TDK·Lambda

CPFE500F Series

500W Conduction Cooled Power Supplies

Features

- ♦ Base plate cooled, no fan required
- High efficiency
- Protective coating option
- MIL STD 461/462D CE102 Conducted EMC

Key Market Segments & Applications



Specifications





-				
Model				
AC Input	VAC/Hz			
Input Current Model dependant (1)	A	6.8 / 3.4		
Inrush Current (115 / 230VAC)	Α	20 / 40 peak		
Power Factor	-	Meets EN61000-3-2		
Efficiency (typical)	%	85% at 75% loading (Non ORing diode versions)		
Output Voltage Setpoint Accuracy	-	±2% at 50% load		
Total Regulation	%	< 4%. (ORing diode option, adds 1V to load regulation)		
Ripple and Noise (20MHz BW)	-	1% (1.5% below -10°C)		
Over Current Protection	%	105 - 140% (Automatic Recovery)		
Over Voltage Protection	-	125 - 145% (Cycle AC to reset)		
Series Operation	-	Yes		
Parallel Operation	-	Yes (Single wire, up to 6 units)		
ORing Diodes/FETs	-	Yes (option)		
Power On Signal (ENA)	-	Open collector (10mA sink current). Low (on) when output is present		
Auxiliary Supply	-	10 - 14V, 20mA		
Remote On/Off (Opto isolated)	-	High = On		
Temperature Coefficient	-	<0.01%/°C		
Overtemperature	°C	Shuts down between 90 - 130°C (Cycle AC to reset)		
Hold Up Time (230VAC)	ms	10ms		
Leakage Curr. (at 230VAC, 50Hz)	mA	< 1.5mA		
Remote Sense	-	Yes, compensates up to 500mV cable drop		
Operating Temp. (Base plate)	°C	-40 to +85°C (2)		
Storage Temperature	°C	-40 to +100°C		
Humidity	-	Operating: 20 - 95%RH, Non operating 10 - 95%RH (Pcb assembly protective coated)		
Cooling	-	Conduction cooled through 6mm base plate		
Withstand Voltage	-	Input to Output 4242VDC, Input to Ground 2121VDC, Output to ground 500VDC		
Vibration (non operating)	-	MIL-STD-810E, Method 514.4, Proc 1, Category 1, 9		
Shock	-	MIL-STD-810E, Method 516.5, Proc. I, IV, VI		
Safety Agency Approvals	-	UL60950-1, CSA 22.2 No 60950-1, EN60950-1 (Ed 2), CE Mark		
Line Dip	-	Complies with SEMI F47 (200VAC line only)		
Conducted EMI	-	EN55011, EN55022 (as per CISPR, 11/22) Class B, FCC47 part 15 subpart B)		
		MIL STD 461E/461E/462D CE102, 115V and 220V		
Radiated EMI	-	EN55011, EN55022 (as per CISPR, 11/22) Class B, FCC47 part 15 subpart B) see app. note for details		
Immunity	-	IEC61000-4-2 (Contact Level 2, Air discharge Lvl 3), -3 (Lvl 3), -4(Lvl 3), -5 (Lvl 4),		
-		-6 (Lvl 3), -8 (Lvl 4), -11 (Class 3), -12 (Lvl 3), -14 (Class 3)		
Weight (Typ)	g	with cover 1400g, without cover 1200g		
Size (L x W x D)	mm	270 x 126 x 55mm		
Warranty	yrs	2 years		

(1) 100/200VAC

(2) CPFE500F-12: -40 to 80°C. See instruction manuals for derating curves

(3) Reduced PFC above 63Hz. Contact technical support for 440Hz operation.

Last time buy July 2019

1-800-526-2324 • www.us.tdk-lambda.com/lp/

32

TDK·Lambda

CPFE500F Series

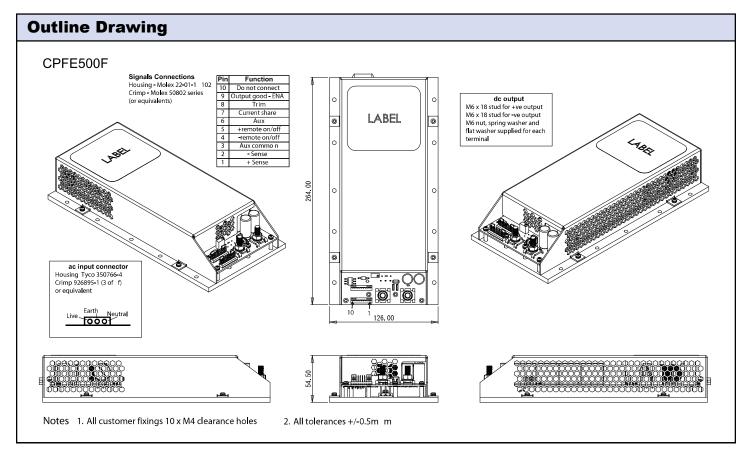
Model Selector

Model	Output Volt (V)	Adjust Range (V)	Max Curr (A)	Max Watt (W)
CPFE500F-12-NLC	12	9.6 - 14.4	42	504
CPFE500F-24-NLC	24	22.4 - 33.6	18	504
CPFE500F-28-NLC	28	22.4 - 33.6	18	504
CPFE500F-48-NLC	48	38.4 - 57.6	10.5	504

Options

options							
Part Number Desc. Suffix	ORing Diode (3)	Cover	Protective Coating				
-DLC	Y	Y	Y				
-NLC	Ν	Y	Y				
3) Peduces maximum output adjustment range by 1)/							

 Reduces maximum output adjustment range by 1V Preferred stocking part highlighted in blue.



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



