



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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BRUSHLESS DC FANS

F412R

FEATURES

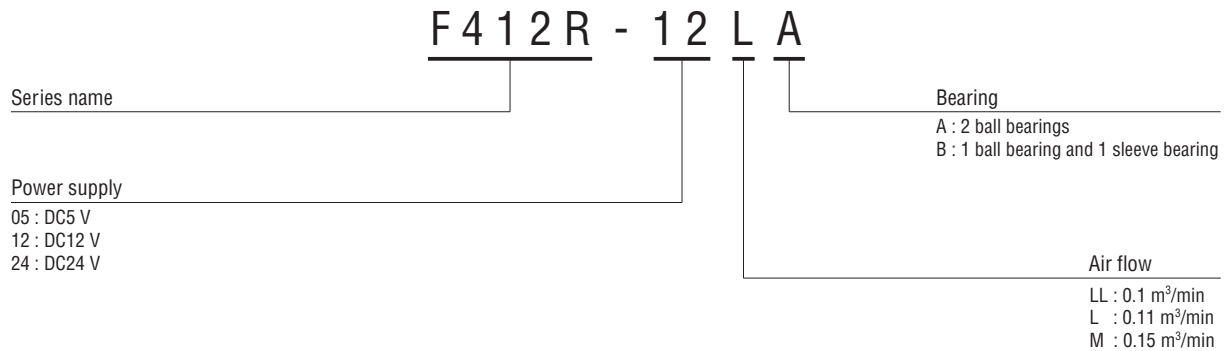
- Low noise 14 dB (A)
- Light weight (approx. 20 g)

STRUCTURE

- Frame and impeller
ABS/PBT alloy
- Bearing
A type : 2 ball bearings
B type : 1 ball bearing and 1 sleeve bearing



PART NUMBER DESIGNATION



LIST OF PART NUMBERS

Static pressure [Pa]	Noise [dB (A)]	Bearing	Power supply	Part number	
11.8	14	B	DC12 V	F412R-12LLB	
14.7	16		DC5 V	F412R-05LB	
			DC12 V	F412R-12LB	
			DC24 V	F412R-24LB	
25.5	23	B	DC5 V	F412R-05MB	
			DC12 V	F412R-12MB	
			DC24 V	F412R-24MB	
14.7	16	A	DC12 V	F412R-12LA	
			DC24 V	F412R-24LA	
25.5	23		A	DC12 V	F412R-12MA
				DC24 V	F412R-24MA

* : Verify the above part numbers when placing orders.

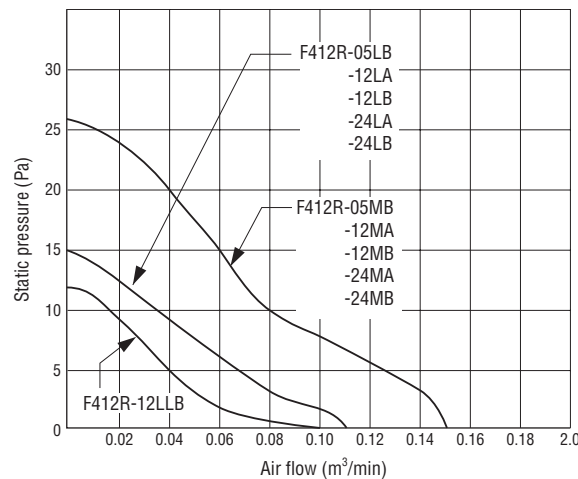
F412R BRUSHLESS DC FANS

STANDARD SPECIFICATIONS

Item	F412R-12LLB	F412R-05LB	F412R-05MB	F412R-12LA -12LB	F412R-12MA -12MB	F412R-24LA -24LB	F412R-24MA -24MB
Rated voltage	DC12 V	DC5 V		DC12 V		DC24 V	
Voltage range	10.2 ~ 13.8 V	4.5 ~ 5.7 V	4.2 ~ 5.7 V	10.2 ~ 13.8 V	10.2 ~ 13.8 V	20.4 ~ 27.6 V	20.4 ~ 26.4 V
Rated current	0.04 A	0.08 A	0.10 A	0.04 A	0.06 A	0.03 A	0.04 A
Rotating speed	3750 min ⁻¹	4200 min ⁻¹	5400 min ⁻¹	4200 min ⁻¹	5400 min ⁻¹	4200 min ⁻¹	5400 min ⁻¹
Air flow	0.1 m ³ /min	0.11 m ³ /min	0.15 m ³ /min	0.11 m ³ /min	0.15 m ³ /min	0.11 m ³ /min	0.15 m ³ /min
Static pressure	12 Pa	15 Pa	26 Pa	15 Pa	26 Pa	15 Pa	26 Pa
Noise	14 dB (A)	16 dB (A)	23 dB (A)	16 dB (A)	23 dB (A)	16 dB (A)	23 dB (A)
Net weight	Approx. 20 g						

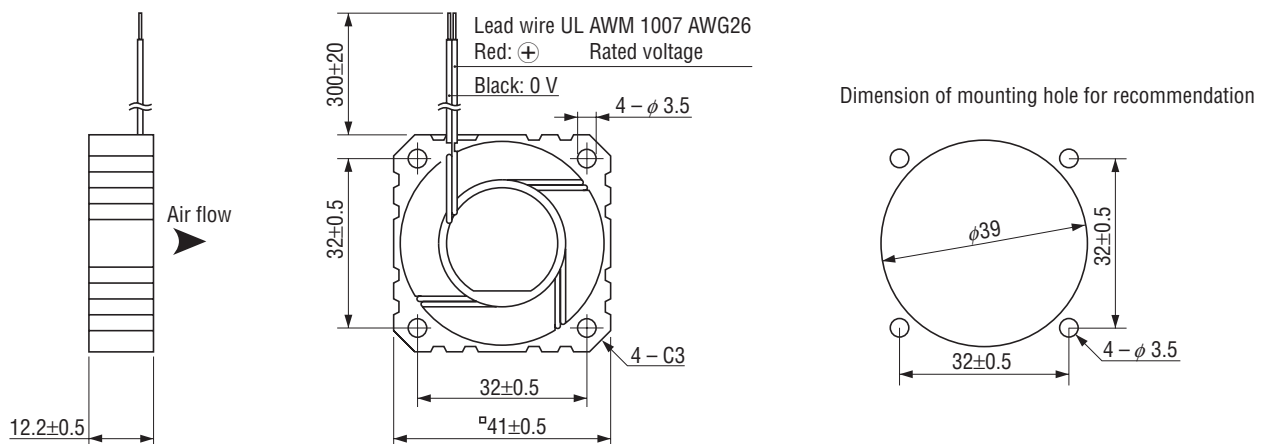
* : Figures in the table are typical values under rated operating condition.

AIR FLOW PERFORMANCE CURVES



OUTLINE DIMENSIONS

(Unit: mm)



Specifications are subject to change without notice. Specifications in this catalog are for reference. The formal specification sheets will be submitted upon request.