

# EMJ-04 Series Servo Motor



## FEATURES

- **Rated Torque of 180 oz-in**
- **Medium Inertia to Maximize Torque**
- **Peak Torque up to 300% of Rated Torque**
- **Peak Current up to 300% of Rated Current**
- **No Load Speed of up to 4,500 RPM**
- **2,500 CPR Incremental Encoder Attached**
- **Enclosed and Self-Cooled**
- **Power Rating up to 400 Watts**
- **Optional Brake Available**
- **Long Life and Highly Reliable**
- **Neodymium-Iron-Boron Magnets (NdFeB)**
- **Class F Insulation**
- **CE Certified**



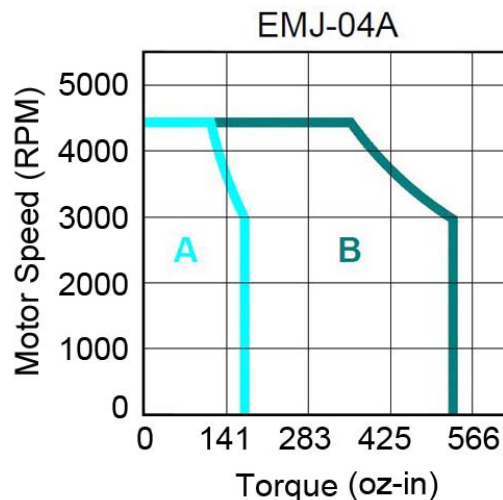
## DESCRIPTION

Anaheim Automation's Digital AC Servo Motors offer a simple solution to servo applications involving speed and positioning control. The AC EMJ-04 Servo Motor comes standard with a 2,500 Pulses Per Revolution (PPR) Incremental Encoder, runs at a maximum speed of 4,500 RPM, provides peak values up to 300% of the rated torque and current values, and has a rated torque of 180 oz-in with a 400 Watt power rating. These enclosed and self-cooled motors also provide longer motor life and higher reliability. The EMJ-04 AC Servo Motors enable industrial motion control applications with medium inertia to attain a great combination of speed and positioning functionality.

## SPECS

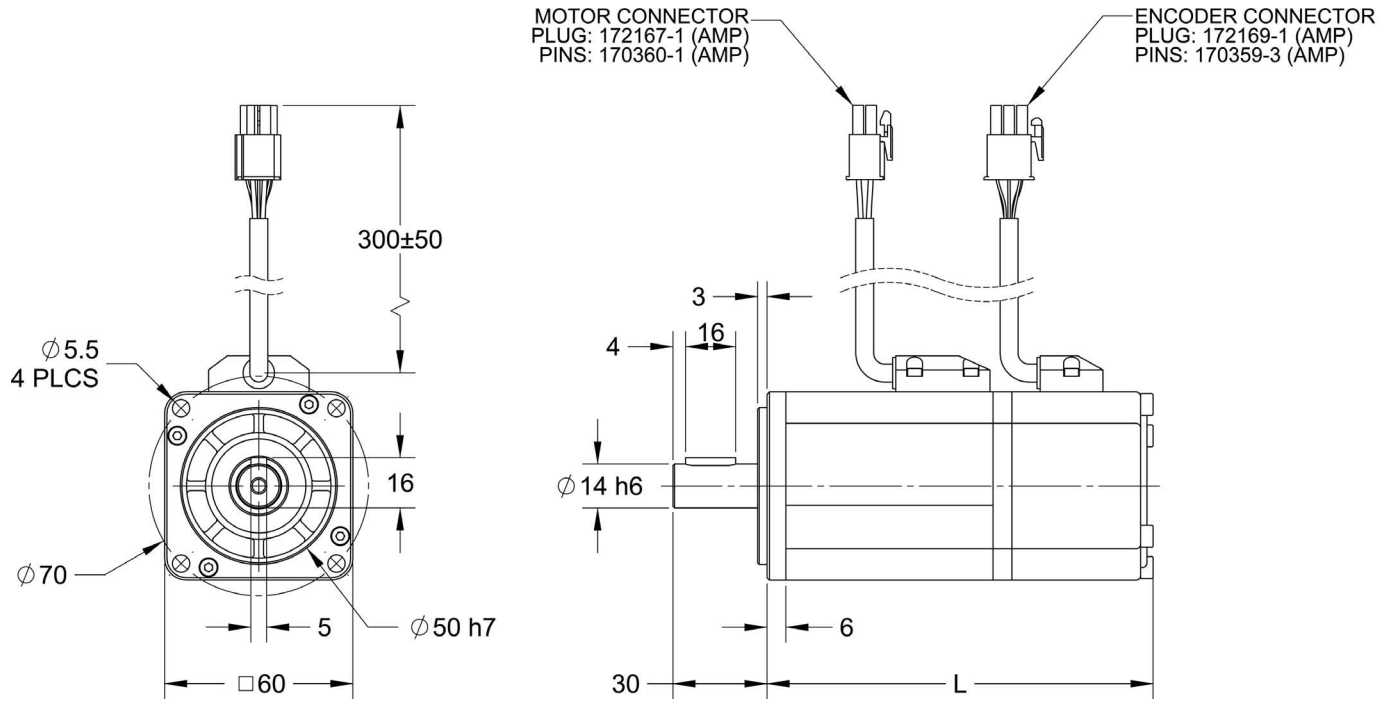
Model #	Rated Torque (oz-in)	Rated Power (Watts)	Rated Speed (RPM)	Max Speed (RPM)	Rated Current (A rms)	Max Current (A rms)	Brake (24VDC)	Inertia (oz-in-sec <sup>2</sup> )	Electric Time Constant T <sub>E</sub> (ms)	Back EMF Voltage K <sub>E</sub> (V/krpm)	Torque Constant K <sub>T</sub> (oz-in/A)	Resistance (ohms)	Weight (lbs)
EMJ-04APB22	180	400	3000	4500	2.7	8.1	No	0.00439	2.979	31.63	79.9	4.7	5.52
EMJ-04APB24	180	400	3000	4500	2.7	8.1	Yes	0.00496	2.979	31.63	79.9	4.7	5.52

## TORQUE CURVE



A: Continuous Working Area  
 B: Repeatedly Working Area

L010976



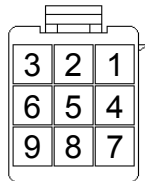
Model #	L
EMJ-04APB22	131
EMJ-04APB24	171

Note: All Dimensions in millimeters

Note: Part Number EMJ-04APB24 is with the brake option. The length of 'L' includes the motor body length + the length of the brake.

**Encoder Connector Specification:**

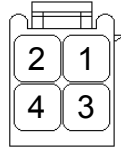
Plug
172169-1 (AMP)
170359-3 (AMP)



Pin No.	Signal	Color
1	A+	BLUE
2	B+	GREEN
3	C+	YELLOW
4	A-	BLUE/BLACK
5	B-	GREEN/BLACK
6	C-	YELLOW/BLACK
7	PG 5V	RED
8	PG 0V	BLACK
9	FG	SHIELD

**Motor Connector Specification:**

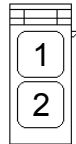
Plug
172167-1 (AMP)
170360-1 (AMP)



Pin No.	Signal	Color
1	U	RED
2	V	BLUE
3	W	WHITE
4	FG	GREEN/YELLOW

**Brake Connector Specification:**

Plug
172165-1 (AMP)
170360-1 (AMP)



Pin No.	Signal	Color
1	B1	WHITE
2	B2	BLUE

Power Requirement: 220VAC	Vibration: 49 m/s <sup>2</sup>	Running Air Pressure: 86 to 106 kPa
Insulation Class: F	Ambient Temperature: 20% to 80% RH	Insulation Voltage Endurance: AC 1800C, 50Hz, 1 min
Ambient Temperature: 0°C to 40°C	Running Humidity: Not More Than 90%, Under 25°C	Insulation Impedance: Not Less Than 50M Under Normal Conditions
Running Temperature: -25°C to 40°C		

**Compatible Driver:**

Part Number	Description
PRONET-E-04A	200W Servo Driver
ETS-1010APC-CAN	200W-1kW Servo Driver
ETS-101010APC-CAN	200W-1kW Servo Driver


**Compatible Cables**

Part Number	Description	Compatible Drivers
PDM-JB18-05	Power Cable	PRONET-E-04A
BMP-JB24-05	Encoder Cable	
PRONET-PSC-CC24-02	Comm. Cable	ETS-1010APC-CAN ETS-101010APC-CAN
PDM-JB18-05	Power Cable	
BMP-JB24-05	Encoder Cable	
PSC-CC24-05	Comm. Cable	

