



产品名称: 24V 120kg RS485串行总线舵机  
 Product Name: 24V 120kg.cm Serial Control RS485 Servo

产品型号 Model No. SM120BL

### 1. 使用环境条件 Apply Environmental Condition

No.	Item	Specification
1-1	存储温度 Storage Temperature Range	-30℃~80℃
1-2	运行温度 Operating Temperature Range	-20℃~80℃

### 2. 测试环境 Standard Test Environment

No.	Item	Specification
2-1	温度 Temperature range	25℃ ±5℃
2-2	湿度 Humidity range	65%±10%

### 3. 机械特性 Mechanical Specification

No.	Item	Specification
3-1	尺寸 Size	A: 78mm B: 43mm C: 65.5mm
3-2	重量 Weight	485g
3-3	齿轮类型 Gear type	Steel Gear (Gear Ratio 232:1)
3-6	机构极限角度 Limit angle	No Limiter
3-7	轴承 Bearing	2 Ball bearings
3-8	出力轴 Horn gear spline	One character (OD10mm)
3-9	摆臂 Horn type	steel
3-10	外壳 Case	Aluminium (7075)
3-11	舵机线 Connector wire	300mm ±5 mm
3-12	马达 Motor	Brushless motor
3-13	防水性能 Splash water resistance	NO

### 4. 电气特性 Electrical Specification (Function of the Performance)

No.	工作电压 Operating Voltage Range	24V	
4-1*	静态电流 Idle current (at stopped)	40mA	
4-2*	空载速度 No load speed	0.2sec/60degree	50RPM
4-3*	空载电流 Runnig current (at no load)	200 mA	
4-4	堵转扭矩 Peak stall torque	120kg.cm	
		1669.4oz.in	
4-5	堵转电流 Stall current	4000 mA	
4-6	额定负载 Rated Load	32kg.cm≤	
4-7	额定电流 Rated current	1000mA≤	
4-8	KM常数	30kg.cm/A	
4-9	电机内阻 Terminal resistance	2.8Ω	

Note: "\*"definition is average value when the servo runing with no load



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5. 控制特性 Control Specification:

No.	Item	Specification
5-1	控制信号 Command signal	Bus Packet Communication RS485
5-2	协议类型 Protocol Type	Half duplex Asynchronous Serial Communication
5-3	ID范围 ID range	0-253
5-4	通读速率 Communication Speed	38400bps ~ 1 Mbps
5-5	旋转角度 Running degree	360° (when 0~4096)
5-6	反馈 Feedback	Load, Position, Speed, Input Voltage, Current, Temperature
5-7	位置传感器分辨率 Position Sensor (Resolution)	12Bits Magnetic Coding (360° /4096 )

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