

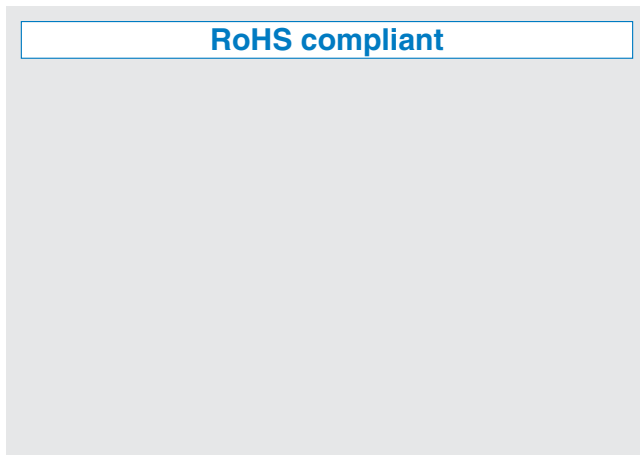
BRUSHLESS DC FANS

FEATURES

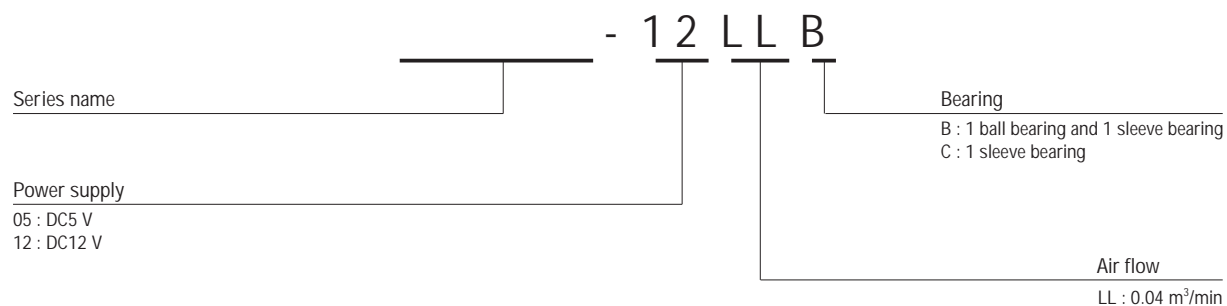
- FG signal type
- Low noise, 11 dB (A) type by the correct application of hydrodynamic design of impeller and frame
- Light weight (approx. 7 g)

STRUCTURE

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



PART NUMBER DESIGNATION



LIST OF PART NUMBERS

Power supply	Part number
DC5 V	-05LLB
DC12 V	-12LLB
	-12LLC

* : Verify the above part numbers when placing orders.

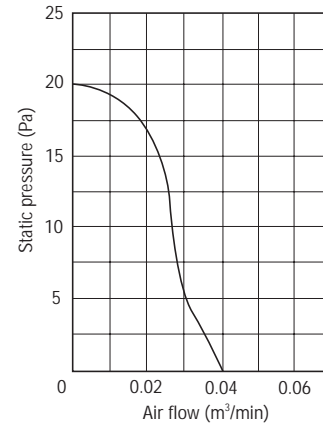
BRUSHLESS DC FANS

STANDARD SPECIFICATIONS

Item	-05LLB	-12LLB	-12LLC
Rated voltage	DC5 V	DC12 V	DC12 V
Voltage range	4.2 ~ 5.7 V	10.2 ~ 13.8 V	
Rated current	0.05 A	0.03 A	
Rotating speed	6500 min ⁻¹		
Air flow	0.04 m ³ /min		
Static pressure	20 Pa		
Noise	11 dB (A)		
Net weight	Approx. 7 g		

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

AIR FLOW PERFORMANCE CURVES



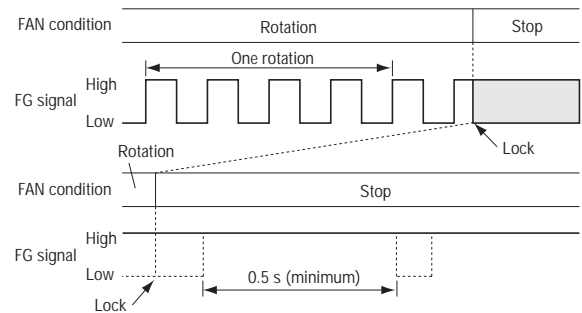
FG SIGNAL CHARACTERISTICS

Item	Specification
Output circuit	Open collector
Maximum output voltage	15 V
Maximum sink current	5 mA
Output saturation voltage (at Low)	V _{sat} : Maximum 0.4 V
Output (rotate)	4 pulses / rotation
Output (lock)	High or High/Low intermittent motion *
Time a High Signal (lock)	0.5 s minimum

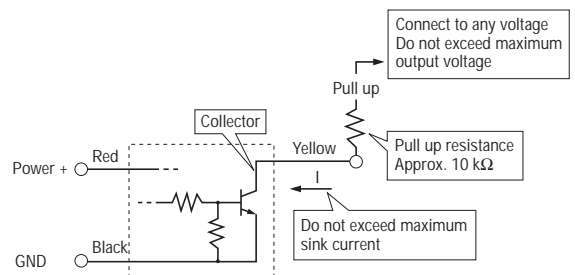
* : 2 conditions are possible according to the stop position of the impeller.

- ① "High" (Fixed) : Constantly "High"
- ② "High/Low" intermittent motion : "High" and "Low" switch at regular time intervals.
It is guaranteed that "high" continues over 0.5 seconds.

FAN condition and FG signal

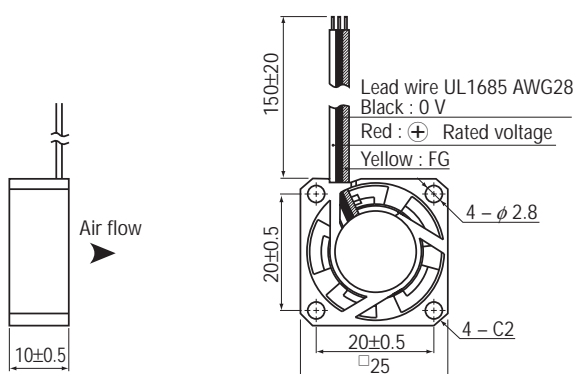


Output circuitry

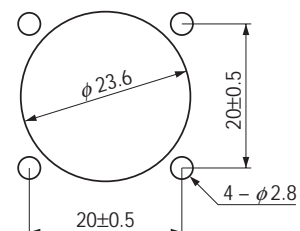


OUTLINE DIMENSIONS

(Unit: mm)



Dimension of mounting hole for recommendation



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