

BRUSHLESS DC FANS

# F412R

## FEATURES

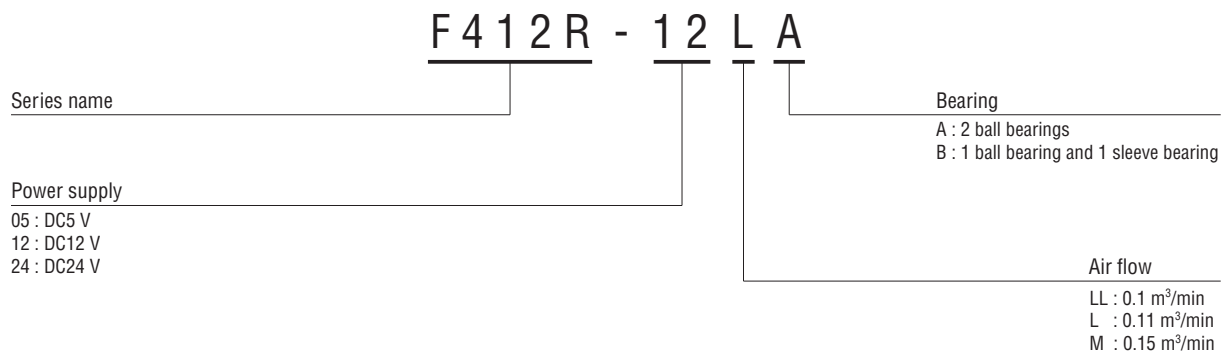
- Low noise 14 dB (A)
- Light weight (approx. 20 g)

## 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
			DC5 V	F412R-05LB
14.7	16		DC12 V	F412R-12LB
			DC24 V	F412R-24LB
25.5	23		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		DC12 V	F412R-12MA
			DC24 V	F412R-24MA

\* : Verify the above part numbers when placing orders.

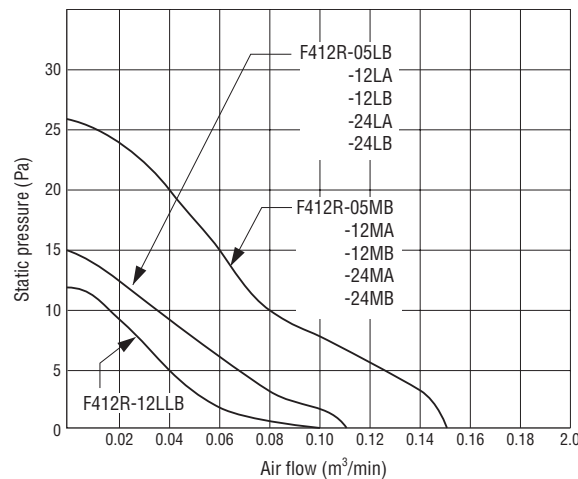
# F412R BRUSHLESS DC FANS

## 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 <sup>-1</sup>	4200 min <sup>-1</sup>	5400 min <sup>-1</sup>	4200 min <sup>-1</sup>	5400 min <sup>-1</sup>	4200 min <sup>-1</sup>	5400 min <sup>-1</sup>
Air flow	0.1 m <sup>3</sup> /min	0.11 m <sup>3</sup> /min	0.15 m <sup>3</sup> /min	0.11 m <sup>3</sup> /min	0.15 m <sup>3</sup> /min	0.11 m <sup>3</sup> /min	0.15 m <sup>3</sup> /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						

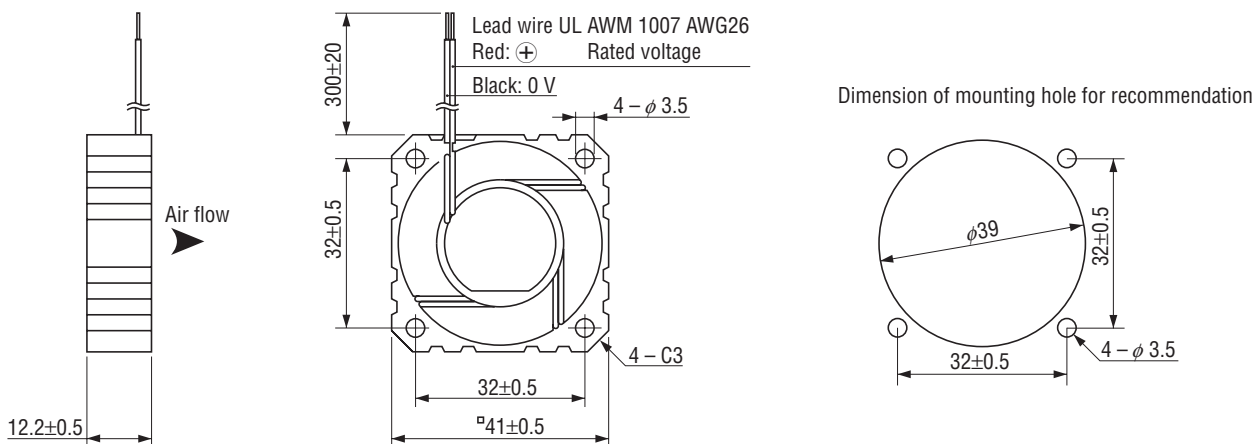
\* : Figures in the table are typical values under rated operating condition.

## 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.

## BRUSHLESS DC FANS

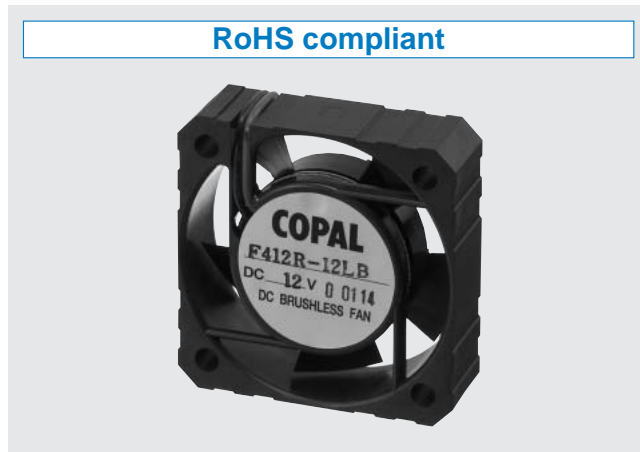
# F412R

### FEATURES

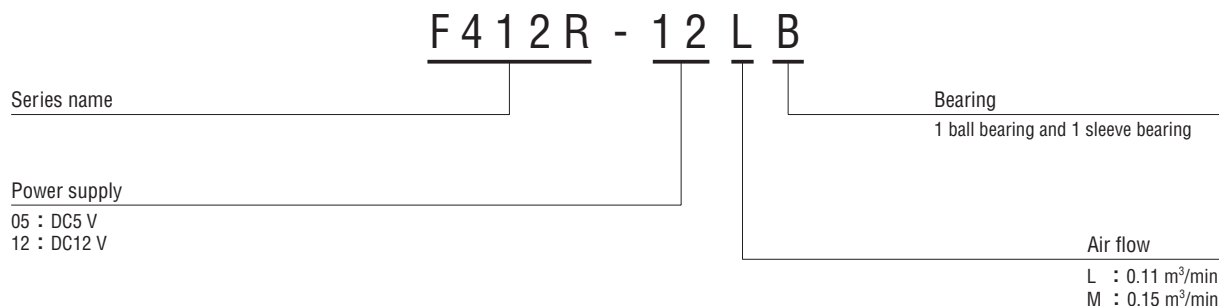
- Low noise 14 dB (A)
- Light weight (approx. 20 g)

### STRUCTURE

- Frame and impeller  
ABS/PBT alloy
- Bearing  
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
14.7	16	B	DC5 V	F412R-05LB
			DC12 V	F412R-12LB
25.5	23		DC5 V	F412R-05MB
			DC12 V	F412R-12MB

※ Verify the above part numbers when placing orders.

# F412R

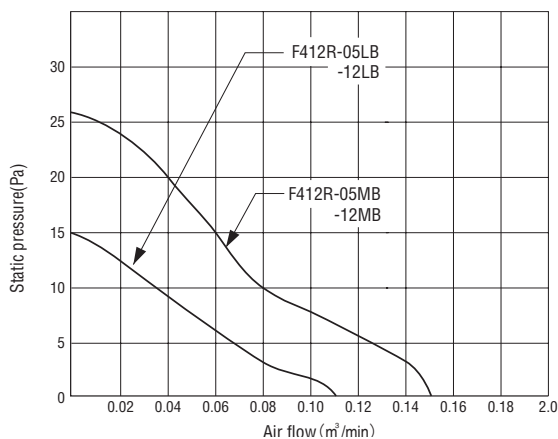
## BRUSHLESS DC FANS

### STANDARD SPECIFICATIONS

Item	F412R-05LB	F412R-05MB	F412R-12LB	F412R-12MB
Rated voltage	DC5 V		DC12 V	
Voltage range	4.5 ~ 5.7 V	4.2 ~ 5.7 V	10.2 ~ 13.8 V	10.2 ~ 13.8 V
Rated current	0.08 A	0.10 A	0.04 A	0.06 A
Rotating speed	4200 min <sup>-1</sup>	5400 min <sup>-1</sup>	4200 min <sup>-1</sup>	5400 min <sup>-1</sup>
Air flow	0.11 m <sup>3</sup> /min	0.15 m <sup>3</sup> /min	0.11 m <sup>3</sup> /min	0.15 m <sup>3</sup> /min
Static pressure	15 Pa	26 Pa	15 Pa	26 Pa
Noise	16 dB (A)	23 dB (A)	16 dB (A)	23 dB (A)
Use environment	-10 ~ +60 °C (35 ~ 85 %RH)			
Storage environment	-20 ~ +70 °C (35 ~ 85 %RH)			
Net weight	Approx. 20 g			

※The specifications above are typical values measured on the conditions of no-loading running with rated voltage in the circumstances of 25 °C ± 2 °C, 35~ 85 %RH. Please contact us if you would liketo check the specifications in different circumstances.

### AIR FLOW PERFORMANCE CURVES



### OUTLINE DIMENSIONS

(Unit: mm)

