



## Multi-turn Electric Actuator Specifications

Part Number:	AE115B510	AE220B510	AE024B510-02
<b>Power:</b>	115vAC, (1) phase, 60 Hz	220vAC, (1) phase, 60Hz	12 or 24vDC
<b>Torque:</b>	325 in-lbs.(27.1 ft-lbs.) (36.72 Nm)	325 in-lbs.(27.1 ft-lbs.) (36.72 Nm)	325 in-lbs.(27.1 ft-lbs.) (36.72 Nm)@ 24vDC
<b>Operating Temperature:</b>	Standard ambient temperature, -40°F to 140°F (-40°C to 60°C)		
<b>Weight: (without mounting kit)</b>	17.48 lbs. (7.93 kg)	17.48 lbs. (7.93 kg)	17.48 lbs. (7.93 kg)
<b>Maximum Turns:</b>	1-20	1-20	1-20
<p>Note: Number of turns <b>required</b> varies with the choke orifice size and trim style. 52/64 linear cage style trim = 7.364 turns; 64/64" linear needle style trim = 8.694 turns; 76/64" EP cage style trim = 7.441 turns; 112/64" EP cage style trim = 10.542 turns; 2.219" EP cage style trim = 12.726 turns; 120/64" linear needle style trim = 13.125 turns; 208/64" EP cage style trim = 19.152 turns. Choke operating torque <b>required</b> (all models except 208/64) is equal to (worst case when closing stem) 1.8 ft.-lbs. or 21.6 in.-lbs. per 1,000 psig of pressure downstream of the orifice, <math>P_2</math>. i.e. at <math>P_2 = 15,000</math> psig, <math>T_{REQ'D.} = (P_2 / 1,000) * 21.6 = 324</math> in.-lbs.</p>			
<b>Current at Locked Rotor:</b>	1.2 amps.	0.7 amps.	17 or 8.5 amps.
<b>Current at Rated Torque:</b>	0.75 amps.	0.5 amps	5.2 or 2.6 amps.
<b>Duty Cycle: at 75°F (23.9°C)</b>	100%	100%	100%
<b>Speed:</b>	7.5 rpm	7.5 rpm	7.5 rpm
<b>Manual Override Type:</b>	Standard: Declutchable - pulling the knob will declutch motor and gear train allowing output shaft to be rotated manually via an 11/16" (17.46 mm) open end wrench; upon releasing knob, unit will reengage automatically upon application of power in either direction.		
<b>Enclosure:</b>	Housing: Polyester coated high strength aluminum casting, alloy steel output shaft, (2) 1/2"-14NPT female conduit connections. Non-hazardous indoor or outdoor location to protect against wind-blown dust and rain, splashing water and hose-directed water (i.e. CSA Enclosure 4 – Weatherproof, conforms to IP-65). Hazardous locations classified as Class I and II, Groups C, D, E, F, and G as defined in the National Electrical Code, plus non-hazardous locations to protect against wind-blown dust and rain, splashing water, and hose directed water (i.e. CSA Enclosure 4 and 7 – Explosion Proof and Weatherproof).		
<b>Brake:</b>	Electrical/mechanical motor brake has holding force equal to the rated output torque. Brakes are not normally supplied on DC models.		
<b>Heater and Thermostat:</b>	Unit switches on at temperatures below 70°F (21.1°C) and uses 25 watts. (optional 10w heater). To reduce battery drain, a desiccant pack is normally furnished with DC units which are to be operated using solar power.		
<b>Command Signal (input)</b>	0-5vDC, 0-10vDC, 1-5vDC, 4-20mA (digital slave port is optional)		
<b>Position Feedback Signal (output)</b>	Standard: 4-20mA (with its own separate zero and span adjustment)		
<b>Fail Position Options:</b>	(Available only with 1-5vDC or 4-20mA command signal) Fail open, closed, or in place: easily configured with on-board jumpers on standard controller.		
<b>Motor Controller:</b>	Standard: Supplied with true deadband adjustment, non-interactive zero and span adjustment, 0.2-5.0 amps. adjustable current sensing trip acts as torque limiter in either direction of rotation (reset remotely, by onboard switch, or by reversing direction), low standby current, usually <b>27mA</b> (board and feedback unit) when actuator is not in operation.		
<b>Travel Limits Switches:</b>	Standard: (2) independent SPDT travel limit switches per unit (open & close) rated at 11 amps., complete with separate micro adjustment cams		
<b>Local Position Indication:</b>	Standard: stainless steel position indicator (in 64ths) remains on the choke at all times		

For additional information, contact Lancaster Flow Automation, LLC at (713) 983-9444 or (713) 983-7676. Specifications are subject to change without notice. (20APR2010)