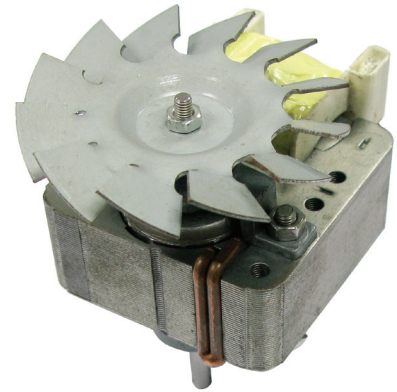


## Characteristics:

Long Life, Low Noise



## Specifications:

Dimensions	: Ø 48.0 x 70.3 mm
Shaft Diameter	: Ø 4.0 mm
Voltage	: 230 VAC, 50 Hz
No Load Speed	: 2779 rpm
No Load Current	: 0.096 A
Maximum Output Power	: 2.38 W
Stall Torque	: 8.87 mNm
Life (typical)	: 3000 hours
Weight	: 400 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Terminal
Certification	: RoHS

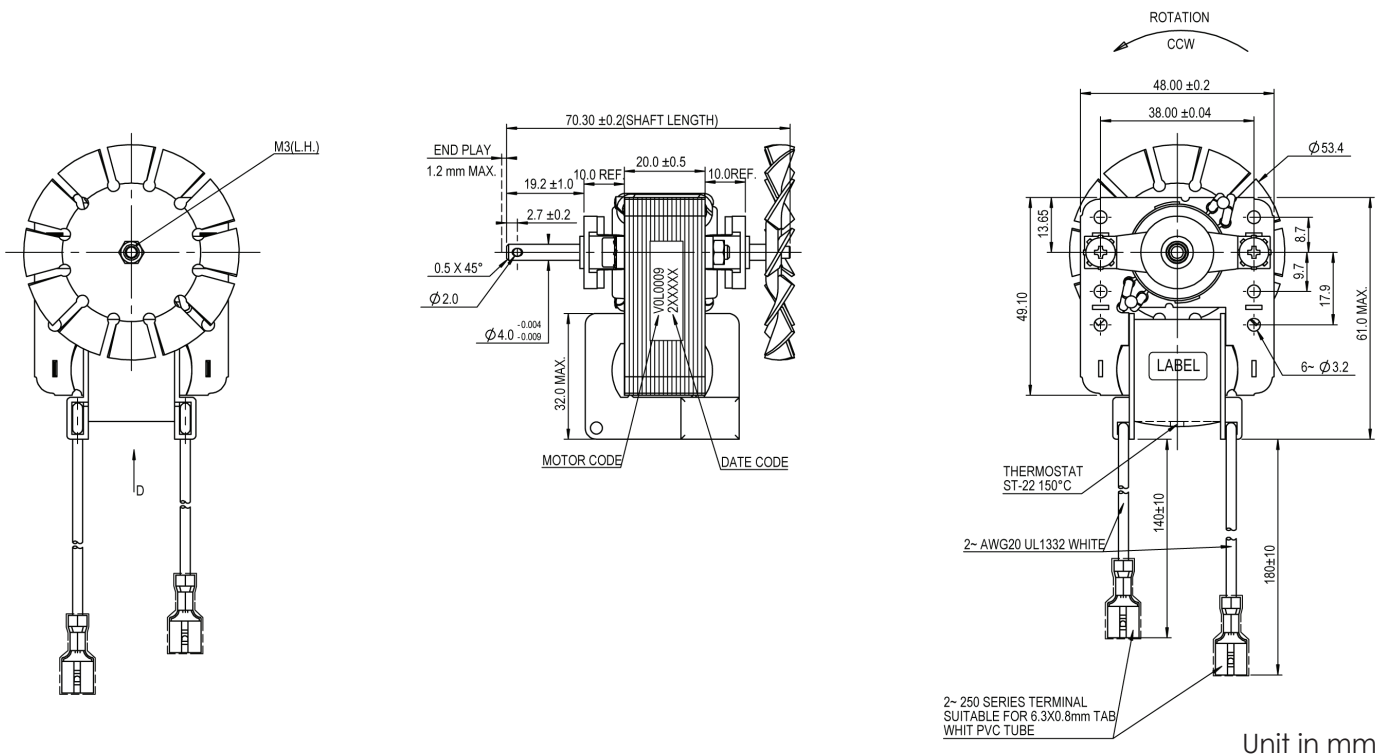
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	2779	2339	2107
Current [A]	0.096	0.105	0.109
Torque [mNm]		9.11	10.79
Efficiency [%]		17.4	16.50
Power [W]		2.23	2.38

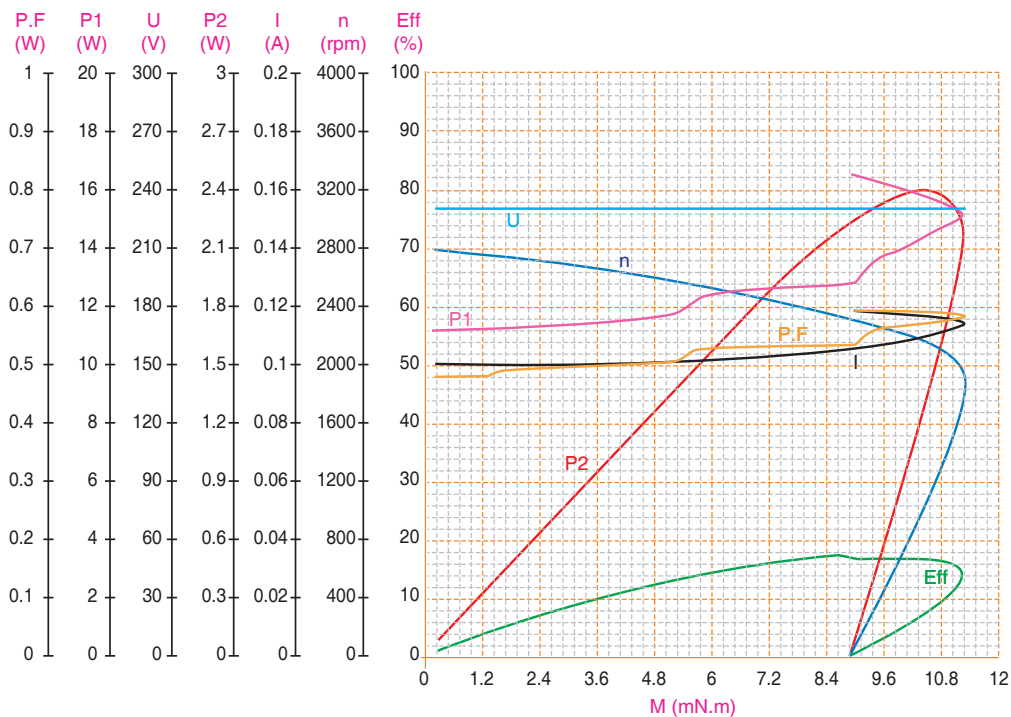
## Application Examples:

Fryers

## Drawing:



## Performance Curve:

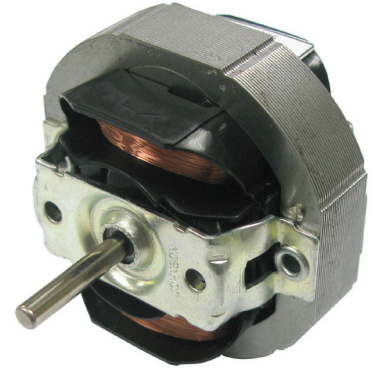


## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 58.0 X 60.0 mm
Shaft Diameter	: Ø 4.0 mm
Voltage	: 240 VAC, 50 Hz
No Load Speed	: 2675 rpm
No Load Current	: 0.112 A
Maximum Output Power	: 1.97 W
Stall Torque	: 6.73 mNm
Life (typical)	: 5000 hours
Weight	: 250 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Terminals
Certification	: RoHS



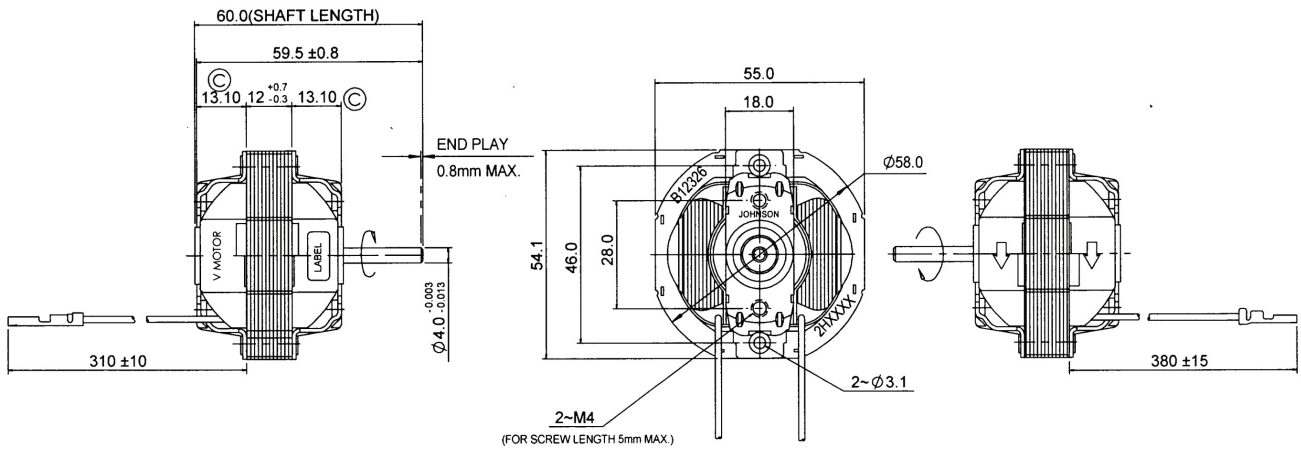
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	2675	1935	1935
Current [A]	0.112	0.119	0.119
Torque [mNm]		9.76	9.76
Efficiency [%]		9.4	9.4
Power [W]		1.97	1.97

## Application Examples:

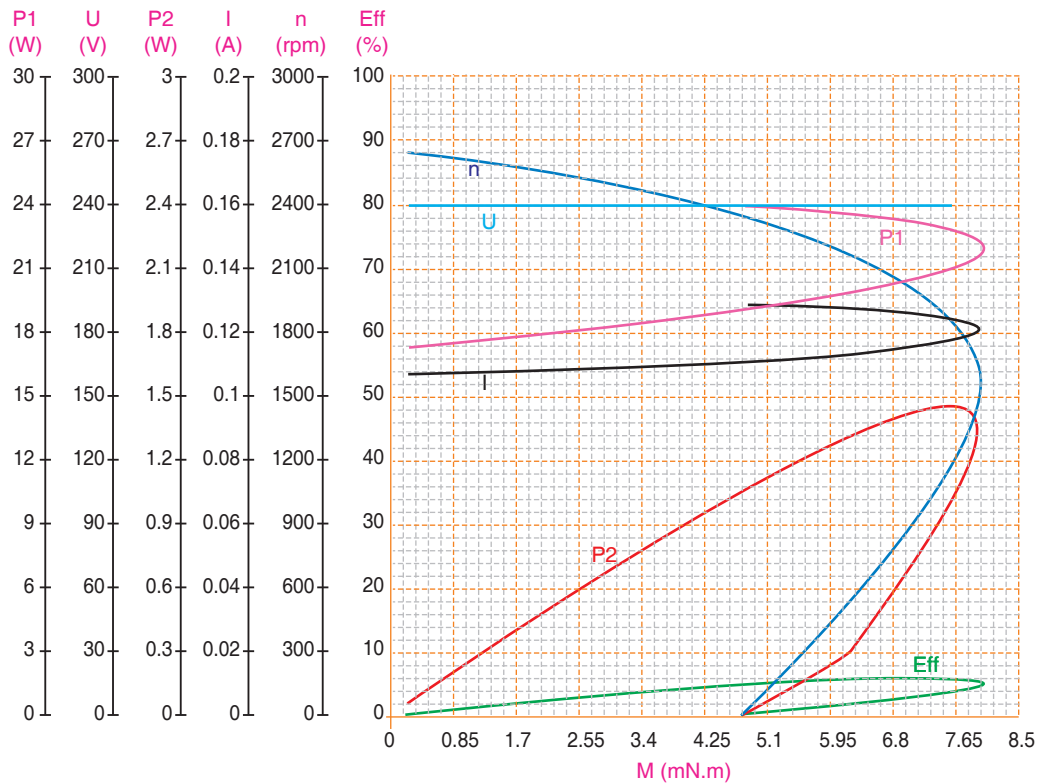
Home Ventilation

## Drawing:



Unit in mm

## Performance Curve:



**Characteristics:**

High torque SP motor

**Specifications:**

Dimensions	: 55.1 X 54.1 mm
Length	: 58.00 mm
Shaft Diameter	: Ø 4.000 mm
Weight	: 270 g
Input Voltage	: 230.0 V
Frequency	: 50 Hz
Operating Temperature Range	: -10 to 55 °C
Electrical Connection	: Leadwires



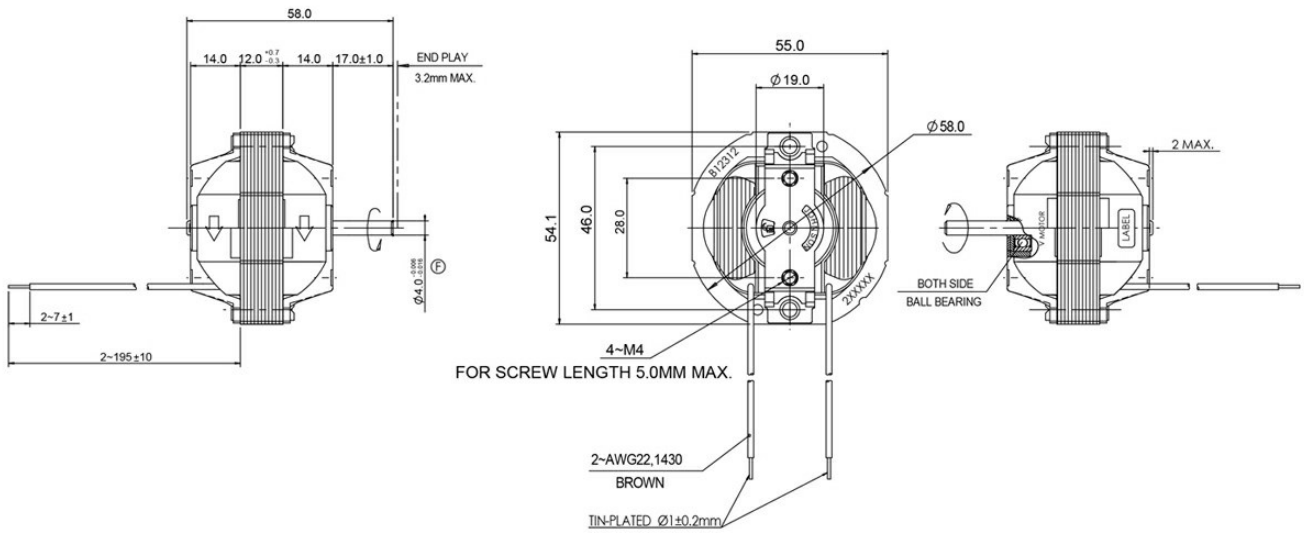
**Performance Data:**

	Stall	No Load	Typical Loading	Maximum Efficiency	Maximum Power
Current (A)	0.11	0.09	-	-	-
Efficiency (%)	-	-	-	-	-
Output Power (W)	-	-	-	-	-
Speed (rpm)	-	2655	-	-	-
Torque (mNm)	4.50	-	-	-	-

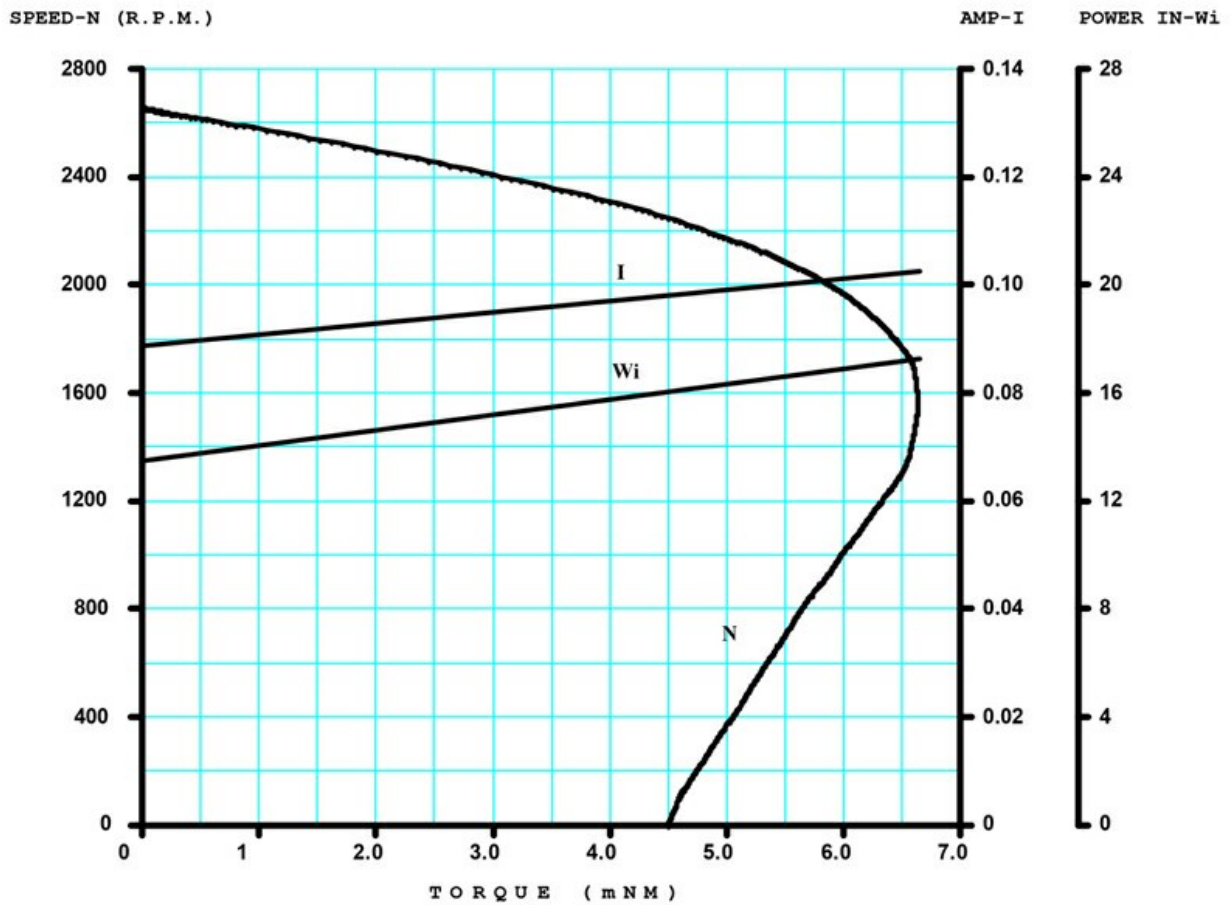
**Application Examples:**

Air Purifiers and Dehumidifiers

Outline Drawing:



Performance Curves:



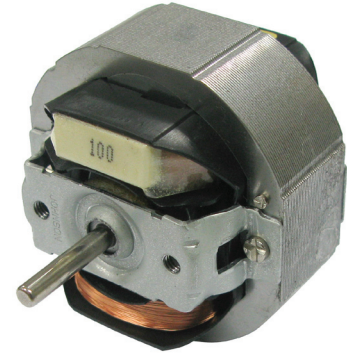
Units in Metric

## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 58.0 X 66.0 mm
Shaft Diameter	: Ø 4.0 mm
Voltage	: 230 VAC, 50 Hz
No Load Speed	: 2841 rpm
No Load Current	: 0.102 A
Maximum Output Power	: 3.68 W
Stall Torque	: 9.83 mNm
Life (typical)	: 5000 hours
Weight	: 380 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Lead Wire
Certification	: RoHS



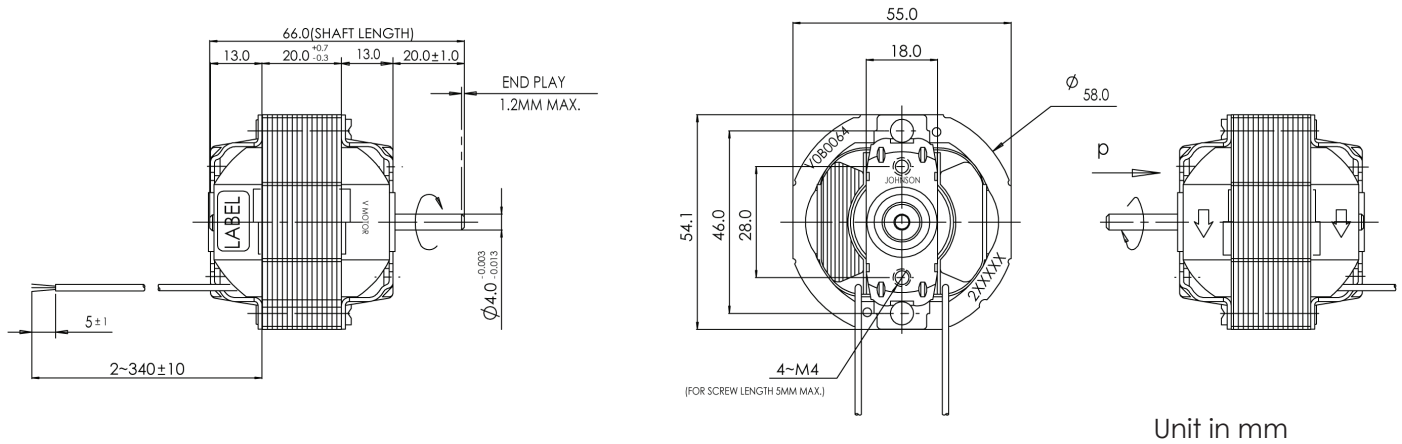
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	2841	2292	2128
Current [A]	0.102	0.12	0.13
Torque [mNm]		14.96	16.51
Efficiency [%]		19.4	18.5
Power [W]		3.59	3.68

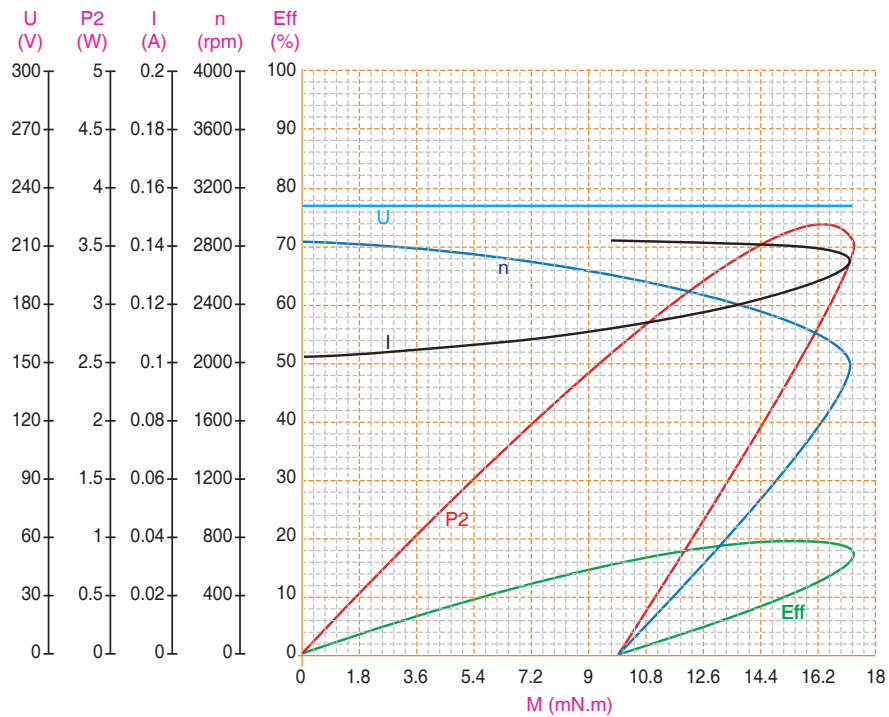
## Application Examples:

Home Ventilation

## Drawing:



## Performance Curve:



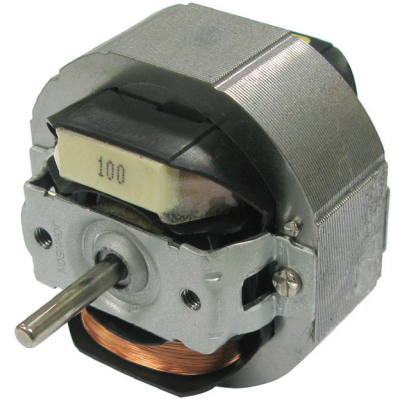


## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 58.0 x 69.0 mm
Shaft Diameter	: Ø 4.0 mm
Voltage	: 230 VAC, 50 Hz
No Load Speed	: 2843 rpm
No Load Current	: 0.124 A
Maximum Output Power	: 4.5 W
Stall Torque	: 10.99 mNm
Life (typical)	: 5000 hours
Weight	: 400 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100 °C
Electrical Connection	: Leadwire
Certification	: RoHS



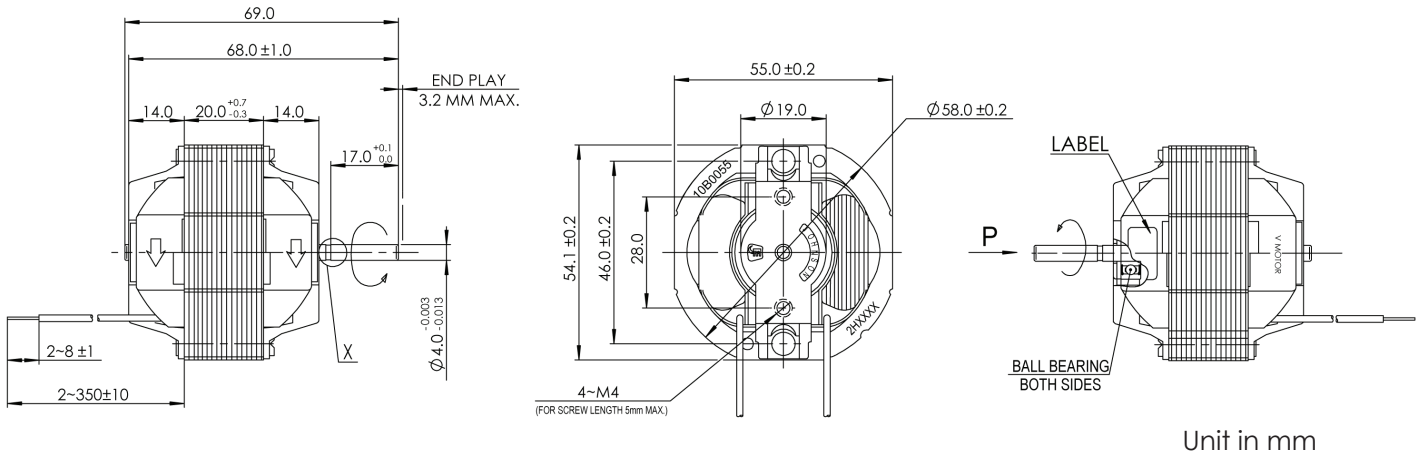
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	2843	2235	2097
Current [A]	0.124	0.158	0.164
Torque [mNm]		19.06	20.51
Efficiency [%]		17.90	17.2
Power [W]		4.44	4.5

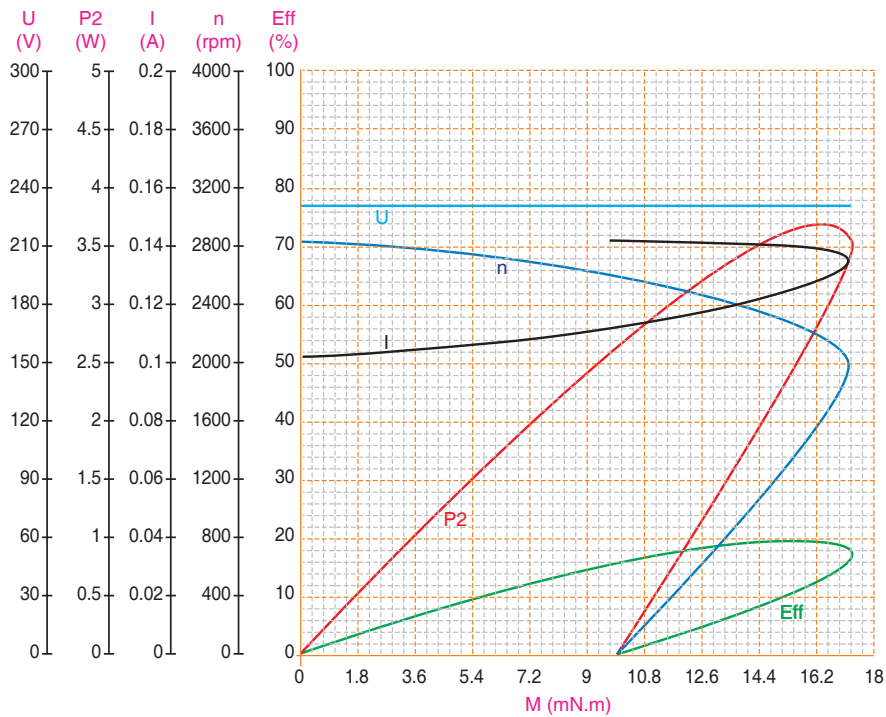
## Application Examples:

Home Ventilation

## Drawing:



## Performance Curve:



**Characteristics:**

High torque SP motor

**Specifications:**

Dimensions	: 55.1 X 54.1 mm
Length	: 70.50 mm
Shaft Diameter	: Ø 4.000 mm
Weight	: 440 g
Input Voltage	: 230.0 V
Frequency	: 50 Hz
Operating Temperature Range	: -10 to 55 °C
Electrical Connection	: Leadwires



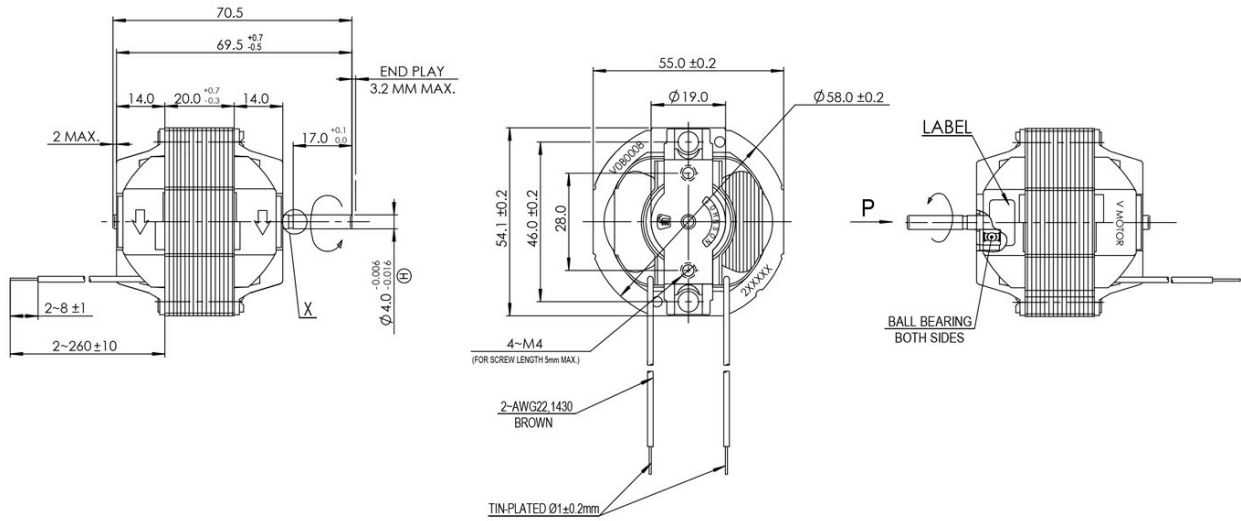
**Performance Data:**

	Stall	No Load	Typical Loading	Maximum Efficiency	Maximum Power
Current (A)	0.12	0.09	-	-	-
Efficiency (%)	-	-	-	-	-
Output Power (W)	-	-	-	-	-
Speed (rpm)	-	2847	-	-	-
Torque (mNm)	7.40	-	-	-	-

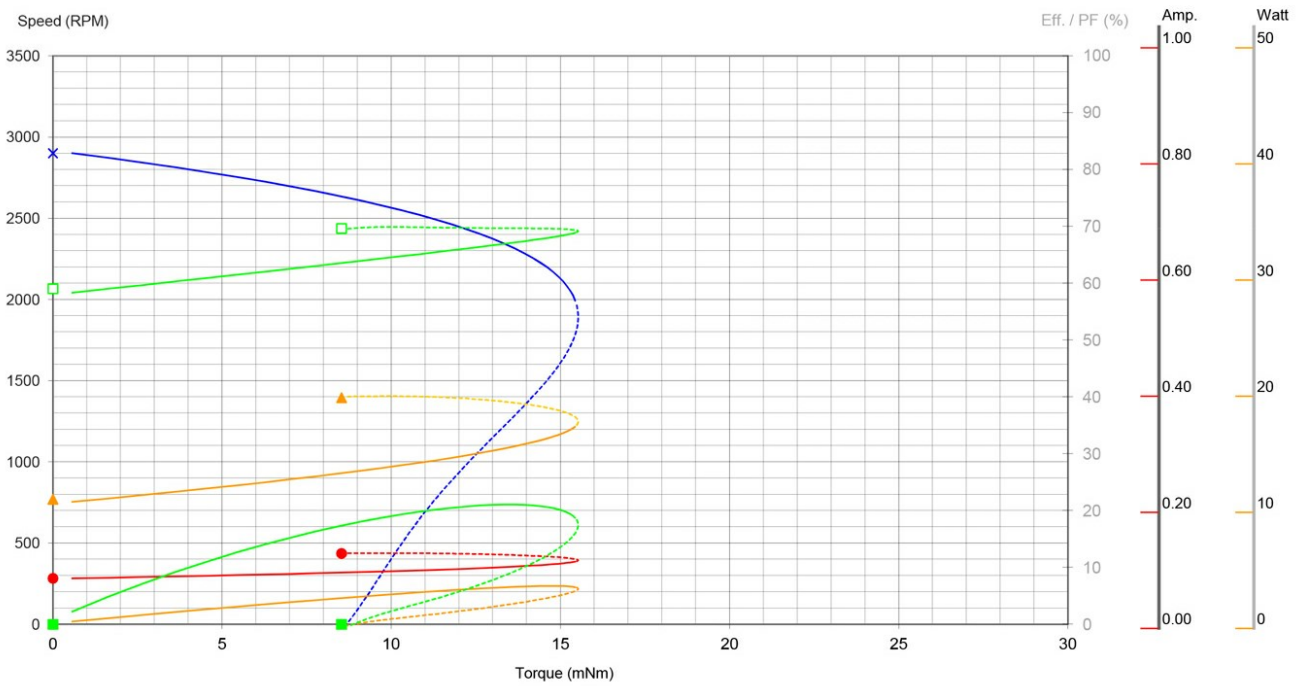
**Application Examples:**

Air Purifiers and Dehumidifiers

Outline Drawing:



Performance Curves:



Units in Metric

**Characteristics:**

High torque SP motor

**Specifications:**

Dimensions	: 55.1 X 54.1 mm
Length	: 81.00 mm
Shaft Diameter	: Ø 4.000 mm
Weight	: 540 g
Input Voltage	: 240.0 V
Frequency	: 50 Hz
Operating Temperature Range	: -10 to 55 °C
Electrical Connection	: Leadwires



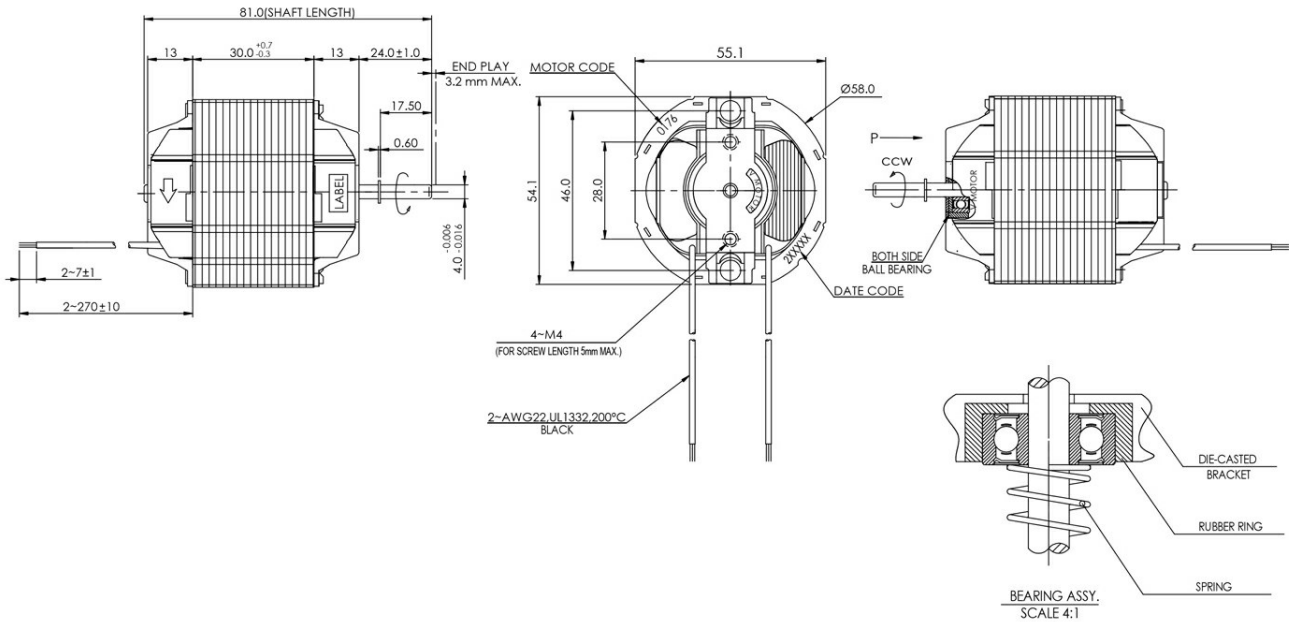
**Performance Data:**

	Stall	No Load	Typical Loading	Maximum Efficiency	Maximum Power
Current (A)	0.24	0.16	-	-	-
Efficiency (%)	-	-	-	-	-
Output Power (W)	-	-	-	-	-
Speed (rpm)	-	2900	-	-	-
Torque (mNm)	14.36	-	-	-	-

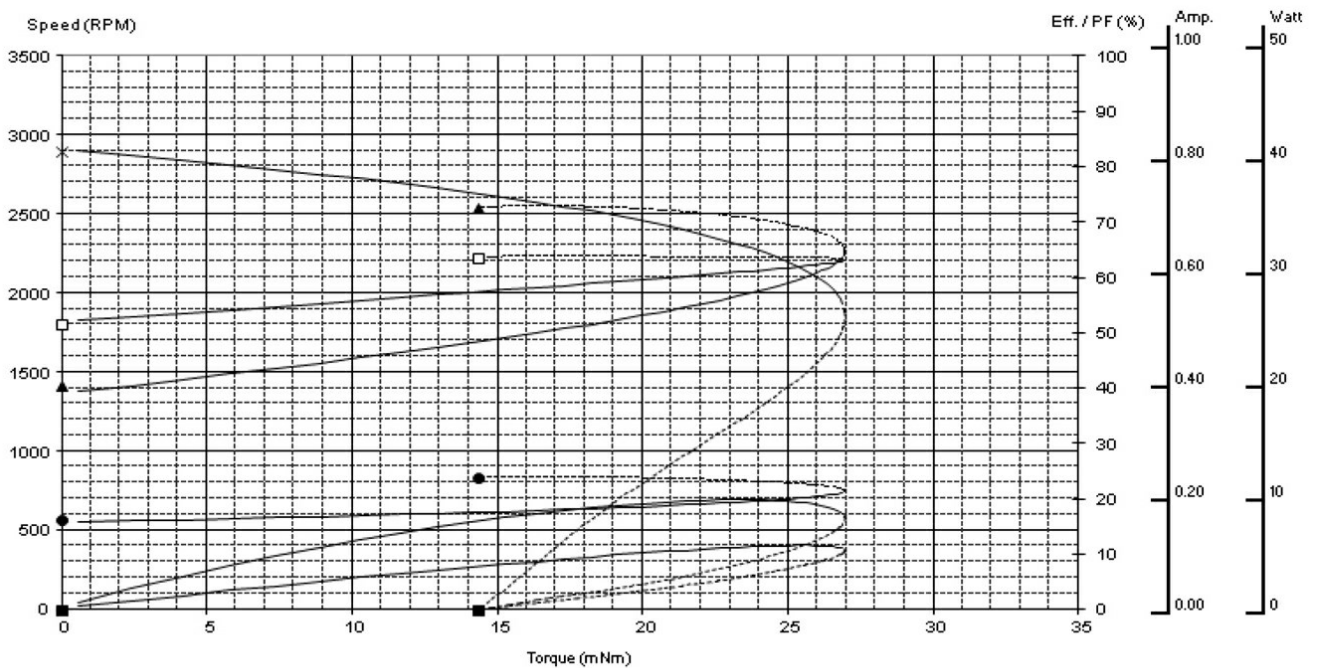
**Application Examples:**

Air Purifiers and Dehumidifiers

Outline Drawing:



Performance Curves:



Units in Metric

**Characteristics:**

High torque SP motor

**Specifications:**

Dimensions	: 63.7 X 60.5 mm
Length	: 83.00 mm
Shaft Diameter	: Ø 6.000 mm
Weight	: 670 g
Input Voltage	: 230.0 V
Frequency	: 50 Hz
Operating Temperature Range	: -10 to 55 °C
Electrical Connection	: Leadwires



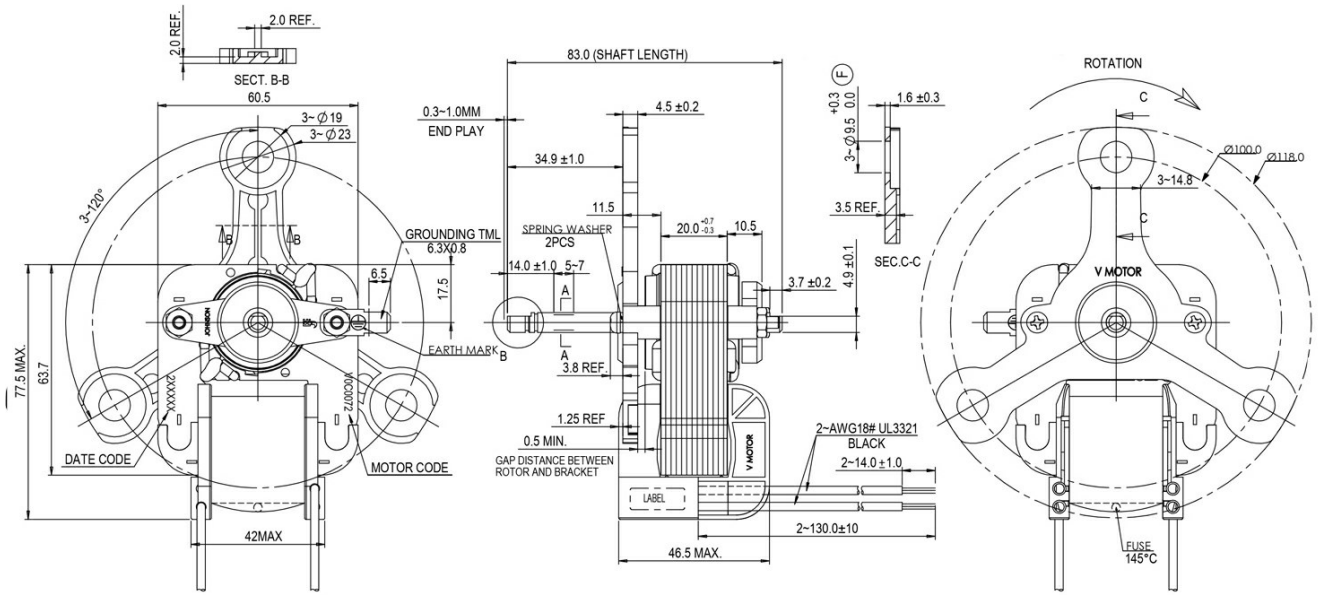
**Performance Data:**

	Stall	No Load	Typical Loading	Maximum Efficiency	Maximum Power
Current (A)	0.43	0.33	-	-	-
Efficiency (%)	-	-	-	-	-
Output Power (W)	-	-	-	-	-
Speed (rpm)	-	2873	-	-	-
Torque (mNm)	20.63	-	-	-	-

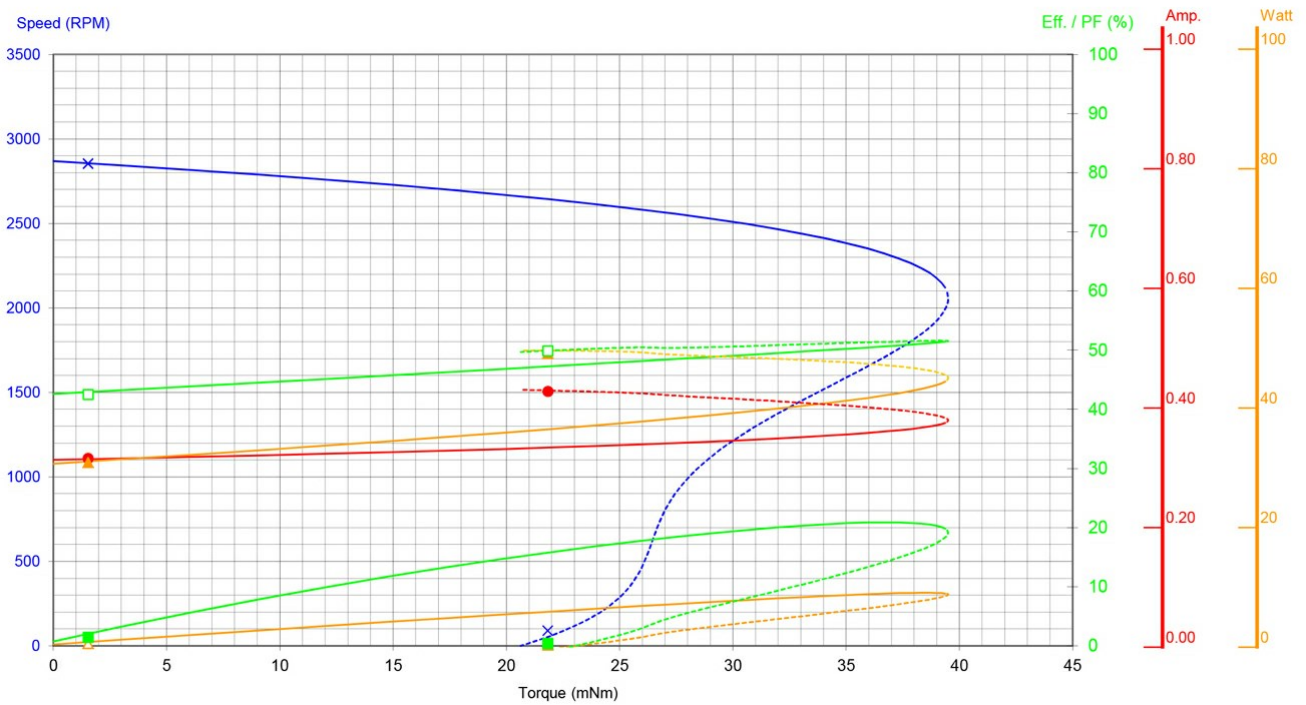
**Application Examples:**

Home Ventilation

Outline Drawing:



Performance Curves:



Units in Metric

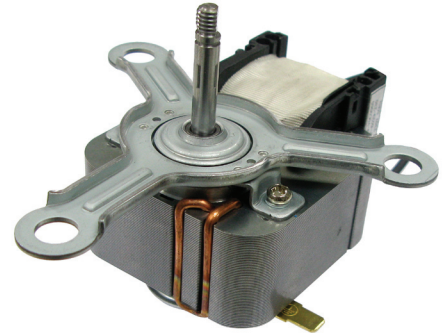


## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 60.0 x 90.0 mm
Shaft Diameter	: Ø 6.0 mm
Voltage	: 230 VAC, 50 Hz
No Load Speed	: 2883 rpm
No Load Current	: 0.267 A
Maximum Output Power	: 7.04 W
Stall Torque	: 20.18 mNm
Life (typical)	: 3000 hours
Weight	: 840 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Leadwires
Certification	: RoHS



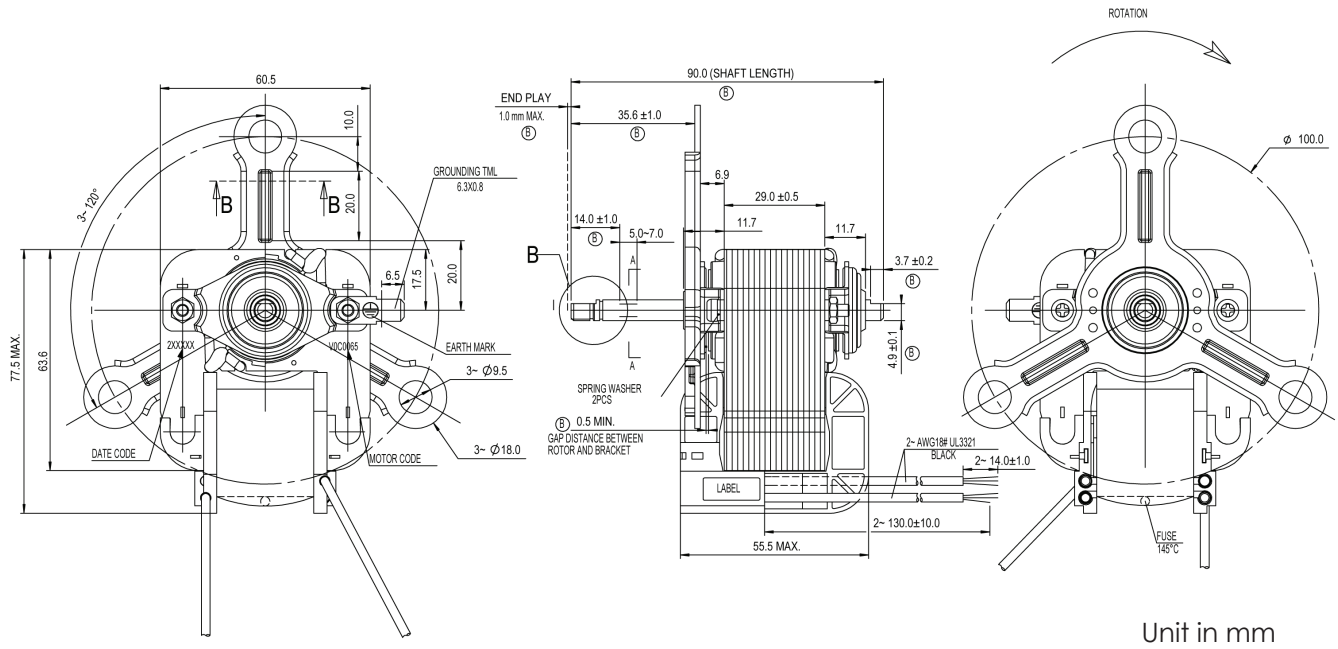
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	2883	2379	2329
Current [A]	0.267	0.315	0.318
Torque [mNm]		28.27	28.90
Efficiency [%]		19.50	19.40
Power [W]		7.04	7.04

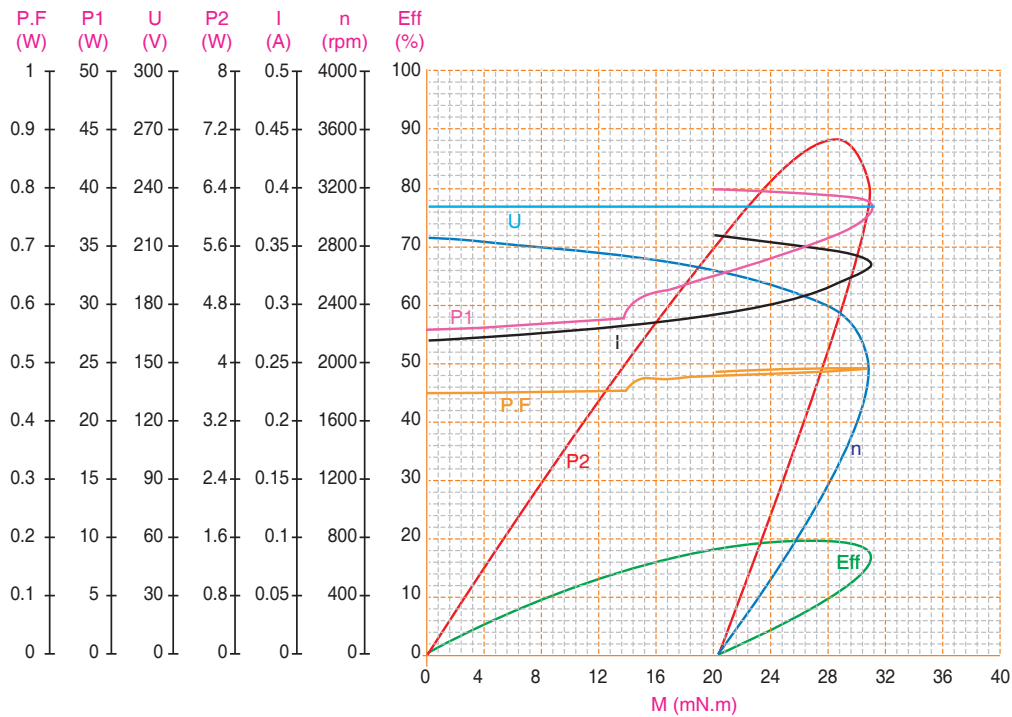
## Application Examples:

Fryers

## Drawing:



## Performance Curve:

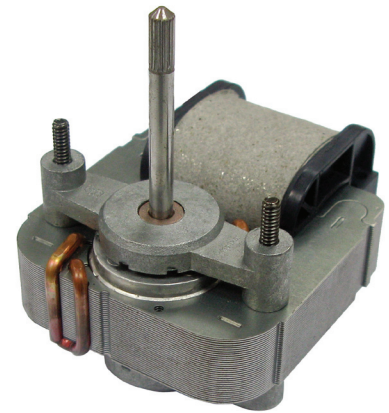


## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 61.0 X 81.0 mm
Shaft Diameter	: Ø 4.6 mm
Voltage	: 120 VAC, 60 Hz
No Load Speed	: 3418 rpm
No Load Current	: 0.75 A
Maximum Output Power	: 7.93 W
Stall Torque	: 20.08 mNm
Life (typical)	: 10000 hours
Weight	: 520 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Plug
Certification	: RoHS



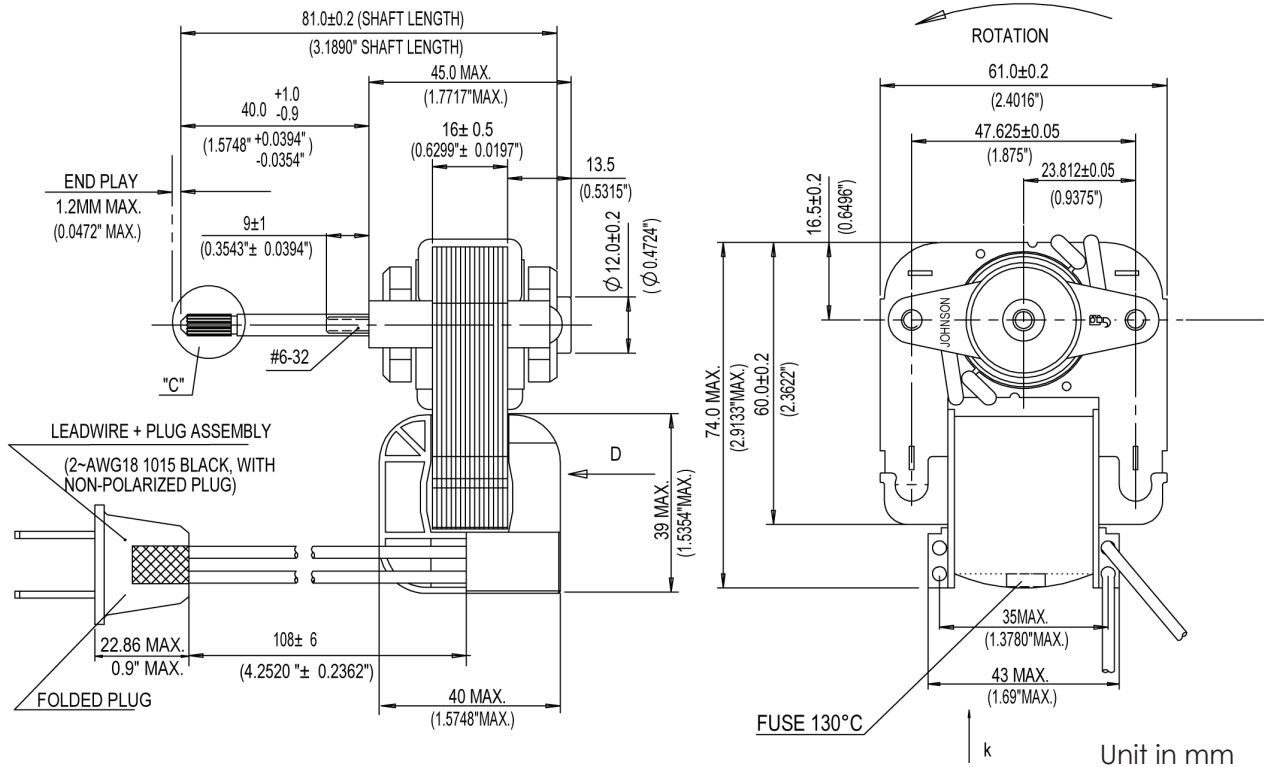
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	3418	2830	2623
Current [A]	0.75	0.79	0.80
Torque [mNm]		26.26	28.98
Efficiency [%]		17.6	16.9
Power [W]		7.78	7.93

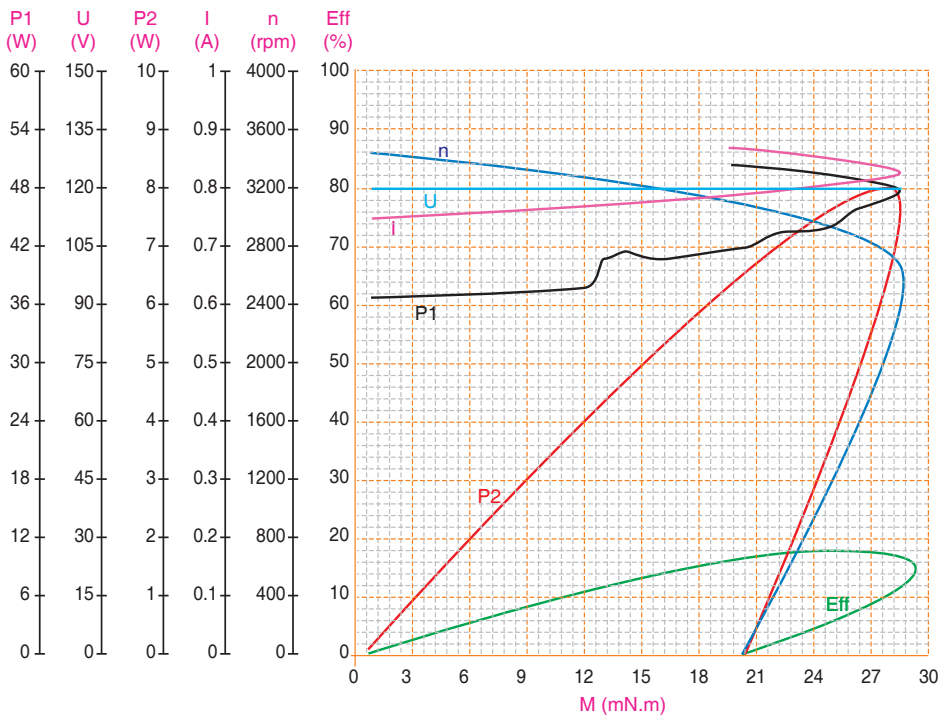
## Application Examples:

Home Ventilation

## Drawing:



## Performance Curve:



**Characteristics:**

High torque SP motor

**Specifications:**

Dimensions	: 63 x 60.5 mm
Length	: 83.50 mm
Shaft Diameter	: Ø 4.600 mm
Weight	: 520 g
Nominal Voltage	: 120.0 V AC
Frequency	: 60 Hz
Operating Temperature Range	: -10 to 55 °C
Storage Temperature Range	: -20 to 80 °C
Electrical Connection	: Leadwires



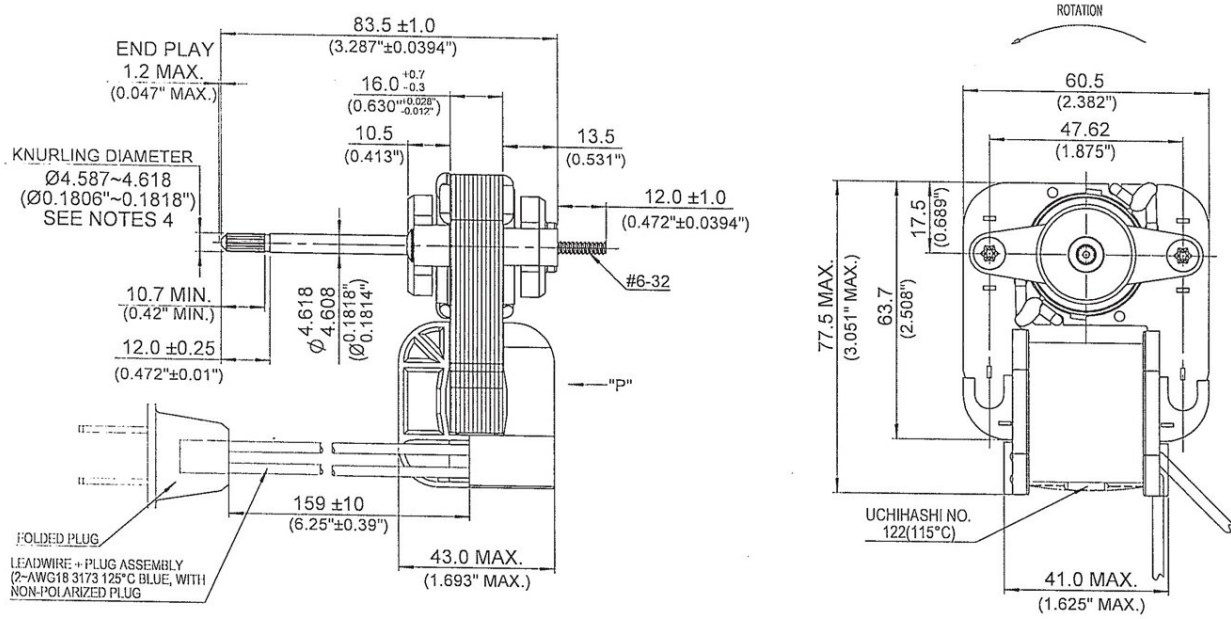
**Performance Data:**

	Stall	No Load	Typical Loading	Maximum Efficiency	Maximum Power
Current (A)	0.55	0.45	-	-	-
Efficiency (%)	-	-	-	-	-
Input Power (W)	66	54	-	-	-
Speed (rpm)	-	3487	-	-	-
Torque (mNm)	-	-	-	-	-

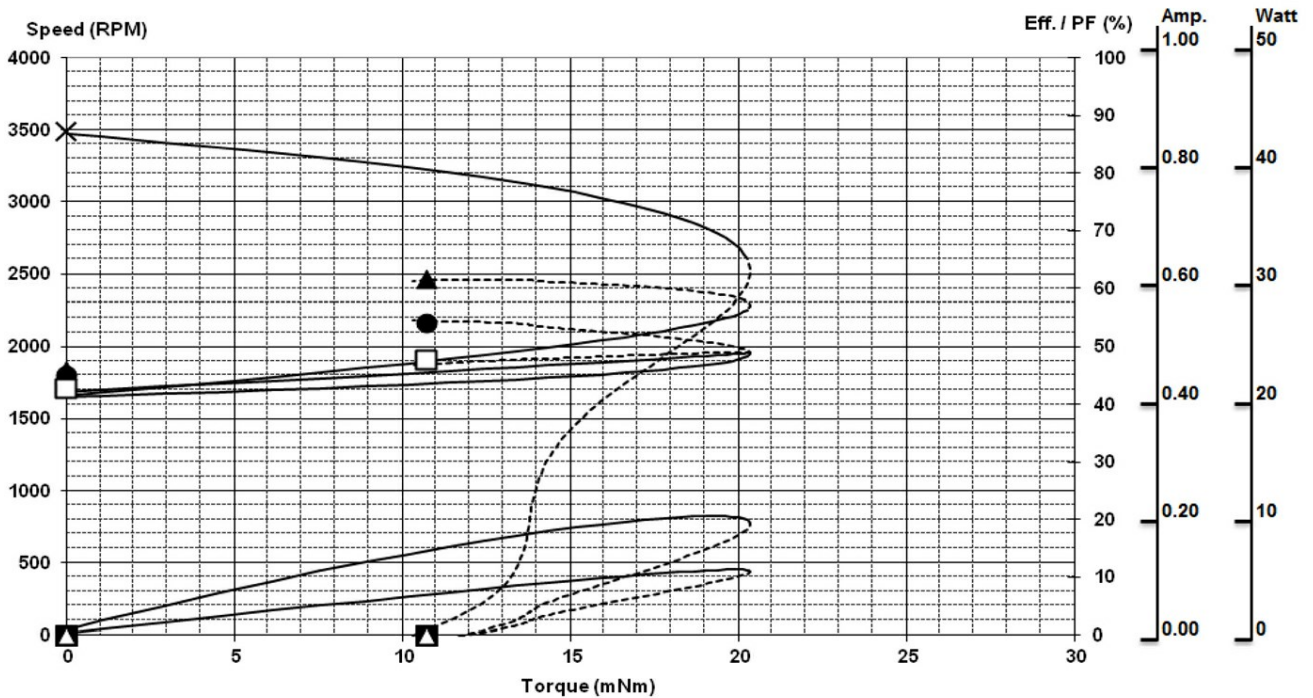
**Application Examples:**

Ventilation

Outline Drawing:



Performance Curves:



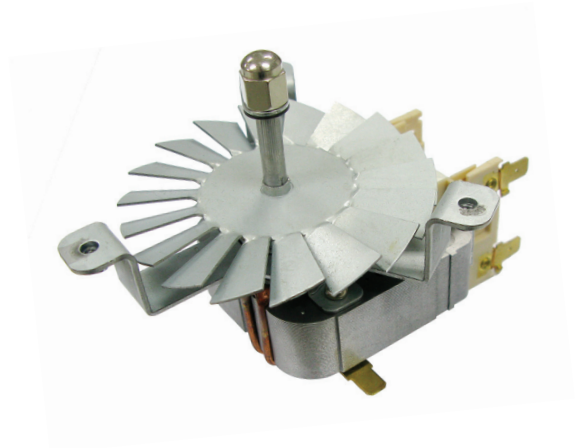
Units in Metric

## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 61.0 X 86.0 mm
Shaft Diameter	: Ø 6.0 mm
Voltage	: 115 VAC, 60 Hz
No Load Speed	: 3328 rpm
No Load Current	: 0.27 A
Maximum Output Power	: 2.23 W
Stall Torque	: 8.34 mNm
Life (typical)	: 5000 hours
Weight	: 640 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Terminals
Certification	: RoHS



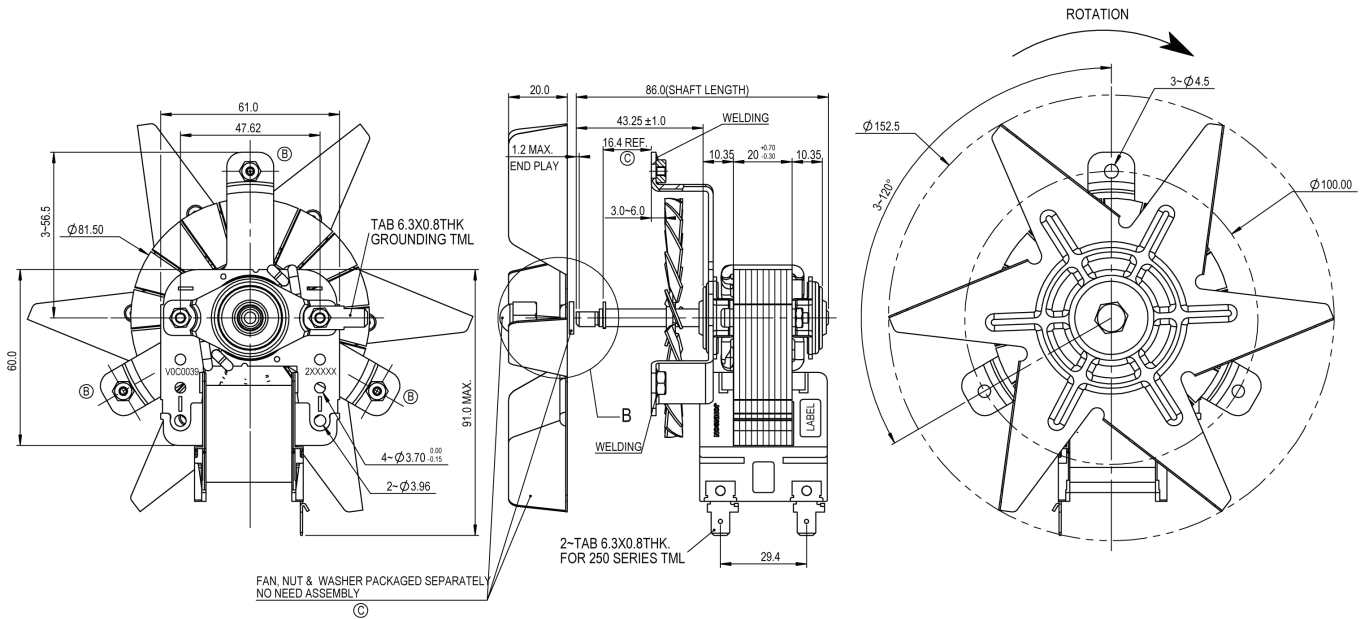
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	3328	2678	2570
Current [A]	0.27	0.31	0.31
Torque [mNm]		7.9	8.28
Efficiency [%]		12	11.7
Power [W]		2.21	2.23

## Application Examples:

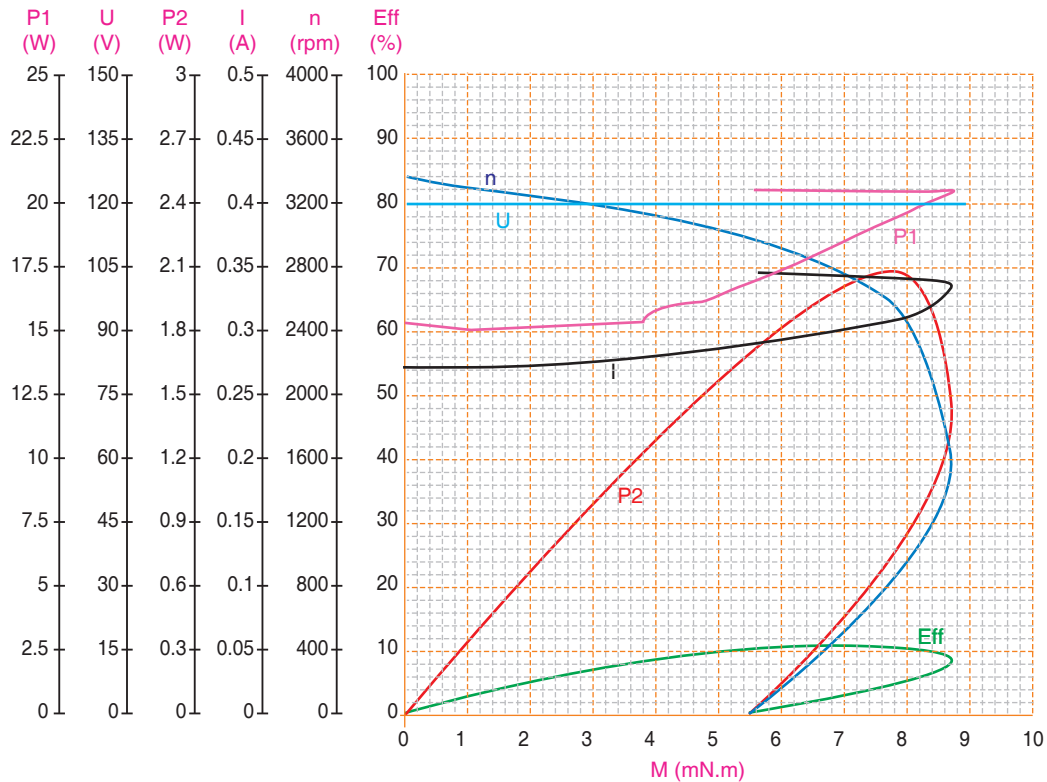
Home Ventilation

## Drawing:



Unit in mm

## Performance Curve:



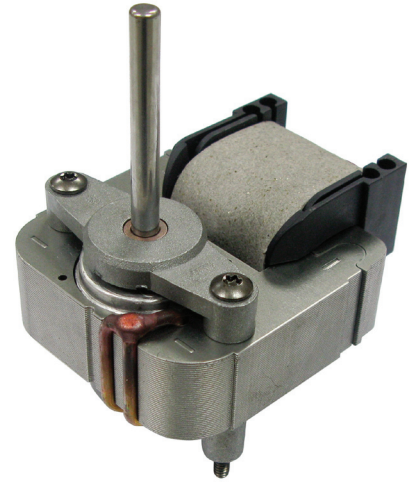


## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 61.0 x 90.1 mm
Shaft Diameter	: Ø 5.529 mm
Voltage	: 120 VAC, 60 Hz
No Load Speed	: 3445 rpm
No Load Current	: 0.656 A
Maximum Output Power	: 10.2 W
Stall Torque	: 21.94 mNm
Life (typical)	: 3000 hours
Weight	: 680 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100 °C
Electrical Connection	: Plug
Certification	: RoHS



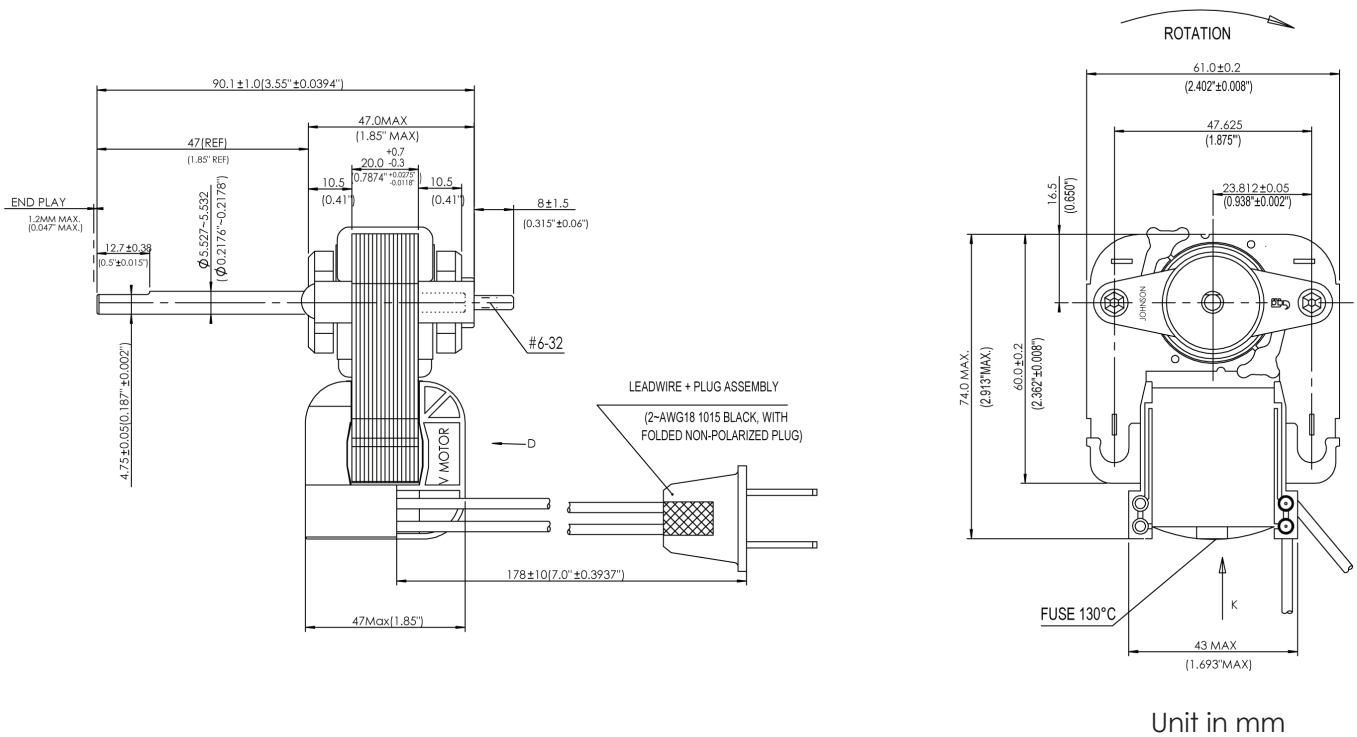
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	3445	2873	2873
Current [A]	0.656	0.744	0.744
Torque [mNm]		33.92	33.92
Efficiency [%]		21.1	21.1
Power [W]		10.2	10.2

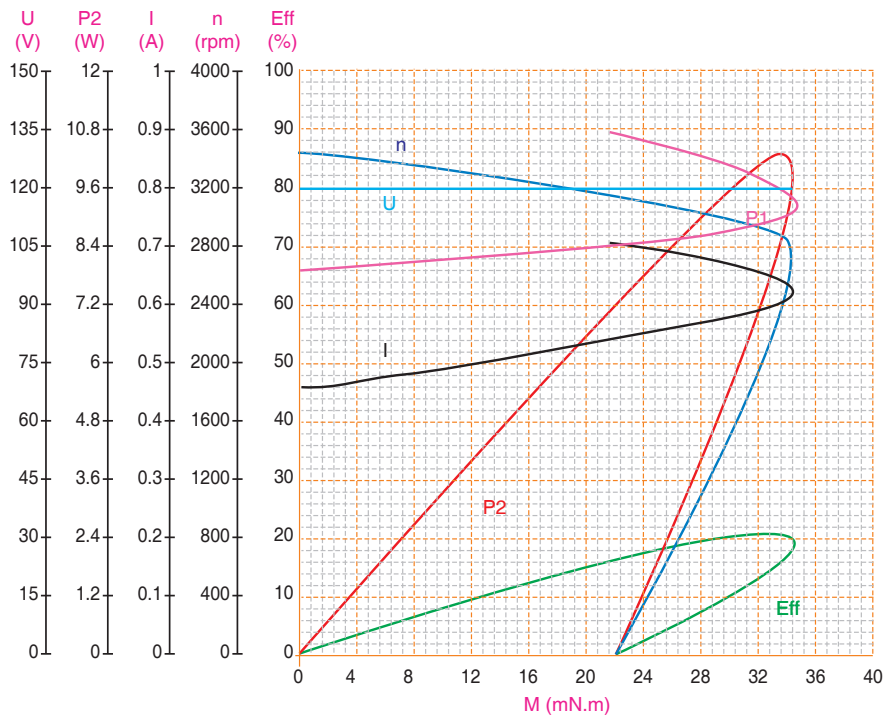
## Application Examples:

Home Ventilation

## Drawing:



## Performance Curve:



**Characteristics:**

High torque SP motor

**Specifications:**

Dimensions : 63.7 X 60.5 mm  
 Length : 95.80 mm  
 Shaft Diameter : Ø 5.500 mm  
 Weight : 845 g  
 Nominal Voltage : 120.0 V AC  
 Frequency : 60 Hz  
 Operating Temperature Range : -10 to 55 °C  
 Storage Temperature Range : -20 to 80 °C  
 Electrical Connection : Leadwires



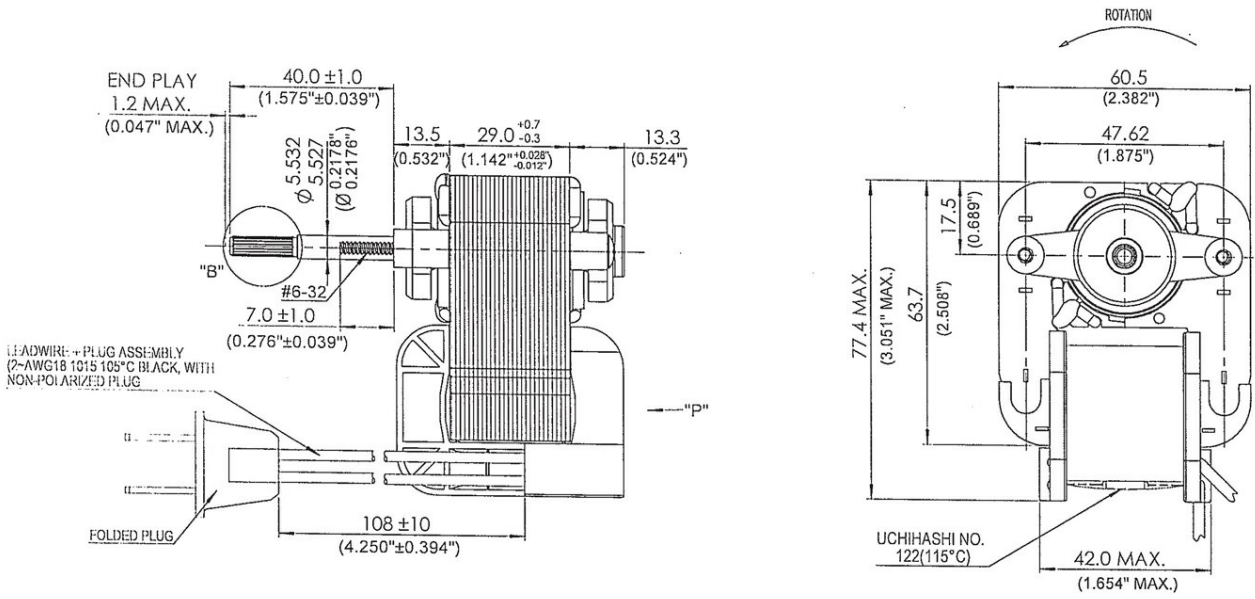
**Performance Data:**

	Stall	No Load	Typical Loading	Maximum Efficiency	Maximum Power
Current (A)	1.08	0.78	-	-	-
Efficiency (%)	-	-	-	-	-
Input Power (W)	130	94	-	-	-
Speed (rpm)	-	3517	-	-	-
Torque (mNm)	16.69	-	-	-	-

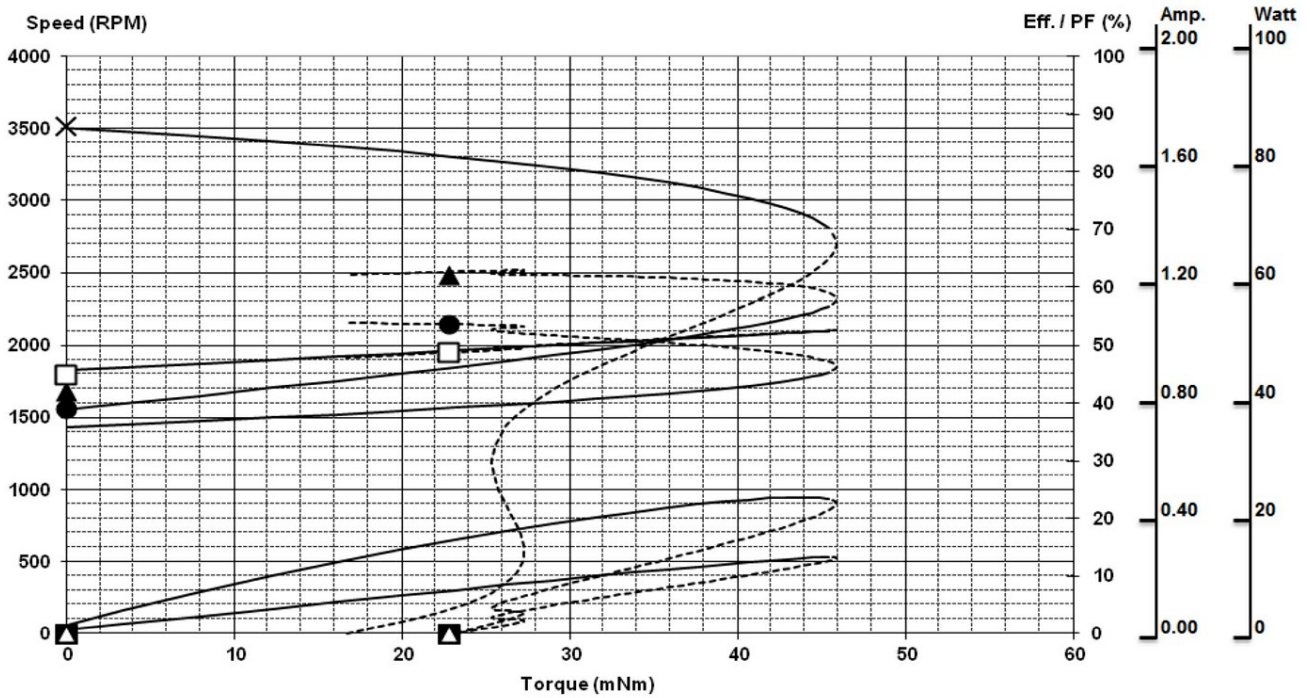
**Application Examples:**

Ventilation

Outline Drawing:



Performance Curves:



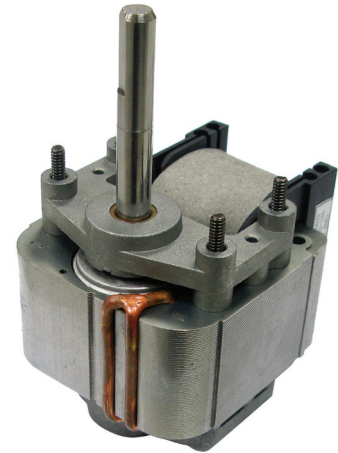
Units in Metric

## Characteristics:

Long Life, Low Noise

## Specifications:

Dimensions	: Ø 61.0 X 109.0 mm
Shaft Diameter	: Ø 8.0 mm
Voltage	: 120 VAC, 60 Hz
No Load Speed	: 3346 rpm
No Load Current	: 0.75 A
Maximum Output Power	: 12.08 W
Stall Torque	: 31.50 mNm
Life (typical)	: 3000 hours
Weight	: 1050 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Terminals
Certification	: RoHS



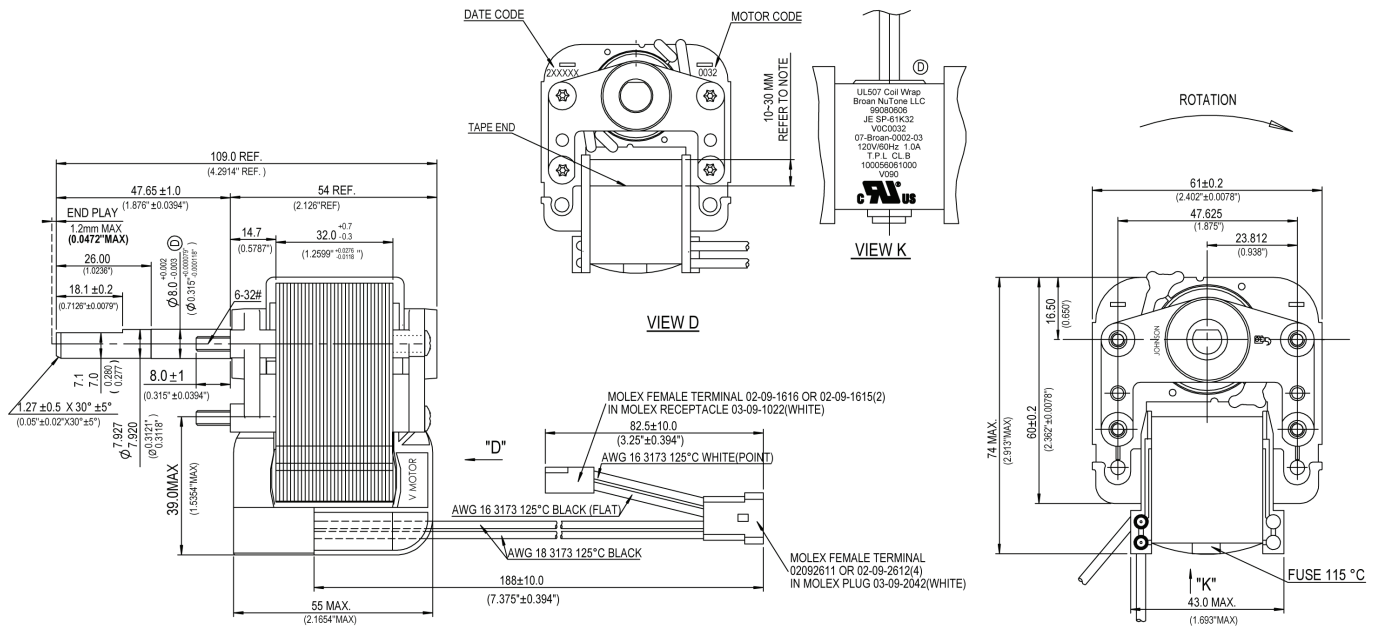
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	3346	2650	2650
Current [A]	0.75	0.85	0.85
Torque [mNm]		43.50	43.50
Efficiency [%]		20.6	20.6
Power [W]		12.08	12.08

## Application Examples:

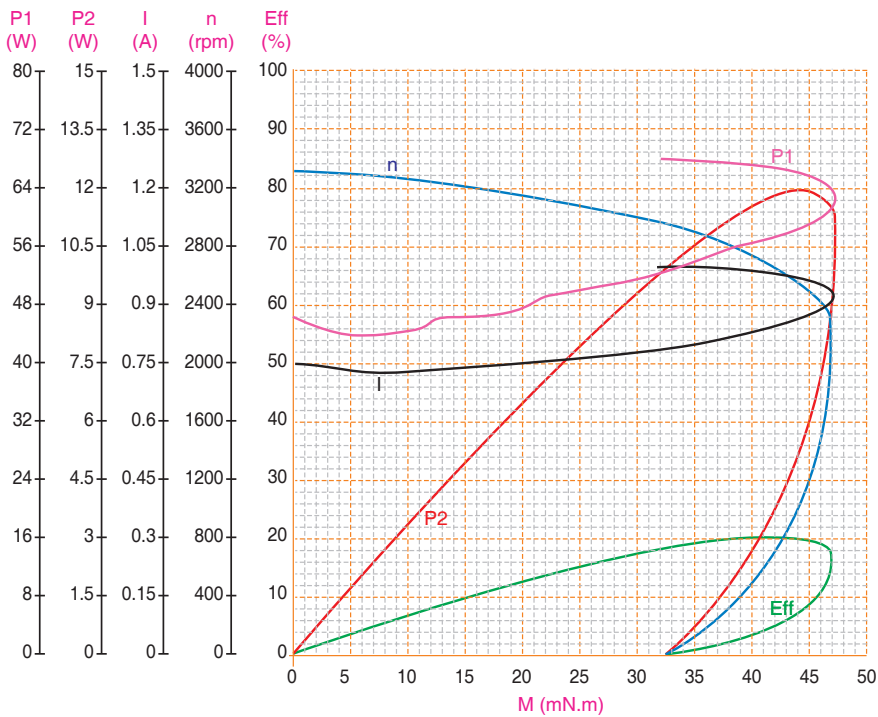
Bathroom Fan

## Drawing:



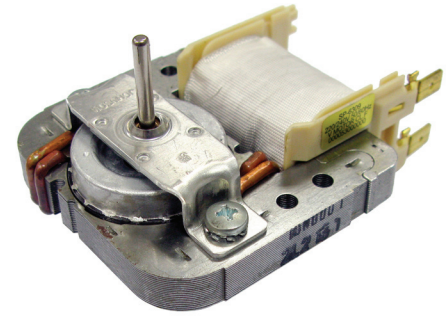
Unit in mm

## Performance Curve:



## Characteristics:

Long Life, Low Noise



## Specifications:

Dimensions	: Ø 63.0 x 51.0 mm
Shaft Diameter	: Ø 3.175 mm
Voltage	: 230 VAC, 50 Hz
No Load Speed	: 2832 rpm
No Load Current	: 0.06 A
Maximum Output Power	: 1.61 W
Stall Torque	: 3.00 mNm
Life (typical)	: 2500 hours
Weight	: 310 g
Operating Temperature	: -10 to 50 °C
Storage Temperature	: -20 to 100°C
Electrical Connection	: Terminal
Certification	: RoHS

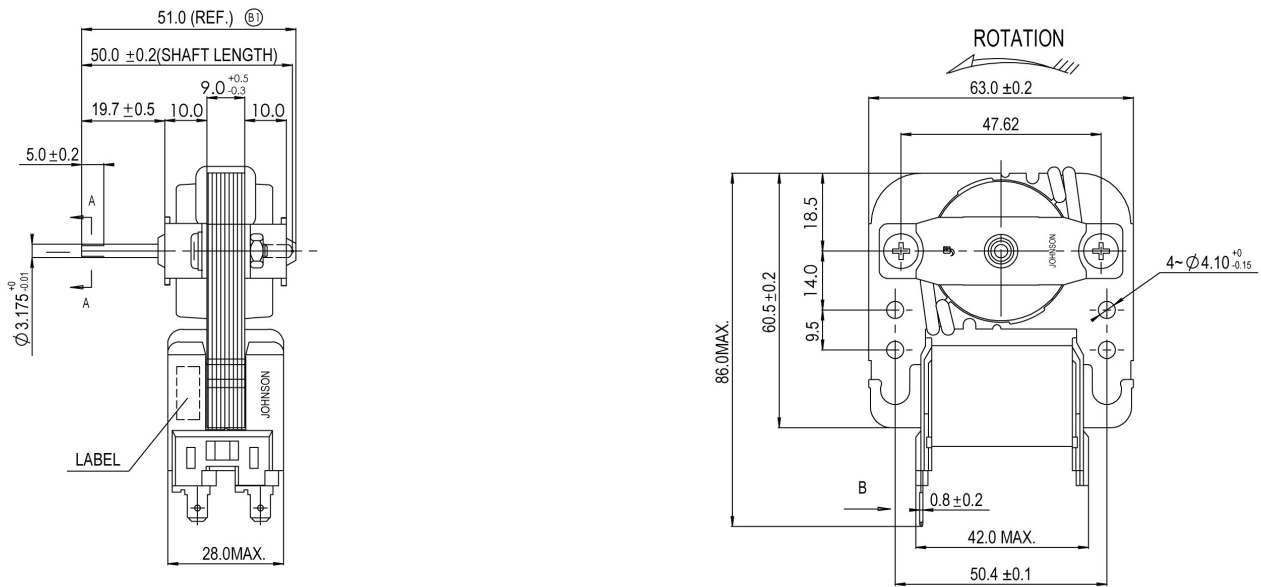
## Performance Data:

	No Load	Max Eff	Max Power
Speed [rpm]	2832	2438	2438
Current [A]	0.06	0.065	0.065
Torque [mNm]		6.33	6.33
Efficiency [%]		20.00	20.00
Power [W]		1.61	1.61

## Application Examples:

Home Ventilation

## Drawing:



Unit in mm

## Performance Curve:

