

PFS1500

For medical and industrial applications



Highlights:

- Up to 1500W Continuous Output
- Full Power from 90-264Vac Input Range
- 5"x8"x1.58" Package
- -30°C to +70°C Operation, Up to +50°C without derating
- 5V/2A Standby Optional
- Output Voltage and Constant Current Programmable
- Build-in Active PFC
- Intelligent Fan Speed Control
- Power good, AC OK, DC OK Signals
- Remote On/Off Control
- Remote Sense
- Current Sharing
- 2MOPP Isolation
- Meet Semi F47-0706
- 5000 meter Operation Altitude

Key Specification

Model	PFS1500T12	PFS1500T24	PFS1500T30	PFS1500T36	PFS1500T48	PFS1500T60	PFS1500T72
Output Voltage	12V	24V	30V	36V	48V	60V	72V
Rated Output Current	0-125A	0-62.5A	0-50A	0-41.7A	0-31.3A	0-25A	0-20.9A
Rated Output Power	1500W						
Warranty	3 Years						
Dimension	5.0"x8.0"x1.58" or 127mm x203mm x 40mm						
EMC	EN55011/EN55032,FCC 47:Class B						
Safety Standard	IEC60601-1&IEC62368-1						

Model Name

PFS

Series Name

1500

Rated Power

T

Connector Type
T: Screw Terminal

24

Output Voltage

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Control Code
AA: Standard Model

SPECIFICATIONS

All specifications are for rated input/output and 25°C unless otherwise specified

INPUT CHARACTERISTICS

Function	Minimum	Typical	Maximum	Condition
Rated Input Voltage	100 VAC		240 VAC	
Input Voltage Range	85 VAC		264 VAC	Output Power Derating from 100% load at 90VAC to 85% load at 85VAC. See Fig.1
Input Frequency	47 Hz	50/60 Hz	63 Hz	
Input Current			18A	
Power Factor	0.95			
Efficiency		95%		230VAC, Excluding Fan Power
Inrush Current			30 A	240VAC Input, Cold Start
Input Surge Voltage			300Vac	Last for 1 Second

OUTPUT CHARACTERISTICS

Function	Minimum	Typical	Maximum	Condition
Output Power	0		1500W	
Output Voltage Total Regulation			±3%	Including initial tolerance, line regulation and load regulation
Output Ripple & Noise			1%	Peak to peak value
Dynamic Response			5%	With 50% loading step
Turn on delay Time			2s	
Rise Time			50ms	Without cap loading
Holdup Time	10ms			115VAC 60Hz Input
Standby Output Voltage	4.75V	5V	5.25V	
Standby Output Current	0	2.0A		

PROTECTION CHARACTERISTICS

Function	Minimum	Typical	Maximum	Condition
Input Under Voltage		80Vac		Auto-restart after fault condition is removed
Over Current Protection (OCP)	110% Rated Current		130% Rated Current	Auto-restart after fault condition is removed
Short Circuit Protection (SCP)				Auto-restart after fault condition is removed
Over Voltage Protection (OVP)			130% Rated Output Voltage	Latch off
Over Temperature Protection (OTP)				Latch off

ENVIRONMENTAL

Function	Minimum	Typical	Maximum	Condition
Operation Ambient Temperature	-30 °C		70 °C	Output Power Derating from 100% load at 50°C to 50% load at 70°C. See Fig.2
Cooling				Convection Cooled
Operation Humidity	5% RH		95% RH	Non-condensing
Storage Ambient Temperature	-40 °C		80 °C	
Storage Humidity	5% RH		95% RH	Non-condensing
Operating Altitude			5000 m	Or 16,400 feet
Shock (Non-Operation)			50 g	11ms, 3 shocks for each direction
Vibration (Operation)			2 g _{RMS}	5-500Hz, 15 Minutes for each three axis
Weight			1.4KG	

EMC

Item	Description
Conducted Emissions	EN55011/EN55022, FCC TITLE 47: Class B
Radiated Emissions	EN55011/EN55022, FCC TITLE 47: Class B
Harmonic Current Emissions	IEC61000-3-2, Class A Limit
Voltage Flicker	IEC61000-3-3
Electrostatic Discharge	IEC61000-4-2, Level 4, Criteria A. Air Discharge 15kV, Contact Discharge 8kV
Radiated Field	IEC61000-4-3, Criterion A
Electrical Fast Transient/Burst	IEC61000-4-4, Criterion A. 2kV
Surge	IEC61000-4-5, Level 3 Criteria A. Common mode 2kV, Differential Mode 1kV
CS	IEC61000-4-6, Level 2 Criteria A. 150kHz-80MHz, 3Vrms, 6Vrms at ISM Band and Amateur radio bands
Power Frequency Magnetic Fields	IEC61000-4-8, Criteria A. 30A/m
Voltage Dips	IEC61000-4-11 Criteria A: 30% 10ms, Criteria B: 60% 100ms, 100% 5000ms
	IEC60601-1-2 Criteria A: 1000W or lower, 0% UT, 0.5 cycle(10ms) (0°, 45°, 90°, 135°, 180°, 225°, 270°, 315°, 360°) Criteria B: Can meet Criterion A with 800W or lower load 0%UT, 1 cycle(20ms), 0°, 70%UT, 25 cycles(500ms), 0°, 0%UT, 250 cycles(5000ms), 0°

SAFETY & DIRECTIVES

Item	Description
Safeties	IEC62368-1 CB Report, TUV62368-1, CSA/UL62368-1 IEC60601-1 3 rd edition+A1 TUV EN60601-1:2006, UL60601-1+CAN/CSA C22.2 NO.60601-1
Directives	MDD Directive 93/42/EEC RoHS Directive 2011/65/EU Compliant
Dielectric Voltage	Primary to Secondary (2XMOPP): 4kVAC
Touch Current @264VAC, 60Hz	<100uA @ Normal Condition <300uA @ Single Fault Condition

RELIABILITY

Function	Minimum	Typical	Maximum	Condition
MTBF	500 kHours			According to Telecordia SR-332 115Vac 25°C ambient with rated load
Life	5 years			Rated nominal conditions

DERATING CURVE

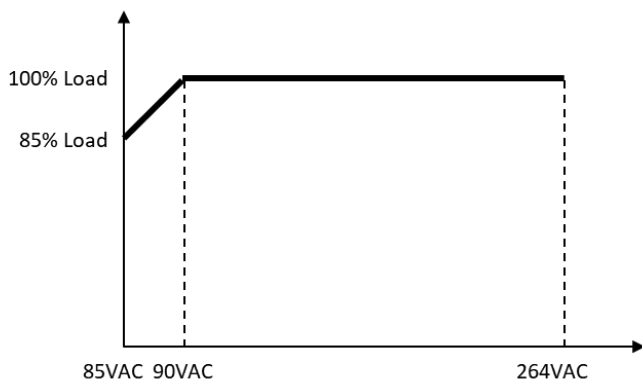


Figure 1

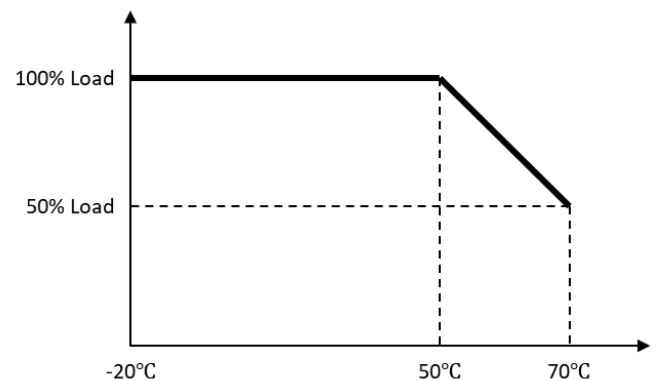


Figure 2

MECHANICAL DETAIL

To Be Added

Dimensions in mm(inches)
Tolerances:
x.x = ± 0.5 (x.x = ± 0.02)

Connector/Pin Assignment

To Be Added

CONTACTS & OTHER INFORMATION

For more information, please visit www.appliedpsu.com

For sales inquiries, please send an email to sales@appliedpsu.com

User manual and other document available at www.appliedpsu.com/support

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Note: Remove this page before release

Revision History

Version	Date	Change Description	Prepared by
A00	2021/11/23	Initial Draft	

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