



# M SERIES



## 400, 675, 1000 & 1500 IN-LBS, NEMA 4

The M series rotary electric actuator was designed for valve and damper applications requiring from 400 up to 1,500 in-lbs torque. This industrial grade reversing actuator has been manufactured for over thirty years and has achieved an impeccable reputation for reliability in applications requiring repeated superior performance year after year.

### SPECIFICATIONS:

TORQUE	MS	400 In-Lb (45.2 Nm)		
	MR	675 In-Lb (76.3 Nm)		
	ML	1000 In-Lb (113Nm)		
	MH	1500 In-Lb (169.5Nm)		
CYCLE TIME	MS	10 Sec./90	12Vdc, 24Vdc, 24Vac, 115Vac & 230Vac	
	MS	20 Sec./90	115Vac extended duty motor (75%)	
	MR & ML	15 Sec./90	12Vdc, 24Vdc, 24Vac, 115Vac & 230Vac	
	MR & ML	30 Sec./90	115Vac extended duty motor (75%)	
	MH	30 Sec./90	12Vdc, 24Vdc, 24Vac, 115Vac & 230Vac	
	MH	60 Sec./90	115Vac extended duty motor (75%)	
DUTY CYCLE	25% standard on 115Vac and 230Vac			
	75% standard on 12Vdc, 24Vdc and 24Vac, 115Vac extended duty motor, optional			
MOTOR	Permanent split capacitor (for AC) with thermal overload protection			



CURRENT RATINGS FL= Full Load, LR= Lock Rotor

	115 Vac (Std.)		115 Vac Extended Duty		24 Vac		24 Vdc		12 Vdc		208 Vac/1Ph/60Hz		230 Vac/1Ph/60Hz	
	FL	LR	FL	LR	FL	LR	FL	LR	FL	LR	FL	LR	FL	LR
<b>MS &amp; MR</b>	0.38	0.75	0.38	0.75	0.90	3.20	0.90	3.20	1.70	4.20	0.21	0.42	0.18	0.38
<b>ML &amp; MH</b>	0.38	0.75	0.38	0.75	1.10	3.20	1.10	3.20	2.20	4.20	0.21	0.42	0.18	0.38

The motor's LR amps must be taken into account when sizing the input power supply and fuses. Slow blow fuses are recommended

CERTIFICATION	CSA	Master Contract 178618
CLASSIFICATION	3221 02 – Valves – Actuators; 3221 82 – Valves – Actuators Certified to US Standards	
CANADIAN	C22.2 No. 139-1982 (Reaffirmed 2000) – Electrically Operated Valves	
	C22.2 No. 94-M91 (Reaffirmed 2001) – Special Purpose Enclosures	
UNITED STATES	UL 429, 5 <sup>th</sup> Edition (8 Oct 2004) – Electrically Operated Valves	
	UL 50, 11 <sup>th</sup> Edition (12 Sep 2003) – Enclosures for Electrical Equipment	
APPROVED VOLTAGES	115Vac	
APPROVED ENCLOSURE	Type 4	
APPROVED TEMP.	-4F (-20C) to 104F (40C)	
APPROVED OPTIONS	One or Two Auxiliary Switches, Decutching Manual Override with Hand Wheel, Friction Brake, Power On Brake and Power Off Brake for 115Vac (For complete list of options, see option grid in catalog page 33)	
COATING	Thermally bonded polyester powder	
POSITION INDICATOR	Visual	Dome Indicator
	Electric	Feedback from limit switches, same as operating voltage
SWITCHES	Snap action	SPDT, 15A @ 250Vac

# SPECIFICATIONS (CONTINUED):

LUBRICATION	Grease	Permanent, little or no maintenance required
WEIGHT	Pound	MS, MR & ML – 16 (lb)    MH – 22 (lb)
	Kilogram	MS, MR & ML – 7.26 (kg)    MH – 10 (kg)
MOUNTING	Universal	
MOUNTING PAD	ISO 5211 F07 with 17mm star drive (And F10 bolt circle on MH only)	
TEMPERATURE	-40F (-40C) to 150F (65.6C), heater & thermostat required 0F and below Optional double heater for application up to -76F (-60C)	
OVERRIDE	Manual, Declutching Hand Wheel	

