

AVE Series Electric Actuator



AVE Series Electric Actuators provide rugged, reliable and accurate automation of quarter turn valves and dampers.

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FEATURES

- Standard enclosure IP-67, Nema 4, 4X
- Squirrel Cage, totally enclosed motor
- Standardized and color-coded wiring
- 2 SPDT Auxiliary Limit Switches Standard
- Manual override hand/auto declutch lever, automatic reset when motor is energized
- Handwheel designed for safe, efficient operation
- Mounting includes both ISO-5211 & ABZ/Keystone Bolt Circles; removable drive bushing can be machined to match valve stem
- Wormgear drive for longer life and low maximum noise level of 50dB
- Indicator beacon for continuous visual indication of valve position
- 20 watt internal heater to minimize condensation due to temperature and humidity changes
- Cam actuated end of travel limit switches are easily adjusted to de-energize actuator for precise valve position
- Torque switch is cam actuated and factory set to provide over torque protection for valves, standard in size AVE-15 thru AVE-250
- Mechanical limit stops designed to prevent over-travel of quarter turn applications
- Valve backdrive is prevented by a rolled steel wormgear and aluminum bronze wormwheel
- CSA Approval for sizes 006—050, CE Approval on all sizes.

AVE Series Electric Actuator Technical Information

STANDARD SPECIFICATIONS

Enclosure	Watertight IP67, Nema 4, 4X
Ambient Temp	-20° to +158°Fahrenheit
Power Supply	120 VAC 1-Phase
Control Power	110/220VAC 1-Phase 60 Hz
Duty Cycle	See Performance Chart
Torque Switches	(2) Open/Close (AVE-015 thru AVE-250)
Limit Switches	(2) Open/Close, 250 VAC 16A Rating
Stall Protection	Internal Thermal Protection
Travel Angle	90° ± 5°
Indicator	Continuous Position Indicator
Manual Override	HAND/AUTO Declutching Mechanism
Self Locking	Provided by means of Worm Gearing
Mechanical Stops	External Adjustable Screws
Space Heater	20Watt Anti-Condensation
Conduit Entries	Two 3/4" NPT
Lubrication	Grease Moly (EP) Type
Materials	Steel, Aluminum Alloy, Aluminum
Surface Treatment	Anodizing
External Coating	Dry Powder, Epoxy-Polyester



PERFORMANCE

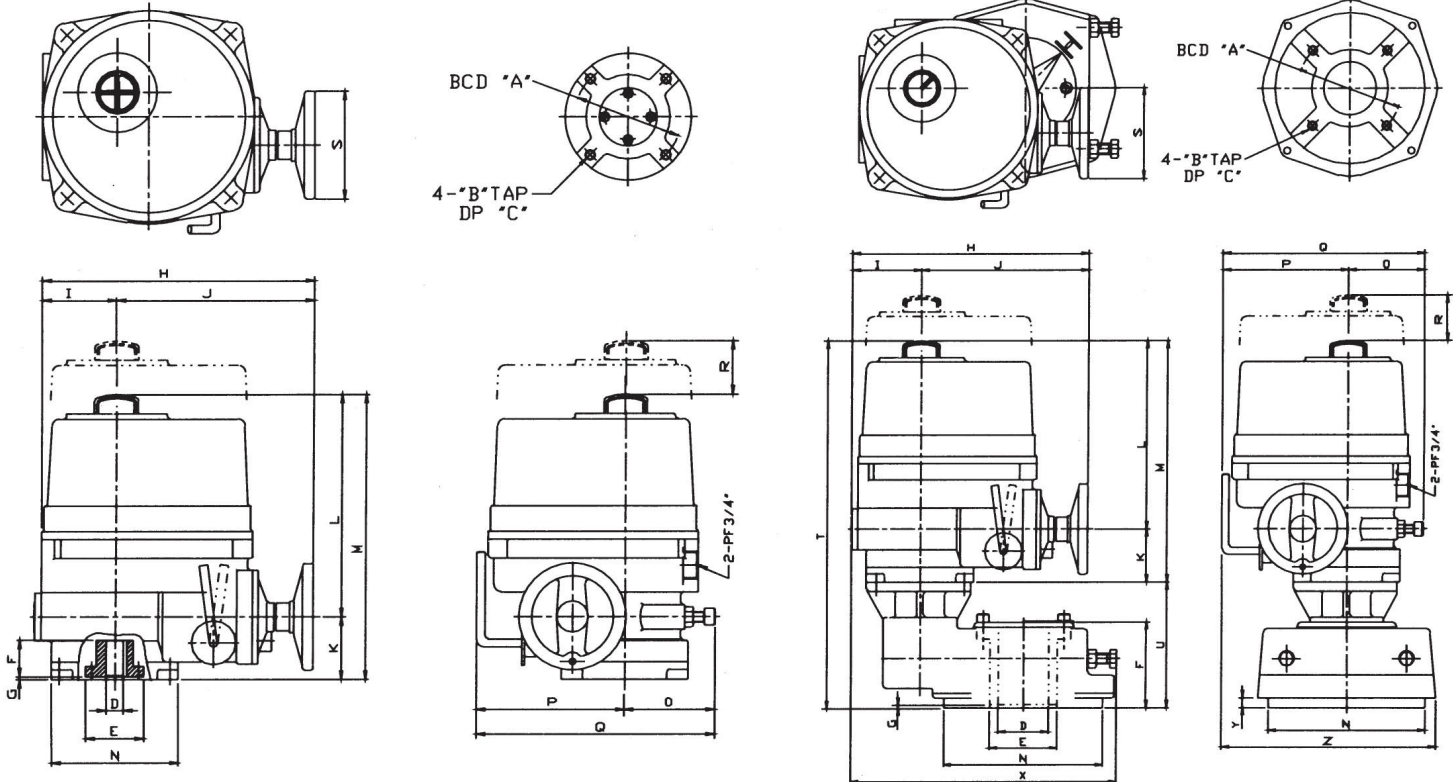
TYPE	Max Output Torque Inch Pounds	90° Operating Time in Seconds	Duty Cycle 30 min. T.P.	Rated Current Amps/ Locked Rotor Amps 120vac	Weight lbs.
AVE-006	521	14	100%	0.66/1.36	24
AVE-009	781	14	100%	1.07/2.10	24
AVE-015	1302	17	80%	1.45/2.14	27
AVE-019	1649	17	80%	1.60/2.97	29
AVE-028	2430	20	100%	1.60/2.97	38
AVE-038	3298	20	100%	1.95/3.75	40
AVE-050	4340	20	80%	3.10/4.90	42
AVE-060	5208	24	80%	3.10/4.90	49
AVE-080	6944	24	70%	4.10/7.50	51
AVE-100	8680	24	70%	4.10/7.50	55
AVE-150	13020	72	80%	3.10/4.90	150
AVE-200	17360	72	70%	4.10/7.50	154
AVE-250	21700	72	70%	4.10/7.50	154

DIMENSIONS

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AVE-6 thru AVE-100

AVE-150 thru AVE-250



MODEL	AVE-006/009	AVE-015/019	AVE-028/038/050	AVE-060/080/100	AVE-150/200/250
MOUNTING FLANGE	F07/3.25"	F07/F10/3.25"/5.00"	F10/F12/5.00"	F10/F14/5.00"	F12/F14/F16
B-Thread Pitch	F07-M8/1.25 3.25"-3/8"-16	F07-M8-1.25 F10-M10-1.5 3.25"-3/8"-16 5.00"-1/2"-13	F10-M10-1.5 F12-M12-1.75 5.00"-1/2"-13	F10-M10-1.5 F14-M16-2.0 5.00"-1/2"-13	F12-M12-1.75 F14-M16-2.0 F16-M20-2.5
C	0.47	0.59	0.71	0.87	1.18
D-MAX	0.87	0.87	1.26	1.65	2.95
E	2.17	2.24	2.95	3.35	3.94
F	1.69	1.69	2.05	2.32	3.87
G	0.08	0.08	0.08	0.08	0.28
H	9.09	10.28	11.22	12.8	12.8
I	2.21	3.03	3.27	3.9	3.9
J	6.89	7.25	7.95	8.9	8.9
K	2.36	2.36	2.76	3.07	3.07
L	8.39	8.39	9.84	11.14	11.14
M	10.75	10.75	12.6	14.21	14.21
N	4.02	4.73	5.71	6.89	10.47
O	2.68	3.35	3.9	4.57	4.57
P	4.45	5.47	6.26	7.52	7.52
Q	7.13	8.82	10.16	12.09	12.09
R	4.25	4.25	5.12	7.01	7.01
S	4.02	4.92	4.92	6.69	6.69
T	NA	NA	NA	NA	21.89
U	NA	NA	NA	NA	7.68
X	NA	NA	NA	NA	15.28
Y	NA	NA	NA	NA	0.63
Z	NA	NA	NA	NA	12.52

SERIES	SIZE	MAIN POWER	CONTROL CONFIGURATION	FEEDBACK OPTIONS
AVE	006	120VAC	O/C (Open/Close)	Note: 2 Aux Switches are standard
	009			
	015		DCH (4-20mA, 0-10V, 0-5V, 1-5V)	OTX - 4-20mA/0-10VDC
	019			
	028			OTR - 4-20mA/0-10VDC 3 Output Relays (006 - 009 Typical)
	038			
	050			
	060			
	080			
	100			
	150			
	200			
250				

Sample Part Number

AVE-015-120VAC-O/C

SIZE: 015
VOLTAGE: 120VAC
O/C: Open/Close

Sample Part Number

AVE-019-120VAC-DHC-OTX

SIZE: 019
VOLTAGE: 120VAC
DHC: (4-20mA, 0-10V, 0-5V, 1-5V)
OTX: 4/20mA/0-10VDC

If 006/009 is ordered with DHC, it cannot have Aux Limit Switches. If end of travel indication is required, order the OTR.

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