

Specifications

Always store a motor in a clean and dry location within these environmental conditions. Appropriate mounting, cabling, and a shaft seal can be required to attain a specific IP rating. Exterior surfaces of the MP-Series small frame servo motors are made from these materials.

Attribute	Value
Temperature, operating	0...40 °C (32...104 °F) ⁽⁴⁾
Temperature, storage	-30...70 °C (-22...158 °F)
Relative humidity, storage	5...95% noncondensing
Atmosphere, storage	Noncorrosive
Shock	20g peak, 6 ms duration
Vibration	2.5 g, 30...2000 Hz
Ingress Protection Codes ^{(1) (2)}	
IP50	Motor without a shaft seal, mounted in the shaft up direction
IP51	Motor without a shaft seal, mounted in the shaft horizontal direction
IP53	Motor without a shaft seal, mounted in the shaft down direction
IP66 ⁽³⁾	Motor with an optional shaft seal
Material by Location	
Housing	Aluminum
Shaft	39NiCrMo3 or 1144 steel (respectively per UNI7845 or ASTM-A311 Class B)
Shaft key	Carbon steel

(1) IP ratings are determined with Rockwell Automation cables connected to the motor.

(2) IP rating applies to a motor mounted as described.

(3) This rating is for dust tightness and powerful water jets ejecting water, not cleaning agents.

(4) To obtain this thermal rating, follow these mounting guidelines:

- Mount the MPL-x15xx motor on a surface with heat dissipation equivalent to a 203.2 x 203.2 x 6.35 mm (8 x 8 x 0.25 in.) aluminum heatsink.
- Mount the MPL-x2xx motor on a surface with heat dissipation equivalent to a 254.0 x 254.0 x 6.35 mm (10 x 10 x 0.25 in.) aluminum heatsink.