

## BRUSHLESS DC FANS

## F412R

## ■ FEATURES

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

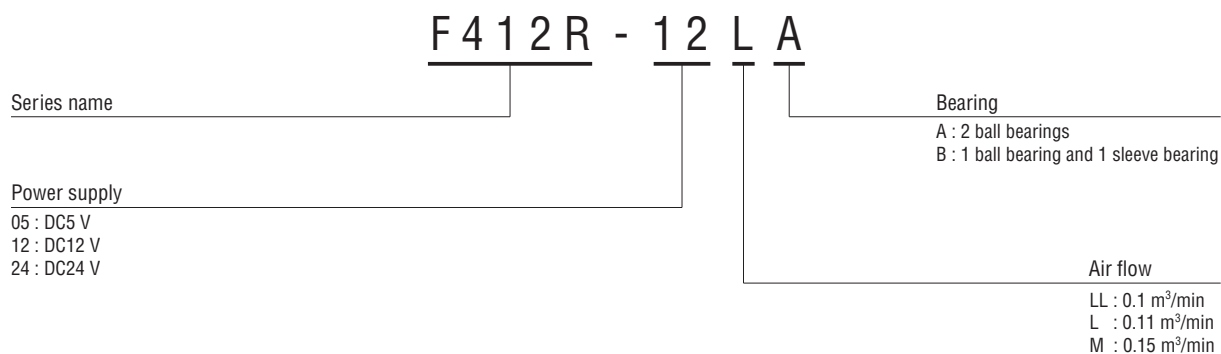
## ■ STRUCTURE

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

RoHS compliant



## ■ 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             |         | 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

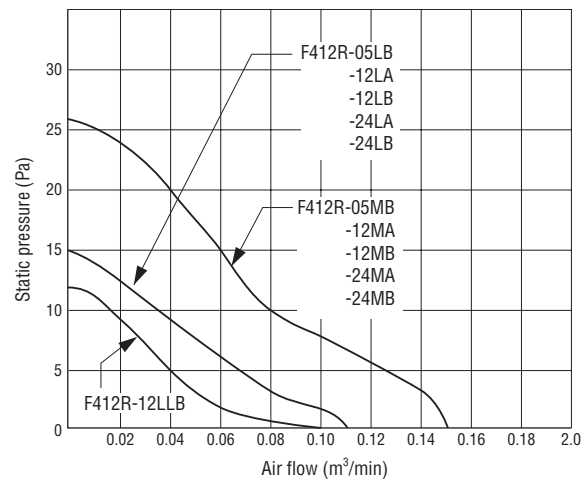
## BRUSHLESS DC FANS

### STANDARD SPECIFICATIONS

| Item            | F412R-12LLB             | F412R-05LB               | F412R-05MB               | F412R-12LA<br>-12LB      | F412R-12MA<br>-12MB      | F412R-24LA<br>-24LB      | F412R-24MA<br>-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            |                          |                          |                          |                          |                          |                          |

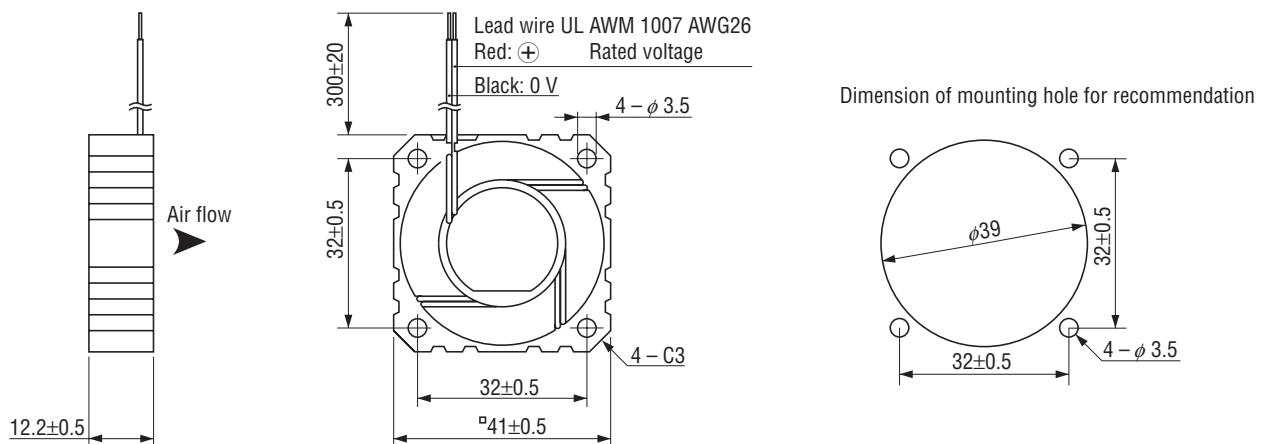
※ : Figures in the table are typical values under rated operating condition.

### 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.