



### **Electrical Characteristics**

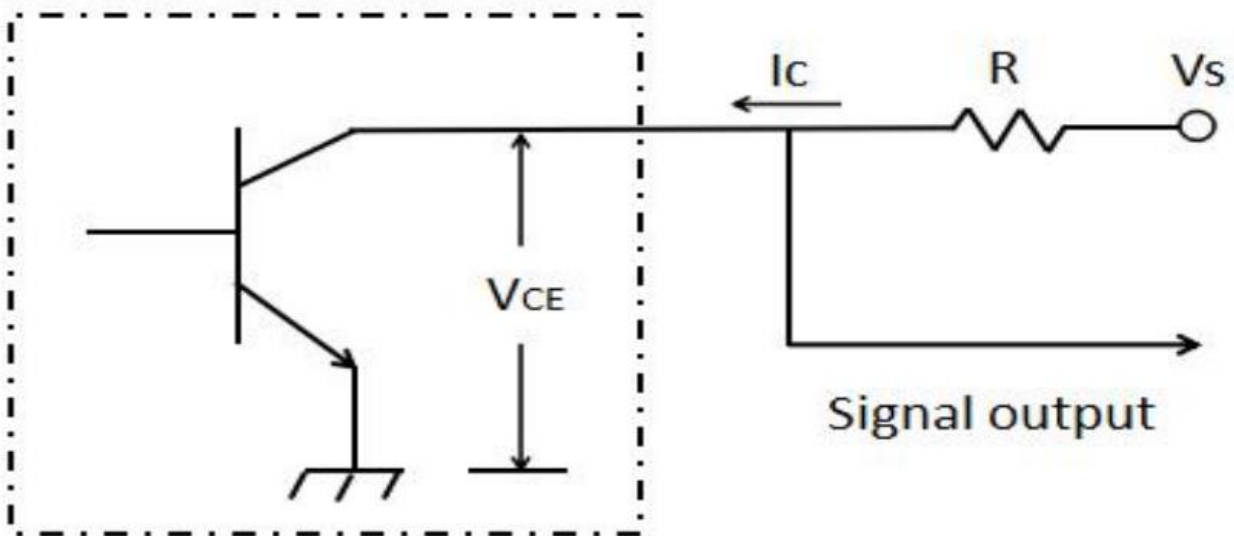
Minimum 10M ohm between the frame and positive terminal at 500V DC.

Maximum 5mA between the frame and positive terminal at 500V AC/60Hz for 1 minute.

Insulation Type - UL: Class A (105°C)

FAN Circuit

Customer Circuit



Output Type :Open Collector

Vs:(VFG or VRD)

5v Fan:3.3V to 5V

Others:3.3V to 15V

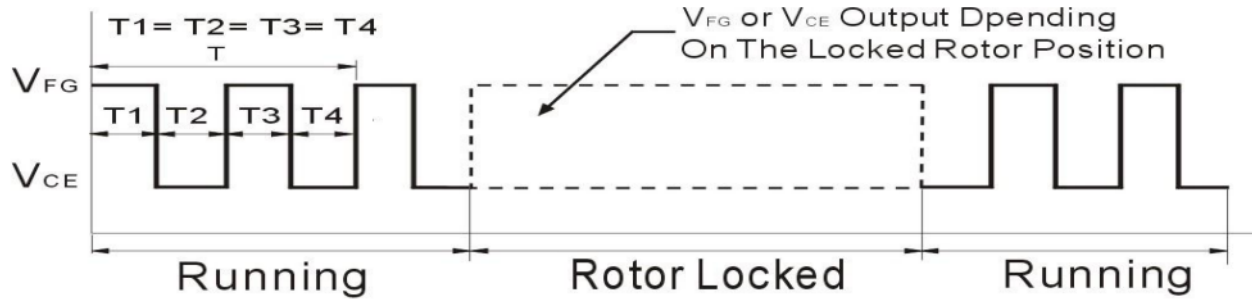
$I_c \leq 5\text{mA}$

$R \geq V_s / I_c$

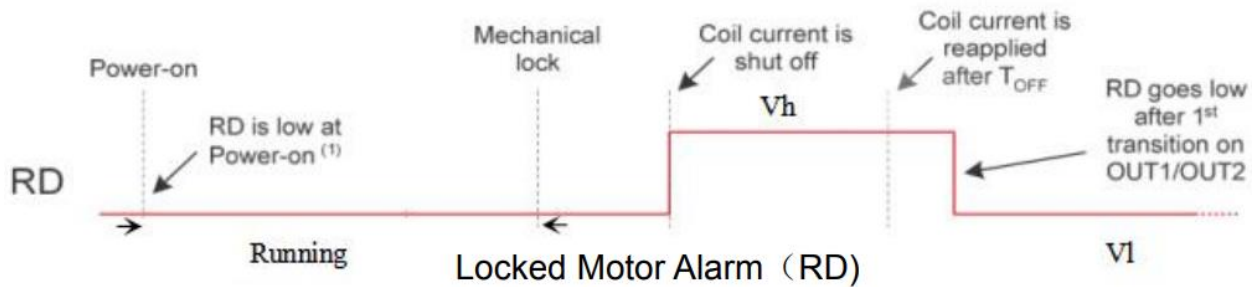
$V_{CE(\text{sat})} \leq 0.5\text{V}$

### Output Waveform

### Tachometer Sensor(FG)

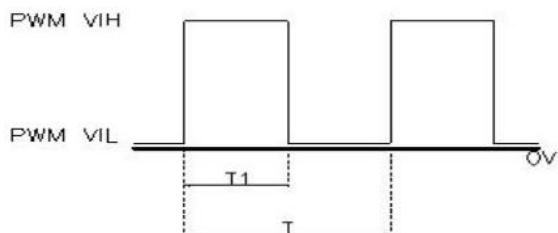


For 4 Poles Motor:  $N=R.P.M$   $T= 60/N$  (Sec.)  $FG=1/T*2$  (HZ)  $N=FG*30$

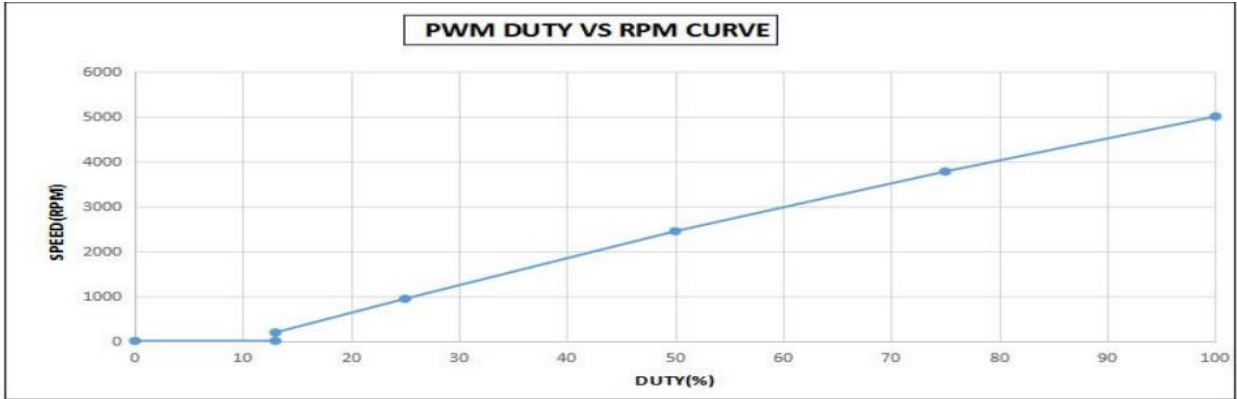


### Speed Control(PWM)

#### PWM INPUT SIGNAL SEPCIFICATION



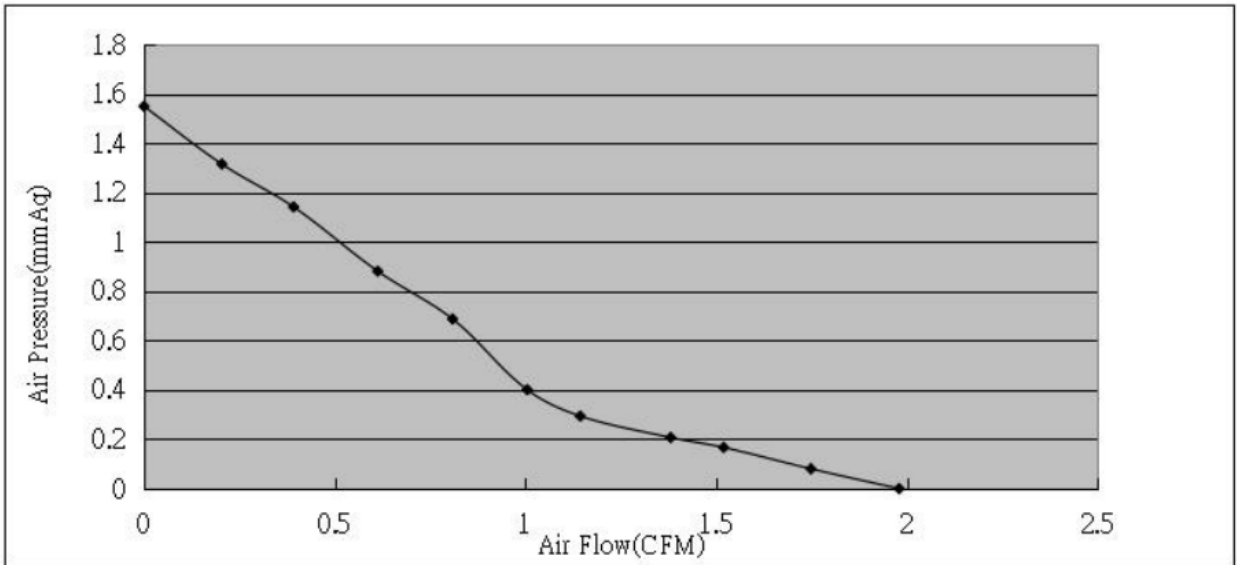
PWM DUTY CYCLE(%)=  $\frac{T_1}{T} \times 100\%$   
 PWM FREQUENCY RANGE 20K~30KHZ  
 PWM  $V_{IH}$  =2.8V TO 5.5V  
 PWM  $V_{IL}$  =0V TO 0.6V



(The fan will be able to start when the duty cycle is 13%)

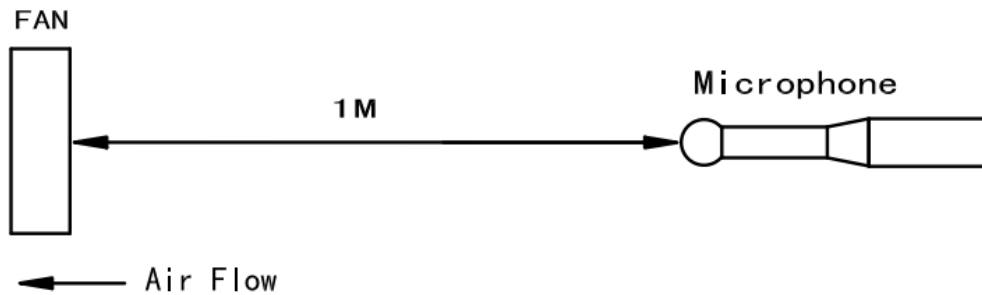
### Performance Curve

Test Conditions: (1).Rated Voltage;(2).Room Temperature,65%Humidity;



According to Standard ISO3745/GB4214-84, Back ground noise  $10 \pm 2\text{dBa}$  with room condition;

Fan is hanged in anechoic chamber, measured at rated voltage, measure microphone at a distance of one meter from the fan air intake;



Operating Temperature	-----	-10 ~ +70 °C
Storage Temperature	-----	-40 ~ +75 °C
Operating Humidity	-----	35% ~ 85%RH
Storage Humidity	-----	35% ~ 85%RH

#### Polarity Protection

Be capable of withstanding 10 minutes will not cause damage if reverse connection for positive and negative lead wires;

#### Locked Rotor Protection

The current will be shut down or remain a little range to protect motor from damaged in 72 hours when locking rotor at operation voltage and temperature range;