

# MINI CROSS FLOW FANS (BLOWERS)



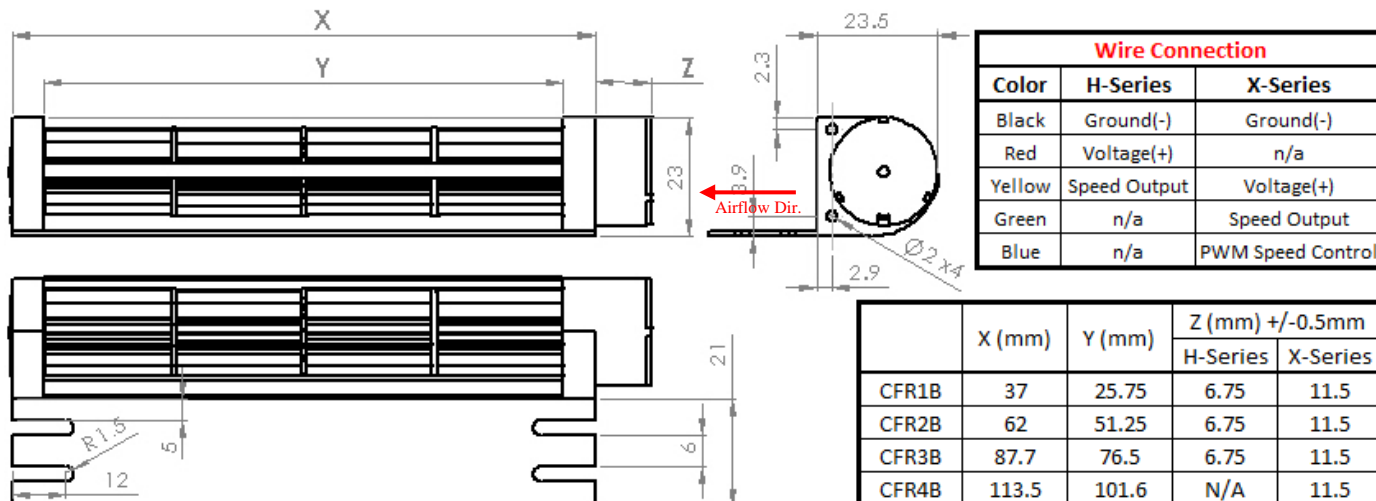
## General Specifications:

Life Expectancy(L10)	>65,000hours@40°C
Brushless DC Motor	CE/UL/CUL/TÜV
Bearing System	Triple Ball Bearings
Operation Temperature	-10°C ~ +70°C
Storage Temperature	-20°C ~ +75°C
Material	UL94V-0/PBT GF Filled
Lead Type	UL157/AWG#28
Lead Length	160mm+/-5
Weight	0.5 oz~1.2 oz.
<b>RoHS</b>	<b>Yes</b>

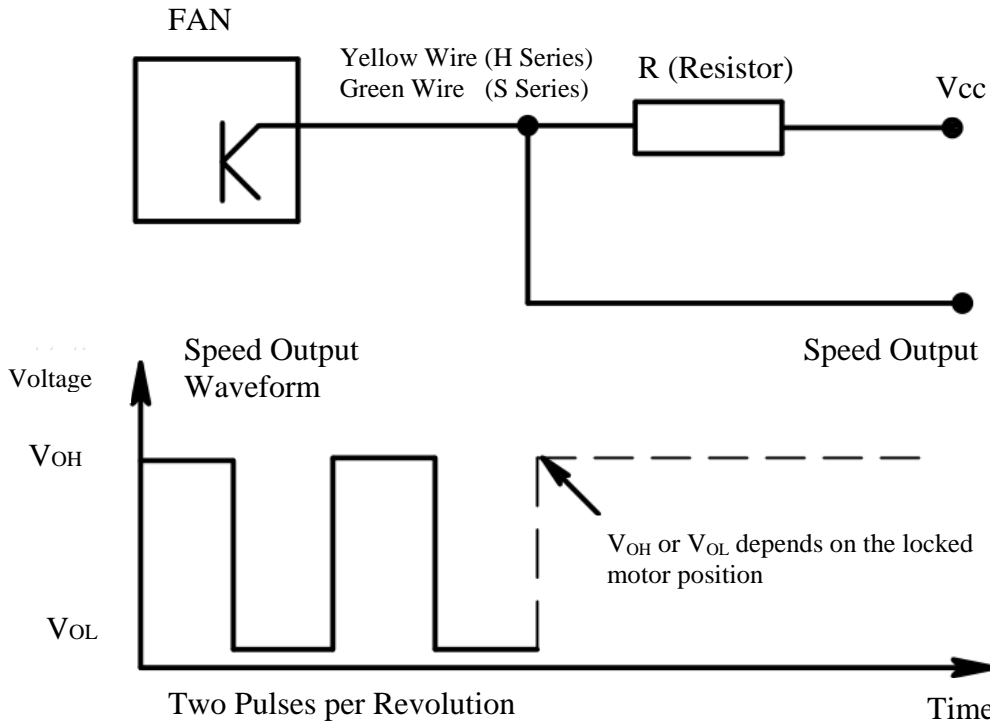
Model	Voltage (V)	Current (A)	Power (W)	Norminal Speed (RPM)	Air Flow (CFM)	Noise (dBA)	Pressure (In.-H <sub>2</sub> O)	Ball Bearing	Weight (Grams)
CFR1B12X	12	0.1	1.2	11,000	8.1	36	0.23	Full	18
CFR2B12X	12	0.11	1.32	9,500	10.5	35	0.20	Full	24
CFR3B12X	12	0.12	1.44	8,500	15.0	34	0.17	Full	28
CFR4B12X	12	0.13	1.56	7,500	18.5	34	0.16	Full	32
CFR1B5X	5	0.22	1.1	11,000	8.1	36	0.23	Full	18
CFR2B5X	5	0.24	1.2	9,500	10.5	35	0.20	Full	24
CFR3B5X	5	0.26	1.3	8,500	15.0	34	0.17	Full	28
CFR4B5X	5	0.28	1.4	7,500	18.5	34	0.16	Full	32
CFR1B12H	12	0.07	0.84	8,000	3.8	28	0.18	Full	14
CFR2B12H	12	0.08	0.96	7,000	5.5	25	0.14	Full	20
CFR3B12H	12	0.09	1.08	5,500	8.0	23	0.12	Full	26
CFR1B5H	5	0.18	0.9	8,000	3.8	28	0.18	Full	14
CFR2B5H	5	0.19	0.95	7,000	5.5	25	0.14	Full	20
CFR3B5H	5	0.20	1.00	5,500	8.0	23	0.12	Full	26

Specifications subject to change without notice

## Mechanical Specifications (mm)



# Speed Sensor/ Tachometer Connection



For H series, select R to make the current less than 10mA.  
For example, when V<sub>cc</sub> = 5V, R=500 Ohms, the current is 10mA. So, the final R should be great than 500 ohms, say 2K.

For X series, select R to make the current less than 5mA.  
For example, when V<sub>cc</sub> = 12V, R=2400 Ohms, the current is 5mA. So, the final R should be great than 2.4K ohms, say 3K.

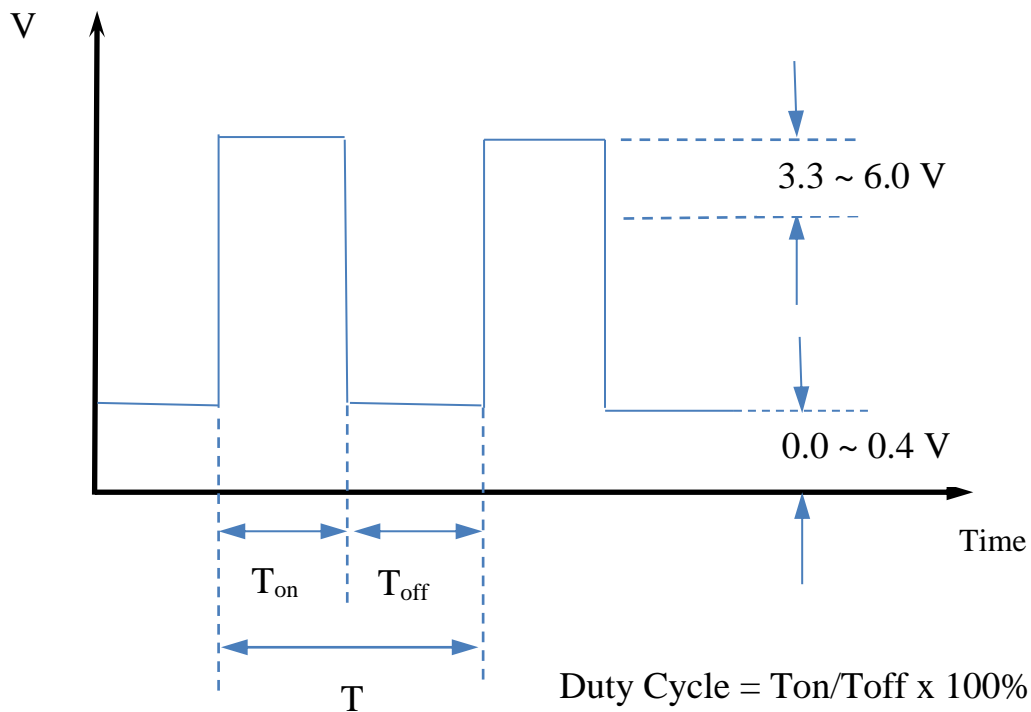
Maximum V<sub>cc</sub> is 13.2V for 12V fans.  
Maximum V<sub>cc</sub> is 5.5V for 5V fans.

# PWM Speed Control Guide for X series

PWM frequency: 18~30KHz

Duty Cycle:

0~40% is not used. 40~100% controls speed linearly up to maximum speed.



Model Numbering System of OLC Product

CFR [3B] [12] [H] - [ ] - [ ] - [ ]

