CFM260S SERIES
260 WATT OPEN FRAME AC-DC MODULES

Features

- Universal Input Range 85~264Vac
- 220W with Natural Convection
- 260W with Fan-Cooled
- 2"x 4" Compact Size @CFM260SXXX
- No Load Input Power Consumption<0.2W
- High Efficiency up to 93.5% Typical
- 12V Fan Output
- Continuous Short Circuit Protection
- Over Temperature Protection
- Operating Altitude 5000m
- Meets EN55032 (Class B)
- IEC/EN/UL 62368-1 Approval
- Meets IEC/EN 60335-1
- Meets Class I

E176177

MODEL NUMBER	OUTPUT VOLTAGE	OUTPUT CURRENT NOTE1				VOLTAGE ACCURACY NOTE2	RIPPLE& NOISE NOTE3	VOLTAGE ADJ. RANCE	LINE REGULATION NOTE4	LOAD REGULATION NOTE5	%EFF. (Typ)
		With Fan	Without Fan								
			Cover	Base	Open						
CFM260S120	12 V	21.67A	18.34A	15.84A	11.67A	±1%	1%	11.4~12.6 V	±0.5%	±1%	92%
CFM260S240	24 V	10.83A	9.17A	7.92A	5.83A	±1%	1%	22.8~25.2 V	±0.5%	±1%	93.5%
CFM260S360	36 V	7.22A	6.11A	5.28A	3.89A	±1%	1%	34.2~37.8 V	±0.5%	±1%	93%
CFM260S480	48 V	5.42A	4.58A	3.96A	2.92A	±1%	1%	45.6~50.4 V	±0.5%	±1%	93.5%
Fan Output Voltage											
All	+12V	0.3A (NOTE 6)				---	---	---	---	---	---

Note:
1. Forced Air Convection with Fan. (Open Frame with 19CFM, Base & Case with 10 CFM)
2. Voltage Accuracy is Set at 60% Rated Load.
3. Add a 0.1uF Ceramic Capacitor and a 10uF E.L. Capacitor to Output for Ripple & Noise Measuring @20MHz BW
4. Line Regulation is Measured from High Line to Low Line with Rated Load.
5. Load Regulation is Measured from Full to 10% Rated.
6. Fan Output can only Operate Normal when the main Output is above 1A.

PART NUMBER

Series	Number of Outputs	Nominal Output Voltage	Type
CFM260	O	XXX	Y (Option)
CFM260	S: Single	120: 12VDC 240: 24VDC 360: 36VDC 480: 48VDC	None: Open Frame B: With Base C: With Cover

Part Number Example:

CFM260S120: Open Frame, 260W, Single 12Vdc Output
CFM260S120B: With Base , 260W, Single 12Vdc Output
CFM260S120C: With Case , 260W, Single 12Vdc Output

TECHNICAL SPECIFICATIONS

(All specifications are typical at nominal input, full load at 25°C unless otherwise noted.)

ABSOLUTE MAXIMUM RATINGS

PARAMETER	NOTES and CONDITIONS	Device	Min.	Typ.	Max.	Units
Input Voltage	Safety approvals only to the AC input	All	85		264	V_{ac} V_{dc}
Operating Temperature	See Derating Curve	All	-30		80	°C
Storage Temperature		All	-40		85	°C
Operating Altitude	IEC/EN/UL 62368-1 Meets EN 60335-1	All			5000 5000	m

INPUT CHARACTERISTICS

PARAMETER	NOTES and CONDITIONS	Device	Min.	Typ.	Max.	Units
Operating Voltage Range		All	100		240	V_{ac}
Input Frequency Range		All	47		63	Hz
Maximum Input Current	100% Load, V_{in}=100Vac	All			3.5	A
Leakage Current		All			3.5	mA
Inrush Current	V_{in}=240Vac, Cold Start at 25℃.	All			150	A

OUTPUT CHARACTERISTICS

PARAMETER	NOTES and CONDITIONS	Device	Min.	Typ.	Max.	Units
Output Voltage Set Point	V_{in}=Nominal V_{in}, I_o=Io max., Ambient Temperature=25℃.	CFM260S120 CFM260S240 CFM260S360 CFM260S480	11.88 23.76 35.64 47.52	12 24 36 48	12.12 24.24 36.36 48.48	V_{dc}
Operating Output Current Range	See Derating Curve	CFM260S120 CFM260S240 CFM260S360 CFM260S480			21.67 10.83 7.22 5.42	A
Holdup Time	V_{in}=115Vac	All		16		ms
Output Voltage Regulation						
Load Regulation	10% Load to Full Load	All			±1.0	%
Line Regulation	V_{in}=High Line to Low Line	All			±0.5	%
Over Voltage Protection	Clamp Output Voltage	CFM260S120 CFM260S240 CFM260S360 CFM260S480			16 35 50 63	V_{dc}
Output Ripple and Noise	1. Add a 0.1uF Ceramic Capacitor and a 10uF Aluminum Electrolytic Capacitor to Output. 2. Oscilloscope is 20MHz Band Width. 3. Ambient Temperature=25℃	CFM260S120 CFM260S240 CFM260S360 CFM260S480			120 240 360 480	mV
Load Capacitance	1. Ambient Temperature=25℃ 2. Input Voltage is 115VAC and 230VAC 3. Output is max. Load	CFM260S120 CFM260S240 CFM260S360 CFM260S480			22000 10880 7220 3960	uF
Efficiency	1. Output is Rated Load 2. Ambient Temperature=25℃ 3. Input Voltage is 230VAC	CFM260S120 CFM260S240 CFM260S360 CFM260S480		92.0 93.5 93.0 93.5		%

ISOLATION CHARACTERISTICS

PARAMETER	NOTES and CONDITIONS	Device	Min.	Typ.	Max.	Units
Input to Output	1 minute	All			3000	V_{ac}
Isolation Resistance	Input to Output	All	100			MΩ

FEATURE CHARACTERISTICS

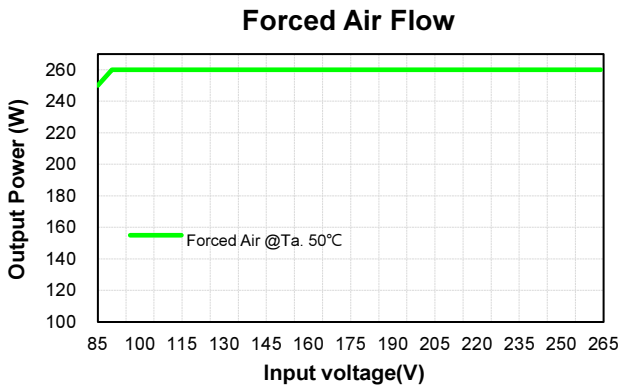
PARAMETER	NOTES and CONDITIONS	Device	Min.	Typ.	Max.	Units
Switching Frequency		All		100		KHz

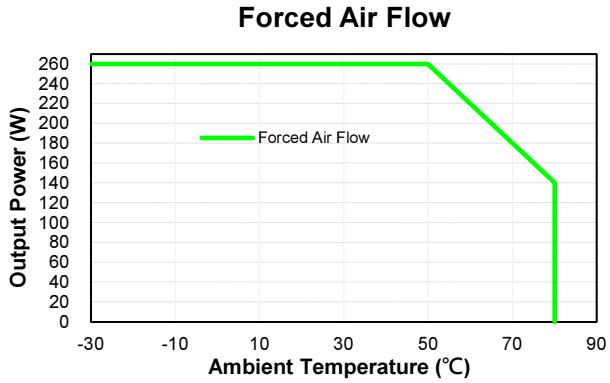
GENERAL SPECIFICATIONS

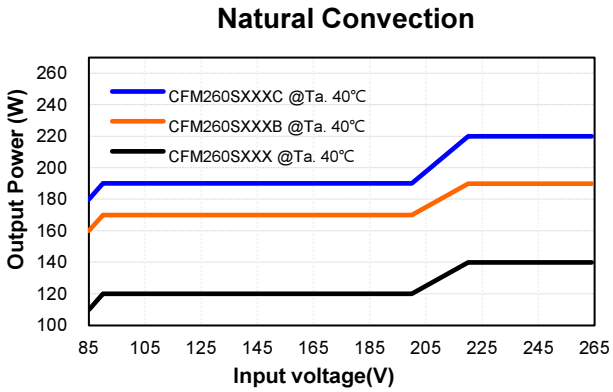
PARAMETER	NOTES and CONDITIONS	Device	Min.	Typ.	Max.	Units
MTBF	I_o=100%; T_a=25℃ per MIL-HDBK-217F	All	270			K hours
Humidity	Non-condensing	All			93	% RH
Shock	Meets MIL-STD-810F Table 516.5,Table 516.5-I 10ms, each axis 3 times(±X、±Y、±Z axis)	All		75		g
Vibration	Meets MIL-STD-810F Table 514.5C-VIII,15~2000Hz, X、Y、Z axis, 1 hour (each axis),. Total 3 hrs.	All		4		g
Weight	Open Frame Versions Baseplate Versions Covered versions	All		245 280 332		grams
Dimensions	Open Frame	All	4.000x2.000x1.441 Inches (101.60x50.8x36.60mm)			
	B (with Base)	All	4.598x2.000x1.520 Inches (116.80x50.8x38.60mm)			
	C (with Cover)	All	4.598x2.520x1.594 Inches (116.80x64.00x40.50mm)			
Safety	Class I, IEC/EN/UL62368-1					
EMC Emission	EN55032 Class B, 47 CFR FCC Part 15 Subpart B, Oct.2014 EN61000-3-2:2014, EN61000-3-3:2013, EN61000-6-3:2012, EN61000-6-4:2011, EN61204-3:2000					Class B
Conducted Disturbance	EN55032, EN61204-3:2000, EN61000-6-3:2012, EN61000-6-4:2011, Class B, 47 CFR FCC Part 15 Subpart B					Class B
Radiated Disturbance	EN55032, EN61204-3:2000, EN61000-6-3:2012, EN61000-6-4:2011, Class B, 47 CFR FCC Part 15 Subpart B					Class B
Harmonic Current Emissions	EN61000-3-2:2014					
Voltage Fluctuations & Flicker	EN61000-3-3:2013					
EMC Immunity	EN55035, EN61204-3:2000, EN61000-6-1:2019, EN61000-6-2:2019					
Electrostatic Discharge (ESD)	IEC 61000-4-2:2008, Air Discharge: ±8kV, Contact Discharge: ±4kV					Criterion A
Radio-Frequency, Continuous Radiated Disturbance	IEC 61000-4-3:2010					Criterion A
Electrical Fast Transient (EFT)	IEC61000-4-4:2012, ±1kV, ±2kV					Criterion A
Surge	IEC61000-4-5:2014, L-N: ±0.5kV, ±1kV, L-E(Ground): ±0.5kV, ±1kV, ±2kV					Criterion A
Conducted Disturbances, Induced by RF Fields	IEC 61000-4-6:2013					Criterion A
Power Frequency Magnetic Field	IEC 61000-4-8:2009					Criterion A
Voltage Dips	IEC 61000-4-11:2004, Dip: 30% Reduction, Dip >95% Reduction					Criterion A
Voltage Interruptions	IEC 61000-4-11:2004, >95% Reduction					Criterion B
Application Note Link	CFM260S Series App Notes					

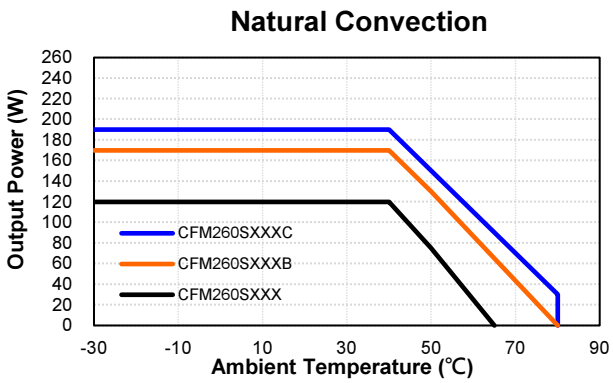
CHARACTERISTIC CURVE

Power Derating Curve

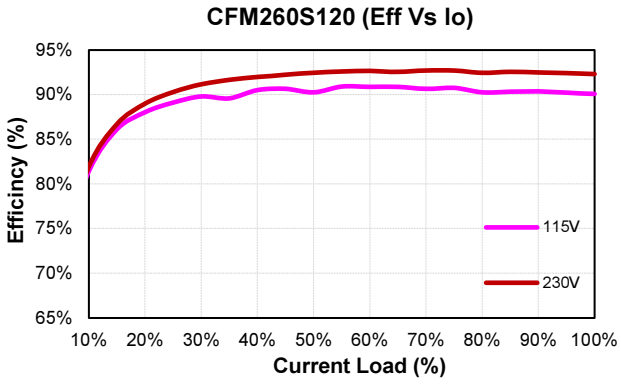


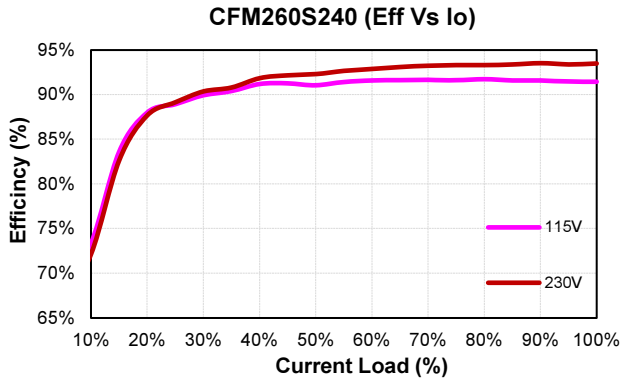


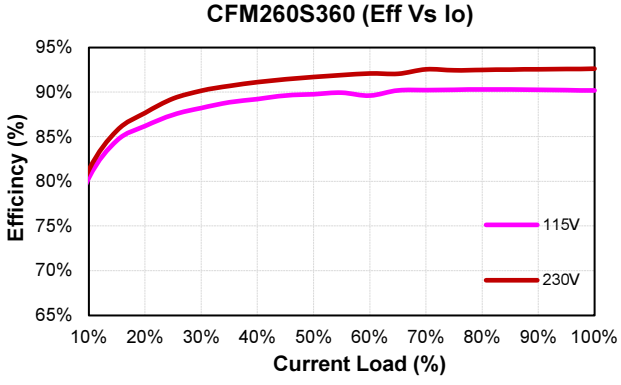


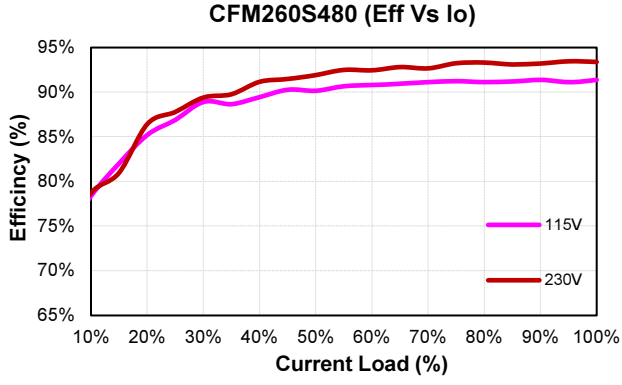


Performance Data



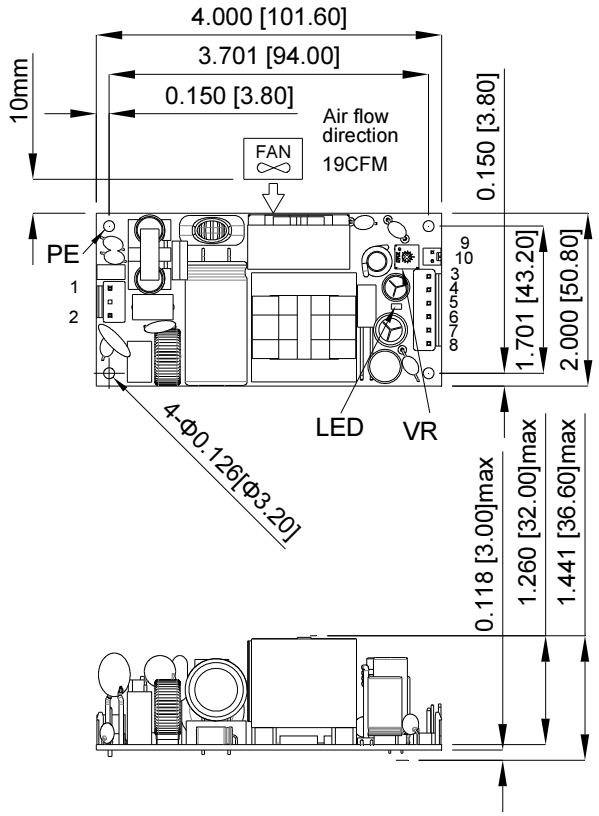




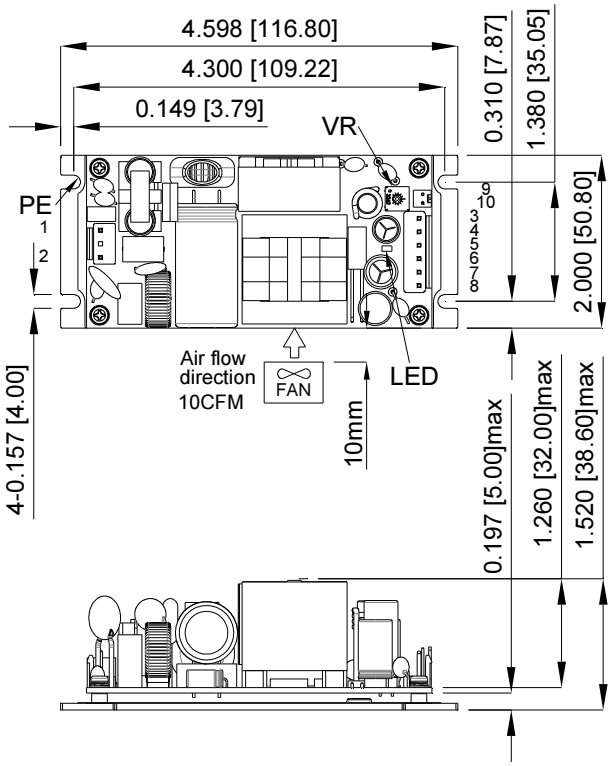


MECHANICAL SPECIFICATION

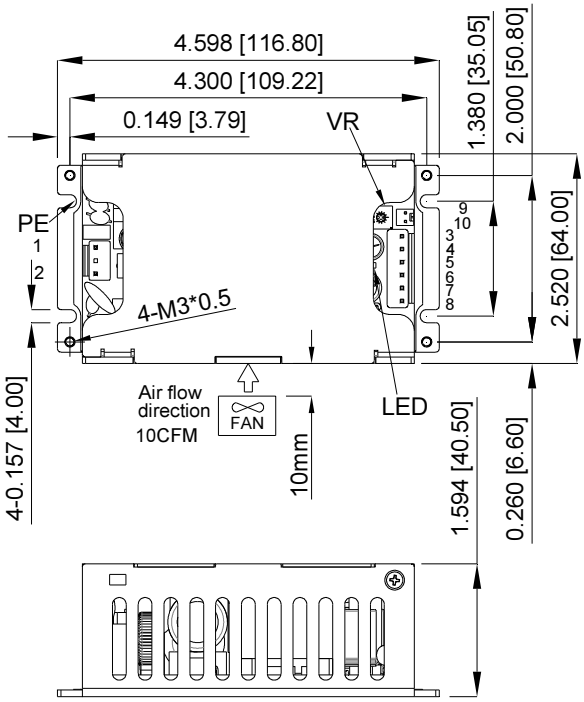
CFM260SXXX



CFM260SXXXB

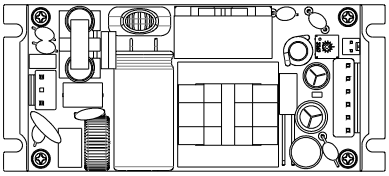


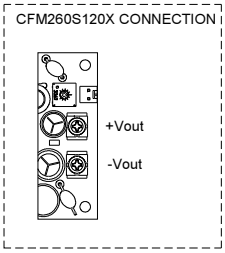
CFM260SXXXC



PIN CONNECTION					
Pin	Function	Pin	Function	Pin	Function
1	ACL	5	+Vout	9	+Fan Output
2	ACN	6	-Vout	10	-Fan Output
3	+Vout	7	-Vout		
4	+Vout	8	-Vout		

All Dimensions In Inches[mm]
Tolerance Inches:x.xxx= ± 0.02
Millimeters: x.xx = ± 0.5





ALL PSU Ltd, Unit D6 Laser Quay, Culpeper Close, Medway City Estate,
Rochester, Kent, ME2 4HU, Tel : 01634 725527, Fax : 01634 739111
Email : sales@allpsu.co.uk, Web : www.allpsu.co.uk