FLOWSERVE

Limitorque Actuation Systems

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Motor Performance Data for Electric Actuators Accutronix MX and L120 Series

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Valve actuator control characteristics

The selection of valve actuator motors, motor protection devices, motor controls, and cabling requires an understanding of valve performance characteristics. Three characteristics that define valve requirements are:

- High starting torque
- Precise position control
- Intermittent operation

High starting torque

Figures 1 and **2** illustrate typical valve performance by plotting motor load (torque) as a function of valve travel. From these figures it can be observed that the highest motor torque requirement occurs when the valve is in the closed position. The dynamic torque required to move the valve through most of its travel is substantially lower. This high torque at the closed position can be largely attributed to the engagement/disengagement of the valve seal.

The actual characteristic of the application can modify these basic curves. For instance, high-flow butterfly valves will exhibit an increased dynamic load. However, this is typically a transient condition and does not alter the basic criteria for motor selection.

Precise position control

Electric valve actuators automatically de-energize the motor to control valve position and output torque. The final valve position or torque is therefore largely dependent on motor inertia. Motors that are too large for the valve will have too much inertia for the application. It will be difficult to regulate the final valve position or torque as illustrated in **Figure 3**.

Inertia can be minimized by selecting a motor with the minimum frame size that is large enough to generate sufficient starting torque. The running torque requirements are relatively low as explained above. Limitorque has found that the best combination of motor frame sizes results in a 15-minute run time rating.

Intermittent operation

Valves used in blocking or positioning service are infrequently operated and valve stroke times are normally limited to a few minutes. **Figure 4** illustrates the thermal characteristics of a typical valve actuator motor and shows that the 15-minute run time rating is adequate for most valves. Exceptions include large, slowly operated valves or those requiring frequent operation. These applications are accommodated by special actuator selection considerations.

Figure 1 - Typical gate valve characteristics

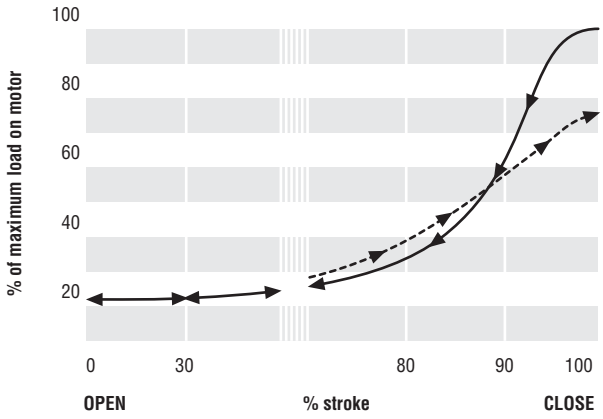


Figure 2 - Typical plug, ball, and low-flow butterfly valve characteristics

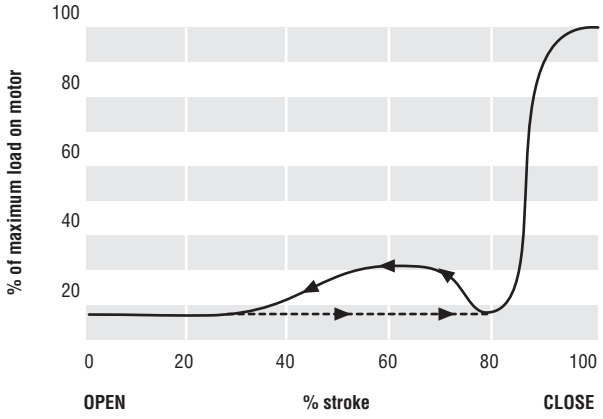
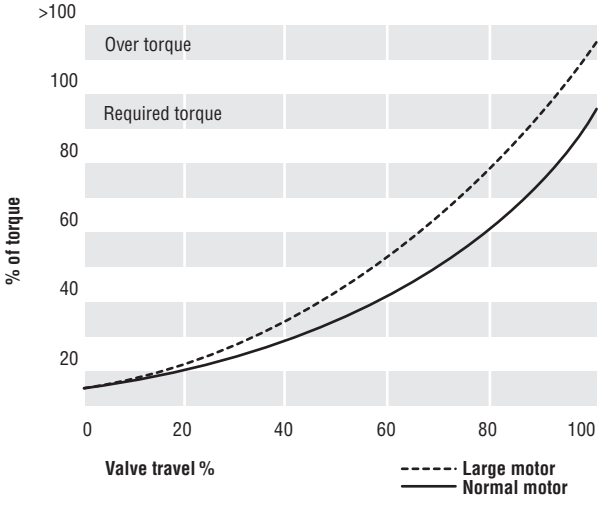


Figure 3 - Effect of motor inertia



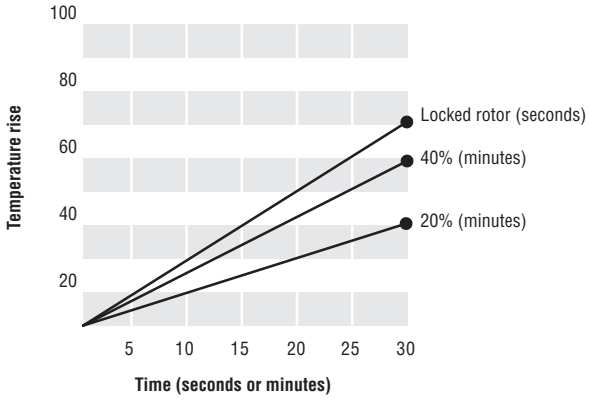
Other considerations

- Thermal protection – The use of Class F insulation and embedded thermal sensors provides motor protection from high ambient temperature, high starting torque, and potential motor overload.
- Enclosure – Actuator motor designs are TENV (Totally Enclosed Non-ventilated) to protect against environmental extremes. All enclosures are suitable for NEMA 4 and 6 (IP – 67 and 68) service and can be XP (explosionproof) if required.

Characteristics of other valve types

Sluice gates and guillotine dampers are examples of valves that require a continuous high running torque as opposed to the types previously discussed. The torque requirement for the sluice gate and guillotine damper types are application-dependent, and the data given in the accompanying tables may not be suitable for their selection. Please consult Limitorque for application assistance in the selection of actuators for these valves.

Figure 4 - Typical motor temperature rise characteristics of Limitorque valve actuator motors



Standard motor design summary

- High starting torque – greater than the unseating torque requirement
- Running torque – 20% of the unseating torque
- Low inertia
- Run time rating – 15 minutes
- Totally enclosed frame design
- Class F insulation
- Embedded thermal protection

Power supply cable sizing

The voltage at the actuator terminals must be maintained to within 10% of the rated value for the motor to develop the specified torque. This is particularly important under starting and seating conditions that apply when beginning the opening or unseating phases. Assuming that the mains provide the rated voltage, this means that no more than 10% of the supply voltage can be dropped by the cable, connections, and any intervening protection or disconnect devices when the motor is drawing locked-rotor current.

Disconnect switch and overload protection

The rating of disconnect switches and motor overload protection devices is generally subject to national or local regulations, which should always be followed.

Limitorque valve actuator motor performance data

This bulletin contains data for L120 and MX series valve actuators. The terms used in these tables are defined below:

- **Actuator speed** – the output speed of the actuator in revolutions per minute (RPM) when the motor is delivering its rated torque.
- **Rated torque** – for valve actuator applications, this is typically the torque required by the actuator when the valve is moving and is defined as 20% of nominal rotor torque. For rated torque loads greater than 20%, please contact Limitorque.
- **Full-load current** – the current drawn by the motor when it is delivering rated torque.
- **Locked-rotor current** – the steady-state current drawn by the motor when the rotor is stationary and rated voltage and frequency are applied. This is the current required by the actuator when the valve is unseating.
- **Rated motor speed** – the motor speed required to produce the rated output speed of the actuator.
- **hp (horsepower)** – the power (expressed in horsepower) produced by the actuator motor when it is running at rated speed and delivering rated torque.
- **kW (kilowatts)** – the power (expressed in kilowatts) produced by the actuator motor when it is running at rated speed and delivering rated torque (1 kW = 1.34 hp).
- **Efficiency** – the ratio of the output power delivered to the actuator to the input power of the motor when the actuator is operating at rated speed and torque. Efficiency is expressed as a percent – (output power/input power) X 100.
- **Power factor** – the power factor is kW delivered to motor divided by kVA delivered to motor.
- **Service factor** – the service factor of an AC motor is a multiplier which, when applied to the rated horsepower, indicates a permissible horsepower loading that may be carried under the conditions specified for the service factor.

Standard power supplies

Motor performance data is grouped according to the type of power source required by the actuator. The following table lists the power sources for standard motors. Motors can also be provided for any other voltage by special design. Please contact Limitorque if your application requires other power source capabilities.

Table 1 – Standard power supplies (volts)

Single-Phase 50 Hz	Single-Phase 60 Hz	Three-Phase 50 Hz	Three-Phase 60 Hz
220	115	380	208
	230	400	230
		415	380
			460
			575

NOTE: The standard torque ratings quoted by Limitorque are valid for supply voltage reductions up to 10% below the stated value. Please contact Limitorque if the supply voltage is expected to fall below 90% of the nominal (stated) value.

MX actuators

208 volts[1], three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[2] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[2] (%)	Power Factor at Full Load[2]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	1.6	4.2	0.13	0.10	44	0.37	0.78	3.0
	26	4	1.4	4.3	0.16	0.12	54	0.46	0.84	2.5
	40	4	1.8	6.4	0.26	0.19	59	0.50	0.87	4.0
	52	4	1.8	6.4	0.26	0.19	59	0.50	0.87	4.0
	77	4	1.8	6.4	0.26	0.19	59	0.50	0.87	4.0
	100	4	1.8	10.7	0.26	0.19	59	0.50	0.87	4.0
	155	2	2.1	10.7	0.42	0.31	60	0.59	0.91	3.25
	200	2	2.1	10.7	0.42	0.31	60	0.59	0.91	3.25
MX-10	18	6	4.3	11.0	0.31	0.23	46	0.42	0.75	7.0
	26	4	4.0	11.5	0.37	0.28	57	0.52	0.85	5.7
	40	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	52	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	77	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	100	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	155	2	3.4	22.6	0.91	0.68	80	0.76	0.85	7.0
	200	2	3.4	22.6	0.91	0.68	80	0.76	0.85	7.0
MX-20	18	6	6.9	18.1	0.57	0.43	57	0.52	0.79	13.0
	26	4	4.3	19.9	0.66	0.50	62	0.72	0.74	10.0
	40	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	52	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	77	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	100	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	155	2	5.7	34.0	1.40	1.04	81	0.74	0.84	11.0
	200	2	5.7	34.0	1.40	1.04	81	0.74	0.84	11.0
MX-40	18	6	10.8	37.0	1.10	0.82	63	0.40	0.91	25.0
	26	4	7.40	39.0	1.30	0.97	70	0.65	0.81	20.0
	40	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	52	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	77	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	100	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	155	2	11.1	75.0	3.00	2.24	80	0.78	0.78	23.0
	200	2	11.1	75.0	3.00	2.24	80	0.78	0.78	23.0

Note 1: 208 volt not available in MX-85 and MX-140.

Note 2: Full load is defined as 20% of rated motor torque.

MX actuators

230 volts[1], three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[2] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[2] (%)	Power Factor at Full Load[2]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	1.6	4.2	0.13	0.10	44	0.37	0.78	3.0
	26	4	1.4	4.3	0.16	0.12	54	0.46	0.84	2.5
	40	4	1.8	6.4	0.26	0.19	59	0.50	0.87	4.0
	52	4	1.8	6.4	0.26	0.19	59	0.50	0.87	4.0
	77	4	1.8	6.4	0.26	0.19	59	0.50	0.87	4.0
	100	4	1.8	6.4	0.26	0.19	59	0.50	0.87	4.0
	155	2	2.1	10.7	0.42	0.31	60	0.59	0.91	3.25
	200	2	2.1	10.7	0.42	0.31	60	0.59	0.91	3.25
MX-10	18	6	4.3	11.0	0.31	0.23	46	0.42	0.75	7.0
	26	4	4.0	11.5	0.37	0.28	57	0.52	0.85	5.7
	40	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	52	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	77	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	100	4	4.4	16.2	0.59	0.44	63	0.52	0.81	9.0
	155	2	3.4	22.6	0.91	0.68	80	0.76	0.86	7.0
	200	2	3.4	22.6	0.91	0.68	80	0.76	0.86	7.0
MX-20	18	6	6.9	18.1	0.57	0.43	57	0.52	0.79	13.0
	26	4	4.3	19.9	0.66	0.50	62	0.72	0.74	10.0
	40	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	52	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	77	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	100	4	7.6	27.5	0.99	0.75	67	0.58	0.79	15.0
	155	2	5.7	34.0	1.42	1.04	81	0.74	0.84	11.0
	200	2	5.7	34.0	1.42	1.04	81	0.74	0.84	11.0
MX-40	18	6	10.8	37.0	1.10	0.82	63	0.40	0.91	25.0
	26	4	7.4	39.0	1.30	0.97	70	0.65	0.81	20.0
	40	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	52	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	77	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	100	4	15.0	59.5	1.90	1.42	71	0.63	0.87	29.0
	155	2	11.1	75.0	3.00	2.24	80	0.78	0.78	23.0
	200	2	11.1	75.0	3.00	2.24	80	0.78	0.78	23.0

Note 1: 230 volt not available in MX-85 and MX-140.

Note 2: Full load is defined as 20% of rated motor torque.

MX actuators

380 volts, three-phase, 50 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	15	6	1.1	2.1	0.11	0.08	38	0.44	0.89	3.0
	22	4	1.5	3.9	0.14	0.10	47	0.40	0.86	2.5
	33	4	1.4	3.6	0.22	0.16	52	0.40	0.87	4.0
	43	4	1.4	3.6	0.22	0.16	52	0.40	0.87	4.0
	65	4	1.4	3.6	0.22	0.16	52	0.40	0.87	4.0
	84	4	1.4	3.6	0.22	0.16	52	0.40	0.87	4.0
	127	2	1.4	6.2	0.35	0.26	57	0.58	0.95	3.25
	165	2	1.4	6.2	0.35	0.26	57	0.58	0.95	3.25
MX-10	15	6	1.9	4.3	0.24	0.18	50	0.36	0.76	7.0
	22	4	1.5	5.2	0.31	0.23	57	0.47	0.86	5.7
	33	4	2.3	6.8	0.47	0.35	59	0.46	0.93	9.0
	43	4	2.3	6.8	0.47	0.35	59	0.46	0.93	9.0
	65	4	2.3	6.8	0.47	0.35	59	0.46	0.93	9.0
	84	4	2.3	6.8	0.47	0.35	59	0.46	0.93	9.0
	127	2	1.7	8.5	0.73	0.54	70	0.79	0.89	7.0
	165	2	1.7	8.5	0.73	0.54	70	0.79	0.89	7.0
MX-20	15	6	3.3	8.7	0.48	0.36	45	0.41	0.85	13.0
	22	4	2.2	10.2	0.55	0.41	63	0.52	0.85	10.0
	33	4	3.3	12.1	0.80	0.59	58	0.51	0.84	15.0
	43	4	3.3	12.1	0.80	0.59	58	0.51	0.84	15.0
	65	4	3.3	12.1	0.80	0.59	58	0.51	0.84	15.0
	84	4	3.3	12.1	0.80	0.59	58	0.51	0.84	15.0
	127	2	3.5	13.6	1.16	0.87	70	0.62	0.87	11.0
	165	2	3.5	13.6	1.16	0.87	70	0.62	0.87	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

380 volts, three-phase, 50 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	15	6	5.5	18.0	0.90	0.67	52	0.41	0.79	25.0
	22	4	3.9	18.9	1.09	0.81	71	0.52	0.83	20.0
	33	4	6.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	43	4	6.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	65	4	6.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	84	4	6.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	127	2	7.1	44.0	2.50	1.77	76	0.71	0.85	23.0
	165	2	7.1	44.0	2.50	1.77	76	0.71	0.85	23.0
MX-85	21	4	4.8	23.0	2.4	1.8	75	0.72	0.96	45.0
	32	4	7.4	34.0	3.3	2.5	77	0.67	0.94	62.0
	43	4	7.4	34.0	3.3	2.5	77	0.67	0.94	62.0
	65	4	7.4	34.0	3.3	2.5	77	0.67	0.94	62.0
	110	4	7.4	34.0	3.3	2.5	77	0.67	0.94	62.0
	143	4	7.4	34.0	3.3	2.5	77	0.67	0.94	62.0
MX-140	21	4	7.4	34.0	3.3	2.5	77	0.67	0.94	62.0
	32	4	10.3	55.0	4.6	4.4	78	0.65	0.83	85.0
	43	4	10.3	55.0	4.6	4.4	78	0.65	0.83	85.0
	65	4	10.3	55.0	4.6	4.4	78	0.65	0.83	85.0
	110	4	10.3	55.0	4.6	4.4	78	0.65	0.83	85.0
	143	4	10.3	55.0	4.6	4.4	78	0.65	0.83	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

380 volts, three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	0.9	2.8	0.13	0.10	42	0.44	0.80	3.0
	26	4	1.2	3.0	0.16	0.12	43	0.42	0.87	2.5
	40	4	1.3	4.5	0.26	0.19	63	0.50	0.92	4.0
	52	4	1.3	4.5	0.26	0.19	63	0.50	0.92	4.0
	77	4	1.3	4.5	0.26	0.19	63	0.50	0.92	4.0
	100	4	1.3	4.5	0.26	0.19	63	0.50	0.92	4.0
	155	2	1.2	6.1	0.42	0.31	65	0.73	0.99	3.25
	200	2	1.2	6.1	0.42	0.31	65	0.73	0.99	3.25
MX-10	18	6	1.9	6.2	0.30	0.23	45	0.44	0.74	7.0
	26	4	1.9	6.4	0.36	0.28	55	0.47	0.79	5.7
	40	4	2.6	11.2	0.59	0.44	63	0.46	0.80	9.0
	52	4	2.6	11.2	0.59	0.44	63	0.46	0.80	9.0
	77	4	2.6	11.2	0.59	0.44	63	0.46	0.80	9.0
	100	4	2.6	11.2	0.59	0.44	63	0.46	0.80	9.0
	155	2	1.8	14.2	0.91	0.68	76	0.91	0.81	7.0
	200	2	1.8	14.2	0.91	0.68	76	0.91	0.81	7.0
MX-20	18	6	3.3	11.9	0.56	0.43	58	0.38	0.74	13.0
	26	4	1.9	13.0	0.65	0.50	68	0.64	0.83	10.0
	40	4	3.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	52	4	3.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	77	4	3.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	100	4	3.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	155	2	3.8	24.0	1.44	1.04	78	0.63	0.80	11.0
	200	2	3.8	24.0	1.44	1.04	78	0.63	0.80	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

380 volts, three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	18	6	7.3	21.0	1.10	0.82	61	0.39	0.73	25.0
	26	4	4.3	22.2	1.30	0.97	74	0.57	0.73	20.0
	40	4	6.7	30.4	1.90	1.42	69	0.52	0.78	29.0
	52	4	6.7	30.4	1.90	1.42	69	0.52	0.78	29.0
	77	4	6.7	30.4	1.90	1.42	69	0.52	0.78	29.0
	100	4	6.7	30.4	1.90	1.42	69	0.52	0.78	29.0
	155	2	6.6	48.8	3.00	2.24	80	0.75	0.85	23.0
	200	2	6.6	48.8	3.00	2.24	80	0.75	0.85	23.0
MX-85	Not Applicable									
MX-140	21	4	7.0	33.0	3.90	2.90	80	0.72	0.86	62.0
	32	4	11.6	48.0	5.40	5.50	73	0.72	0.95	85.0
	43	4	11.6	48.0	5.40	5.50	73	0.72	0.95	85.0
	65	4	11.6	48.0	5.40	5.50	73	0.72	0.95	85.0
	110	4	11.6	48.0	5.40	5.50	73	0.72	0.95	85.0
	143	4	11.6	48.0	5.40	5.50	73	0.72	0.95	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

400 volts, three-phase, 50 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	15	6	1.2	2.6	0.11	0.08	38	0.44	0.89	3.0
	22	4	0.8	2.1	0.14	0.10	47	0.40	0.86	2.5
	33	4	1.3	3.0	0.22	0.16	52	0.40	0.87	4.0
	43	4	1.3	3.0	0.22	0.16	52	0.40	0.87	4.0
	65	4	1.3	3.0	0.22	0.16	52	0.40	0.87	4.0
	84	4	1.3	3.0	0.22	0.16	52	0.40	0.87	4.0
	127	2	1.3	5.8	0.35	0.26	57	0.58	0.95	3.25
	165	2	1.3	5.8	0.35	0.26	57	0.58	0.95	3.25
MX-10	15	6	2.1	6.3	0.24	0.18	50	0.36	0.76	7.0
	22	4	1.5	5.6	0.31	0.23	57	0.47	0.86	5.7
	33	4	2.5	8.0	0.47	0.35	59	0.46	0.93	9.0
	43	4	2.5	8.0	0.47	0.35	59	0.46	0.93	9.0
	65	4	2.5	8.0	0.47	0.35	59	0.46	0.93	9.0
	84	4	2.5	8.0	0.47	0.35	59	0.46	0.93	9.0
	127	2	1.4	13.2	0.73	0.54	70	0.79	0.89	7.0
	165	2	1.4	13.2	0.73	0.54	70	0.79	0.89	7.0
MX-20	15	6	2.2	9.5	0.48	0.36	45	0.41	0.85	13.0
	22	4	1.7	10.0	0.55	0.41	63	0.52	0.85	10.0
	33	4	3.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	43	4	3.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	65	4	3.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	84	4	3.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	127	2	3.5	17.8	1.16	0.87	70	0.62	0.87	11.0
	165	2	3.5	17.8	1.16	0.87	70	0.62	0.87	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

400 volts, three-phase, 50 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	15	6	4.8	19.5	0.90	0.67	52	0.41	0.79	25.0
	22	4	3.5	24.3	1.09	0.81	71	0.52	0.83	20.0
	33	4	5.0	26.0	1.57	1.18	64	0.49	0.79	29.0
	43	4	5.0	26.0	1.57	1.18	64	0.49	0.79	29.0
	65	4	5.0	26.0	1.57	1.18	64	0.49	0.79	29.0
	84	4	5.0	26.0	1.57	1.18	64	0.49	0.79	29.0
	127	2	4.7	30.0	2.50	1.77	76	0.71	0.85	23.0
	165	2	4.7	30.0	2.50	1.77	76	0.71	0.85	23.0
MX-85	21	4	5.4	24.0	2.4	1.8	69	0.67	0.95	45.0
	32	4	8.1	36.0	3.4	2.5	73	0.61	0.9	62.0
	43	4	8.1	36.0	3.4	2.5	73	0.61	0.9	62.0
	65	4	8.1	36.0	3.4	2.5	73	0.61	0.9	62.0
	110	4	8.1	36.0	3.4	2.5	73	0.61	0.9	62.0
	143	4	8.1	36.0	3.4	2.5	73	0.61	0.9	62.0
MX-140	21	4	8.1	36.0	3.4	2.5	73	0.61	0.9	62.0
	32	4	10.9	60.0	4.6	4.6	75	0.60	0.84	85.0
	43	4	10.9	60.0	4.6	4.6	75	0.60	0.84	85.0
	65	4	10.9	60.0	4.6	4.6	75	0.60	0.84	85.0
	110	4	10.9	60.0	4.6	4.6	75	0.60	0.84	85.0
	143	4	10.9	60.0	4.6	4.6	75	0.60	0.84	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

415 volts, three-phase, 50 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	15	6	1.2	2.6	0.11	0.08	34	0.37	0.78	3.0
	22	4	0.8	2.1	0.14	0.10	47	0.50	0.89	2.5
	33	4	1.3	3.0	0.22	0.16	48	0.38	0.86	4.0
	43	4	1.3	3.0	0.22	0.16	48	0.38	0.86	4.0
	65	4	1.3	3.0	0.22	0.16	48	0.38	0.86	4.0
	84	4	1.3	3.0	0.22	0.16	48	0.38	0.86	4.0
	127	2	1.3	5.8	0.35	0.26	52	0.46	0.91	3.25
	165	2	1.3	5.8	0.35	0.26	52	0.46	0.91	3.25
MX-10	15	6	2.1	6.3	0.25	0.18	37	0.37	0.64	7.0
	22	4	1.5	5.6	0.31	0.23	53	0.49	0.86	5.7
	33	4	2.5	8.0	0.49	0.35	61	0.44	0.79	9.0
	43	4	2.5	8.0	0.49	0.35	61	0.44	0.79	9.0
	65	4	2.5	8.0	0.49	0.35	61	0.44	0.79	9.0
	84	4	2.5	8.0	0.49	0.35	61	0.44	0.79	9.0
	127	2	1.4	13.2	0.75	0.54	77	0.63	0.70	7.0
	165	2	1.4	13.2	0.75	0.54	77	0.63	0.70	7.0
MX-20	15	6	2.2	9.5	0.46	0.36	48	0.48	0.82	13.0
	22	4	1.7	10.0	0.54	0.41	59	0.56	0.71	10.0
	33	4	3.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	43	4	3.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	65	4	3.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	84	4	3.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	127	2	3.5	17.8	1.17	0.87	73	0.60	0.82	11.0
	165	2	3.5	17.8	1.17	0.87	73	0.60	0.82	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

415 volts, three-phase, 50 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	15	6	4.8	19.5	0.89	0.67	53	0.39	0.66	25.0
	23	4	3.6	24.3	1.10	0.81	63	0.52	0.73	20.0
	33	4	5.0	26.0	1.57	1.18	62	0.63	0.80	29.0
	43	4	5.0	26.0	1.57	1.18	62	0.63	0.80	29.0
	65	4	5.0	26.0	1.57	1.18	62	0.63	0.80	29.0
	84	4	5.0	26.0	1.57	1.18	62	0.63	0.80	29.0
	127	2	4.7	30.0	2.44	1.77	73	0.69	0.79	23.0
	165	2	4.7	30.0	2.44	1.77	73	0.69	0.79	23.0
MX-85	21	4	6.0	26.0	2.5	1.9	65	0.65	0.92	45.0
	32	4	8.9	36.0	3.4	2.5	71	0.55	0.91	62.0
	43	4	8.9	36.0	3.4	2.5	71	0.55	0.91	62.0
	65	4	8.9	36.0	3.4	2.5	71	0.55	0.91	62.0
	110	4	8.9	36.0	3.4	2.5	71	0.55	0.91	62.0
	143	4	8.9	36.0	3.4	2.5	71	0.55	0.91	62.0
MX-140	21	4	8.9	36.0	3.4	2.5	71	0.55	0.91	62.0
	32	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	43	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	65	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	110	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	143	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

460 volts, three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	1.2	2.6	0.13	0.10	44	0.37	0.77	3.0
	26	4	0.8	2.1	0.16	0.12	54	0.46	0.84	2.5
	40	4	1.3	3.0	0.26	0.19	59	0.50	0.87	4.0
	52	4	1.3	3.0	0.26	0.19	59	0.50	0.87	4.0
	77	4	1.3	3.0	0.26	0.19	59	0.50	0.87	4.0
	100	4	1.3	3.0	0.26	0.19	59	0.50	0.87	4.0
	155	2	1.3	5.8	0.42	0.31	60	0.59	0.91	3.25
	200	2	1.3	5.8	0.42	0.31	60	0.59	0.91	3.25
MX-10	18	6	2.1	6.3	0.32	0.23	46	0.42	0.75	7.0
	26	4	1.5	5.6	0.37	0.28	57	0.52	0.85	5.7
	40	4	2.5	8.0	0.59	0.44	63	0.52	0.81	9.0
	52	4	2.5	8.0	0.59	0.44	63	0.52	0.81	9.0
	77	4	2.5	8.0	0.59	0.44	63	0.52	0.81	9.0
	100	4	2.5	8.0	0.59	0.44	63	0.52	0.81	9.0
	155	2	1.4	13.2	0.89	0.68	80	0.76	0.85	7.0
	200	2	1.4	13.2	0.89	0.68	80	0.76	0.85	7.0
MX-20	18	6	2.2	9.5	0.58	0.43	57	0.52	0.79	13.0
	26	4	1.7	10.0	0.67	0.50	62	0.72	0.74	10.0
	40	4	3.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	52	4	3.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	77	4	3.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	100	4	3.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	155	2	3.5	17.8	1.40	1.04	81	0.74	0.84	11.0
	200	2	3.5	17.8	1.40	1.04	81	0.74	0.84	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

460 volts, three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	18	6	4.8	19.5	1.10	0.82	63	0.40	0.91	25.0
	26	4	3.6	24.3	1.30	0.97	70	0.65	0.81	20.0
	40	4	5.0	26.0	1.90	1.42	71	0.63	0.87	29.0
	52	4	5.0	26.0	1.90	1.42	71	0.63	0.87	29.0
	77	4	5.0	26.0	1.90	1.42	71	0.63	0.87	29.0
	100	4	5.0	26.0	1.90	1.42	71	0.63	0.87	29.0
	155	2	4.7	30.0	3.00	2.24	80	0.78	0.78	23.0
	200	2	4.7	30.0	3.00	2.24	80	0.78	0.78	23.0
MX-85	25	4	5.1	28.0	2.9	2.2	76	0.70	0.76	45.0
	38	4	11.0	46.0	4.0	3.0	75	0.63	0.86	62.0
	52	4	11.0	46.0	4.0	3.0	75	0.63	0.86	62.0
	77	4	11.0	46.0	4.0	3.0	75	0.63	0.86	62.0
	131	4	11.0	46.0	4.0	3.0	75	0.63	0.86	62.0
	170	4	11.0	46.0	4.0	3.0	75	0.63	0.86	62.0
MX-140	25	4	11.0	46.0	4.0	3.0	75	0.63	0.86	62.0
	38	4	12.0	60.0	5.4	6.0	67	0.68	0.84	85.0
	52	4	12.0	60.0	5.4	6.0	67	0.68	0.84	85.0
	77	4	12.0	60.0	5.4	6.0	67	0.68	0.84	85.0
	131	4	12.0	60.0	5.4	6.0	67	0.68	0.84	85.0
	170	4	12.0	60.0	5.4	6.0	67	0.68	0.84	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

575 volts, three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	0.7	1.9	0.13	0.10	38	0.39	0.75	3.0
	26	4	0.8	2.2	0.16	0.12	54	0.44	0.86	2.5
	40	4	0.8	2.9	0.26	0.19	54	0.42	0.87	4.0
	52	4	0.8	2.9	0.26	0.19	54	0.42	0.87	4.0
	77	4	0.8	2.9	0.26	0.19	54	0.42	0.87	4.0
	100	4	0.8	2.9	0.26	0.19	54	0.42	0.87	4.0
	155	2	1.2	4.4	0.42	0.31	60	0.58	0.91	3.25
	200	2	1.2	4.4	0.42	0.31	60	0.58	0.91	3.25
MX-10	18	6	1.5	4.6	0.31	0.24	46	0.45	0.79	7.0
	26	4	1.7	4.9	0.37	0.28	57	0.45	0.83	5.7
	40	4	1.7	7.3	0.59	0.44	63	0.50	0.80	9.0
	52	4	1.7	7.3	0.59	0.44	63	0.50	0.80	9.0
	77	4	1.7	7.3	0.59	0.44	63	0.50	0.80	9.0
	100	4	1.7	7.3	0.59	0.44	63	0.50	0.80	9.0
	155	2	1.3	9.6	0.91	0.66	80	0.71	0.86	7.0
	200	2	1.3	9.6	0.91	0.66	80	0.71	0.86	7.0
MX-20	18	6	2.0	7.5	0.57	0.43	57	0.52	0.79	13.0
	26	4	1.5	8.3	0.66	0.50	62	0.72	0.74	10.0
	40	4	2.3	12.4	0.99	0.75	67	0.58	0.79	15.0
	52	4	2.3	12.4	0.99	0.75	67	0.58	0.79	15.0
	77	4	2.3	12.4	0.99	0.75	67	0.58	0.79	15.0
	100	4	2.3	12.4	0.99	0.75	67	0.58	0.79	15.0
	155	2	2.4	15.7	1.42	1.04	81	0.74	0.84	11.0
	200	2	2.4	15.7	1.42	1.04	81	0.74	0.84	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

575 volts, three-phase, 60 Hz (-22˚F to +158˚F) (-30˚C to +70˚C)

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	18	6	3.2	14.3	1.10	0.82	63	0.39	0.91	25.0
	26	4	2.7	14.3	1.30	0.97	70	0.65	0.81	20.0
	40	4	4.1	19.1	1.90	1.42	71	0.63	0.87	29.0
	52	4	4.1	19.1	1.90	1.42	71	0.63	0.87	29.0
	77	4	4.1	19.1	1.90	1.42	71	0.63	0.87	29.0
	100	4	4.1	19.1	1.90	1.42	71	0.63	0.87	29.0
	155	2	4.0	30.0	3.00	2.24	81	0.78	0.78	23.0
	200	2	4.0	30.0	3.00	2.24	81	0.78	0.78	23.0
MX-85	25	4	4.0	22.0	2.9	2.2	76	0.70	0.76	45.0
	38	4	9.5	37.0	4.0	3.0	75	0.63	0.86	62.0
	52	4	9.5	37.0	4.0	3.0	75	0.63	0.86	62.0
	77	4	9.5	37.0	4.0	3.0	75	0.63	0.86	62.0
	131	4	9.5	37.0	4.0	3.0	75	0.63	0.86	62.0
	170	4	9.5	37.0	4.0	3.0	75	0.63	0.86	62.0
MX-140	25	4	9.5	37.0	4.0	3.0	75	0.63	0.86	62.0
	38	4	11.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	52	4	11.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	77	4	11.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	131	4	11.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	170	4	11.0	48.0	5.4	6.0	67	0.68	0.84	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
380 volts, three-phase, 50 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	15	6	1.7	2.1	0.11	0.08	38	0.44	0.89	3.0
	22	4	2.3	3.9	0.14	0.10	47	0.40	0.86	2.5
	33	4	2.1	3.6	0.22	0.16	52	0.40	0.87	4.0
	43	4	2.1	3.6	0.22	0.16	52	0.40	0.87	4.0
	65	4	2.1	3.6	0.22	0.16	52	0.40	0.87	4.0
	84	4	2.1	3.6	0.22	0.16	52	0.40	0.87	4.0
	127	2	2.1	6.2	0.35	0.26	57	0.58	0.95	3.25
	165	2	2.1	6.2	0.35	0.26	57	0.58	0.95	3.25
MX-10	15	6	2.9	4.3	0.24	0.18	50	0.36	0.76	7.0
	22	4	2.3	5.2	0.31	0.23	57	0.47	0.86	5.7
	33	4	3.5	6.8	0.47	0.35	59	0.46	0.93	9.0
	43	4	3.5	6.8	0.47	0.35	59	0.46	0.93	9.0
	65	4	3.5	6.8	0.47	0.35	59	0.46	0.93	9.0
	84	4	3.5	6.8	0.47	0.35	59	0.46	0.93	9.0
	127	2	3.1	8.5	0.73	0.54	70	0.79	0.89	7.0
	165	2	3.1	8.5	0.73	0.54	70	0.79	0.89	7.0
MX-20	15	6	5.0	8.7	0.48	0.36	45	0.41	0.85	13.0
	22	4	3.3	10.2	0.55	0.41	63	0.52	0.85	10.0
	33	4	5.0	12.1	0.80	0.59	58	0.51	0.84	15.0
	43	4	5.0	12.1	0.80	0.59	58	0.51	0.84	15.0
	65	4	5.0	12.1	0.80	0.59	58	0.51	0.84	15.0
	84	4	5.0	12.1	0.80	0.59	58	0.51	0.84	15.0
	127	2	5.3	13.6	1.16	0.87	70	0.62	0.87	11.0
	165	2	5.3	13.6	1.16	0.87	70	0.62	0.87	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
380 volts, three-phase, 50 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	15	6	8.3	18.0	0.90	0.67	52	0.41	0.79	25.0
	22	4	5.9	18.9	1.09	0.81	71	0.52	0.83	20.0
	33	4	9.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	43	4	9.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	65	4	9.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	84	4	9.0	20.0	1.57	1.18	64	0.49	0.79	29.0
	127	2	11.5	44.0	2.50	1.77	76	0.71	0.85	23.0
	165	2	11.5	44.0	2.50	1.77	76	0.71	0.85	23.0
MX-85	21	4	7.5	23.0	2.4	1.8	75	0.72	0.96	45.0
	32	4	11.1	34.0	3.3	2.5	77	0.67	0.94	62.0
	43	4	11.1	34.0	3.3	2.5	77	0.67	0.94	62.0
	65	4	11.1	34.0	3.3	2.5	77	0.67	0.94	62.0
	110	4	11.1	34.0	3.3	2.5	77	0.67	0.94	62.0
	143	4	11.1	34.0	3.3	2.5	77	0.67	0.94	62.0
MX-140	21	4	11.1	34.0	3.3	2.5	77	0.67	0.94	62.0
	32	4	12.0	55.0	4.6	4.4	78	0.65	0.83	85.0
	43	4	12.0	55.0	4.6	4.4	78	0.65	0.83	85.0
	65	4	12.0	55.0	4.6	4.4	78	0.65	0.83	85.0
	110	4	12.0	55.0	4.6	4.4	78	0.65	0.83	85.0
	143	4	12.0	55.0	4.6	4.4	78	0.65	0.83	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
380 volts, three-phase, 60 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	1.4	2.8	0.13	0.10	42	0.44	0.80	3.0
	26	4	1.8	3.0	0.16	0.12	43	0.42	0.87	2.5
	40	4	2.0	4.5	0.26	0.19	63	0.50	0.92	4.0
	52	4	2.0	4.5	0.26	0.19	63	0.50	0.92	4.0
	77	4	2.0	4.5	0.26	0.19	63	0.50	0.92	4.0
	100	4	2.0	4.5	0.26	0.19	63	0.50	0.92	4.0
	155	2	1.8	6.1	0.42	0.31	65	0.73	0.99	3.25
	200	2	1.8	6.1	0.42	0.31	65	0.73	0.99	3.25
MX-10	18	6	2.9	6.2	0.30	0.23	45	0.44	0.74	7.0
	26	4	2.2	6.4	0.36	0.28	55	0.47	0.79	5.7
	40	4	3.9	11.2	0.59	0.44	63	0.46	0.80	9.0
	52	4	3.9	11.2	0.59	0.44	63	0.46	0.80	9.0
	77	4	3.9	11.2	0.59	0.44	63	0.46	0.80	9.0
	100	4	3.9	11.2	0.59	0.44	63	0.46	0.80	9.0
	155	2	3.5	14.2	0.91	0.68	76	0.91	0.81	7.0
	200	2	3.5	14.2	0.91	0.68	76	0.91	0.81	7.0
MX-20	18	6	5.0	11.9	0.56	0.43	58	0.38	0.74	13.0
	26	4	3.0	13.0	0.65	0.50	68	0.64	0.83	10.0
	40	4	5.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	52	4	5.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	77	4	5.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	100	4	5.9	16.0	0.98	0.74	68	0.48	0.83	15.0
	155	2	6.6	24.0	1.44	1.04	78	0.63	0.80	11.0
	200	2	6.6	24.0	1.44	1.04	78	0.63	0.80	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
380 volts, three-phase, 60 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	18	6	11.0	21.0	1.10	0.82	61	0.39	0.73	25.0
	26	4	6.7	22.0	1.30	0.97	74	0.57	0.73	20.0
	40	4	10.1	30.4	1.90	1.42	69	0.52	0.78	29.0
	52	4	10.1	30.4	1.90	1.42	69	0.52	0.78	29.0
	77	4	10.1	30.4	1.90	1.42	69	0.52	0.78	29.0
	100	4	10.1	30.4	1.90	1.42	69	0.52	0.78	29.0
	155	2	12.1	48.8	3.00	2.24	80	0.75	0.85	23.0
	200	2	12.1	48.8	3.00	2.24	80	0.75	0.85	23.0
MX-85	Not Applicable									
MX-140[2]	21	4	10.0	33.0	3.90	2.90	80	0.72	0.86	62.0
	32	4	12.0	48.0	5.40	5.50	73	0.72	0.95	85.0
	43	4	12.0	48.0	5.40	5.50	73	0.72	0.95	85.0
	65	4	12.0	48.0	5.40	5.50	73	0.72	0.95	85.0
	110	4	12.0	48.0	5.40	5.50	73	0.72	0.95	85.0
	143	4	12.0	48.0	5.40	5.50	73	0.72	0.95	85.0

Note 1: Full load is defined as 20% of rated motor torque.

Note 2: Available in range from -35°C to 50°C.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
400 volts, three-phase, 50 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	15	6	1.8	2.6	0.11	0.08	38	0.44	0.89	3.0
	22	4	1.2	2.1	0.14	0.10	47	0.40	0.86	2.5
	33	4	2.0	3.0	0.22	0.16	52	0.40	0.87	4.0
	43	4	2.0	3.0	0.22	0.16	52	0.40	0.87	4.0
	65	4	2.0	3.0	0.22	0.16	52	0.40	0.87	4.0
	84	4	2.0	3.0	0.22	0.16	52	0.40	0.87	4.0
	127	2	2.0	5.8	0.35	0.26	57	0.58	0.95	3.25
	165	2	2.0	5.8	0.35	0.26	57	0.58	0.95	3.25
MX-10	15	6	3.2	6.3	0.24	0.18	50	0.36	0.76	7.0
	22	4	2.3	5.6	0.31	0.23	57	0.47	0.86	5.7
	33	4	3.8	8.0	0.47	0.35	59	0.46	0.93	9.0
	43	4	3.8	8.0	0.47	0.35	59	0.46	0.93	9.0
	65	4	3.8	8.0	0.47	0.35	59	0.46	0.93	9.0
	84	4	3.8	8.0	0.47	0.35	59	0.46	0.93	9.0
	127	2	2.9	13.2	0.73	0.54	70	0.79	0.89	7.0
	165	2	2.9	13.2	0.73	0.54	70	0.79	0.89	7.0
MX-20	15	6	3.3	9.5	0.48	0.36	45	0.41	0.85	13.0
	22	4	2.6	10.5	0.55	0.41	63	0.52	0.85	10.0
	33	4	5.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	43	4	5.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	65	4	5.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	84	4	5.5	15.5	0.80	0.59	58	0.51	0.84	15.0
	127	2	5.5	17.8	1.16	0.87	70	0.62	0.87	11.0
	165	2	5.5	17.8	1.16	0.87	70	0.62	0.87	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
400 volts, three-phase, 50 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	15	6	7.2	14.5	0.90	0.67	52	0.41	0.79	25.0
	22	4	5.4	24.3	1.09	0.81	71	0.52	0.83	20.0
	33	4	7.5	26.0	1.57	1.18	64	0.49	0.79	29.0
	43	4	7.5	26.0	1.57	1.18	64	0.49	0.79	29.0
	65	4	7.5	26.0	1.57	1.18	64	0.49	0.79	29.0
	84	4	7.5	26.0	1.57	1.18	64	0.49	0.79	29.0
	127	2	8.7	30.0	2.50	1.77	76	0.71	0.85	23.0
	165	2	8.7	30.0	2.50	1.77	76	0.71	0.85	23.0
MX-85	21	4	8.1	24.0	2.4	1.8	69	0.67	0.95	45.0
	32	4	11.5	36.0	3.4	2.5	73	0.61	0.90	62.0
	43	4	11.5	36.0	3.4	2.5	73	0.61	0.90	62.0
	65	4	11.5	36.0	3.4	2.5	73	0.61	0.90	62.0
	110	4	11.5	36.0	3.4	2.5	73	0.61	0.90	62.0
	143	4	11.5	36.0	3.4	2.5	73	0.61	0.90	62.0
MX-140	21	4	11.5	36.0	3.4	2.5	73	0.61	0.90	62.0
	32	4	12.0	60.0	4.6	4.6	75	0.60	0.84	85.0
	43	4	12.0	60.0	4.6	4.6	75	0.60	0.84	85.0
	65	4	12.0	60.0	4.6	4.6	75	0.60	0.84	85.0
	110	4	12.0	60.0	4.6	4.6	75	0.60	0.84	85.0
	143	4	12.0	60.0	4.6	4.6	75	0.60	0.84	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
415 volts, three-phase, 50 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	15	6	1.8	2.6	0.11	0.08	34	0.37	0.78	3.0
	22	4	1.2	2.1	0.14	0.10	47	0.50	0.89	2.5
	33	4	2.0	3.0	0.22	0.16	48	0.38	0.86	4.0
	43	4	2.0	3.0	0.22	0.16	48	0.38	0.86	4.0
	65	4	2.0	3.0	0.22	0.16	48	0.38	0.86	4.0
	84	4	2.0	3.0	0.22	0.16	48	0.38	0.86	4.0
	127	2	2.0	5.8	0.35	0.26	52	0.46	0.91	3.25
	165	2	2.0	5.8	0.35	0.26	52	0.46	0.91	3.25
MX-10	15	6	3.2	6.3	0.25	0.18	37	0.37	0.64	7.0
	22	4	2.3	5.6	0.31	0.23	53	0.49	0.86	5.7
	33	4	3.8	8.0	0.49	0.35	61	0.44	0.79	9.0
	43	4	3.8	8.0	0.49	0.35	61	0.44	0.79	9.0
	65	4	3.8	8.0	0.49	0.35	61	0.44	0.79	9.0
	84	4	3.8	8.0	0.49	0.35	61	0.44	0.79	9.0
	127	2	2.9	13.2	0.75	0.54	77	0.63	0.70	7.0
	165	2	2.9	13.2	0.75	0.54	77	0.63	0.70	7.0
MX-20	15	6	3.3	9.5	0.46	0.36	48	0.48	0.82	13.0
	22	4	2.6	10.0	0.54	0.41	59	0.56	0.71	10.0
	33	4	5.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	43	4	5.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	65	4	5.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	84	4	5.5	15.5	0.81	0.59	62	0.56	0.74	15.0
	127	2	5.5	17.8	1.17	0.87	73	0.60	0.82	11.0
	165	2	5.5	17.8	1.17	0.87	73	0.60	0.82	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
415 volts, three-phase, 50 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	15	6	7.2	19.5	0.89	0.67	53	0.39	0.66	25.0
	23	4	5.4	24.3	1.10	0.81	63	0.52	0.73	20.0
	33	4	7.5	26.0	1.57	1.18	62	0.63	0.80	29.0
	43	4	7.5	26.0	1.57	1.18	62	0.63	0.80	29.0
	65	4	7.5	26.0	1.57	1.18	62	0.63	0.80	29.0
	84	4	7.5	26.0	1.57	1.18	62	0.63	0.80	29.0
	127	2	8.7	30.0	2.44	1.77	73	0.69	0.79	23.0
	165	2	8.7	30.0	2.44	1.77	73	0.69	0.79	23.0
MX-85	21	4	9.0	26.0	2.5	1.9	65	0.65	0.92	45.0
	32	4	12.0	36.0	3.4	2.5	71	0.55	0.91	62.0
	43	4	12.0	36.0	3.4	2.5	71	0.55	0.91	62.0
	65	4	12.0	36.0	3.4	2.5	71	0.55	0.91	62.0
	110	4	12.0	36.0	3.4	2.5	71	0.55	0.91	62.0
	143	4	12.0	36.0	3.4	2.5	71	0.55	0.91	62.0
MX-140	21	4	12.0	36.0	3.4	2.5	71	0.55	0.91	62.0
	32	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	43	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	65	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	110	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0
	143	4	12.0	68.0	4.6	5.2	67	0.60	0.86	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
460 volts, three-phase, 60 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	1.8	2.6	0.13	0.10	44	0.37	0.77	3.0
	26	4	1.2	2.1	0.16	0.12	54	0.46	0.84	2.5
	40	4	2.0	3.0	0.26	0.19	59	0.50	0.87	4.0
	52	4	2.0	3.0	0.26	0.19	59	0.50	0.87	4.0
	77	4	2.0	3.0	0.26	0.19	59	0.50	0.87	4.0
	100	4	2.0	3.0	0.26	0.19	59	0.50	0.87	4.0
	155	2	2.0	5.8	0.42	0.31	60	0.59	0.91	3.25
	200	2	2.0	5.8	0.42	0.31	60	0.59	0.91	3.25
MX-10	18	6	3.2	6.3	0.32	0.23	46	0.42	0.75	7.0
	26	4	2.3	5.6	0.37	0.28	57	0.52	0.85	5.7
	40	4	3.8	8.0	0.59	0.44	63	0.52	0.81	9.0
	52	4	3.8	8.0	0.59	0.44	63	0.52	0.81	9.0
	77	4	3.8	8.0	0.59	0.44	63	0.52	0.81	9.0
	100	4	3.8	8.0	0.59	0.44	63	0.52	0.81	9.0
	155	2	2.9	13.2	0.89	0.68	80	0.76	0.85	7.0
	200	2	2.9	13.2	0.89	0.68	80	0.76	0.85	7.0
MX-20	18	6	3.3	9.5	0.58	0.43	57	0.52	0.79	13.0
	26	4	2.6	10.0	0.67	0.50	62	0.72	0.74	10.0
	40	4	5.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	52	4	5.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	77	4	5.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	100	4	5.5	15.5	1.00	0.75	67	0.58	0.79	15.0
	155	2	5.5	17.8	1.40	1.04	81	0.74	0.84	11.0
	200	2	5.5	17.8	1.40	1.04	81	0.74	0.84	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
460 volts, three-phase, 60 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	18	6	7.2	19.5	1.10	0.82	63	0.40	0.91	25.0
	26	4	5.4	24.3	1.30	0.97	70	0.65	0.81	20.0
	40	4	7.5	26.0	1.90	1.42	71	0.63	0.87	29.0
	52	4	7.5	26.0	1.90	1.42	71	0.63	0.87	29.0
	77	4	7.5	26.0	1.90	1.42	71	0.63	0.87	29.0
	100	4	7.5	26.0	1.90	1.42	71	0.63	0.87	29.0
	155	2	8.7	30.0	3.00	2.24	80	0.78	0.78	23.0
	200	2	8.7	30.0	3.00	2.24	80	0.78	0.78	23.0
MX-85	25	4	7.7	28	2.9	2.2	76	0.70	0.76	45.0
	38	4	12.0	39	4.0	3.0	75	0.63	0.86	62.0
	52	4	12.0	39	4.0	3.0	75	0.63	0.86	62.0
	77	4	12.0	39	4.0	3.0	75	0.63	0.86	62.0
	131	4	12.0	39	4.0	3.0	75	0.63	0.86	62.0
	170	4	12.0	39	4.0	3.0	75	0.63	0.86	62.0
MX-140	25	4	12.0	39	4.0	3.0	75	0.63	0.86	62.0
	38	4	12.0	60	5.4	6.0	67	0.68	0.84	85.0
	52	4	12.0	60	5.4	6.0	67	0.68	0.84	85.0
	77	4	12.0	60	5.4	6.0	67	0.68	0.84	85.0
	131	4	12.0	60	5.4	6.0	67	0.68	0.84	85.0
	170	4	12.0	60	5.4	6.0	67	0.68	0.84	85.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
575 volts, three-phase, 60 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-05	18	6	1.1	1.9	0.13	0.10	38	0.39	0.75	3.0
	26	4	1.2	2.2	0.16	0.12	54	0.44	0.86	2.5
	40	4	1.2	2.9	0.26	0.19	54	0.42	0.87	4.0
	52	4	1.2	2.9	0.26	0.19	54	0.42	0.87	4.0
	77	4	1.2	2.9	0.26	0.19	54	0.42	0.87	4.0
	100	4	1.2	2.9	0.26	0.19	54	0.42	0.87	4.0
	155	2	1.8	4.4	0.42	0.31	60	0.58	0.91	3.25
	200	2	1.2	4.4	0.42	0.31	60	0.58	0.91	3.25
MX-10	18	6	2.3	4.6	0.31	0.24	46	0.45	0.79	7.0
	26	4	2.6	4.9	0.37	0.28	57	0.45	0.83	5.7
	40	4	2.6	7.3	0.59	0.44	63	0.50	0.80	9.0
	52	4	2.6	7.3	0.59	0.44	63	0.50	0.80	9.0
	77	4	2.6	7.3	0.59	0.44	63	0.50	0.80	9.0
	100	4	2.6	7.3	0.59	0.44	63	0.50	0.80	9.0
	155	2	2.6	9.6	0.91	0.66	80	0.71	0.86	7.0
	200	2	2.6	9.6	0.91	0.66	80	0.71	0.86	7.0
MX-20	18	6	3.0	7.5	0.57	0.43	57	0.52	0.79	13.0
	26	4	2.3	8.3	0.66	0.50	62	0.72	0.74	10.0
	40	4	3.5	12.4	0.99	0.75	67	0.58	0.79	15.0
	52	4	3.5	12.4	0.99	0.75	67	0.58	0.79	15.0
	77	4	3.5	12.4	0.99	0.75	67	0.58	0.79	15.0
	100	4	3.5	12.4	0.99	0.75	67	0.58	0.79	15.0
	155	2	4.0	15.7	1.42	1.04	81	0.74	0.84	11.0
	200	2	4.0	15.7	1.42	1.04	81	0.74	0.84	11.0

Note 1: Full load is defined as 20% of rated motor torque.

MX actuators

Low-temperature applications (-58˚F to +122˚F) (-50˚C to +50˚C)
575 volts, three-phase, 60 Hz

Actuator Model	Actuator Speed (RPM)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor	Torque (ft-lb)
MX-40	18	6	4.8	14.3	1.10	0.82	63	0.39	0.91	25.0
	26	4	4.2	14.3	1.30	0.97	70	0.65	0.81	20.0
	40	4	6.5	19.1	1.90	1.42	71	0.63	0.87	29.0
	52	4	6.5	19.1	1.90	1.42	71	0.63	0.87	29.0
	77	4	6.5	19.1	1.90	1.42	71	0.63	0.87	29.0
	100	4	6.5	19.1	1.90	1.42	71	0.63	0.87	29.0
	155	2	7.5	30.0	3.00	2.24	81	0.78	0.78	23.0
	200	2	7.5	30.0	3.00	2.24	81	0.78	0.78	23.0
MX-85	25	4	6.0	22.0	2.9	2.2	76	0.70	0.76	45.0
	38	4	9.1	31.0	4.0	3.0	75	0.63	0.86	62.0
	52	4	9.1	31.0	4.0	3.0	75	0.63	0.86	62.0
	77	4	9.1	31.0	4.0	3.0	75	0.63	0.86	62.0
	131	4	9.1	31.0	4.0	3.0	75	0.63	0.86	62.0
	170	4	9.1	31.0	4.0	3.0	75	0.63	0.86	62.0
MX-140	25	4	9.1	31.0	4.0	3.0	75	0.63	0.86	62.0
	38	4	12.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	52	4	12.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	77	4	12.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	131	4	12.0	48.0	5.4	6.0	67	0.68	0.84	85.0
	170	4	12.0	48.0	5.4	6.0	67	0.68	0.84	85.0

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

208 volts, three-phase, 60 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	2.6	11.0	0.20	0.15	46	0.42	0.77
	5	8	4.0	11.0	0.17	0.13	31	0.34	0.74
	5	4	3.5	15.4	0.33	0.25	51	0.42	0.82
	5	2	3.1	26.4	0.67	0.50	66	0.74	0.87
	7.5	4	3.7	22.0	0.50	0.37	58	0.53	0.80
	7.5	2	4.4	33.0	1.00	0.75	68	0.76	0.82
L120-20	7.5	4	3.7	22.0	0.5	0.37	58	0.53	0.80
	7.5	2	4.4	33.0	1.0	0.75	68	0.76	0.82
	10	8	5.7	19.8	0.33	0.25	37	0.34	0.73
	10	4	5.1	28.6	0.67	0.5	58	0.48	0.75
	10	2	6.6	44.0	1.33	1.0	70	0.62	0.81
	15	4	5.7	41.8	1.00	0.75	64	0.60	0.82
	15	2	8.8	66.0	2.00	1.49	72	0.68	0.84
L120-40	15	4	5.7	41.8	1.00	0.75	64	0.60	0.82
	15	2	8.8	66.0	2.00	1.49	72	0.68	0.84
	25	4	9.3	70.4	1.64	1.22	73	0.53	0.72
	25	2	10.3	79.2	3.20	2.39	85	0.79	0.85
L120-85	25	4	8.8	56.0	1.64	1.2	73	0.53	0.72
	25	2	11.6	80.0	3.30	2.5	85	0.79	0.85
	40	4	13.2	84.0	2.60	1.94	80	0.66	0.79
	40	2	18.0	135.0	5.30	3.95	84	0.76	0.74
	60	4	20.0	144.0	4.0	2.98	75	0.56	0.76
	60	2	22.6	241.0	7.8	5.82	84	0.76	0.82
L120-190	60	4	20.0	144.0	4.0	2.98	75	0.56	0.76
	60	2	22.6	241.0	7.8	5.82	84	0.76	0.82
	80	4	23.3	132.0	5.2	3.88	81	0.57	0.74
	80	2	33.2	256.1	10.3	7.68	85	0.79	0.83
L120-420	100	4	22.0	185.9	6.6	4.92	89	0.70	0.75
	100	2	40.5	314.6	13.0	9.7	86	0.76	0.68
	150	4	42.9	286.0	9.9	7.4	82	0.62	0.70
	150	2	56.5	429.0	19.2	14.3	85	0.86	0.74

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

230 volts, three-phase, 60 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	2.4	10.0	0.20	0.15	46	0.42	0.77
	5	8	3.6	10.0	0.17	0.13	31	0.34	0.74
	5	4	3.2	14.0	0.33	0.25	51	0.42	0.82
	5	2	2.8	24.0	0.67	0.50	66	0.74	0.87
	7.5	4	3.4	20.0	0.50	0.37	58	0.53	0.80
	7.5	2	4.0	30.0	1.00	0.75	68	0.76	0.82
L120-20	7.5	4	3.4	20.0	0.5	0.37	58	0.53	0.80
	7.5	2	4.0	30.0	1.0	0.75	68	0.76	0.82
	10	8	5.2	18.0	0.33	0.25	37	0.34	0.73
	10	4	4.6	26.0	0.67	0.5	58	0.48	0.75
	10	2	6.0	40.0	1.33	1.0	70	0.62	0.81
	15	4	5.2	38.0	1.00	0.75	64	0.60	0.82
	15	2	8.0	60.0	2.00	1.49	72	0.68	0.84
L120-40	15	4	5.2	38.0	1.00	0.75	64	0.60	0.82
	15	2	8.0	60.0	2.00	1.49	72	0.68	0.84
	25	4	8.4	64.0	1.64	1.22	73	0.53	0.72
	25	2	9.4	72.0	3.20	2.39	85	0.79	0.85
L120-85	25	4	8.2	61.0	1.64	1.2	73	0.53	0.72
	25	2	9.1	68.3	3.30	2.5	85	0.79	0.85
	40	4	11.8	76.0	2.60	1.94	80	0.66	0.79
	40	2	16.0	122.0	5.30	3.95	84	0.76	0.74
	60	4	18.0	120.0	4.0	2.98	75	0.56	0.76
	60	2	22.8	189.0	7.8	5.82	84	0.76	0.82
L120-190	60	4	18.0	120.0	4.0	2.98	75	0.56	0.76
	60	2	22.8	189.0	7.8	5.82	84	0.76	0.82
	80	4	21.2	120.0	5.2	3.88	81	0.57	0.74
	80	2	30.2	232.8	10.3	7.68	85	0.79	0.83
L120-420	100	4	20.0	169.0	6.6	4.92	89	0.70	0.75
	100	2	36.8	286.0	13.0	9.7	86	0.76	0.68
	150	4	39.0	260.0	9.9	7.4	82	0.62	0.70
	150	2	51.4	390.0	19.2	14.3	85	0.86	0.74

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

416 volts, three-phase, 60 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	1.3	5.5	0.20	0.15	46	0.42	0.77
	5	8	2.0	5.5	0.17	0.13	31	0.34	0.74
	5	4	1.8	7.7	0.33	0.25	51	0.42	0.82
	5	2	1.5	13.2	0.67	0.50	66	0.74	0.87
	7.5	4	1.9	11.0	0.50	0.37	58	0.53	0.80
	7.5	2	2.2	16.5	1.00	0.75	68	0.76	0.82
L120-20	7.5	4	1.9	11.0	0.5	0.37	58	0.53	0.80
	7.5	2	2.2	16.5	1.0	0.75	68	0.76	0.82
	10	8	2.9	9.9	0.33	0.25	37	0.34	0.73
	10	4	2.5	14.3	0.67	0.5	58	0.48	0.75
	10	2	3.3	22.0	1.33	1.0	70	0.62	0.81
	15	4	2.9	20.9	1.00	0.75	64	0.60	0.82
	15	2	4.4	33.0	2.00	1.49	72	0.68	0.84
L120-40	15	4	2.9	20.9	1.00	0.75	64	0.60	0.82
	15	2	4.4	33.0	2.00	1.49	72	0.68	0.84
	25	4	4.6	35.2	1.64	1.22	73	0.53	0.72
	25	2	5.2	39.6	3.20	2.39	85	0.79	0.85
L120-85	25	4	4.4	28.0	1.64	1.2	73	0.53	0.72
	25	2	5.8	40.0	3.30	2.5	85	0.79	0.85
	40	4	6.6	42.0	2.60	1.94	80	0.66	0.79
	40	2	9.0	67.5	5.30	3.95	84	0.76	0.74
	60	4	10.0	72.0	4.0	2.98	75	0.56	0.76
	60	2	11.3	120.5	7.8	5.82	84	0.76	0.82
L120-190	60	4	9.9	72.0	4.0	2.98	75	0.56	0.76
	60	2	12.5	120.5	7.8	5.82	84	0.76	0.82
	80	4	11.7	72.0	5.2	3.88	81	0.57	0.74
	80	2	16.6	128.0	10.3	7.68	85	0.79	0.83
L120-420	100	4	11.0	92.9	6.6	4.92	89	0.70	0.75
	100	2	20.2	157.3	13.0	9.7	86	0.76	0.68
	150	4	21.5	143.0	9.9	7.4	82	0.62	0.70
	150	2	28.3	214.5	19.2	14.3	85	0.86	0.74

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

460 volts, three-phase, 60 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	1.2	5.0	0.20	0.15	46	0.42	0.77
	5	8	1.8	5.0	0.17	0.13	31	0.34	0.74
	5	4	1.6	7.0	0.33	0.25	51	0.42	0.82
	5	2	1.4	12.0	0.67	0.50	66	0.74	0.87
	7.5	4	1.7	10.0	0.50	0.37	58	0.53	0.80
	7.5	2	2.0	15.0	1.0	0.75	68	0.76	0.82
L120-20	7.5	4	1.7	10.0	0.50	0.37	58	0.53	0.80
	7.5	2	2.0	15.0	1.0	0.75	68	0.76	0.82
	10	8	2.6	9.0	0.33	0.25	37	0.34	0.73
	10	4	2.3	13.0	0.67	0.50	58	0.48	0.75
	10	2	3.0	20.0	1.33	1.0	70	0.62	0.81
	15	4	2.6	19.0	1.00	0.75	64	0.60	0.82
	15	2	4.0	30.0	2.0	1.49	72	0.68	0.84
L120-40	15	4	2.6	19.0	1.00	0.75	64	0.60	0.82
	15	2	4.0	30.0	2.00	1.49	72	0.68	0.84
	25	4	4.2	32.0	1.64	1.22	73	0.53	0.72
	25	2	4.7	36.0	3.20	2.39	85	0.79	0.85
L120-85	25	4	4.1	30.5	1.64	1.2	73	0.53	0.72
	25	2	4.55	34.2	3.3	2.5	85	0.79	0.85
	40	4	5.9	38.0	2.60	1.94	80	0.66	0.79
	40	2	8.0	61.0	5.30	3.95	84	0.76	0.74
	60	4	9.0	60.0	4.0	2.98	75	0.56	0.76
	60	2	11.4	94.3	7.8	5.82	84	0.76	0.82
L120-190	60	4	9.0	60.0	4.0	2.98	75	0.56	0.76
	60	2	11.4	94.3	7.8	5.82	84	0.76	0.82
	80	4	10.6	60.0	5.2	3.88	81	0.57	0.74
	80	2	15.1	116.4	10.3	7.68	84	0.79	0.83
L120-420	100	4	10.0	84.4	6.6	4.92	89	0.70	0.75
	100	2	18.4	143.0	13.0	9.7	86	0.76	0.68
	150	4	19.5	130.0	9.9	7.4	82	0.62	0.70
	150	2	25.7	195.0	19.2	14.3	85	0.86	0.74

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

575 volts, three-phase, 60 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	1.0	4.0	0.20	0.15	46	0.42	0.77
	5	8	1.4	4.0	0.17	0.13	31	0.34	0.74
	5	4	1.3	5.6	0.33	0.25	51	0.42	0.82
	5	2	1.1	9.6	0.67	0.50	66	0.74	0.87
	7.5	4	1.4	8.0	0.5	0.37	58	0.53	0.80
	7.5	2	1.6	12.0	1.0	0.75	75	0.76	0.82
L120-20	7.5	4	1.4	8.0	0.50	0.37	58	0.53	0.80
	7.5	2	1.6	12.0	1.0	0.75	68	0.76	0.82
	10	8	2.1	7.2	0.33	0.25	37	0.34	0.73
	10	4	1.9	10.4	0.67	0.50	65	0.46	0.76
	10	2	2.4	16.0	1.33	1.0	85	0.64	0.86
	15	4	2.1	15.2	1.0	0.75	64	0.60	0.82
	15	2	3.2	24.0	2.0	1.49	72	0.68	0.84
L120-40	15	4	2.1	15.2	1.0	0.75	64	0.60	0.82
	15	2	3.2	24.0	2.0	1.49	72	0.68	0.84
	25	4	3.4	25.6	1.6	1.20	73	0.53	0.72
	25	2	3.8	28.8	3.2	2.39	85	0.79	0.85
L120-85	25	4	3.6	22.8	1.64	1.2	67	0.58	0.72
	25	2	3.6	27.3	3.3	2.5	87	0.81	0.81
	40	4	4.7	30.4	2.60	1.94	80	0.66	0.79
	40	2	6.4	48.8	5.30	3.95	84	0.76	0.74
	60	4	7.2	52.0	4.0	2.98	75	0.56	0.76
	60	2	9.1	75.4	7.8	5.82	84	0.76	0.82
L120-190	60	4	7.2	52.0	4.0	2.98	75	0.56	0.76
	60	2	9.1	75.4	8.0	5.82	84	0.76	0.82
	80	4	8.5	48.0	5.2	3.88	81	0.57	0.74
	80	2	12.1	92.8	10.3	7.68	84	0.79	0.83
L120-420	100	4	8.0	67.5	6.6	4.92	89	0.70	0.75
	100	2	15.0	114.0	13.0	9.70	86	0.76	0.68
	150	4	16.0	104.0	9.9	7.40	82	0.62	0.70
	150	2	21.0	156.0	19.2	14.3	85	0.86	0.74

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

380 volts, three-phase, 50 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	1.2	5.0	0.17	0.13	38	0.42	0.77
	5	8	1.8	5.0	0.14	0.10	26	0.34	0.74
	5	4	1.6	7.0	0.28	0.21	42	0.42	0.82
	5	2	1.4	12.0	0.56	0.42	55	0.74	0.87
	7.5	4	1.7	10.0	0.42	0.31	48	0.53	0.80
	7.5	2	2.0	15.0	0.83	0.62	57	0.76	0.82
L120-20	7.5	4	1.7	10.0	0.42	0.31	48	0.53	0.80
	7.5	2	2.0	15.0	0.83	0.62	57	0.76	0.82
	10	8	2.6	9.0	0.28	0.21	31	0.34	0.73
	10	4	2.3	13.0	0.56	0.42	48	0.48	0.75
	10	2	3.0	20.0	1.1	0.82	58	0.62	0.81
	15	4	2.6	19.0	0.83	0.62	53	0.60	0.82
	15	2	4.0	30.0	1.67	1.25	60	0.68	0.84
L120-40	15	4	2.6	19.0	0.83	0.62	53	0.60	0.82
	15	2	4.0	30.0	1.67	1.25	60	0.68	0.84
	25	4	4.2	32.0	1.40	1.04	61	0.53	0.72
	25	2	4.7	36.0	2.70	2.01	71	0.79	0.85
L120-85	25	4	4.1	30.5	1.4	1.1	61	0.53	0.72
	25	2	4.6	34.1	2.7	2.0	71	0.79	0.85
	40	4	5.9	38.0	2.2	1.64	75	0.58	0.83
	40	2	8.0	61.0	4.4	3.28	83	0.89	0.75
	60	4	9.0	60.0	3.3	2.46	73	0.58	0.79
	60	2	11.4	94.3	6.7	5.0	86	0.76	0.85
L120-190	60	4	9.0	60.0	3.3	2.46	73	0.58	0.79
	60	2	11.4	94.3	6.7	5.0	86	0.76	0.85
	80	4	10.6	60.0	4.3	3.21	82	0.58	0.75
	80	2	15.1	116.4	8.6	6.4	83	0.79	0.86
L120-420	100	4	10	84.4	5.5	4.1	86	0.73	0.75
	100	2	18.4	143.0	10.8	8.1	82	0.79	0.73
	150	4	19.5	130.0	8.3	6.2	80	0.61	0.71
	150	2	25.7	195	16	12.0	85	0.85	0.79

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

400 volts, three-phase, 50 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	1.4	4.4	0.17	0.13	38	0.42	0.77
	5	8	1.9	4.4	0.14	0.10	26	0.34	0.74
	5	4	1.9	6.6	0.28	0.21	42	0.42	0.82
	5	2	2.2	11.0	0.56	0.42	55	0.74	0.87
	7.5	4	2.1	9.6	0.42	0.31	48	0.53	0.80
	7.5	2	3.0	15.0	0.83	0.62	57	0.76	0.82
L120-20	7.5	4	2.1	9.6	0.42	0.31	48	0.53	0.80
	7.5	2	3.0	15.0	0.83	0.62	57	0.76	0.82
	10	8	2.9	8.7	0.28	0.21	31	0.34	0.73
	10	4	2.5	9.8	0.56	0.42	48	0.48	0.75
	10	2	3.7	20.5	1.1	0.82	58	0.62	0.81
	15	4	3.7	17.7	0.83	0.62	53	0.60	0.82
	15	2	5.3	33.2	1.67	1.25	60	0.68	0.84
L120-40	15	4	3.7	17.7	0.83	0.62	53	0.60	0.82
	15	2	5.3	33.2	1.67	1.25	60	0.68	0.84
	25	4	5.5	34.7	1.40	1.04	61	0.53	0.72
	25	2	4.9	35.0	2.7	2.01	71	0.79	0.85
L120-85	25	4	5.4	33.0	1.4	1.1	60	0.53	0.72
	25	2	4.8	33.0	2.7	2.0	71	0.79	0.85
	40	4	6.10	39.0	2.2	1.64	75	0.58	0.83
	40	2	8.8	63.0	4.4	3.28	83	0.89	0.75
	60	4	11.0	57.0	3.3	2.46	73	0.58	0.79
	60	2	13.0	104.0	6.7	5.0	86	0.76	0.85
L120-190	60	4	11.0	57.0	3.3	2.46	73	0.58	0.79
	60	2	13.0	104.0	6.7	5.0	86	0.76	0.85
	80	4	13.4	70.0	4.3	3.21	82	0.58	0.75
	80	2	18.0	128.0	8.6	6.4	83	0.79	0.86
L120-420	100	4	9.4	75.1	5.4	4.03	86	0.73	0.75
	100	2	19.0	130.0	10.8	8.1	82	0.78	0.74
	150	4	20.2	120.0	8.3	6.2	79	0.56	0.71
	150	2	24.0	174.0	16.0	12	85	0.86	0.79

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

415 volts, three-phase, 50 Hz

Actuator Model	Motor Size (ft-lb)	Poles	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
L120-10	3	4	1.4	4.4	0.17	0.13	38	0.42	0.77
	5	8	1.9	4.4	0.14	0.10	26	0.34	0.74
	5	4	1.9	6.6	0.28	0.21	42	0.42	0.82
	5	2	2.2	11.0	0.56	0.42	55	0.74	0.87
	7.5	4	2.1	9.6	0.42	0.31	48	0.53	0.80
	7.5	2	3.0	15.0	0.83	0.62	57	0.76	0.82
L120-20	7.5	4	2.1	9.6	0.42	0.31	48	0.53	0.80
	7.5	2	3.0	15.0	0.83	0.62	57	0.76	0.82
	10	8	2.9	8.7	0.28	0.21	31	0.34	0.73
	10	4	2.5	9.8	0.56	0.42	54	0.48	0.75
	10	2	3.7	20.5	1.1	0.82	71	0.62	0.81
	15	4	3.7	17.7	0.83	0.62	53	0.60	0.82
	15	2	5.3	33.2	1.67	1.25	60	0.68	0.84
L120-40	15	4	3.7	17.7	0.83	0.62	53	0.60	0.82
	15	2	5.3	33.2	1.67	1.25	60	0.68	0.84
	25	4	5.5	34.7	1.40	1.04	61	0.53	0.72
	25	2	4.9	35.0	2.7	2.01	71	0.79	0.85
L120-85	25	4	5.4	33.0	1.4	1.1	56	0.53	0.72
	25	2	4.8	33.0	2.7	2.0	72	0.79	0.85
	40	4	5.4	34.8	2.2	1.64	75	0.58	0.83
	40	2	7.3	56.0	4.4	3.28	83	0.89	0.75
	60	4	8.2	59.5	3.3	2.46	73	0.58	0.79
	60	2	10.4	86.4	6.7	5.00	86	0.76	0.85
L120-190	60	4	8.2	59.5	3.3	2.46	73	0.58	0.79
	60	2	10.4	86.4	6.7	5.0	86	0.76	0.85
	80	4	9.7	55.0	4.3	3.21	82	0.58	0.75
	80	2	13.8	106.0	8.6	6.4	83	0.79	0.86
L120-420	100	4	9.1	77.0	5.5	4.1	86	0.73	0.75
	100	2	19.5	135.0	10.8	8.1	83	0.69	0.76
	150	4	18.0	103.0	8.3	6.2	80	0.61	0.71
	150	2	24.3	182.0	16.0	12.0	85	0.81	0.77

Note 1: Full load is defined as 20% of rated motor torque.

L120 actuators

115 volts, single-phase, 60 Hz
230 volts, single-phase, 60 Hz
220 volts, single-phase, 50 Hz

Actuator Model	Motor Size (ft-lb)	Full Load Current[1] (amps)	Locked Rotor Current (amps)	Rated Power Output (hp)	Rated Power Output (kW)	Efficiency at Full Load[1] (%)	Power Factor at Full Load[1]	Power Factor at Locked Rotor
115 volts, single-phase, 60 Hz								
L120-20, 40	5	9.6	36	.33	.25	39	.57	.95
	10	12.3	57	.66	.49	54	.66	.89
230 volts, single-phase, 60 Hz								
L120-10, 20	5	4.8	18	.33	.25	39	.57	.95
	10	6.1	28.5	.66	.49	54	.66	.89
220 volts, single-phase, 50 Hz								
L120-10, 20	5	4.8	18	.28	.21	32	.57	.95
	10	6.1	28.5	.56	.42	45	.66	.89

Note 1: Full load is defined as 20% of rated motor torque.

Limitorque
5114 Woodall Road
P.O. Box 11318
Lynchburg, VA 24506-1318
Phone (434) 528-4400
Facsimile (434) 845-9736
www.limitorque.com

Limitorque
Abex Road
Newbury
Berkshire, RG14 5EY
England
Phone 44-1-635-46999
Facsimile 44-1-635-36034

Limitorque Nippon Gear Co., Ltd.
Asahi-Seimei Bldg. 4th Floor
1-11-11 Kita-Saiwai, Nishi-Ku
Yokohama-Shi, (220-0004)
Japan
Phone 81-45-326-2065
Facsimile 81-45-320-5962

Limitorque India, Ltd.
15/4, Mile Stone
Mathura Road
Faridabad 121002
India
Phone 91-129-2276586, 2276836
Facsimile 91-129-2277135

Flowserve Australia Pty Ltd.
14 Dalmore Drive
Scoresby, Victoria 3179
Australia
Phone 613-9729-2633
Facsimile 613-9729-2644

Limitorque Asia, Pte., Ltd.
12, Tuas Avenue 20
Singapore 638824
Phone 65-6868-4628
Facsimile 65-6862-4940

For more information about Flowserve Corporation, visit www.flowserve.com or call USA 1-800-225-6989.

FLOWSERVE CORPORATION
FLOW CONTROL DIVISION
Limitorque Actuation Systems
5114 Woodall Road
P.O. Box 11318
Lynchburg, VA 24506-1318
Phone: (434) 528 4400
Facsimile: (434) 845 9736
www.limitorque.com

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