

# KITZ Electric Actuators

# EXH SERIES



## Features

Electric motor operated quarter turn actuator for ball valves.  
 Quick operating time suitable for On-Off usage.  
 High durability planetary reduction gear.  
 High visibility position indicator.  
 Manual override with interlocking switch for safe operation.  
 No voltage position feed back switches.  
 ISO 5211 bottom mount.  
 Best fit KITZ process ball valve SCTBZ/UTBZ series.

## Available options

Additional auxiliary switches.  
 Feed back potentiometer (135 Ohm or 500 Ohm).

## Type EXH actuator design specifications

Actuator size		Size 1	Size 2	Size 3	Size 4	
Actuator type		EXH***-1	EXH***-2	EXH***-3	EXH***-4	
Power supply	50Hz	AC 115V(+5% to -10%) • AC230V(±10%) • AC240V(+5% to -10%)				
	60Hz	AC 115V(+5% to -10%) • AC120V(+5% to -10%) • AC230V(+5% to -10%) • AC240V(+5% to -10%)				
Rated current(A)*1	50Hz	AC115V	0.6	0.6	0.95	2.4
		AC230/240V	0.3	0.3	0.55	1.2
	60Hz	AC115/120V	0.6	0.6	0.95	2.2
		AC230/240V	0.3	0.3	0.5	1.2/1.1
90°operation time(second)*2	50Hz	9	14	21	28	
	60Hz	8	12	17	23	
Rated output torque [In-lbs]		86	434	1736	5208	
Motor output [W]	50Hz	13	13	26	72	
	60Hz	16	16	31	85	
Power consumption [W]	50Hz	AC115V	60	60	100	240
		AC230/240V	70	70	115	260
	60Hz	AC115/120V	70	70	110	250
		AC230V	60	60	100	260
		AC240V	65	65	105	260
Overload protection		Built-in thermal protector (Activated at 248°F)				
Rotating direction		Counterclockwise to open/Clockwise to close (Viewed from top)				
Duty factor		Maximum 30%ED at 20°C				
Limit switch*3		2 each for opening / closing (2 position limit switches and 2 signal limit switches)				
Switch contact capacity		250V AC 11A least resistance load				
Service environment		Indoor / Outdoor (No water immersion/No exposure to sunlight)				
Water-proof/dust-proof		NEMA 4 Enclosure				
Heater capacity [W]	AC115/120V	10	10	10	20	
	AC230/240V	15	15	15	20	
Heater power consumption [W]	AC115V	3.3	3.3	3.3	5.3	
	AC120V	3.6	3.6	3.6	5.8	
	AC230V	3.8	3.8	3.8	5.3	
	AC240V	4.1	4.1	4.1	5.8	
Ambient temperature [°F]		15 to 120				
Insulation class		JIS C4003 Class E (Equivalent to UL Class A)				
Insulation strength		AC 1500V or 1 sec./AC 1800V				
Insulation resistance		100MΩ minimum / 500V DC				
Mounting orientation		Vertical to horizontal (No downward orientation)				
Lubrication		Grease				
Conduit port		1/2" NPT				
Electric wiring		M3 terminal board				
Mechanical stopper		Built-in stoppers for opening/closing(+/-7°each adjustment)				
Manual operation		Pulling up and turning a handle, while the motor is switched off with a built-in interlocking switch.				
Automated operation		Pushing down a handle to restore electric operation				
Valve mounting flange		ISO 5211				
Painting color		Metallic silver cover / Metallic dark grey case / Frosted black handle				
Actuator weight (Approx) [lbs]*4		9.7	9.7	16.1	27.1	

\*1 At the moment of start-up operation, actuator motors are loaded with a surge of approximately ten times rated current. Switch contact capacities of all electric devices connected to actuators must be provided with a sufficient margin to absorb such a high current.

\*2 Valve closing times are calculated for actuators only. Add 3% to 10% to the listed closing time for the actuators assembled with valves.

\*3 If the load current is 50mA or smaller, contact KITZ Corporation for supply of optional auxiliary limit switches provided with gold contacts.

\*4 Net weight of the actuator with excluding the weight of the valve.