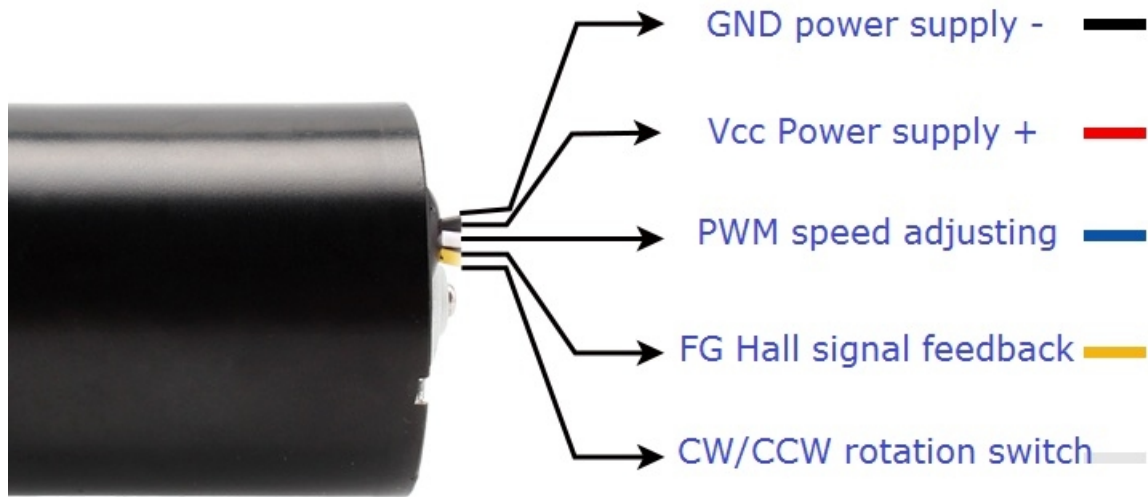


Voltage : 24 V

Max. Power : 30 Watt

Protect current : 3A

Gear ratio	L	No-load		Rated		
	mm	Speed rpm	Current mA	Speed rpm	Current A	Torque Kg.cm
6.3	19	1300	< 320	1070	< 1.1	1.5
10	19	830	< 320	670	< 1.1	2.5
18.8	21.5	425	< 320	355	< 1.1	4.5
23	21.5	270	< 320	225	< 1.1	7
50	24	165	< 320	135	< 1.1	12
90	24	90	< 320	75	< 1.1	22
150	26.5	55	< 320	45	< 1.1	35
260	26.5	30	< 320	27.5	< 0.6	35
450	29	18	< 320	17	< 0.5	35
650	29	12.5	< 320	12	< 0.4	35
810	29	10.2	< 320	9.8	< 0.4	35



—: (MOTOR TERMINATIONS)

Terminations		I/O	Conditions	Remark
GND		IN	Ground	(black wire) Ground
Vcc		IN	DC 12V / 24V	(red wire) Power supply
FG	VOH	OUT	Min4V at 5V10KΩ pull up	(yellow wire) this is the open collector output, which can detect the rotation speed using the FG output according to the phase shift
	VOL		Min0V Max0.6V	
	FG current		Max 5mA	
	FG pulse quantity		6 pulse /round	
PWM	Input voltage	IN	0~5V	(blue wire)
	VIH		Min 1.6V	Motor running
	VIL		Max1.0V	Motor stop
	PWM frequency		Max 50kHz	Advise 15~25kHz
CW/CCW	Input voltage	IN	0~5V	(white wire)
	VIH		Min 2.0V	CCW
	VIL		Max 0.6V	CW