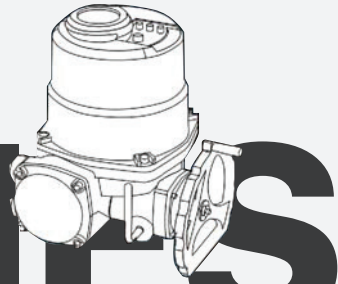


EQ SERIES



Intelligent Electric Actuator

In order to meet the demand of the market, Bloomfoss has developed EQ series quarter-turn electric actuator on the basis of BMT series actuator. EQ series actuator with the torque range from 50Nm to 500Nm, has the characteristics of smart, simple structure, complete function, reliable quality and competitive price.

Features and Functions of EQ Series Electric Actuator

EQ series actuator simplifies parts function of BMT range without lowering its performance and introduces dot matrix LCD as well as absolute encoder to make it more personified.

EQ reserved functions of BMT as listed:

- Non-intrusive design
- Auto phase correction
- Instantaneous reversal protection
- Motor overheating protection
- 4 sets of indication contacts
- Analogue position control (option)
- Fieldbus (option)



EQ Changed Functions of BMT as Listed :

Button Setting of Parameters

EQ actuator changes the parameter setting mode and uses the push button to set parameters instead of infrared setting tool which is used by BMT.

High-brightness Industrial LCD Display

EQ series adopt high-brightness large-screen LCD display which can show Chinese or English menu clearly.



Absolute Encoder Measurement Of Valve Position

EQ range actuator takes advanced 12-bit hall magnetic absolute encoder, which can record the valve position accurately without battery when the power is off. The accuracy of the valve position measurement can be 0.08°.

The Internal Structure of EQ Actuator

2. Mainboard

The adoption of SOC chip and high integrated circuit design provide actuator with multiple functions such as fault detection, self-protection and alarm. Therefore, the reliability of actuator is improved.

3. Valve Position Control

Hall absolute encoder driven by mainshaft can measure the valve position accurately

6. Power Supply Board

The electronic components used to control motor, power supply and other parts are integrated on the power supply board.

1. Liquid Crystal Display

Dot Matrix LCD with blue backlight can clearly show Chinese or English menu. Real-time valve position, torque value, actuator current status and fault information will also be shown. At the bottom of the screen, there are three high brightness diodes which can indicate open, close and middle position of valve.

4. Button

There are four buttons called local/remote/menu button, open/plus button, close/minus button and stop/enter button on the actuator. User can set up various functions of actuator easily with these buttons.

5. Motor

Bloomfoss uses high torque, low inertia squirrel cage motor with F class enamel-insulated wire and two internal thermal switches.

10. Clutch

Clutch is used to switch manual and electric operation.

7. Handwheel

Actuator has a handwheel, which can operate the valve by user when power is off. The dimension of the handwheel is designed for labor saving.

8. Handle

Turning the handle can switch the actuator to manual status when manual operation is needed. The handle can be locked by padlock to prohibit unnecessary manual setting.

9. Worm and Worm Shaft

Two-Stage worm reducer has large transmission ration, low noise (50dB is the highest) and self-lock functions.

12. Terminal Compartment

The double-seal design of the terminal compartment can protect the internal electric components from the outside hazardous gas during site wiring

11. Base

The installation dimension of the base conforms to ISO5211 standard and the drive bush can be machined according to the requirement of user

EQ Series Performance Data (380V 3Phase 50Hz On/Off)



Quarter-turn

Model	Specification	Flange (ISO 5211)	Time (S)	Torque (Nm)	Motor Poles	Rated Current (A)	Starting Current (A)	Rated Power (KW)	Power Factor	Efficiency (%)	Weight (KG)
EQ200	EQ5	F05/F07	20	50	4	0.50	1.60	0.05	0.83	57	14
	EQ10	F05/F07	20	100	4	0.53	1.60	0.05	0.83	57	14
	EQ15	F05/F07	20	150	4	0.56	1.60	0.05	0.83	57	14
	EQ20	F05/F07	20	200	4	0.62	1.60	0.05	0.83	57	14
EQ500	EQ30	F07/F10	30	300	4	1.03	2.20	0.08	0.74	61	17
	EQ40	F07/F10	30	400	4	1.08	2.20	0.08	0.74	61	17
	EQ50	F07/F10	30	500	4	1.12	2.20	0.09	0.74	61	17

Note : Wiring and airbreak switch selection should refer to current(A) data of actuators.

EQM Series Performance Data (380V 3Phase 50Hz Modulating)



Quarter-turn

Model	Specification	Flange (ISO 5211)	Time (S)	Torque (Nm)	Motor Poles	Rated Current (A)	Starting Current (A)	Rated Power (KW)	Power Factor	Efficiency (%)	Weight (KG)
EQM 200	EQM5	F05/F07	20	50	4	0.48	1.50	0.05	0.80	60	14
	EQM10	F05/F07	20	75	4	0.50	1.50	0.05	0.80	60	14
	EQM15	F05/F07	20	100	4	0.52	1.50	0.05	0.80	60	14
	EQM20	F05/F07	20	140	4	0.56	1.50	0.05	0.80	60	14
EQM 500	EQM30	F07/F10	30	180	4	0.92	2.10	0.09	0.75	63	17
	EQM40	F07/F10	30	240	4	0.96	2.10	0.09	0.75	63	17
	EQM50	F07/F10	30	300	4	1.02	2.10	0.10	0.75	63	17

Note : Wiring and airbreak switch selection should refer to current(A) data of actuators.

EQ Series Performance Data (220V 1Phase 50Hz On/Off)



Quarter-turn

Model	Specification	Flange (ISO 5211)	Time (S)	Torque (Nm)	Motor Poles	Rated Current (A)	Starting Current (A)	Rated Power (KW)	Power Factor	Efficiency (%)	Weight (KG)
EQ200	EQ5	F05/F07	20	40	4	0.86	1.20	0.03	0.96	52	14
	EQ10	F05/F07	20	60	4	0.86	1.20	0.03	0.96	52	14
	EQ15	F05/F07	20	80	4	0.86	1.20	0.03	0.96	52	14
	EQ20	F05/F07	20	100	4	0.86	1.20	0.03	0.96	52	14
EQ500	EQ30	F07/F10	30	150	4	1.30	2.20	0.05	0.96	58	17
	EQ40	F07/F10	30	175	4	1.30	2.20	0.05	0.96	58	17
	EQ50	F07/F10	30	220	4	1.30	2.20	0.05	0.96	58	17

Note : Wiring and airbreak switch selection should refer to current(A) data of actuators.

EQM Series Performance Data (220V 1Phase 50Hz Modulating)



Quarter-turn

Model	Specification	Flange (ISO 5211)	Time (S)	Torque (Nm)	Motor Poles	Rated Current (A)	Starting Current (A)	Rated Power (KW)	Power Factor	Efficiency (%)	Weight (KG)
EQM 200	EQM5	F05/F07	20	30	4	0.76	1.10	0.03	0.97	68	14
	EQM10	F05/F07	20	40	4	0.76	1.10	0.03	0.97	68	14
	EQM15	F05/F07	20	55	4	0.76	1.10	0.03	0.97	68	14
	EQM20	F05/F07	20	70	4	0.76	1.10	0.03	0.97	68	14
EQM 500	EQM30	F07/F10	30	100	4	1.22	2.00	0.05	0.95	63	17
	EQM40	F07/F10	30	140	4	1.22	2.00	0.05	0.95	63	17
	EQM50	F07/F10	30	180	4	1.22	2.00	0.05	0.95	63	17

Note : Wiring and airbreak switch selection should refer to current(A) data of actuators.

Figure Number System

How To Order And Specify

The following is an example of a specific figure number. The fields have been numbered and are explained in the corresponding sections.

Model	Code	Flange	Voltages	Protection	Communication	Others Remark
EQ	50	F05	0= 220/1 P-50Hz	0= None	0 = None	0 = None
	10	F07	1= 220/1P-60hz	1= Exd IIB T4	1 = Modbus RTU	1 = Space Heater
	150	F10	2= 380/3P-50Hz	2= Exd IIB T6	2 = Foundation Fieldbus	3 = 4 ~20mA feedback singal
	200		3= 380/3P-60Hz	3= IP67	3 = Profibus DP	
	300		4= 415/3P-50Hz	4= IP68	4 = Others	
	400		5= 415/3P-60Hz			
	500					

Example:

EQ-150-F07-2-0-0-0

- ▶ Model = BMT 06
- ▶ Connection flange F16
- ▶ Actuator RPM 18
- ▶ 380V, 3 P, 50Hz

Exd IIB T6

Prodibus DP

Remark = None



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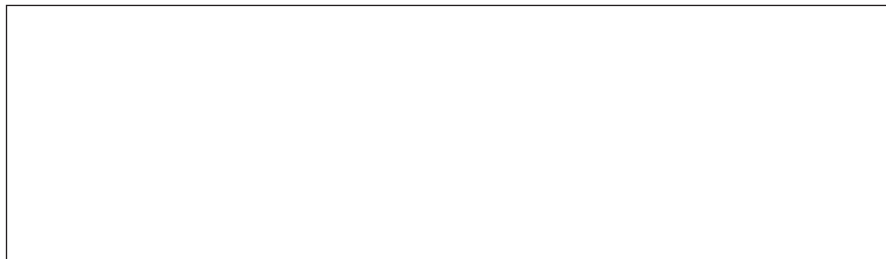
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