



Ruggedly built and designed for easy installation, new Apollo® AE Series electric actuators deliver the most standard features and performance in their class. Now CSA listed all sizes as standard.

Five Output Torques, One Housing

- 200, 400, 600, 800 and 1,000 inch-pounds
- Long Service Life
- Newly developed anodized die cast aluminum housing
- Fiberglass reinforced nylon cover resists corrosion
- Nitrile gasket and seals cover all penetration points in housing and cover
- Precision cut and heat treated alloy spur gears
- Permanently lubricated enclosed gear train
- NEMA 4, 4X

Easy To Use

- Two separate 1/2" NPT conduit entrances for easier wiring and signal separation
- 12-position pre-wired terminal strip includes standard connections for remote open/closed position indicators; lots of room for wiring options
- Unrestricted mounting orientation
- Built-in thermal overload protection in all AC motor actuators
- Limit switches have an 11 amp rating at 115 VAC
- High visibility valve position indicator standard on all models

Many Standard Features

- Stainless steel push-and-turn manual override shaft, position indicator shaft and female output
- ISO 5211 F07 drive output reduces inventory of mounting kits
- 115 AC & 220 AC models feature a 25% duty cycle below 100°F (24AC — 20% duty cycle below 100°F)
- 12 and 24 DC — all DC voltage models provide 100% duty cycle for 1 hour after which DC motor is reduced to 80% duty cycle.
- Reversible rotation

Broad Temperature Range

- Operates from -40°F (when equipped with 15 watt heater and thermostat) to 150°F

Available Options

- Actuators can be ordered with one, two or three additional limit switches
- For low temperatures: actuators can be equipped with a thermostatically controlled heater element
- Motor brake is necessary when mounting actuator to a butterfly valve

4-20mA Positioner Features (P - Option)

Advanced Protection Features

- A) Stall Detection
 - Motor will not burn out from stalling
- B) Fault Signal
 - a. Fault LED on DHC-100 front panel
- C) Duty Cycle Protection
 - a. Allows actuators rated for 25% duty, or more, to be safely modulated
 - b. Activates prior to tripping of thermal overload protector, which prevents long shut down periods due to tripping thermal overload protector; allows the actuator to continue to move to set-point at a 25% duty cycle speed

Performance Features

- A) High Resolution ($\pm 0.1^\circ$)
 - a. 450 points of resolution on a 1/4 turn valve
- B) Dynamic Braking
 - a. Stops motor before changing actuator direction
 - b. Stops motor before mechanical brake engages, which reduces break wear
- C) Adaptive Control - Designed to maintain high resolution and accuracy by continuously monitoring and compensating for actuator backlash, motor coast, and load changes to eliminate positioner deadband

4-20mA Positioner Features (T - Option)

- A) High Resolution Feedback Transmitter
 - a. Provides voltage or mA output that can be set for any range (0 to 10 VDC in 0.0016 V steps or 0 to 20 mA in 0.0031 mA steps)
- B) Auto/Manual Station (Local Control Unit - LCU)
- C) Polarity Detection

AE Actuator General Specifications

Actuator Model	Breakaway Torque Output (in.-lbs.)	Cycle Time 90° Travel (50% Load)	Duty Cycle	Amperage Draw (max.)			
				115 VAC	230 VAC	12 VDC	24 VDC
AE200	200 in-lbs	5.0 sec.	25%	.74 amp	.44 amp	1.6 amp	1.7 amp
AE400	400 in-lbs	10.0 sec.	25%	.74 amp	.44 amp	1.6 amp	1.7 amp
AE600	600 in-lbs	15.0 sec.	25%	.74 amp	.44 amp	1.6 amp	1.7 amp
AE800	800 in-lbs	20.0 sec.	25%	.74 amp	.44 amp	1.6 amp	1.7 amp
AE1000	1000 in-lbs	25.0 sec	25%	.74 amp	.44 amp	1.6 amp	1.7 amp

Note: 90° Travel = Travel From Closed position to Open position or vice versa.
DC current draw is at max. torque

24 VAC current draw at locked rotor 4.6 amp

Motor	AC models: 120 VAC or 230 VAC, Reversible 3 wire, capacitor run. Self-resetting (thermal) overload protection, Class B insulation, sub-fractional horsepower. DC models: 12 VDC or 24 VDC, Reversible 2 wire, POS & NEG. No thermal overload (external circuit breaker or fuse suggested for protection.)
Lubrication	Permanently lubricated gear train and bearings
Duty Cycle	The AE-Series actuators are designed to operate at 25% duty cycle at temperatures below 100°F. See <i>Electrical Operation</i> . (24 AC-20% duty cycle below 100°F)
Temperature Operating Range	32°F to 150°F Max -40°F to 150°F with optional heater & thermostat
Thermal Protection	Self-resetting (AC Motors Only)
Conduit Connections	(2) 1/2"-NPT female
Direction Of Travel	Clockwise to Close, Counterclockwise to Open (Position indicator shaft only, manual override shaft rotates opposite)

AE Dimensions



