BLS Series DC Brushless Servo System



Features

- · Compact structure, saving installation space
- Low loss design effectively reduces temperature rise

MOONS

moving in better ways

- Supply voltage: DC24~48V
- Motor power: 60W, 100W, 200W, 400W

Superior performance

- Upgraded motor control algorithm to reduce motor vibration and noise
- High-precision encoder with speed as low as 1rpm
- EMC can reach medical grade level

Powerful features

- Built-in soft PLC--Q programming
- Support dynamic braking function
- Rich IO resources

Drive Part Numbering

BLS	10 -	· 4XU	- R	- ****	
1	2	3	4	5	
1 BLS Br	ushless S	(④ Communication Mod	le	
② Curren	t	R: RS-485			
15: Rated Current15A (Peak Current 45A)				C: CANopen	
③ Туре				PN: PROFINET	
	ingal Axis		(5 Customized Code	
4XU: V	/ertical 4-i	n-1			

High speed stability

The speed variation rate reaches $\pm 0.08\%$. Even if the load size changes, the motor can run stably at the set speed.



Wide speed control range

Equipped with a high-resolution encoder, it can operate stably at speeds as low as 1 rpm, achieving smoother start and stop control.



Drive Features

- EMC can reach medical grade level
- · Low loss design effectively reduces temperature rise
- Upgraded motor control algorithm to reduce motor vibration and noise
- With 3 times overload capacity
- Support dynamic braking function

Low loss design

Compared with the previous generation, the loss is reduced by 28% and the power consumption is reduced by 7%.



• Dynamic braking function

Dynamic braking short-circuits the three phases of the motor in an emergency, causing the motor to stop rotating quickly to protect equipment and personal safety.



Brushless servo motor features

Smaller and more efficient

Compared with brushless motors of the same power, brushless servo motors have higher power density and smaller size.



High precision encoder

Equipped with high-resolution magtic encoder which makes the servo system run more smoothly and with higher accuracy.

- High resolution, up to 2500 line
- Good ability to withstand harsh environments
- Stronger vibration resistance
- Dust-proof, oil-proof, and condensation-proof

Typical applications

Brushless DC products are widely used in logistics transmission applications, AMR, cooling pumps, medical testing equipment, etc.

2500

Number of pulses per revolution



Encode

Hall Signal 24

System Configuration



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Various motor solutions

The motor design options are diverse and can be matched with encoders, brakes and different types of gearboxes.



Туре	Frame Size	Reduction ratio	
Planetary gearbox	42, 60, 80	3, 5, 10, 15, 20, 25, 30, 50, 70	
Eccentric gearbox	42, 60, 70, 80, 90	3, 5, 10, 15, 20, 25, 30, 50	

Please consult MOONS' sales for detailed parameters.