

**SERIES:** CFM-80S | **DESCRIPTION:** DC AXIAL FAN**FEATURES**

- 80 x 80 mm frame
- multiple speed options for different cooling needs
- auto restart protection standard on all models
- 12 Vdc and 24 Vdc models available
- sleeve bearing construction



MODEL	input voltage		input current <sup>1</sup>	input power <sup>1</sup>	rated speed <sup>1</sup>	airflow <sup>2</sup>	static pressure <sup>3</sup>	noise <sup>4</sup>
	rated (Vdc)	range (Vdc)	max (A)	max (W)	typ (RPM±10%)	(CFM)	(inch H <sub>2</sub> O)	typ (dBA)
CFM-8038S-130-387	12	10.8~13.2	0.24	2.88	3,000	37.06	0.21	38.7
CFM-8038S-140-449	12	10.8~13.2	0.38	4.56	4,000	49.42	0.37	45.0
CFM-8038S-150-498	12	10.8~13.2	0.60	7.20	5,000	61.77	0.58	49.8
CFM-8038S-230-387	24	21.6~26.4	0.15	3.60	3,000	37.06	0.21	38.7
CFM-8038S-240-449	24	21.6~26.4	0.24	5.76	4,000	49.42	0.37	45.0
CFM-8038S-250-498	24	21.6~26.4	0.45	10.80	5,000	61.77	0.58	49.8

Notes:

1. At rated voltage, after 3 minutes.
2. At rated voltage, room temperature, 65% humidity, 0 inch H<sub>2</sub>O static pressure.
3. At rated voltage, 0 CFM airflow.
4. Measured in an anechoic chamber as per ISO3745/GB4214-84 at rated voltage, with background noise 20±2 dBA at 1 m from the fan intake.
5. All specifications are measured at 25°C, 65% relative humidity unless otherwise specified.

## INPUT

parameter	conditions/description	min	typ	max	units
operating input voltage <sup>6</sup>	12 Vdc input models	10.8	12	13.2	Vdc
	24 Vdc input models	21.6	24	26.4	Vdc
starting voltage	12 Vdc input models		7.0		Vdc
	24 Vdc input models		14.0		Vdc

Note: 6. See Model section on page 1 for specific input voltage ranges.

## PERFORMANCE<sup>7</sup>

parameter	conditions/description	min	typ	max	units
rated speed	at rated voltage, 25°C, after 3 minutes	3,000		5,000	RPM
air flow	at 0 inch H <sub>2</sub> O, see performance curves	37.06		61.77	CFM
static pressure	at 0 CFM, see performance curves	0.21		0.58	inch H <sub>2</sub> O
noise	at 1 m, rated speed	38.7		49.8	dBa

Note: 7. See Model section on page 1 for specific values.

## PROTECTIONS / FEATURES

parameter	conditions/description	min	typ	max	units
auto restart	on all models				

## SAFETY & COMPLIANCE

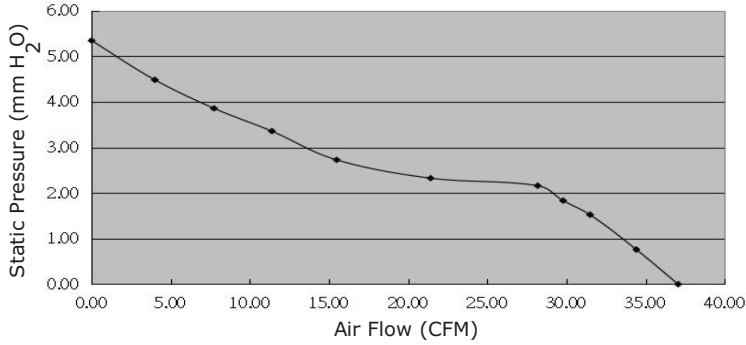
parameter	conditions/description	min	typ	max	units
insulation resistance	at 500 Vdc between frame and positive terminal	10			MΩ
dielectric strength	at 500 Vac, 60 Hz, 1 minute between housing and positive terminal			5	mA
safety approvals	UL/cUL 507, TUV (EN 60950-1:2006+A11+A1+A12+A2)				
EMI/EMC	EN 55032:2015, EN 55024:2010+A1				
life expectancy	at 25°C, 65% RH, 90% confidence level		30,000		hours
RoHS	yes				

## ENVIRONMENTAL

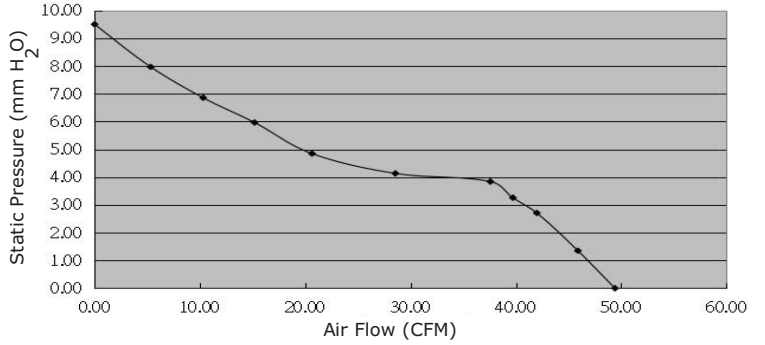
parameter	conditions/description	min	typ	max	units
operating temperature		-10		70	°C
storage temperature		-40		75	°C
operating humidity	non-condensing	35		85	%
storage humidity	non-condensing	35		85	%

## PERFORMANCE CURVES

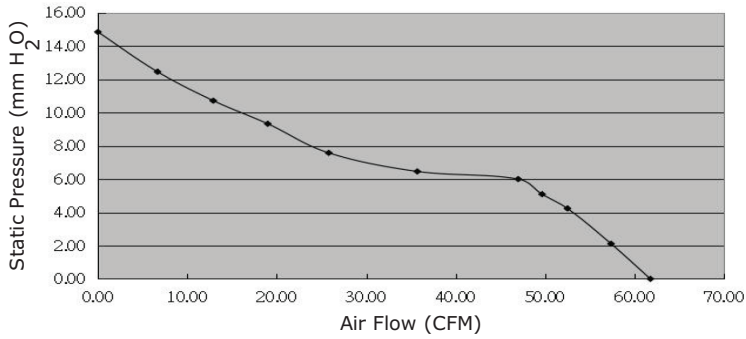
**CFM-8038S-130-387**



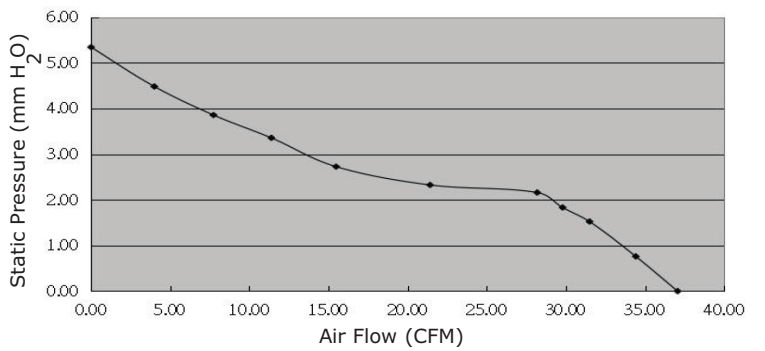
**CFM-8038S-140-449**



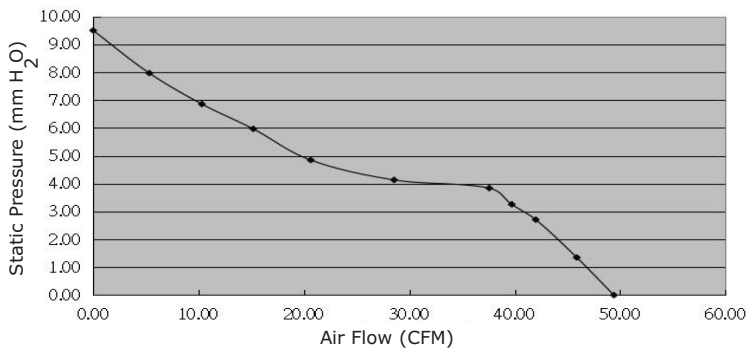
**CFM-8038S-150-498**



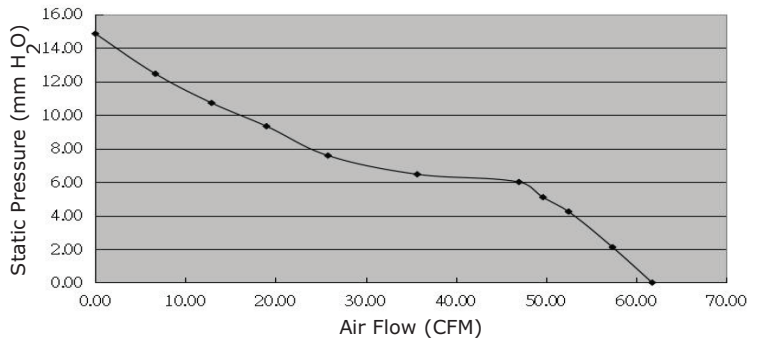
**CFM-8038S-230-387**



**CFM-8038S-240-449**



**CFM-8038S-250-498**



## MECHANICAL

parameter	conditions/description	min	typ	max	units
motor	4 pole DC brushless				
bearing system	sleeve bearing				
direction of rotation	counter-clockwise viewed from front of fan blade				
dimensions	80 x 80 x 37.6				mm
material	PBT (UL94V-0)				
weight			180		g

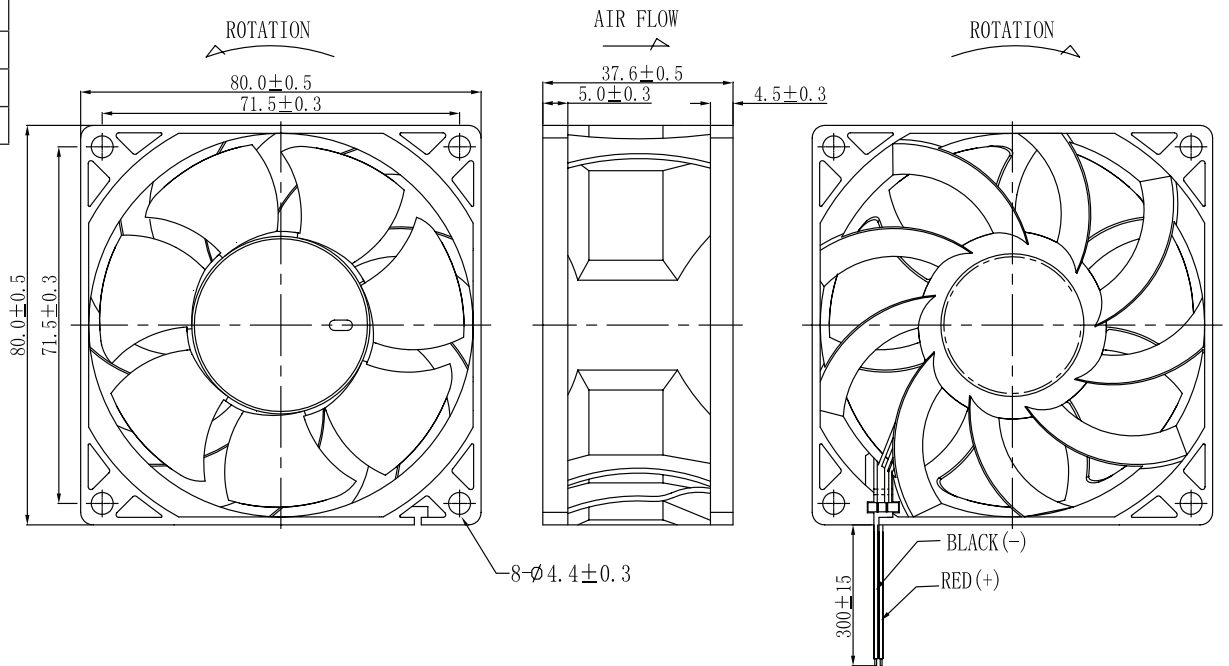
## MECHANICAL DRAWING

units: mm

wire: UL 1007, 24 AWG

MOUNTING SCREW (Pan Head)			
Screw Type	Size	Standard	Torque
Machine Screw	M4	JIS B1111-1974	5.5 kgf-cm
Self-tapping Screw	M5	JIS B1122 Type 2	5.5 kgf-cm

WIRE CONNECTIONS	
Wire Color	Function
Red	+Vin
Black	-Vin



## REVISION HISTORY

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rev.	description	date
1.0	initial release	04/14/2020

The revision history provided is for informational purposes only and is believed to be accurate.

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