

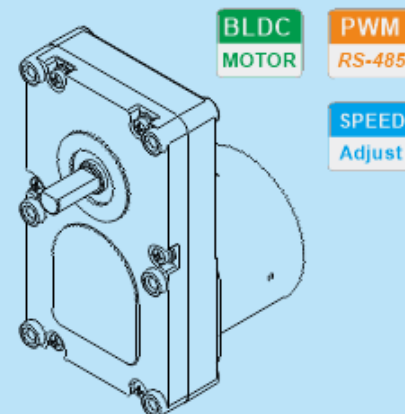
FA-BL60

Features

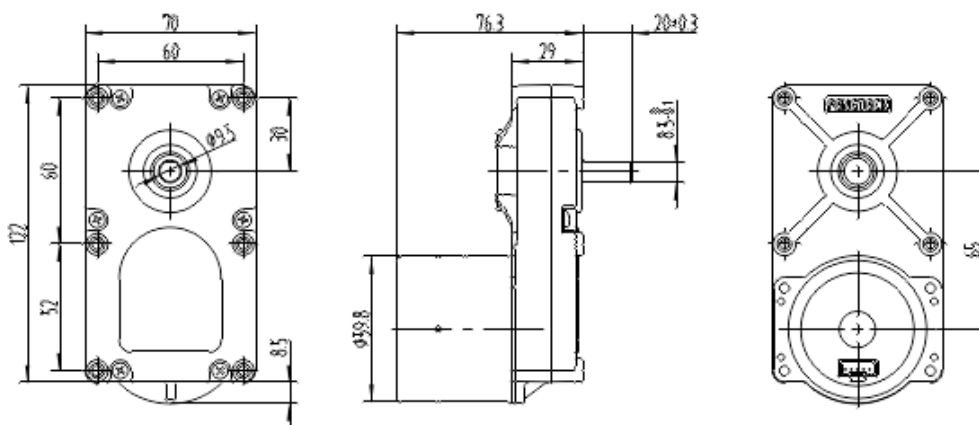
- Long durability
- Ball bearing construction
- Die cast aluminum gear box
- Integrated controller with kinds of protection
- Customized service

Applications

- Commercial food equipment
- Pellet stove
- Pumps
- Custom solutions



Drawings



Specifications

ITEM	SPECIFICATION
Input Voltage	12 or 24 VDC
Input Power	10 ~ 30 W
Speed Range	0 ~ 2800 RPM
Output Power	5 ~ 15 W
Tachometer	9 PPR
Rotate Direction	Bi-directional
Current Limit	1.0 ~ 3.0 A

STANDARD MOTOR SPEED (NO-LOAD)					
1000	1500	2000	2800		

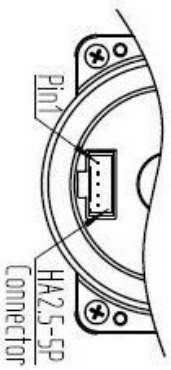
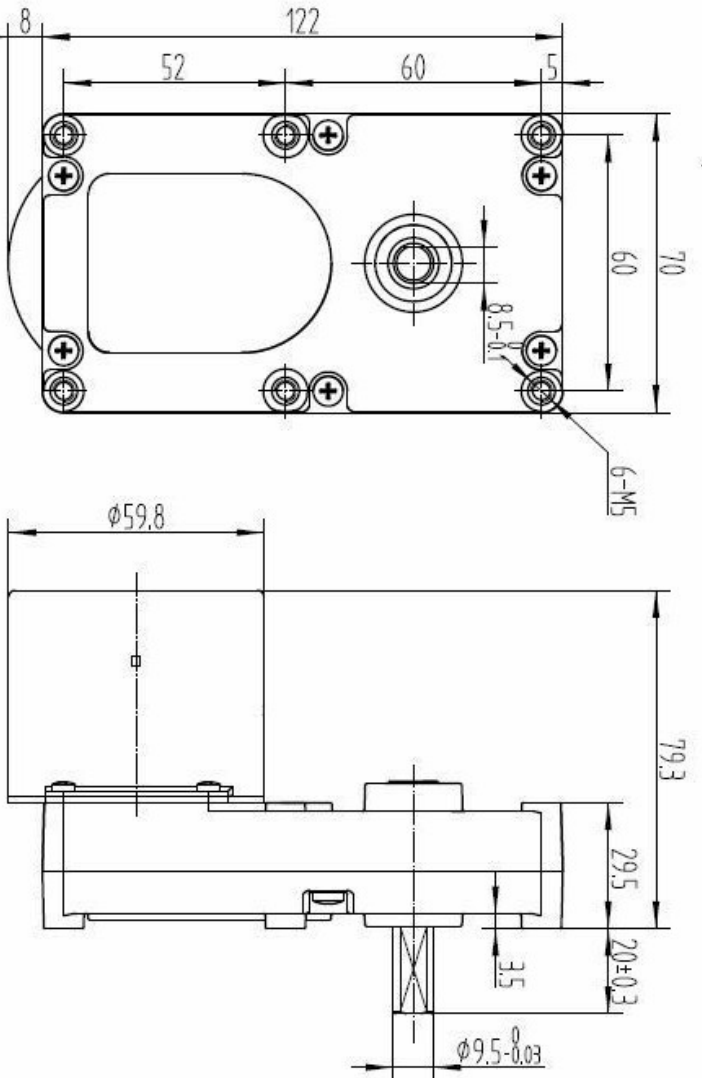
STANDARD GEAR RATIO						
103:1	123:1	144:1	210:1	205:1	267:1	345:1
362:1	828:1	504:1	640:1	903:1		

Safety

ITEM	SPECIFICATION
Insulation Resistance	100 Mohm
Insulation Class	Class E
Electric Strength	DC500V 1sec.
Environment	Temp: -20 ~ 45°C / Humidity: <85%
Protection	Impedance or thermal protection
Certification	CE CCC RoHS

INTEGRATED CONTROLLER WIRING			
PIN	COLOR	SYMBOL	DESCRIPTION
1	RED	VCC	Input power
2	YELLOW	Vsp	Speed control input
3	GREEN	DIR / A	Direction of rotation / 485 BUS A
4	WHITE	FG / B	Rotation speed output / 485 BUS B
5	BLACK	GND	Power ground

1. RATED CHARACTERISTICS			
NO.	ITEM	SPECIFICATION	REMARK
1.1	Operating Voltage	DC18-24V	Rated DC24V
1.2	Rated Speed	4.2 RPM $\pm 5\%$	
1.3	Rated Torque	80 kgf.cm	
1.4	Rated Current	0.45 A	
1.5	Direction of Rotation	Bi-directional	
2. ELECTRICAL CHARACTERISTICS			
2.1	No-load Power	4.5 W	
2.2	No-load Current	0.18 mA	
2.3	No-load Speed	5.0 RPM $\pm 5\%$	
2.4	Input Power	40 W Max	
2.5	Input Current	1.5 A Max	
2.6	Max Torque	200 kgf.cm	
2.7	Insulation Class	Class E	
3. MECHANICAL CHARACTERISTICS			
3.1	Outline Dimension	As Outline Drawing	
3.2	Noise/In	50 dB(A) max	
3.3	Axial Play	0.5mm max	
4. OPERATING CONDITIONS			
4.1	Operational Temp.	-20°C ~ +60°C	Peaks +70°C
4.2	Operational Humidity	10-90%RH	No Condensation
5. WIRING DIAGRAM			
PIN	COLOR	SYMBOL	DESCRIPTION
1	Red	VCC	+24V Power Supply Input
2	Yellow	VSP	Speed Control Input, 0~10V Analog Signal <ul style="list-style-type: none"> Analog signal <2V: Motor Stop Analog signal >8V: Full Speed
3	Green	CW/CCW	Direction of Rotation Control <ul style="list-style-type: none"> Connect to GND: CW Left if Open: CCW
4	White	FG-OUT	Rotation Speed Output <ul style="list-style-type: none"> 9 pulse output per ROTOR rotation This pin is open-drain, EXTERNAL pull-up resistor is needed if pin used.
5	Black	GND	Ground Input



- NOTE
1. BUILT-IN DRIVER.
 2. SPEED CONTROLLED BY 0~10V ANALOG SIGNAL.
 3. BALL BEARINGS ON ROTOR, USED IS "NMB-626ZZ-M9M7LV551".
 4. OVER-CURRENT PROTECTED.

GENERAL TOLERANCES (UNLESS SPECIFIED)

ANGLES: $\pm 1^\circ$

DIMENSIONS: X ± 0.5
 XX ± 0.05



MATERIAL/SPEC. FA-BL60
 DC24V 5.0RPM



TITLE V1.2 2016.9.10

DRAWING NO.

C018052

DRAWN BY	Feigoo	DATE	2015/11/06
CHECKED BY	CJ	DATE	2016/09/10
APPROVED BY			

REVISION	QTY	WEIGHT	SCALE
SIZE	A4	SHEET No.	1 OF 1