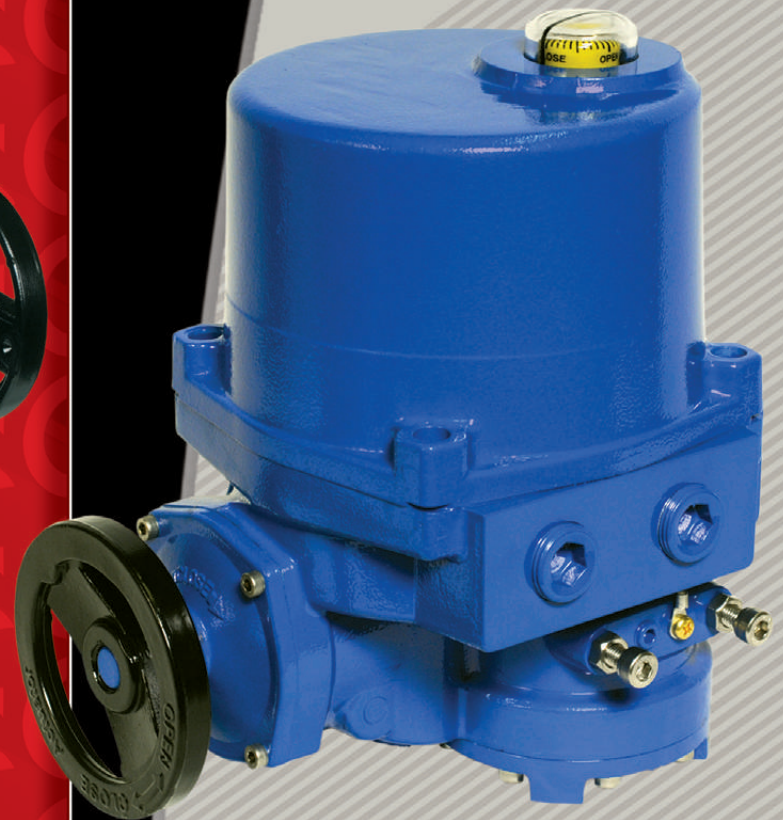


Electric Actuator Technical Data Sheet



Electric Series



ABZ VALVES & CONTROLS
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ABZ Electric Actuator Technical Information

ABZ Electric Features

- Standard enclosure IP-67, NEMA 4, 4x
- Squirrel cage, totally enclosed motor
- Standardized and color-coded wiring
- Manual override hand/auto declutch lever, automatic reset when motor is energized
- Handwheel designed for safe, efficient operation
- Standardized mounting pad for ABZ and ISO-5211 valve mounting. Blank drive bushing for custom fit.
- Wormgear drive for longer life and a low maximum noise level of only 50dB
- Indicator is top mounted for continuous visual indication of valve position
- Standard 20 watt internal heater, minimizes 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, available in size ABZ-015 thru ABZ-250
- Mechanical limit stops designed to prevent over-travel of quarter turn applications
- Valve back drive is prevented by a rolled steel wormgear and aluminum bronze wormwheel

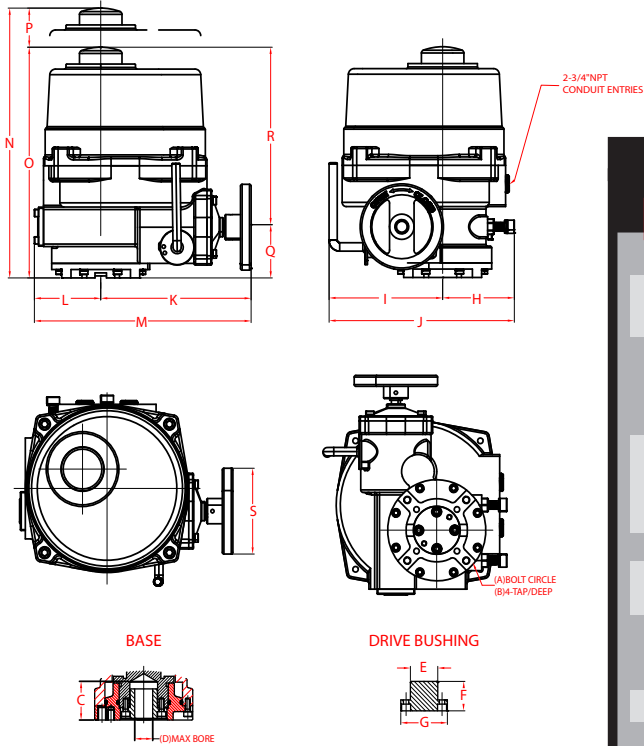


Standard Specifications

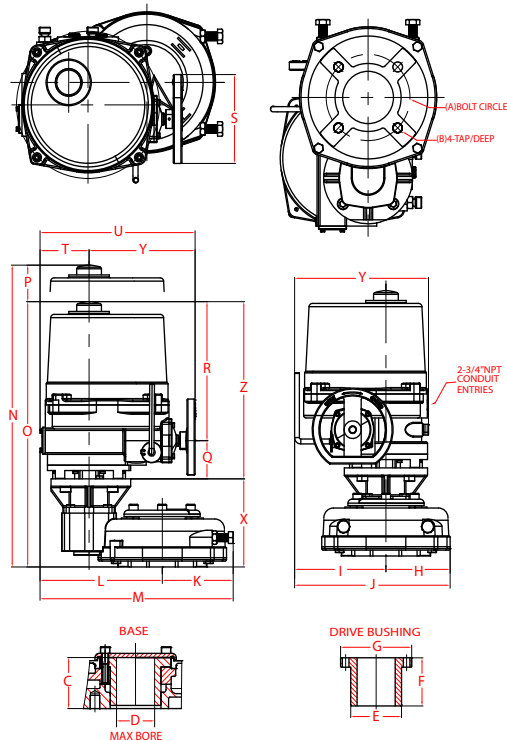
Enclosure	Watertight IP67, Nema 4, 4x
Ambient Temp.	From -20° to +158° Fahrenheit 300° Fahrenheit for 1 hour
Power Supply	120/220VAC 1-Phase 380/440VAC 3-Phase
Control Power	110/220VAC 1-Phase, 60/50Hz
Duty Cycle	See Performance Chart
Torque Switches	(2) Open/Close (ABZ-015 thru ABZ-250)
Limit Switches	(2) Open/Close, 250 VAC 16A Rating
Stall Protection	Internal Thermal Protection Open 300°F/Close 207°F
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 (24/120/220 VAC and 24 VDC) Anti-Condensation
Conduit Entries	Two 3/4" NPT.
Lubrication	Grease Moly (EP) Type
Materials	Steel, Aluminum Alloy, Aluminum Bronze
Surface Treatment.....	Anodizing
External Coating	Dry Powder, Epoxy-Polyester



ABZ006-100



ABZ150-250



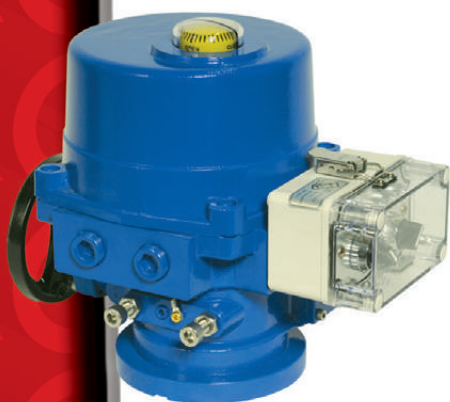
DIMENSION CHART

MODEL	006 009	015 019	028 038 050	060 080 100	150 200 250
A / ABZ FLANGE	3.25"	3.25" 5.00"	5.00"	5.00"	6.50"
B / ABZ TAP	3/8"-16(.47dp)	3/8"-16(.47dp) 1/2"-13(.59dp)	1/2"-13(.87dp)	1/2"-13(.87dp)	M20-2.50(30dp)
A / ISO FLANGE	F-07/2.76"	F-07/2.76" F-10/4.02"	F-10/4.02" F-12/4.92"	F-10/4.02" F-14/5.51"	F-12/4.92" F-14/5.51" F-16/6.50"
B / ISO TAP Metric	M8-1.25(12dp)	M8-1.25(12dp) M10-1.50(15dp)	M10-1.50(15dp) M12-1.75(22dp)	M10-1.50(15dp) M16-2.00(22dp)	M12-1.75(25dp) M16-2.00(30dp) M20-2.50(30dp)
C	1.81	1.81	2.17	2.44	3.94
D-MAX* Bore/Key	0.87	0.87	1.26	1.65	2.95
D-MAX* ISO star Metric	20mm	20mm	26mm	34mm	65mm
E	1.32	1.32	1.79	2.26	3.94
F	1.38	1.38	1.65	1.89	3.62
G	2.17	2.24	2.95	3.35	5.51
H	2.68	3.35	3.74	4.13	5.32
I	4.72	5.47	5.87	7.56	7.56
J	7.4	8.82	9.61	11.69	12.87
K	6.85	7.24	7.95	8.78	5.87
L	2.36	3.19	3.39	4.06	10.12
M	9.21	10.43	11.34	12.84	15.98
N	14.88	15.04	17.76	21.26	28.11
O	10.63	10.79	12.64	14.25	21.1
P	4.25	4.25	5.12	7.01	7.01
Q	2.42	2.37	2.78	3.07	3.07
R	8.21	8.43	9.88	11.18	11.18
S	4.02	4.02	4.92	6.69	6.69
T	NA	NA	NA	NA	4.06
U	NA	NA	NA	NA	12.83
X	NA	NA	NA	NA	7.09
Y	NA	NA	NA	NA	8.78
Z	NA	NA	NA	NA	14.25

* Bushings machined per customer request
Dimensions shown are in inches unless indicated otherwise.

PERFORMANCE

Model	Maximum Torque Output inch pounds	Cycle Time 60/50Hz	DUTY CYCLE continuous	24 volt	Rated Current Amps/Locked Rotor Amps				Weight Lbs.
					1-Phase		3-Phase		
					120vac	220vac	380vac	440vac	
ABZ-006	521	14/17	50%	0.87/8.00	0.66/1.36	0.29/0.83	0.12/0.33	0.14/0.37	24
ABZ-009	781	14/17	50%	1.52/9.00	1.07/2.10	0.49/0.87	0.14/0.37	0.17/0.41	24
ABZ-015	1302	17/20	50%	2.10/13.00	1.45/2.14	0.71/1.12	0.30/0.61	0.30/0.65	27
ABZ-019	1649	17/20	50%	2.10/13.00	1.60/2.97	0.90/1.52	0.33/0.77	0.34/0.83	29
ABZ-028	2430	20/24	50%	2.36/15.00	1.60/2.97	0.90/1.52	0.33/0.77	0.34/0.83	38
ABZ-038	3298	20/24	30%	NA	1.95/3.75	1.26/1.85	0.36/0.80	0.37/0.87	40
ABZ-050	4340	20/24	25%	NA	3.10/4.90	1.50/2.34	0.56/1.27	0.57/1.36	42
ABZ-060	5208	24/29	25%	NA	3.10/4.90	1.50/2.34	0.56/1.27	0.57/1.36	49
ABZ-080	6944	24/29	25%	NA	4.10/7.50	2.15/3.70	0.84/1.76	0.78/1.88	51
ABZ-100	8680	24/29	25%	NA	4.10/7.50	2.15/3.70	0.84/1.76	0.78/1.88	55
ABZ-150	13,020	72/87	25%	NA	3.10/4.90	1.50/2.34	0.56/1.27	0.57/1.36	150
ABZ-200	17,360	72/87	25%	NA	4.10/7.50	2.15/3.70	0.84/1.76	0.78/1.88	154
ABZ-250	21,700	72/87	25%	NA	4.10/7.50	2.15/3.70	0.84/1.76	0.78/1.88	154



ABZ Electric Options

EXP..... Explosion Proof Enclosure
Class I Div I Group C & D / Class II Div I Group E, F & G
Class III / Exd IIB T4 IP67

WTE Water Tight Enclosure IP68 24 ft, 72 hrs

DCM 24 VDC Motor (ABZ-006 thru ABZ-028)

ACM..... 24 VAC Motor (ABZ-006 thru ABZ-028)

ALS..... Auxiliary Limit Switches 2-SPDT switches
(6 aux switches max)

EXT..... Extended Travel Angle 120° to 360°
(ABZ-006 thru ABZ-100)

LCU..... Local Control Unit
local/remote selector switch
open/stop/close selector switch

PIU..... 1K Ohm Feedback Potentiometer

CPT Current Position Feedback Transmitter
4-20mA DC output

DCT VDC Position Feedback Transmitter
1-5VDC, 0-5VDC, and 0-10VDC

PCU Proportional Control Unit 4-20mA,
1-5VDC or 0-10VDC input

IMS..... Integral Motor Starter includes reversing
contactors and step down transformer

CLC..... Repeat Cycle Timer for cycle length control

ATS..... Auxiliary Torque Switches 2-SPDT switches
(ABZ-015 thru ABZ-250)

Consult factory if two or more options are required.



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