IP68 | F175G1 (ø175 x 69)

IP Protected / PWM DC Motorized Impeller

General Specifications

Motor Type: 3 Phase DC Brushless Motor

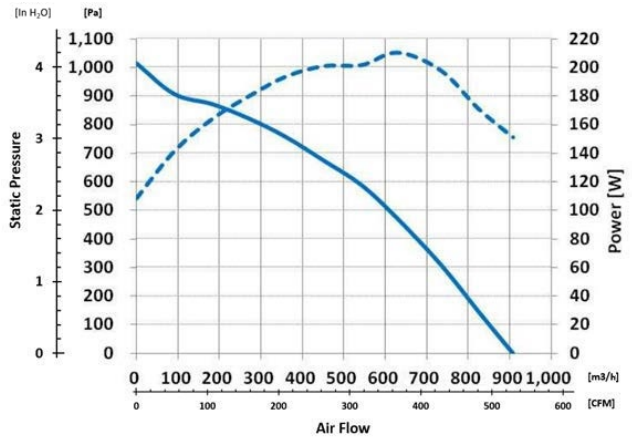
Motor Protection: Auto Restart/Polarity Protection/Overload Protection (Motor withstands reverse connection for positive and negative leads.)

Insulation Resistance: 10M Ω or over with a DC500V Megger

Dielectric Withstand Voltage: AC 500V 1min

Allowable Ambient Temperature Range:
-30°C ~ +60°C (Operating)
-40°C ~ +70°C (Storage)
(non-condensing environment)

Characteristics Curve



IP Rated Fan Benefits & Applications

IP68

NMB offers Ingress Protection (IP) rated cooling fans. IP68 fans provide dust tight protection, and safeguard against wet location and powerful water jets for outdoor applications and other harsh environments. NMB fans are designed with NMB precision machined ball bearings assuring long life and high reliability.

Benefits

- IP68 rating per IEC 60529 standard
- Long life and high reliability with NMB precision ball bearings (L10 number)
- Open Collector Tacho Signal output for fan speed
- PWM Speed Control

Applications

- Outdoor Applications
- Factory Automation
- Food Processing
- Inverters
- Telecomm
- Horticulture

Life Expectancy L10

40°C 70,000 Hours

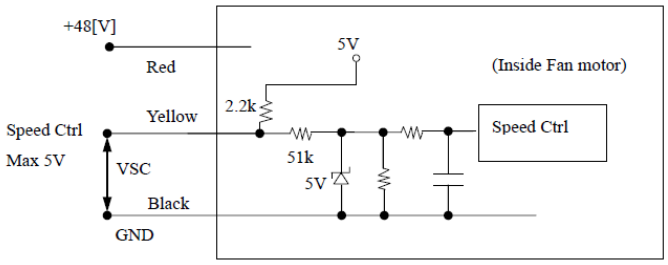
Specifications

MODEL	Rated Voltage	Operating Voltage	Current		Input Power		Speed	Max. Air Flow*2		Max. Static Pressure*2		Noise	Mass
			Avg	Max	Avg	Max							
	(V)	(V)	(A)*1	(A)*1	(W)*1	(W)*1	(min-1)*1	(CFM)	(m3/h)	(in H_2O)	(Pa)	(dB)*1	(kg)
F175G1-061-D0750	48	36.0 ~ 54.0	3.2	6.0	153.6	288.0	5,100	534.4	908	4.07	1015	77.0	1.2

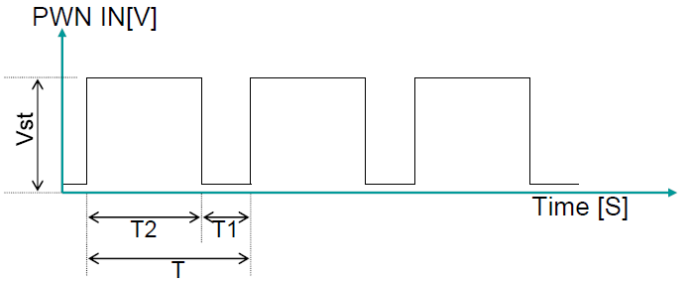
*1: Values in Free Air
*2: Attach Inlet-ring (NMB: IR12714)

PWM Specifications

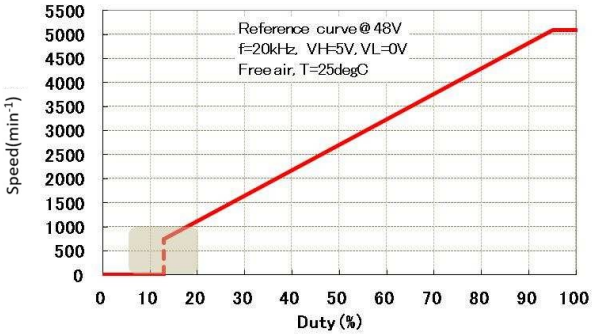
Connection wiring diagram



PWM Signal
Duty Rate = (T2/T) × 100 [%]
Vst =5 [V]
Frequency = 20kHz
Vst OPEN = Full speed



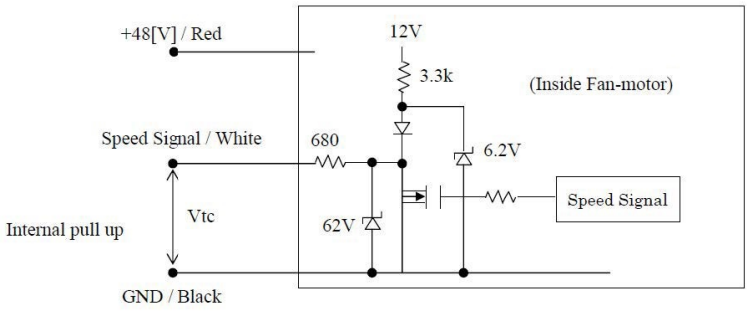
PWM Characteristic Curve



Start-up duty: min 30%

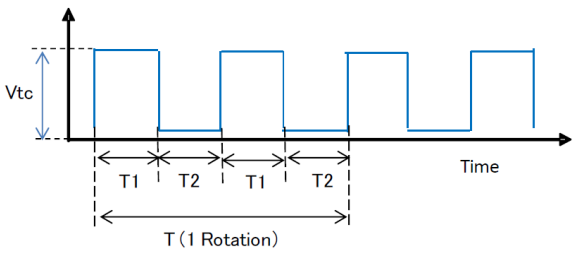
TACHO Specifications

Connection wiring diagram



Output Waveform
2 Pulse / Revolution

T1= T2 (50 ±10%Duty)



IP68 | F175G1 (ø175 x 69)

IP Protected / PWM DC Motorized Impeller

Outline

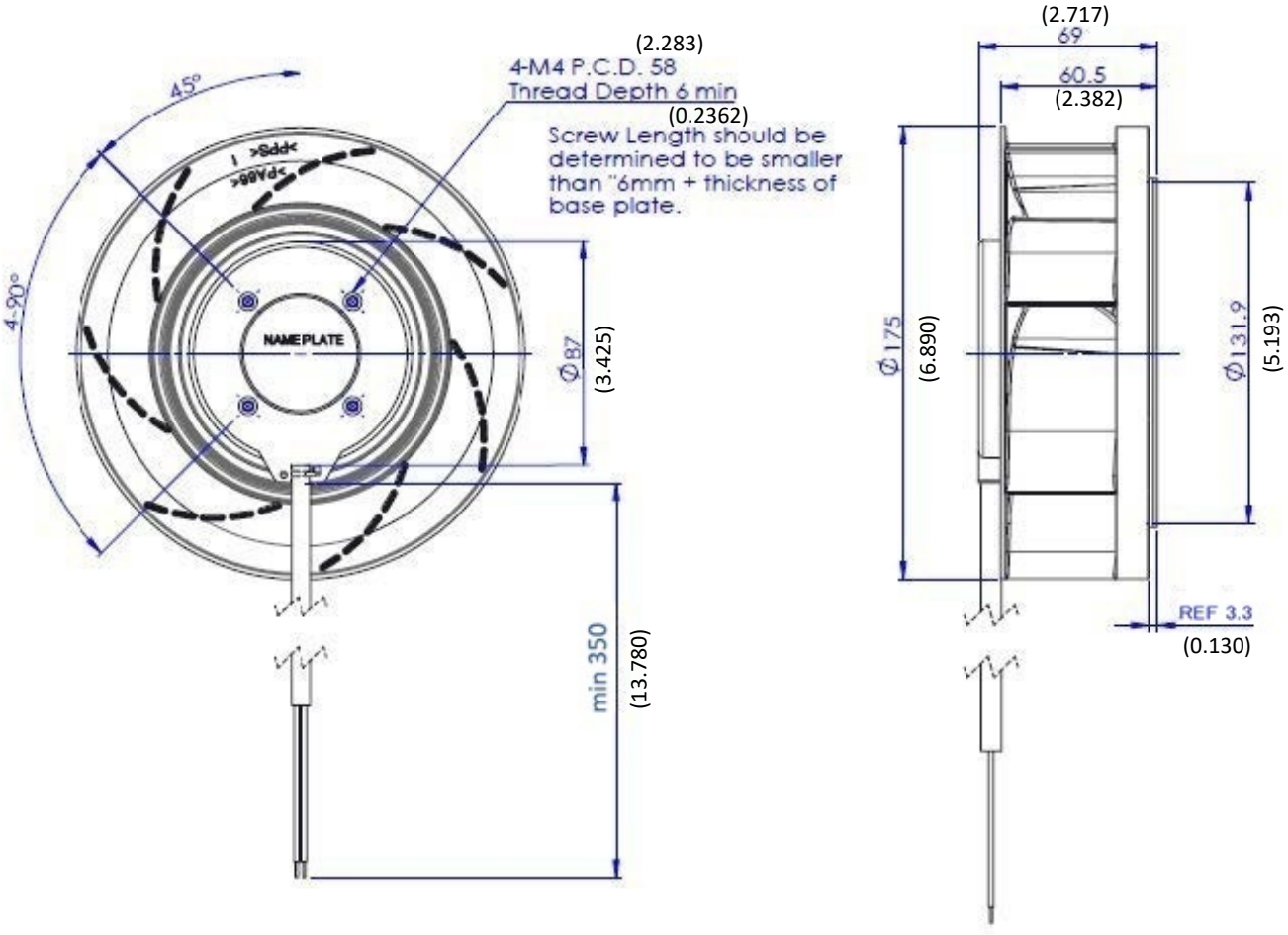
Product Label Drawing

Material

Casing : Aluminum
Impeller : UL94V-O Reinforced Plastic
Bearing : Ball Bearing

Lead Wire : UL1430 or UL3266 AWG18 or 20
(+): Red (-): Black

UL1430 or UL3266 AWG18, 20 or 22 (PWM): Yellow (Tacho): White



Unit: mm (inch)

IP68 | F175G3 (ø175 x 69)

IP Protected / PWM DC Motorized Impeller

General Specifications

Motor Type: 3 Phase DC Brushless Motor

Motor Protection: Auto Restart/Polarity Protection/Overload Protection (Motor withstands reverse connection for positive and negative leads.)

Insulation Resistance: 10M Ω or over with a DC500V Megger

Dielectric Withstand Voltage: AC 500V 1min

Allowable Ambient Temperature Range:
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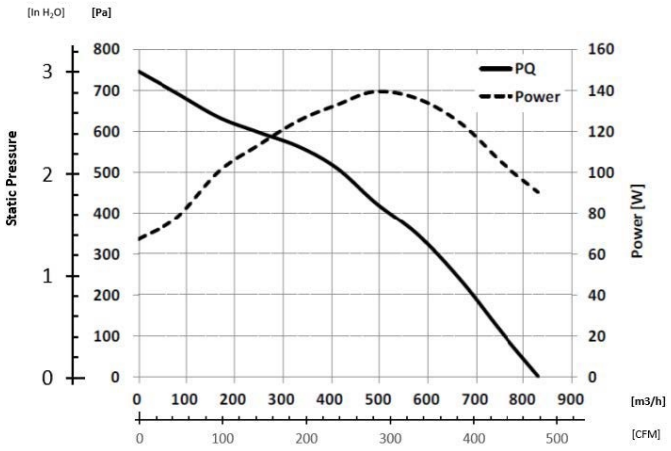
(non-condensing environment)

Characteristics Curve



IP Rated Fan Benefits & Applications

IP68

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Applications

- Outdoor Applications
- Factory Automation
- Food Processing
- Inverters
- Telecomm
- Horticulture

Life Expectancy L10

40°C 70,000 Hours

Specifications

MODEL	Rated Voltage	Operating Voltage	Current		Input Power		Speed	Max. Air Flow*2		Max. Static Pressure*2		Noise	Mass
			Avg	Max	Avg	Max							
	(V)	(V)	(A)*1	(A)*1	(W)*1	(W)*1	(min-1)*1	(CFM)	(m3/h)	(in H2O)	(Pa)	(dB)*1	(kg)
F175G3-061-D0540	24	18.0 ~ 27.0	3.7	8.5	88.8	204.0	4,200	476.7	810	2.97	740	73.0	1.2

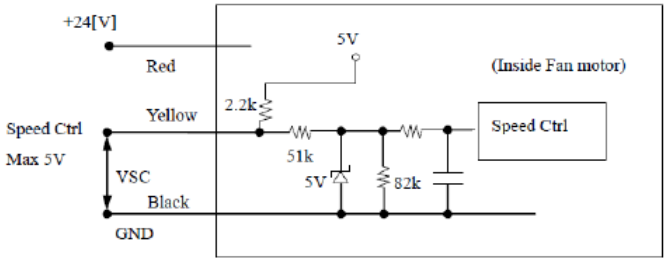
*1: Values in Free Air
*2: Attach Inlet-ring (NMB: IR12714)

DC Radial Impeller

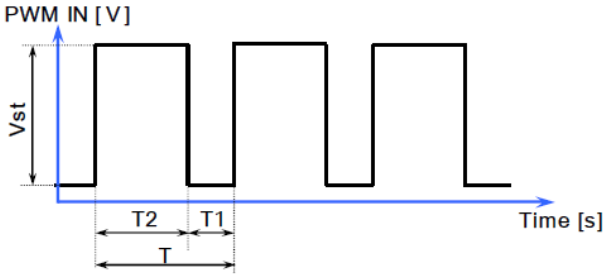
MinebeaMitsumi
Passion to Create Value through Difference

PWM Specifications

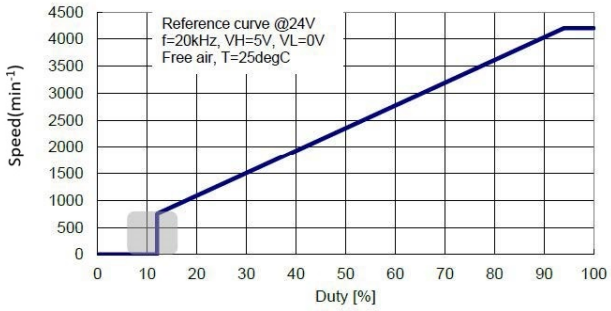
Connection wiring diagram



PWM Signal
Duty Rate = (T2/T) × 100 [%]
Vst =5 [V]
Frequency = 20kHz
Vst OPEN = Full speed



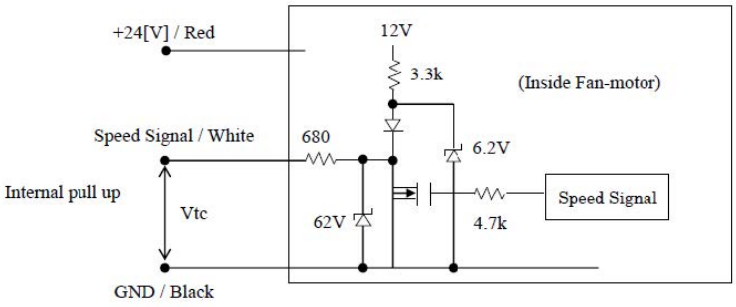
PWM Characteristic Curve



Start-up duty: min 20%

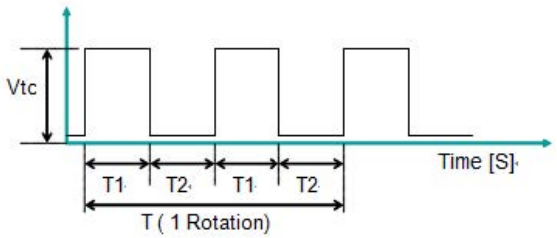
TACHO Specifications

Connection wiring diagram



Output Waveform
2 Pulse / Revolution

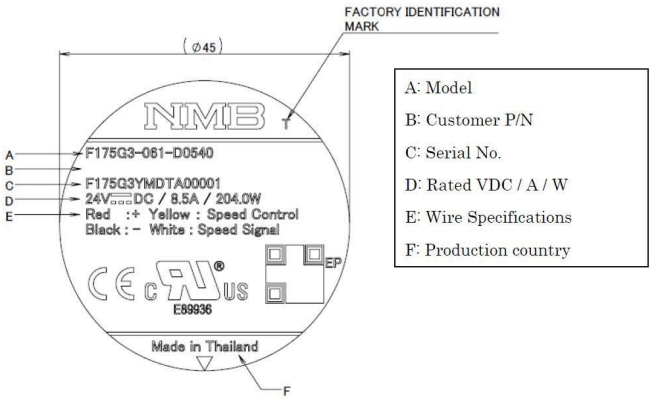
T1= T2 (50 ±10%Duty)



IP68 | F175G3 (ø175 x 69)

IP Protected / PWM DC Motorized Impeller

Outline

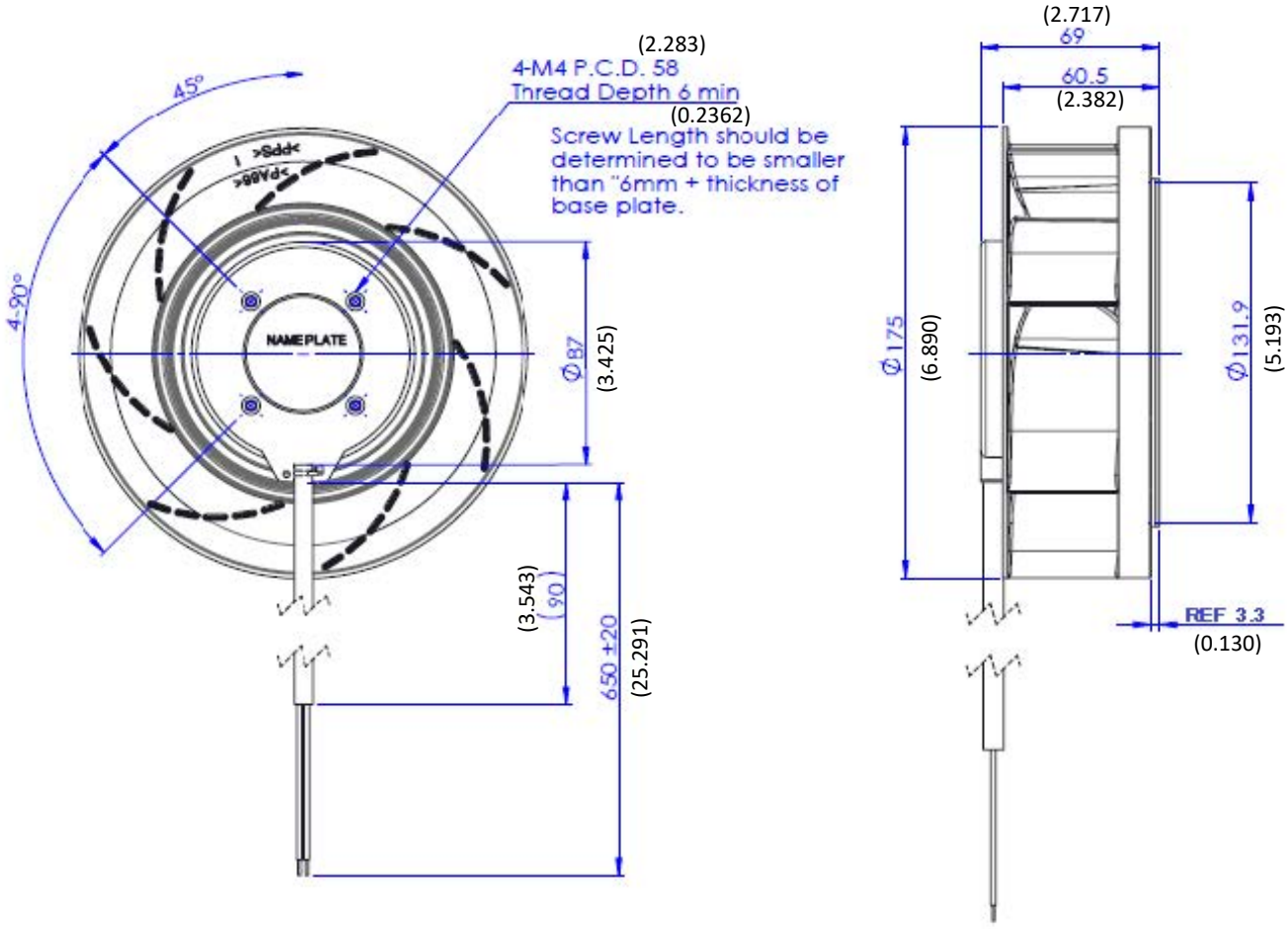


Product Label Drawing

Material

Impeller ; Plastic (UL94V-0)
Bearing : Ball Bearing
Lead Wire : AWG18, UL1430

(+) : Red (-) : Black (PWM): Yellow (Tacho): White



Unit: mm (inch)

DC Radial Impeller