of operating up to +100°C base plate temperature.

It offers a **single device** containing power factor correction, regulation and primary secondary isolation, offering up to 50% space savings over previous power module solutions. These power modules meet the needs of many industrial, datacom and telecom applications particularly where high operating temperatures are required and space is at a premium.

The fully regulated PFE300 & PFE500-watt models are available in 12, 28 and 48 volt nominal outputs and can be adjusted over a  $\pm 20\%$  range.

A semi-regulated **PFE700-48** is also available, delivering 714 watts with a nominal output of 51volts and can be operated as an intermediate bus converter powering regulated DC-DC converters for multiple output applications.

The PFE series modules, allows design engineers to design and manufacture their end product, containing a PFE power module, as an integral part of the product. ....especially for applications requiring a sealed assembly.

- **Manual & Full Application notes on PFE series, visit our website**

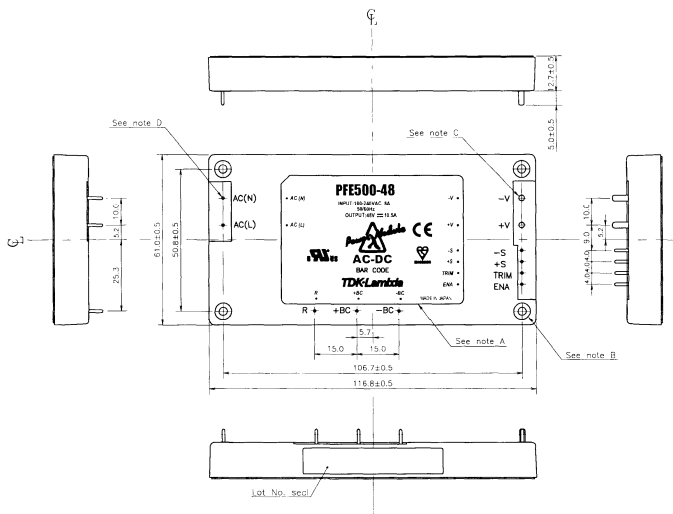
## Options

PFE1000F	1000W unit under development
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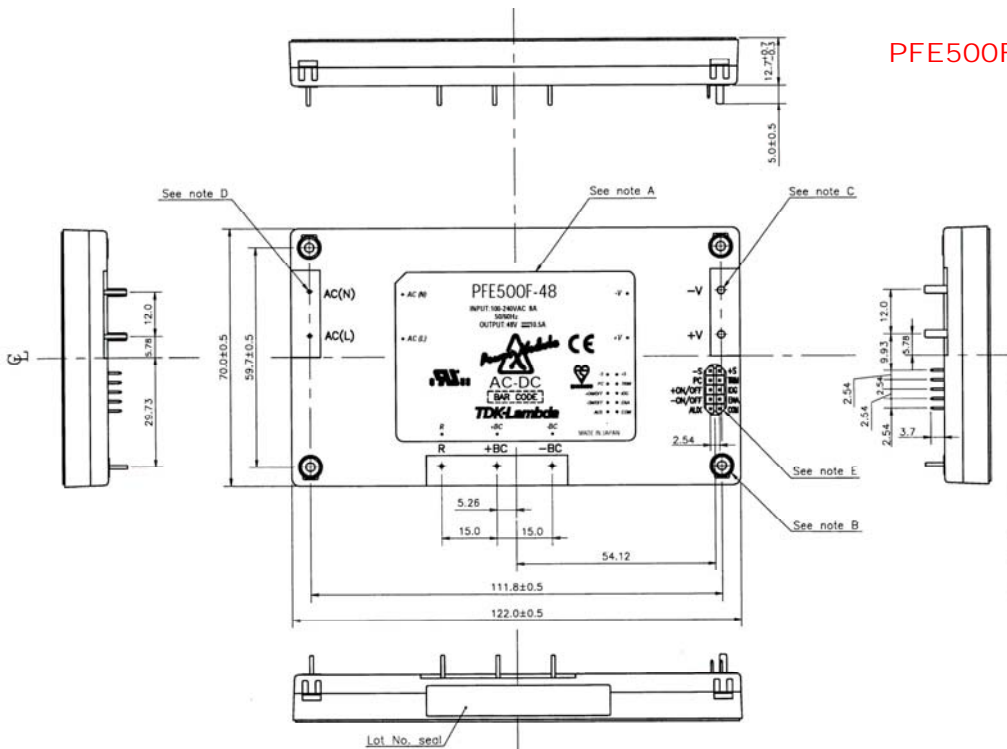
Model	Output		Voltage Range	Power W
	V	A		
PFE300S-12	12V	25.0A	9.6 ~ 14.4V	300W
PFE500S-12	12V	33.0A	9.6 ~ 14.4V	396W
PFE500F-12	12V	42A	9.6 ~ 14.4V	504W
PFE300S-28	28V	10.8A	22.4 ~ 33.6V	302W
PFE500S-28	28V	18.0A	22.4 ~ 33.6V	504W
PFE500F-28	28V	18.0A	22.4 ~ 33.6V	504W
PFE300S-48	48V	6.3A	38.4 ~ 57.6V	302W
PFE500S-48	48V	10.5A	38.4 ~ 57.6V	504W
PFE500F-48	48V	10.5A	38.4 ~ 57.6V	504W
PFE700S-48	51V	14.0A	N/A	714W

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PFE300S / 500S / PFE700S



PFE500F

● Basic Connection

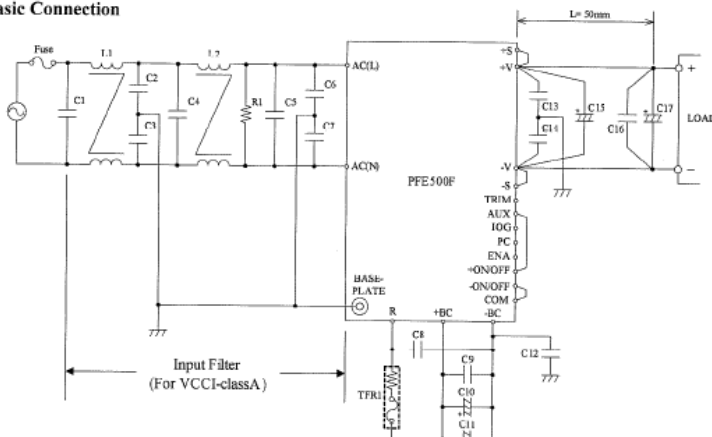


Fig. 1-1 Basic Connection