CPFE1000F Series

720-1000W Conduction Cooled Power Supplies

Features

- ◆ Base plate cooled, no fan required
- ♦ High efficiency
- ◆ Protective coating
- ◆ MIL STD 461/462D CE102 EMC
- ♦ I²C Interface
- ♦ Wide range AC Input

Key Market Segments & Applications













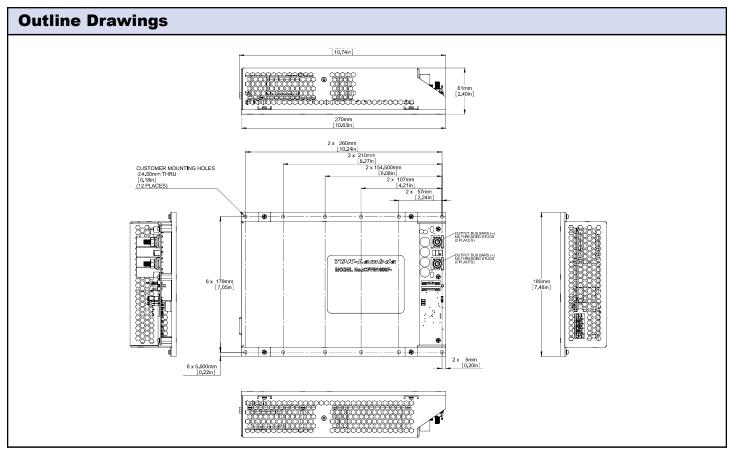
Specifications								
Model								
AC Input	-	90 to 265VAC, 47-63Hz (up to 440Hz) (3)						
Input Current (1)	Α	13.6 / 6.6 (Model dependant)						
Inrush Current (115 / 230VAC)	Α	20 / 40 peak						
Power Factor	-	Meets EN61000-3-2						
Efficiency (typical)	%	79 to 86% (Model dependant)						
Output Voltage Setpoint Accuracy	-	±2% at 50% load						
Line Regulation	mV	12V: 48mV, 28V: 56mV, 48V: 96mV						
Load Regulation	mV	12V: 48mV, 28V: 56mV, 48V: 96mV						
Ripple and Noise (20MHz BW)	-	1% (2% below 0°C)						
Over Current Protection	%	105 - 140% (Automatic recovery)						
Over Voltage Protection	-	125 - 145% (Automatic recovery)						
Parallel Operation	_	Yes (Single wire)						
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	_	<0.02%/°C						
Overtemperature	°C	Shuts down between 90 - 115°C (Auto recovery)						
Hold Up Time (230VAC)	ms	25ms						
Leakage Current (@230VAC,50Hz)	mA	< 1.5mA						
Remote Sense	_	Yes, compensates up to 500mV cable drop						
I ² C Interface	-	Provides manufacturing location, date, serial number, part number,						
1 o mienas		unit revision, output voltage & current read back, base plate temperature,						
		remote on/off, IOG, DC good and over temperature warning						
Operating Temperature (Base plate)	_	12V: -40 to +85°C, 28V & 48V: -40 to +70 / 85°C (See reverse side for derating)(2)						
Storage Temperature	°C	-40 to +100°C						
Humidity	-	Operating: 20 - 90%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-810F, Method 514.5, Figure 514.5C US (Category IV)						
Vibration (non operating)		and Figure 514.5C-15 (Category X)						
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 & Radiated EMI	_	EN55022/EN55011 Class B, MIL STD 461/462D CE102						
Immunity	_							
minianty	_	-6 (Lvl 3), -8 (Lvl 4), -11 (Class 3), -12 (Lvl 3), -14 (Class 3)						
Weight (Typ)	g	2,400						
Size (L x W x H)	mm	270 x 190 x 61mm						
Warranty	yrs	z years						

- (1) 100/200VAC
- (2) CPFE1000F-28, -48: -40 to +70°C below 170VAC input voltage
- (3) Reduced PFC above 63Hz. Contact technical support for 440Hz operation.

CPFE1000F Series

Model Selector								
Model	Output Voltage (V)	Adjust Range (V)	Maximum Current	Efficiency (%) (110/220VAC)				
CPFE1000F-12	12	9.6 - 14.4	60	79 / 81				
CPFE1000F-28	28	22.4 - 33.6	36	83 / 86				
CPFE1000F-48	48	38.4 - 57.6	21	83 / 86				

Derating (Ambient Temperature)									
	Input	Output Power (W)							
Model	Voltage	50°C	60°C	70°C	85°C				
CPFE1000F-12	85VAC to 170VAC	720	720	576	360				
	170VAC to 265VAC	720	720	670	595				
CPFE1000F-28	85VAC to 170VAC	1008	864	720	-				
	170VAC to 265VAC	1008	1008	958	883				
CPFE1000F-48	85VAC to 170VAC	1008	864	720	-				
	170VAC to 265VAC	1008	1008	958	883				



For Additional Information, please visit https://product.tdk.com/info/en/products/power/index.html

