

NMX120-3-F Technical Data Sheet

On/Off, Floating Point, Non-Spring Return, AC 100...240 V



| Technical Data | |
|------------------------------------|--|
| Power Supply | 100...240 VAC, -15% / +10%, 50/60 Hz |
| Power consumption in operation | 3.5 W |
| Power consumption in rest position | 0.6 W |
| Transformer sizing | 5.5 VA (class 2 power source) |
| Electrical Connection | 18 GA appliance cable, 3ft [1m] 10ft [3m] and 16ft [5m], with 1/2" conduit connector, degree of protection NEMA 2 / IP54 |
| Overload Protection | electronic throughout 0...95° rotation |
| Input Impedance | 600 Ω |
| Angle of rotation | Max. 95°, adjustable with mechanical stop |
| Torque motor | 90 in-lb [10 Nm] |
| Direction of motion motor | selectable with switch 0/1 |
| Position indication | Mechanically, 30...65 mm stroke |
| Manual override | external push button |
| Running Time (Motor) | 95 s, constant, independent of load |
| Ambient humidity | max. 95% r.H., non-condensing |
| Ambient temperature | -22...122°F [-30...50°C] |
| Storage temperature | -40...176°F [-40...80°C] |
| Degree of Protection | IP54, NEMA 2, UL Enclosure Type 2 |
| Housing material | UL94-5VA |
| Agency Listing | cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU |
| Noise level, motor | 45 dB(A) |
| Servicing | maintenance-free |
| Quality Standard | ISO 9001 |
| Weight | 1.2 lb [0.54 kg] |

Torque min. 90 in-lb, for control of damper surfaces up to 22 sq. ft.

Application

For on/off and floating point control of dampers in HVAC systems. Actuator sizing should be done in accordance with the damper manufacturer's specifications.

The actuator is mounted directly to a damper shaft up to 1.05" in diameter by means of its universal clamp. A crank arm and several mounting brackets are available for applications where the actuator cannot be direct coupled to the damper shaft.

Operation




The actuator is not provided with and does not require any limit switches, but is electronically protected against overload. The anti-rotation strap supplied with the actuator will prevent lateral movement.

The NMX series provides 95° of rotation and a visual indicator indicates position of the actuator. When reaching the damper or actuator end position, the actuator automatically stops. The gears can be manually disengaged with a button on the actuator cover.

The NMX120-3... actuators use a sensorless, brushless DC motor, which is controlled by an Application Specific Integrated Circuit (ASIC). The ASIC monitors and controls the actuator's rotation and provides a digital rotation sensing (DRS) function to prevent damage to the actuator in a stall condition. Power consumption is reduced in holding mode.

Add-on auxiliary switches or feedback potentiometers are easily fastened directly onto the actuator body for signaling and switching functions.

Wiring Diagrams

-  Actuators with appliance cables are numbered.
-  Provide overload protection and disconnect as required.
-  Actuators may be connected in parallel if not mechanically linked. Power consumption and input impedance must be observed.

