

MQS BUTTERFLY VALVE ACTUATOR

Technical Specifications

Specification	Description
Enclosure	Weatherproof IP67, NAMUR 4 and 6, (IP68 Optional) O-Ring Seal
Main Power Supply	110/220-230V AC/ 1Ph/50/60Hz±10% 380/400/440/V AC/3Ph/50/60Hz±10%
Control Power Supply	110/220-230V AC/ 1Ph/50/60Hz±10%
Working Duty (On-off Type)	S2: 10Min~30Min/S4:20~50%
Working Duty (Modulating Type)	S4: 30~50%, 300~1,200 Starts/Hour
Motor	Whole Sealing Squirrel-cage Inductive Motor of F Degree
Limit Switch	2 for Each Open/Close Switch (SPDT 250VAC/10A Rating) (More Available)
Torque Switch	1 for Each Open/Close Switch (SPDT 250VAC/10A Rating) (More Available)
Thermal Protection and Temperature Setting	Built in Thermal protection, open 160°C, close 07°C ± 15°C
Travel angle	90° ± 5° (0° - 100°)
Position indicator	Continuous mechanical indicator
Manual Operation Mechanism	Attached
Self-locking Function	Provided double worm gearing (no brake)
Mechanical Stopper	1 each for each travel end (open and close), external and adjustable
Heater	5W (110 / 220-230VA C) for Anti-condensation
Cable entries	2 x PF 3/4"
Ambient temperature	Basic type : -20°C - +70°C Optional : -40°C - +100°C
Ambient humidity	10% RH Min, 100% RH Max, Non-Condensing
Anti vibration	XYZ 10g. 02~34Hz, 30 minute
Housing	Aluminum Alloy Housing Processed of Hard Anodizing and Polyester Painting



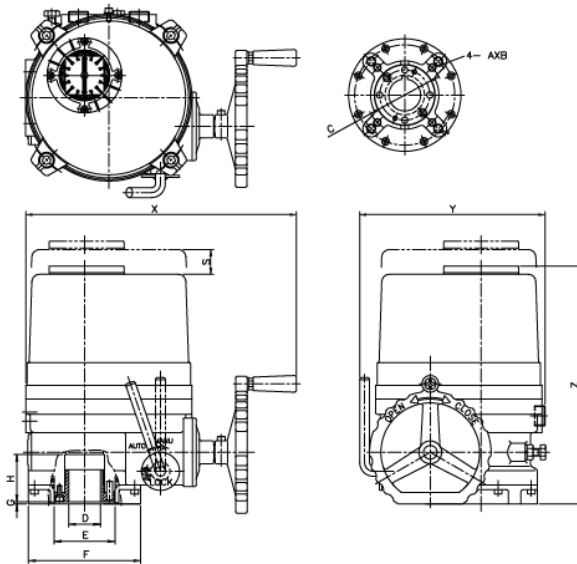
MQS BUTTERFLY VALVE ACTUATOR

Model Selection

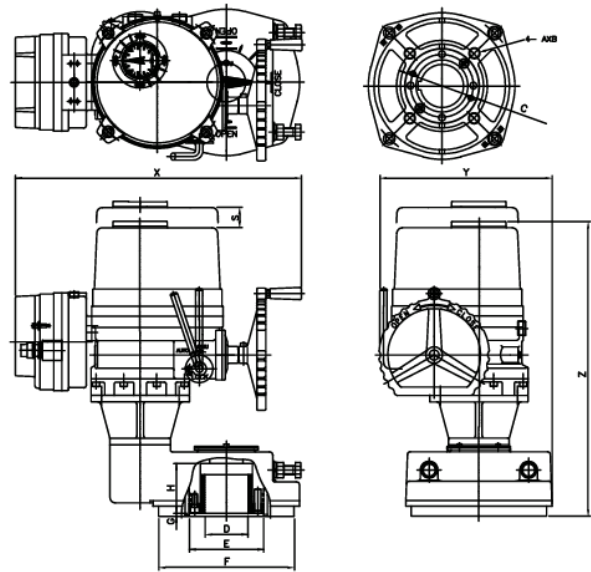
Model		MQS060	MQS100	MQS160	MQS240	MQS350	MQS500	MQS800	MQS1100	MQS1500	MQS2000	MQS3000
Output Torque (Nm)		60	100	160	240	350	500	800	1100	1500	2000	3000
Working Duty (%)		40	40	30	30	30	30	30	30	30	30	30
Operating Time	50Hz	13	21	26	26	31	31	39	39	93	117	117
	60Hz	11	18	22	22	26	26	32	32	78	97	97
Max. Axle Diameter (mm)	Round (Φ)		22	25	25	40	40	48	48	75	75	75
	Square (□)	14	20	23	23	34	34	40	40	64	64	64
Rated Current (A)												
1Phase/110V	50Hz	0.98	0.98	1.60	1.62	1.72	3.60	3.90	3.90	3.60	3.80	3.80
	60Hz	1.10	1.10	1.70	1.72	1080	3.90	4.20	4.30	3.90	4.20	4.20
1 Phase/220V	50Hz	0.52	0.52	0.85	0.87	0.92	1.50	2.05	2.15	1.50	2.05	2.15
	60Hz	0.58	0.58	0.90	0.90	0.95	1.60	2.20	2.30	1.60	2.20	2.30
3 Phase/380V	50Hz	0.43	0.43	0.30	0.32	0.32	0.52	0.82	0.84	0.52	0.82	0.84
	60Hz	0.33	0.33	0.30	0.32	0.32	0.56	0.88	0.90	0.56	0.88	0.90
3 Phase/440V	50Hz	0.59	0.59	0.30	0.32	0.32	0.55	0.82	0.84	0.55	0.82	0.84
	60Hz	0.42	0.42	0.32	0.35	0.35	0.58	0.88	0.88	0.58	0.88	0.88
Motor Degree		F	F	F	F	F	F	F	F	F	F	F
Motor Power		15W	15W	40W	40W	40W	90W	180W	180W	90W	180W	180W
Flange of Connection Standard ISO5211		F03/ F05	F07	F07/ F10	F07/ F10	F10/ F12	F12/ F14	F12/ F14	F12/ F14	F16	F16	F16
Weight (Kg)		3.5	7	15	15	20	20	25	25	65	75	75
Rounds of Rotation of Handwheel		10	10	12	12	14	14	17	17	65	70	70

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Dimensions (mm)



MQS100 - 1100

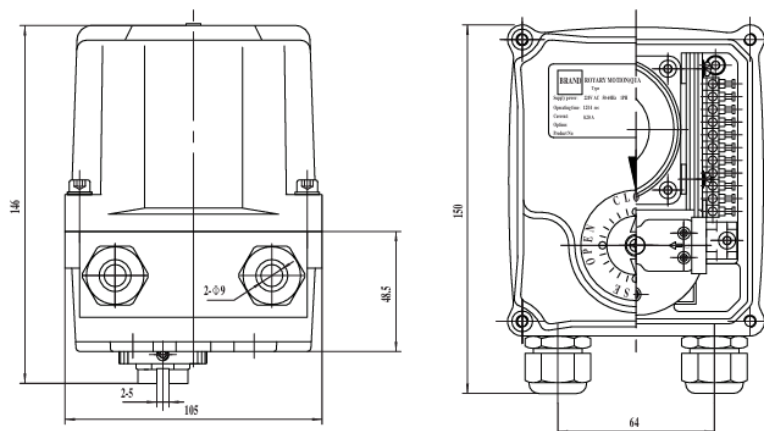


MQS1500 - 3000

Type	MQS 100	MQS 160	MQS 240	MQS 350	MQS 500	MQS 800	MQS 1100	MQS 1500	MQS 2000	MQS 3000
ISO 5211	F07	F07/ F10	F07/ F10	F10/ F12	F12/ F14	F12/ F14	F12/ F14	F16	F16	F16
D (Key)	Ø22	Ø25	Ø25	Ø40	Ø40	Ø48	Ø48	Ø75	Ø75	Ø75
D (Squ.)	□ 20	□ 23	□ 23	□ 34	□ 34	□ 40	□ 40	□ 64	□ 64	□ 64
E	50	58.5	58.5	80	80	95	95	135	135	135
F	88	125	125	148	148	178	178	245	245	245
G	3	3	3	3	3	3	3	5	5	5
H	37	57	57	62	62	67	67	90	90	90
S	100	115	115	145	145	170	170	145	170	170
X	258	338	338	357	357	380	380	368	513	513
Y	172	229	229	244	244	287	287	293	312	312
Z	245	284	284	315	315	313	313	506	531	531

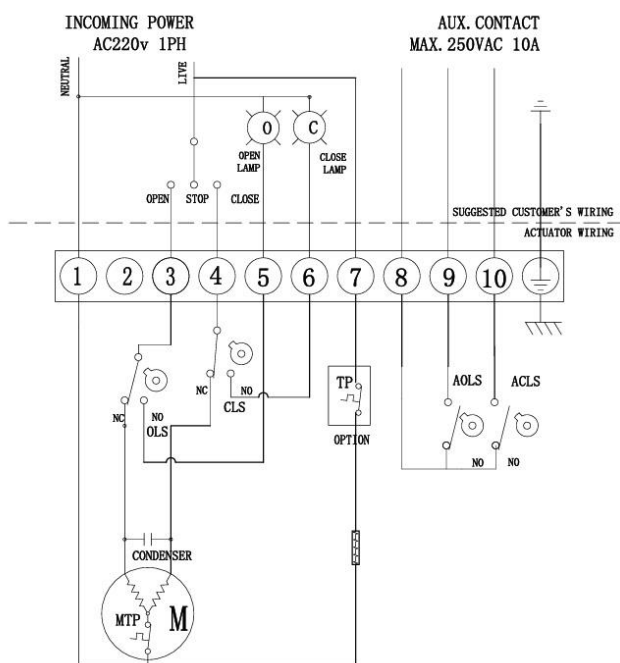
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Dimensions



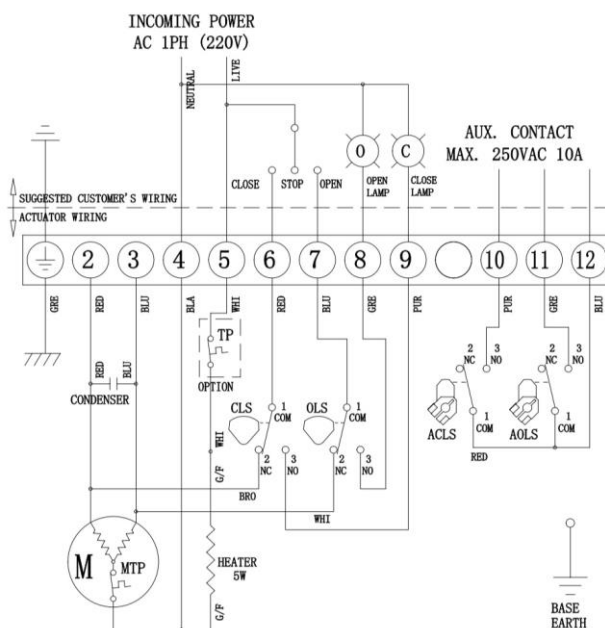
MQS060

Wiring Diagrams



MQS060

220VAC, 50/60Hz, 1PH (On/Off)



MQS100

220VAC, 50/60Hz, 1PH (On/Off)

INCOMING POWER
AC 1PH (220V)

ACTUATOR WIRING

AUX. CONTACT
MAX. 250VAC 10A

Terminal Block Connections:

- Terminal 1:** GND (Ground)
- Terminal 2:** RED (Line)
- Terminal 3:** BLU (Neutral)
- Terminal 4:** BLU (Neutral)
- Terminal 5:** WHI (White)
- Terminal 6:** RED (Line)
- Terminal 7:** BLU (Neutral)
- Terminal 8:** YEL (Yellow)
- Terminal 9:** PUR (Purple)
- Terminal 10:** GND (Ground)
- Terminal 11:** BLU (Neutral)
- Terminal 12:** RED (Line)
- Terminal 13:** G/F (Ground/Fault)
- Terminal 14:** PUR (Purple)
- Terminal 15:** RED (Line)
- Terminal 16:** GND (Ground)
- Terminal 17:** BLU (Neutral)

Components and Connections:

- Motor (MTP):** Connected to terminals 2 (RED) and 3 (BLU) via a condenser.
- Heater (5W):** Connected to terminals 6 (RED) and 7 (BLU) via a 5W heater.
- Control Lamps:**
 - OT (Over Torque Lamp):** Connected to terminals 6 (RED) and 7 (BLU).
 - C (Close Lamp):** Connected to terminals 6 (RED) and 7 (BLU).
 - O (Open Lamp):** Connected to terminals 6 (RED) and 7 (BLU).
 - OPEN:** Connected to terminals 6 (RED) and 7 (BLU).
 - STOP:** Connected to terminals 6 (RED) and 7 (BLU).
 - CLOSE:** Connected to terminals 6 (RED) and 7 (BLU).
- Auxiliary Contacts:**
 - ACL (Auxiliary Contact Limit):** Connected to terminals 14 (PUR) and 15 (RED) via a 250VAC 10A contact.
 - AOL (Auxiliary Contact Limit):** Connected to terminals 14 (PUR) and 15 (RED) via a 250VAC 10A contact.

All listed specifications were accurate as of the print date and may be subject to change without prior notice. The actual products may vary from the images displayed.