

# CFM1600H

S E R I E S

## 1600 WATT SINGLE OUTPUT AC-DC MODULES WITH PFC



### Features

- 1U Low Profile, High Power Density
- Universal Input: 90~264VAC
- Active PFC Meets EN61000-3-2
- Meets CISPR/FCC Class B
- High Efficiency at 90% Typical
- PS ON/OFF Remote Control
- +5V Stand-by Output Power
- Fan Speed Control Function (Option)
- Active Current Sharing
- Hot Swap Redundancy
- Build-in ORing FETs
- I<sup>2</sup>C Bus Interface
- Optional 1U x 19" Power Rack

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT (A)	RIPPLE & NOISE NOTE 1	VOLTAGE ADJ. RANGE	VOLTAGE ACCURACY NOTE 2	LINE REG. NOTE 3	LOAD REG. NOTE 4	%EFF (Typ.) NOTE 5
		RATED @ 180~264Vac RATED@90~132Vac						
CFM1600H-480-24P	<b>Main Output</b>							
	+48 V	33.4	1%	45.6~52.8 V	± 1%	± 1%	± 1%	90%
		25.0						
	<b>Standby Output Voltage</b>							
+5 V	1	100mVp-p	----	----	± 1%	± 1%	----	
CFM1600H-240-24P	<b>Main Output</b>							
	+24 V	60	1%	22.8~26.4 V	± 1%	± 1%	± 1%	88%
		50						
	<b>Standby Output Voltage</b>							
+5 V	1	100mVp-p	----	----	± 1%	± 1%	----	

## Specifications

### INPUT SPECIFICATIONS:

AC Input Voltage..... 90~264Vac  
 Frequency ..... 47 to 63Hz  
 Inrush Current..... 40A max. @230Vac  
 Conducted EMI ..... CISPR/FCC Class B  
 Leakage Current..... 3.5mA max.

### OUTPUT SPECIFICATIONS:

Total Rated output ..... 1200W(@90~132Vac)  
 1600W(@180~264Vac)  
 Current Share ..... Single wire Current Sharing  
 Adjustment Range on Vout ..... +10%, -5%  
 Remote Voltage Sense ..... Compensates for wire Voltage drop  
 Hold-up Time ..... 20ms typ.  
 Over Voltage Protection ..... Recycle AC input to Restart  
 Short Circuit Protection ..... Auto Recovery  
 Temperature Coefficient .....  $\pm 0.05\%/^{\circ}\text{C}$

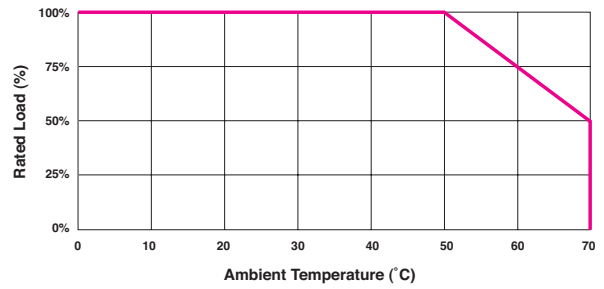
### GENERAL SPECIFICATIONS:

Isolation ..... Input to output = 4242VDC  
 Operating Temperature ..... 0~70°C (see Derating Curve)  
 PSU will be in thermal protection for exceeding the rated power  
 output or the operating temperature  
 Storage Temperature ..... -20~85°C  
 Humidity ..... 93% RH max. Non condensing  
 Switching Frequency ..... 125KHz Typical  
 MTBF ..... MIL-HDBK-217F, GB, 25°C/115VAC ..... 70K hrs min.  
 Altitude ..... 2000m  
 Dimensions ..... 11.52x5.54x1.63 inches (292.6x140.7x41.5 mm)  
 Weight..... 2470g (5.45 Pounds)

### SAFETY AND EMC:

Emission and Immunity ..... EN55022 Class B, FCC Part15 Class B  
 EN61000-6-3, EN61000-3-2, EN61000-3-3  
 EN55024, EN61204-3, EN61000-6-1  
 Safety ..... IEC60950-1, EN60950-1, UL60950-1

## CFM1600H Series Derating Curve

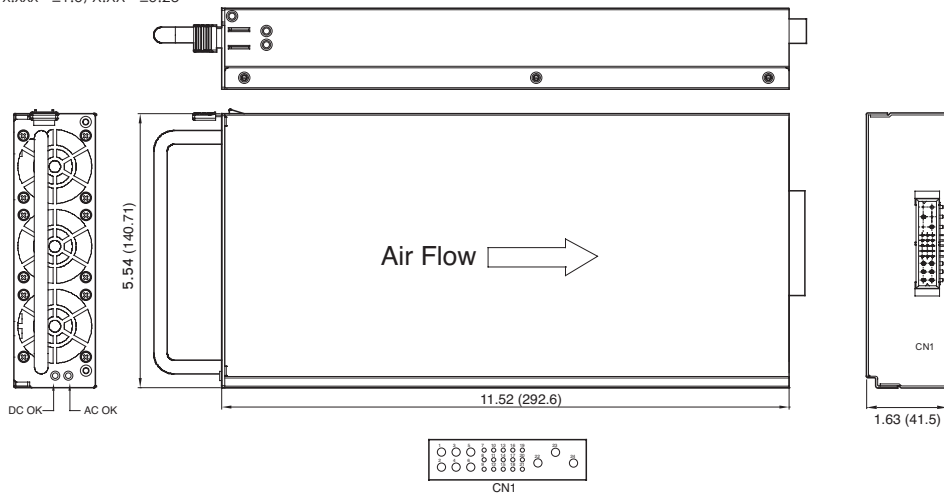


### NOTE:

1. Add a 0.1μF ceramic capacitor and a 47μF E.L. capacitor to output for Ripple & Noise measuring @20MHz BW.
2. Voltage accuracy is set at 60% rated load and 25°C.Ta.
3. Line regulation is measured from High Line to Low Line with rated load.
4. Load regulation is measured at 60%±40% rated load.
5. Suffix"-F" to model number with fan speed control function.
6. Typical efficiency at 230 VAC an full load at 25°C.

## Mechanical Specification

All Dimensions In Inches(mm)  
 Tolerance Inches: x.xxx= ±0.04, X.XXX= ±0.010  
 Millimeters: x.xxx= ±1.0, X.XX= ±0.25



CN1: Positronic PCB24W9M400A1 or Equivalent PIN CONNECTION

1	-Vout	7	ON/OFF	13	I <sup>2</sup> C-A2	19	SB_GND
2	-Vout	8	I <sup>2</sup> C-A1	14	+SENSE	20	DC_OK
3	+Vout	9	L_SHARE	15	I <sup>2</sup> C-SCL	21	V_TRIM
4	-Vout	10	I <sup>2</sup> C-A0	16	+5VSB	22	PE
5	+Vout	11	-SENSE	17	AC_OK	23	N
6	+Vout	12	I <sup>2</sup> C-SDA	18	OTPW	24	L

MATING CONNECTOR: Positronic PCB24W9F400A1 or Equivalent  
 Note: 1. Pin7 is Short Pin 2. Pull Down Pin7 to Activate the PSU