



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



500 Watt AC-DC Power Module

Features

- ◆ 4" x 2.4" Brick Foot-print with Metal Case
- ◆ High Power Density
- ◆ High Efficiency
- ◆ Suitable for Conduction Cooling
- ◆ Power Factor Corrected
- ◆ PMBus™ (optional)
- ◆ Droop Load Share (optional)



Key Market Segments & Applications



Specifications		Model	PFH500F-28-R
AC Input Voltage (1)	VAC		85 to 265VAC, 47-63Hz
AC Input Current (typ) (4)	A		5 / 2.5A
Power Factor	-		0.95 minimum (Vin=230VAC, Io > 80%, Tc=25°C, meets EN61000-3-2)
Inrush Current (typ) (4)	A		9A / 18A (peak) (20A max)
Input Turn -on Voltage	VAC		83V (typ)
Input Turn - off Voltage	VAC		79V (typ)
Hold -up (Typ.) (1) (2)	ms		20ms
Output Voltage Set-point	VDC		27.5 - 28.5VDC (Vin=115Vac, Io=0%)
AC Start-Up Delay (2)	s		2.7/1.2 typ (115/230VAC) with Remote ON/OFF=LOW from AC application to 10% of Vo
Remote ON/OFF Start-Up Delay (2)	s		2.5/1.0 typ (115/230VAC) with AC applied from Remote ON/OFF assertion to 10% of Vo
Output Voltage Rise Time (typ)	ms		65ms
Line Regulation (typ)	mV		42mV (0.15%) (Io=50% of Io,max, Vin=Vin,min to Vin, max)
Load Regulation (typ)	mV		28 mV (0.1%) (Vin=115/230 Vac, Io=0 to Io,max, excluding Droop)
Output Ripple (Pk to Pk) (3)	mV		400mV Typ. (500mV max.)
Over Voltage Protection (max)	VDC		35.5V
Over Current Protection (Hiccup) (typ) (5)	A		21.5A
Maximum Output Capacitance	uF		3,000uF
Power Good Signal	mA		Open collector 200mA max. (Active low)
Auxiliary Supply	-		10-14V; 200mA
Remote On/Off	VDC		Low = On, < 0.8VDC (3.3V max input)
Over Temperature Protection	°C		Input line voltage dependent (see derating curves)
Series Operation	-		Yes (maximum of two units)
Parallel Operation (optional)	-		Droop Share
Operating Baseplate Temperature	°C		-40 to 100°C (with derating)
Storage Temperature	°C		-55 to 125°C
Humidity (non condensing)	%		Operating: 20 - 95%RH, Non Operating: 10 - 95%RH
Cooling	-		Conduction
Withstand Voltage (1 min)	VAC		Input to Output 3,000VAC: Input to Case 2,500VAC: Output to Case 1,500VDC
Isolation Resistance	Ω		Output to Case: 100MΩ at 500Vdc, 25C ambient, 70%RH
Vibration (Non Operating)	-		MIL-STD-810G: 514.6 Cat 4, Cat 21; Sine Vibration 23.52 m/s ² Constant (XYZ Axis)
Shock	-		MIL-STD-810G: 516.6 Procedure I (XYZ Axis)
Safety Certifications	-		UL/cUL60950-1, IEC/EN60950-1, CE Mark
Size (typ)	in. (mm)		4.00 x 2.40 x 0.53 (101.6 x 61.0 x 13.3)
Weight (max)	g		225
Warranty	Years		3

Notes: External components are required. Consult Installation Manual for detailed specifications, test methods and application notes.

- 1) Maximum Power will be de-rated at Vin < 100V with 6.7 W/V (400W@85Vin).
- 2) With 2 x 470uF bulk cap, 100% Load, Tc = 25 °C.
- 3) Vin=115/230Vac, Io=100%, Tc=25C. Measured across one 0.1uF, four 10uF ceramic capacitors, and two 220uF electrolytic capacitors located 2 inches away. BW = 20MHz.
- 4) Vin = 115/230Vac, Io = 100%, Tc = 25°C.
- 5) Vo=28V. When Vo is higher than 28V, OCP trip point will be lower to limit Po_max.
- 6) Consult the Instruction Manual for additional product information.

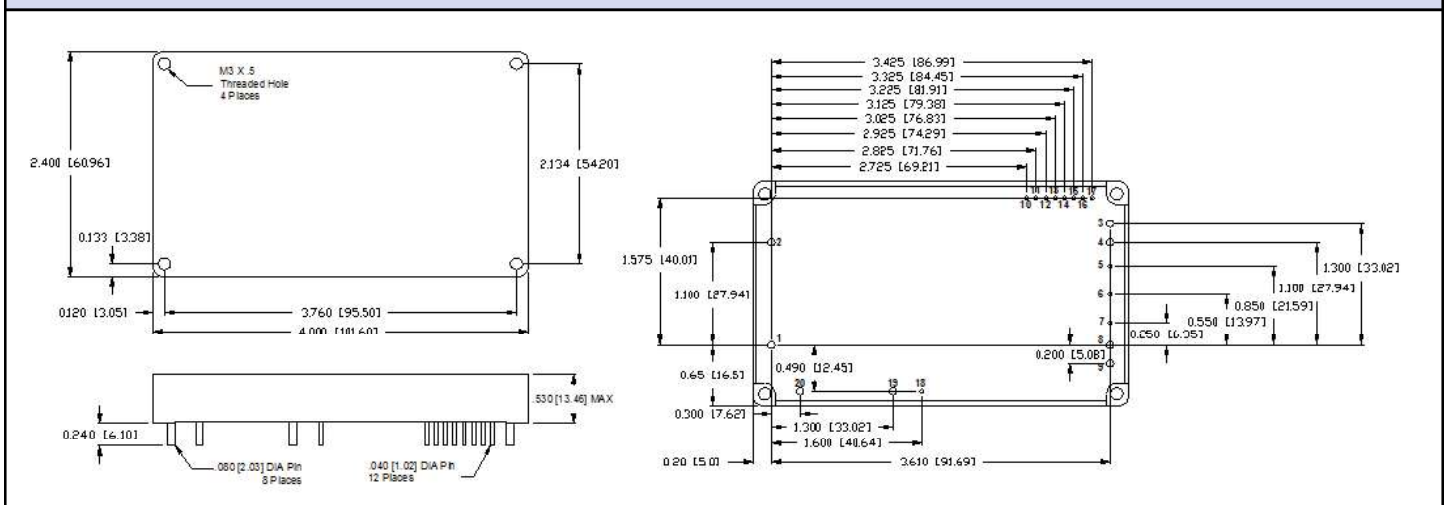
Specifications

Model	Output Voltage (V)	Adjust. Range (V)	Maximum Current (A)	Maximum Wattage (W)	Efficiency (typ) (%) (4)
PFH500F-28-XXX-R	28	22.4 - 33.6	18	504	90 / 92

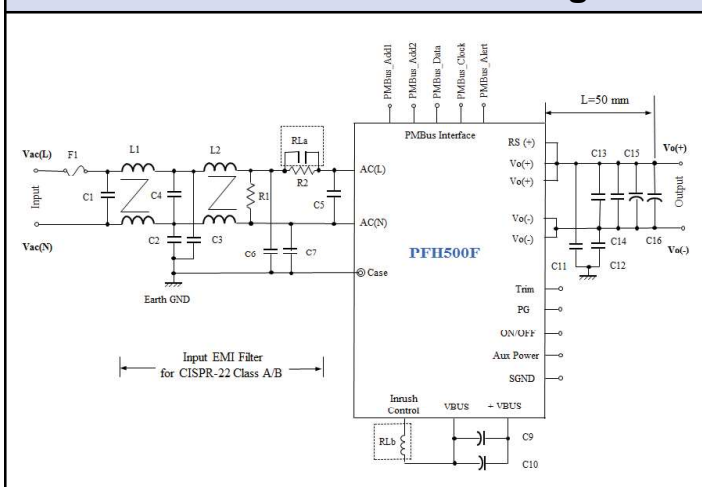
Model Selector

Model	Mounting Inserts	Overvoltage Protection	Overcurrent Protection	Overtemperature Protection	Pin Length	Drop Mode Current Share
PFH500F-28-0D0-R	3.3mm Ø Non-threaded	Latching	Non-Latching	Non-Latching	0.24" (6.1mm)	Yes
PFH500F-28-1D0-R	3mm (M3) Threaded	Latching	Non-Latching	Non-Latching	0.24" (6.1mm)	Yes
PFH500F-28-000-R	3.3mm Ø Non-threaded	Latching	Non-Latching	Non-Latching	0.24" (6.1mm)	No
PFH500F-28-100-R	3mm (M3) Threaded	Latching	Non-Latching	Non-Latching	0.24" (6.1mm)	No

PFH500F Outline Drawing



PFH500F Basic Connection Diagram



Pinout

PIN	Function	PIN	Function
1	AC Input (Line) or AC (L)	11	Secondary Signal GND or SGND
2	AC Input (Neutral) or AC (N)	12	Aux Power Supply or Aux Power
3	Vout (-)	13	PMBus Clock
4	Vout (-)	14	PMBus Data
5	Remote ON/OFF	15	PMBus Alert
6	Trim	16	PMBus Address 2
7	Remote Sense (+) or RS (+)	17	PMBus Address 1
8	Vout (+)	18	Inrush Control or Inrush CTL
9	Vout (+)	19	- Boost Voltage Bus or - VBUS
10	Power Good or PG	20	+ Boost Voltage Bus or + VBUS

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