

Mitsubishi HG-KR053 Manual

Brand	Mitsubishi
Product Series	Mitsubishi Pepperl+Fuchs Omron
Product Type	Servo motor

Description

The Mitsubishi HG-KR053 servo motor is a member of the MELSERVO series. It is a low inertia/small-capacity servo motor with a standard shaft shape. With a rated speed of 3000 rpm and a maximum speed rating of 6000 rpm, it provides precise and rapid motion control. The HG-KR053 servo motor's rated output power is 0.05 kW. Its rated torque is 0.16 Nm, and its maximum torque is 0.56 Nm.

Technical specifications for HG-KR053

Manufacturer Mitsubishi

Product Line HG Series

Part Number HG-KR053

Weight 1.00 lbs (0.45 kg)

Model Type Servo motor

Series MELSERVO

Shaft Shape Standard

Rated Speed 3000 rpm

Maximum Speed 6000 rpm

Rated Output 0.05kW

Rated Torque 0.16 Nm

Maximum Torque 0.56 Nm

Power Rate at Continuous Rated Torque 5.63 kW/s

Rated Current 0.9 A

Maximum Current 3.2A

Recommended Load/Motor Inertia Moment Ratio 17 times or less

Speed/Position Detector 22-bit encoder common to the absolute position/incremental systems (resolution per servo motor revolution: 4194304 pulses/rev)

Description

The Mitsubishi MELSERVO series HG-KR053 servo motor is a low-inertia and small-capacity type of general-purpose industrial servo motor. With a standard shaft shape, this servo motor is optimized for various general-purpose industrial applications. It operates with a rated speed of 3000 rpm and a maximum speed of 6000 rpm, providing exceptional control and responsiveness. The HG-KR053 servo motor's rated output power is 0.05 kW, its rated torque is 0.16 Nm, and its maximum torque is 0.56 Nm. The HG-KR053 servo motor's standard power rate at its continuous rated torque is 5.63 kW/s. With a rated current of 0.9 A and a maximum current rating of 3.2 A, the HG-KR053 servo motor can operate efficiently. For optimal application results, Mitsubishi recommends a load-to-motor inertia ratio rating of 17 times or less. The servo motor incorporates a 22-bit encoder that is common to the absolute position/incremental systems, and this encoder offers precise position and speed detection. The encoder has a rated resolution of 4194304 pulses per revolution. The HG-KR053 servo motor has a totally-enclosed structure with a natural cooling system and an IP rating of IP65. The motor's structure protects it from dust and moderate amounts of water. The HG-KR053 servo motor can operate effectively in a temperature range of 0 to 40°C (32 to 104°F) (non-freezing), and its storage temperature range is -15 to 70°C (5 to 158°F) (non-freezing). Its operational humidity range is from 10% to 80% RH (non-condensing), while its storage humidity range is from 10% to 90% RH (non-condensing). The HG-KR053 servo motor is designed for indoor use. It should not be installed in environments that experience direct sunlight or environments with corrosive gasses, inflammable gasses, oil mist, or dust.

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