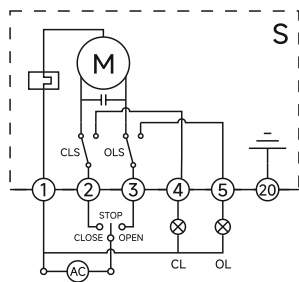




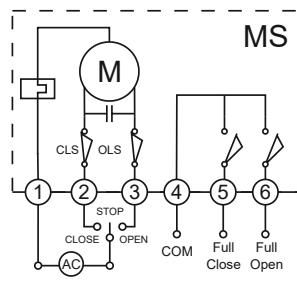
Quick Opening Electric Actuator Selection Manual

Circuit Diagram



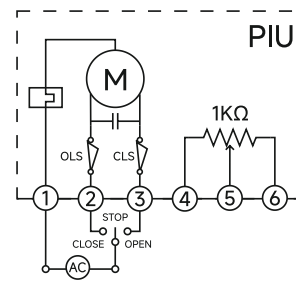
S

Switching Action Mode:
Switching operations (open/close) are achieved via AC switching signals, and a set of active position signals indicating fully open/fully closed status are output.



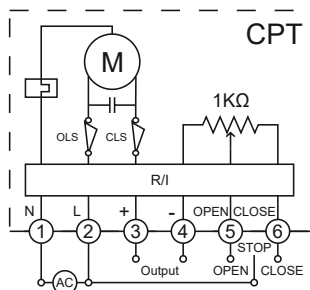
MS

Switching Action Mode: Outputs passive contact signals.
Structure: Equipped with two intermediate position switches.



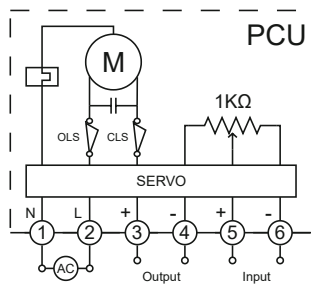
PIU

Switching Action Mode: Outputs 0~1000Ω feedback signal.
Structure: Equipped with 500Ω or 1kΩ potentiometer.



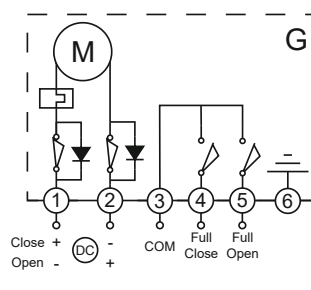
PCU

Regulating Action Mode: Accepts 4~20mA control signal input and outputs 4~20mA valve position feedback signal.
Structure: Integrated with 1kΩ potentiometer and control module (servo amplifier).



CPT

Switching Action Mode: Outputs 4~20mA valve position feedback signal.
Structure: Equipped with 1kΩ potentiometer and R/I converter.

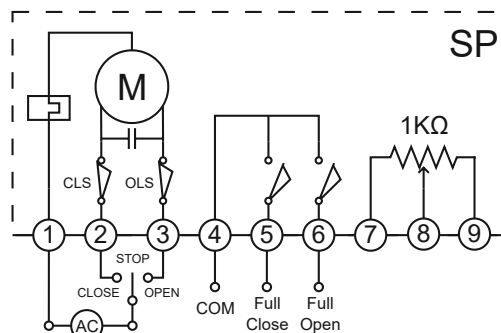


G

DC switching signals are output from the circuit via an external DC power supply to control the opening/closing program, and a set of passive contact signals corresponding to fully open/fully closed positions are provided.

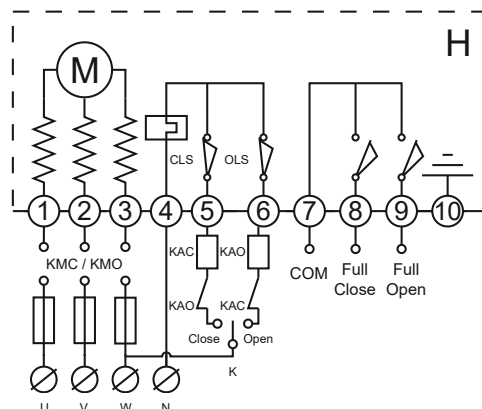
SP

Switching Action Mode: Controls valve opening angle via switching circuit, corresponding to potentiometer resistance value, while enabling intermediate position control function.
Structure: Integrated with potentiometer and intermediate position switch.



H

Three-phase AC switching signals are output through an external three-phase power phase-reversing circuit to control opening/closing operations, accompanied by a set of passive contact signals for fully open/fully closed position indication.

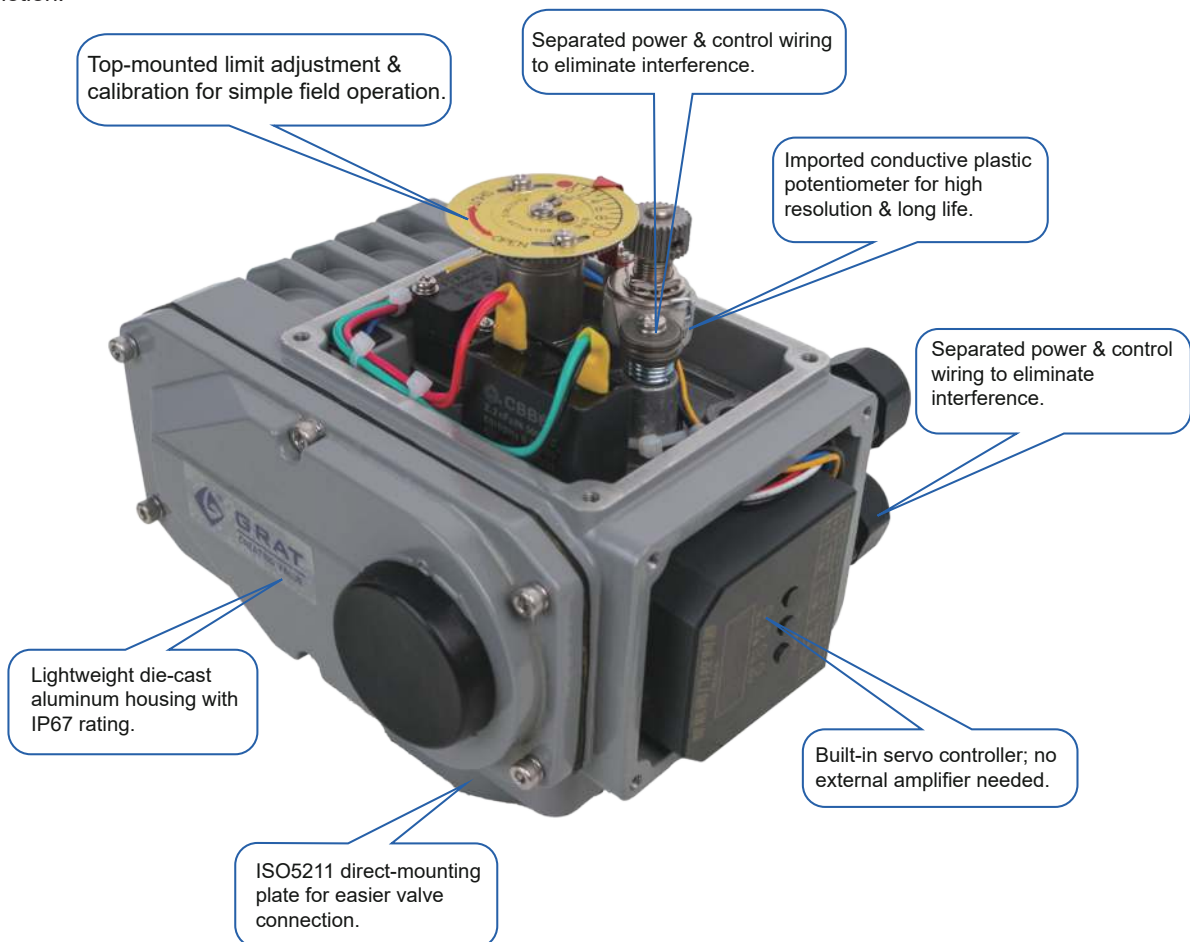


Quick Opening Electric Actuator

10N·m~500N·m

Product Introduction

EA Series Fast Switch Integrated Electric Actuators deliver an output torque ranging from 10 N·m to 500 N·m. They are compatible with various rotary-type valves (including ball valves and butterfly valves), air dampers, fluid couplings, and other rotary machinery, to realize on-off and modulating positioning control of rotary motion.



Selection Instructions

Electric Actuator	Output Torque	Operation Mode Code	Running Time	Additional Special Functions
EA	100	PIU	15S	H
	(Table 1)	See Circuit Diagram	(Table 1)	(Table 2)

© EA-100/PIU/4s/ATS indicates: It has an output torque of 100Nm, adopts an on-off operation mode that outputs a 0~1KΩ signal, is equipped with a torque limiting device, and has a stroke time of 4 seconds.

|| (Table 1) Electric Actuator Standard Models & Specs

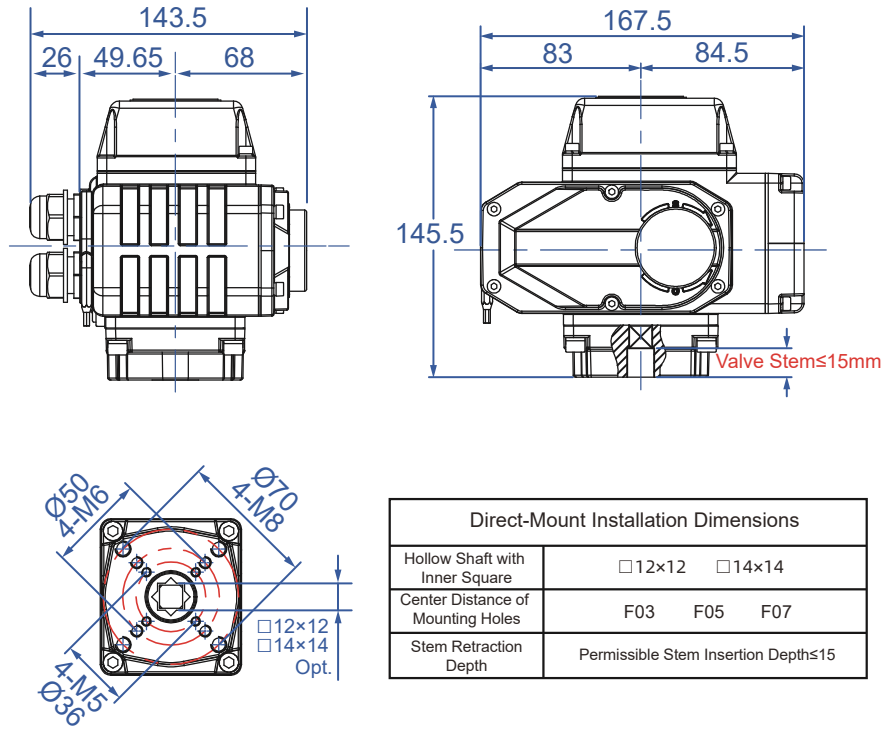
Model		10N·m	20N·m	50N·m	75N·m	100N·m	200N·m	500N·m
Recommended Compatible Valve	Ball Valve	DN15	DN20	DN25-32	DN40	DN50-65	DN80-100	DN125-200
	Butterfly Valve	DN40	DN50-65	DN80-100	DN125	DN150	DN200	DN250-300
Actuation Time		3s/4s/6s	3s/4s/6s	4s/6s	6s/8s	6s/8s	6s/8s	8s
Rotation Angle		0-90°	0-90°	0-90°	0-90°	0-90°	0-90°	0-90°
Motor Power	AV110V	10W	25W	40W	90W	90W	120W	140W
	AC220V	10W	25W	40W	90W	90W	120W	140W
	AC380V	6W	15W	30W	40W	40W	90W	120W
	DC24V	13W	25W	35W	70W	70W		
Rated Current	AC110V	0.24A	0.56A	0.69A	1.12A	1.20A	1.93A	1.75A
	AC220V	0.16A	0.32A	0.35A	0.54A	0.64A	0.96A	1.03A
	AC380V	0.07A	0.10A	0.15A	0.29A	0.29A	0.45A	0.48A
	DC24V	1.28A	2.03A	3.57A	5.13A	3.04A		
Total Weight		2.5kg	3.5kg	8kg	8.5kg	9kg	20kg	22kg
Power Supply		AC 110V, AC 220V, AC 380V, DC 24V, DC 220V optional						
Accuracy		Hysteresis ≤1.5%, Feedback Error ≤1.5%						
Insulation Resistance		≥50MΩ at 500VDC						
Withstand Voltage Rating		DC24V: 500V for 1 min; AC110V: 1000V for 1 min; AC220V: 1500V for 1 min; AC380V: 2000V for 1 min						
IP Rating		IP67						
Limit Assembly		• Full-open and full-close limit switches for electric operation • Mechanical stoppers for manual operation						
Protection Device		Overheat protector (auto-reset type)						
Mounting Orientation		360° arbitrary mounting angle						
Electrical Interface		M20×1.5 waterproof cable gland						
Ambient Temperature		-30℃ ~ 60℃ (High temperature resistant type: -50℃ ~ 70℃)						
Test Standard		JB/T8219-2016						

|| (Table 2) Custom Optional Special Functions

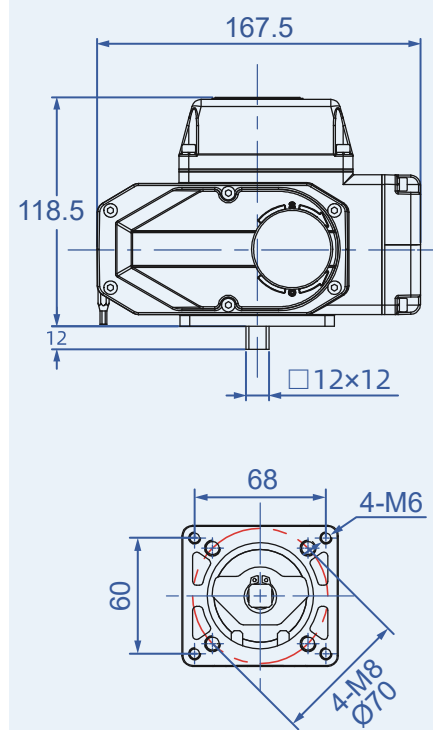
Special Function Options	Code	Picture
Torque Limiter	ATS	
Bracket & Bushing	ZT	
Remote Control Unit	C	
Dehumidifying Heater	H	
Handwheel	SL	

10N·m Outline Drawing

Direct-Mount Type



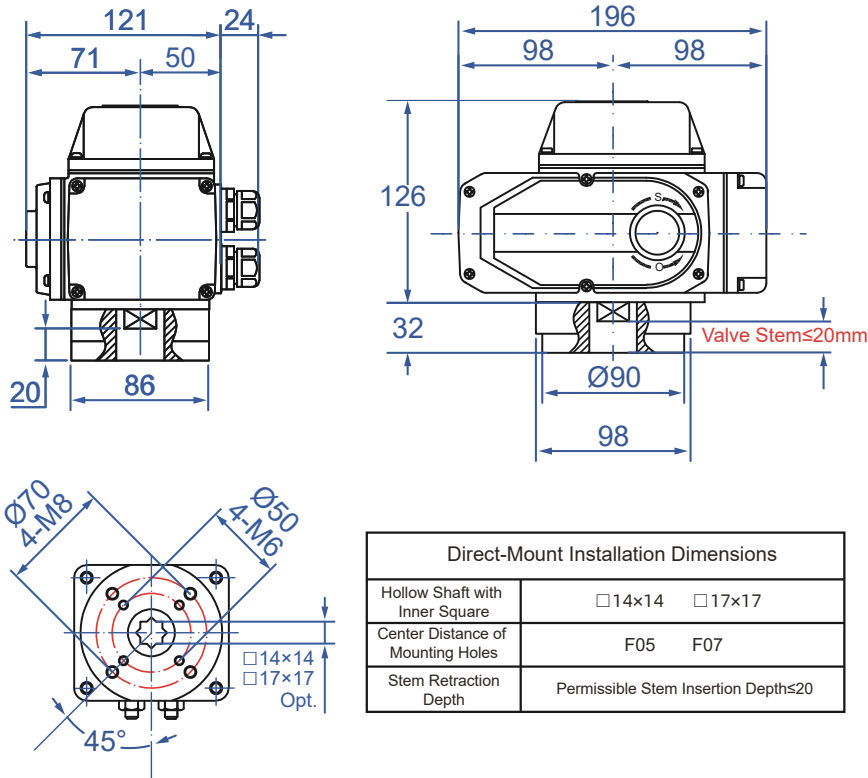
Standard Type



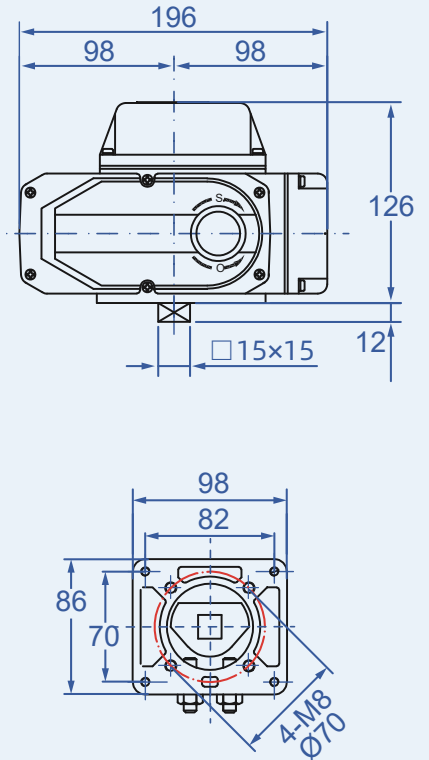
Performance Parameters	10N·m			
	Model			
Power Supply	DC24V	AC110V	AC220V	AC380V
Motor Power	13W	10W	10W	6W
Rated Current	1.28A	0.24A	0.16A	0.07A
Standard Output	10N·m/3s/4s/6s			
Overall Weight	2.5 Kg			
Rotation Angle	0~90° Adjustable			
Circuit Options	Type S / MS / PIU / SP / CPT / PCU / G / H			
Insulation Resistance	≥50MΩ @ 500VDC			
Withstand Voltage Class	DC24V: 500V for 1 min; AC110V: 1000V for 1 min; AC220V: 1500V for 1 min; AC380V: 2000V for 1 min			
Protection Class	IP67 / IP68			
Mounting Method	360° Omni-directional Mounting			
Electrical Interface	2 pcs M20×1.5 Waterproof Cable Glands (for Power & Signal Cables)			
Ambient Temperature	-30°C ~ 60°C (▲ High Temperature Resistant Type: -50°C ~ 125°C)			
Optional Functions	Dehumidifying Heater			

20N·m Outline Drawing

Direct-Mount Type



Standard Type

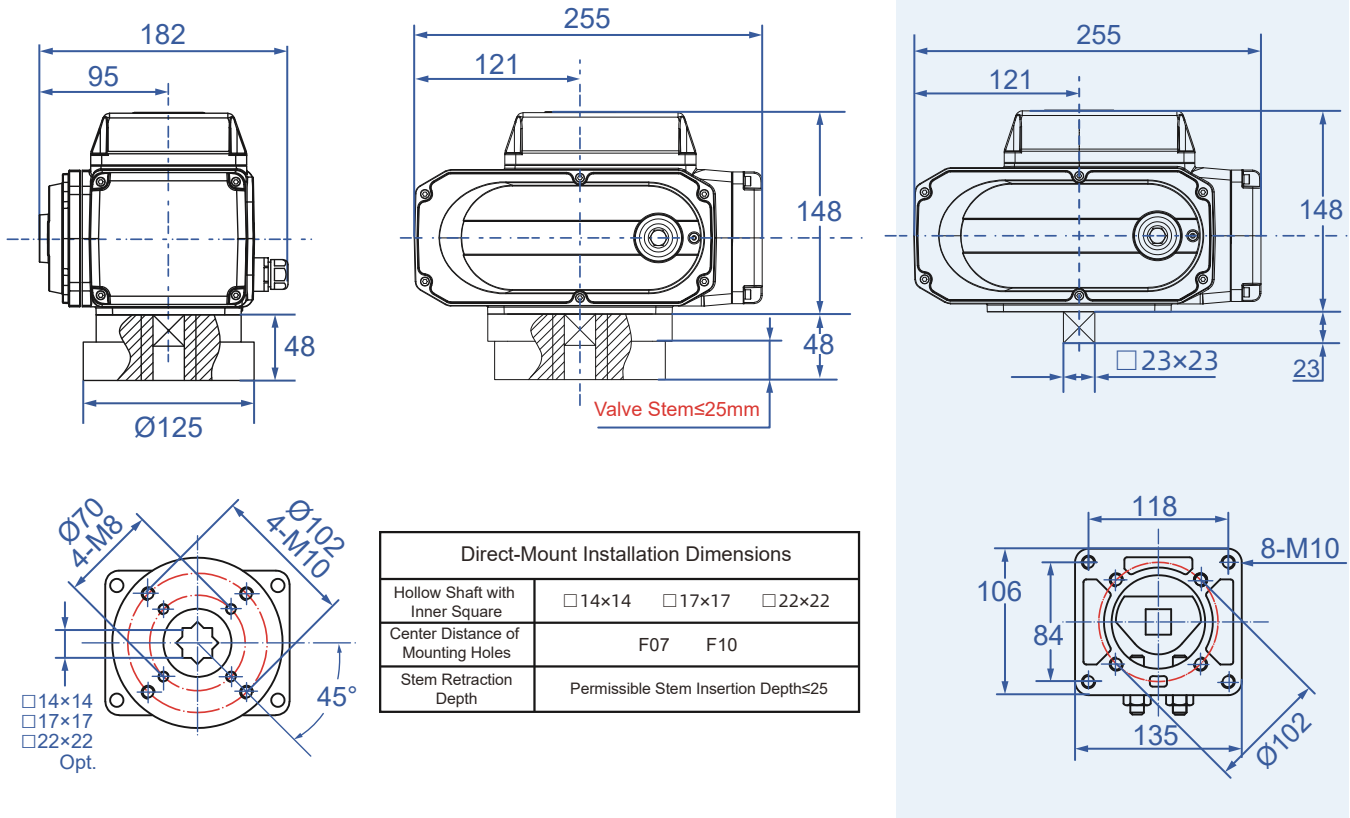


Model	20N·m			
Performance Parameters	DC24V	AC110V	AC220V	AC380V
Power Supply	DC24V	AC110V	AC220V	AC380V
Motor Power	25W	25W	25W	15W
Rated Current	2.03A	0.56A	0.32A	0.10A
Standard Output	20N·m/3s/4s/6s			
Overall Weight	3.5 Kg			
Rotation Angle	0~90° Adjustable			
Circuit Options	Type S / MS / PIU / SP / CPT / PCU / G / H			
Insulation Resistance	$\geq 50\text{M}\Omega$ @ 500VDC			
Withstand Voltage Class	DC24V: 500V for 1 min; AC110V: 1000V for 1 min; AC220V: 1500V for 1 min; AC380V: 2000V for 1 min			
Protection Class	IP67 / IP68			
Mounting Method	360° Omni-directional Mounting			
Electrical Interface	2 pcs M20×1.5 Waterproof Cable Glands (for Power & Signal Cables)			
Ambient Temperature	-30°C ~ 60°C (▲ High Temperature Resistant Type: -50°C ~ 125°C)			
Optional Functions	Dehumidifying Heater			

50/100N·m Outline Drawing

Direct-Mount Type

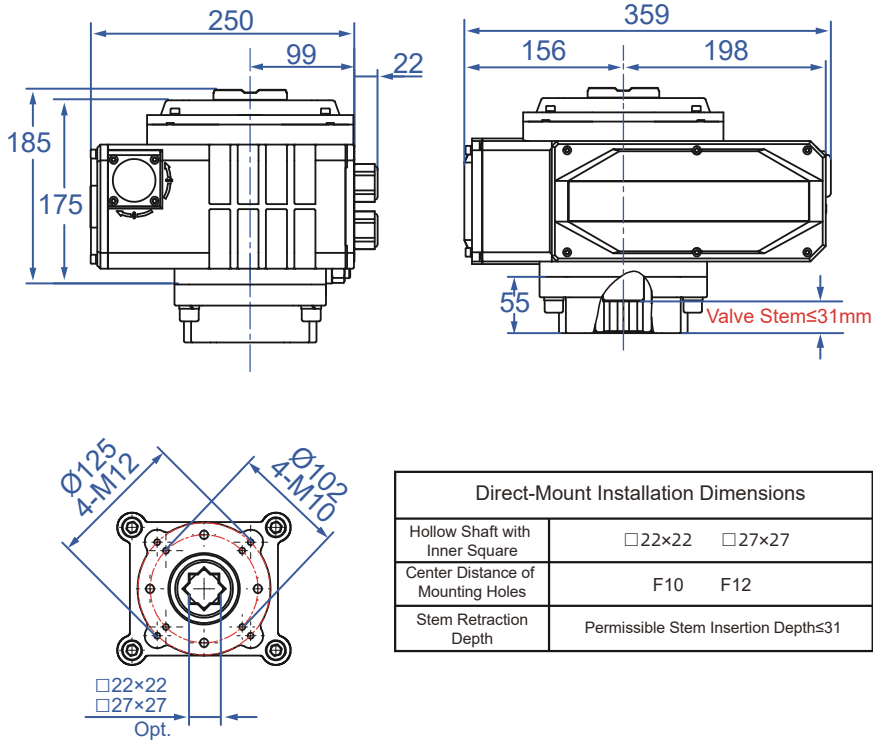
Standard Type



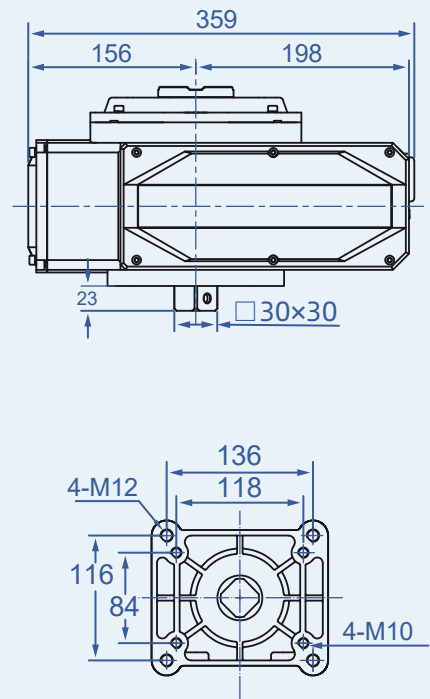
Model	50N·m				75N·m				100N·m			
Performance Parameters	DC24V	AC110V	AC220V	AC380V	DC24V	AC110V	AC220V	AC380V	DC24V	AC110V	AC220V	AC380V
Power Supply	35W	40W	40W	30W	70W	90W	90W	40W	70W	90W	90W	40W
Motor Power	3.57A	0.69A	0.35A	0.15A	5.13A	1.12A	0.54A	0.29A	6.04A	1.20A	0.64A	0.29A
Rated Current	50N·m/4s/6s				75N·m/6s/8s				100N·m/6s			
Standard Output	8 Kg				8.5 Kg				9 Kg			
Overall Weight	0~90° Adjustable											
Rotation Angle	Type S / MS / PIU / SP / CPT / PCU / G / H											
Circuit Options	≥50MΩ @ 500VDC											
Insulation Resistance	DC24V: 500V for 1 min; AC110V: 1000V for 1 min; AC220V: 1500V for 1 min; AC380V: 2000V for 1 min											
Withstand Voltage Class	IP67 / IP68											
Protection Class	360° Omni-directional Mounting											
Mounting Method	2 pcs M20×1.5 Waterproof Cable Glands (for Power & Signal Cables)											
Electrical Interface	-30℃ ~ 60℃ (▲ High Temperature Resistant Type: -50℃ ~ 125℃)											
Ambient Temperature	Dehumidifying Heater											
Optional Functions												

200N·m Outline Drawing

Direct-Mount Type



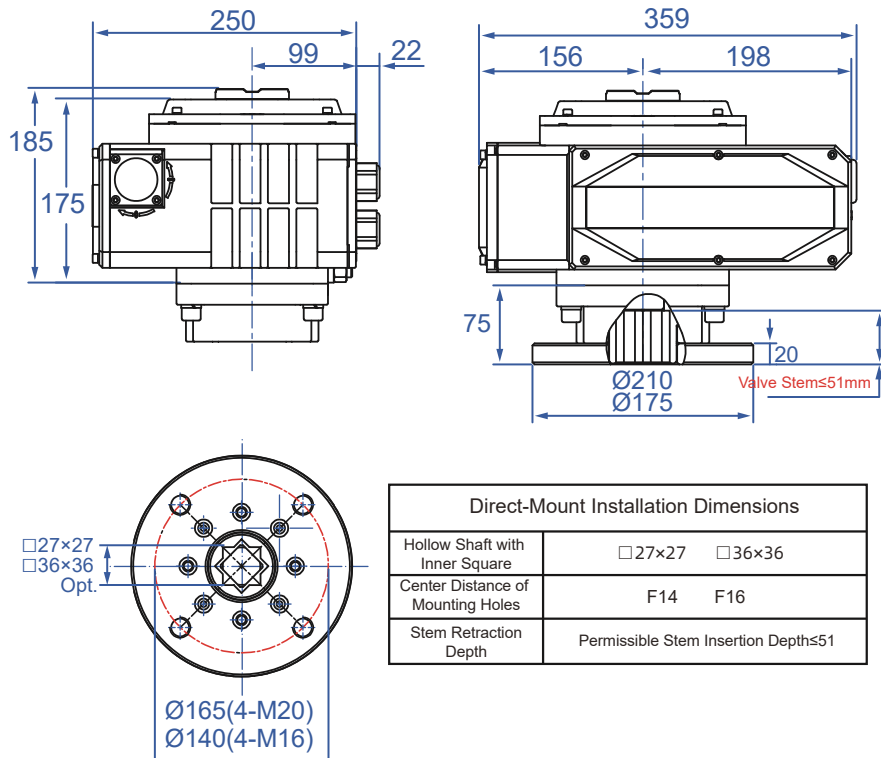
Standard Type



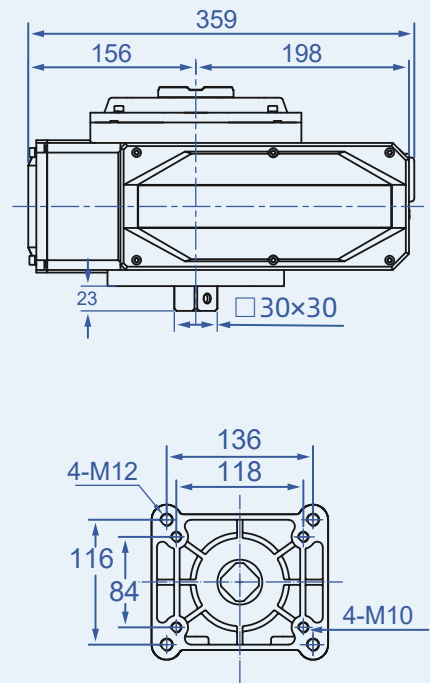
Model	200N·m		
Power Supply	AC110V	AC220V	AC380V
Motor Power	210W	210W	300W
Rated Current	1.93A	0.96A	0.45A
Standard Output	200N·m/6s/8s		
Overall Weight	20 Kg		
Rotation Angle	0~90° Adjustable		
Circuit Options	Type S / MS / PIU / SP / CPT / PCU / G / H		
Insulation Resistance	≥50MΩ @ 500VDC		
Withstand Voltage Class	DC24V: 500V for 1 min; AC110V: 1000V for 1 min; AC220V: 1500V for 1 min; AC380V: 2000V for 1 min		
Protection Class	IP67 / IP68		
Mounting Method	360° Omni-directional Mounting		
Electrical Interface	2 pcs M20×1.5 Waterproof Cable Glands (for Power & Signal Cables)		
Ambient Temperature	-30°C ~ 60°C (▲ High Temperature Resistant Type: -50°C ~ 125°C)		
Optional Functions	Dehumidifying Heater		

500N·m Outline Drawing

Direct-Mount Type



Standard Type



Model	500N·m		
Performance Parameters			
Power Supply	AC110V	AC220V	AC380V
Motor Power	140W	140W	120W
Rated Current	1.75A	1.03A	0.48A
Standard Output	500N·m/8s		
Overall Weight	20 Kg		
Rotation Angle	0~90° Adjustable		
Circuit Options	Type S / MS / PIU / SP / CPT / PCU / G / H		
Insulation Resistance	≥50MΩ @ 500VDC		
Withstand Voltage Class	DC24V: 500V for 1 min; AC110V: 1000V for 1 min; AC220V: 1500V for 1 min; AC380V: 2000V for 1 min		
Protection Class	IP67 / IP68		
Mounting Method	360° Omni-directional Mounting		
Electrical Interface	2 pcs M20×1.5 Waterproof Cable Glands (for Power & Signal Cables)		
Ambient Temperature	-30°C ~ 60°C (▲ High Temperature Resistant Type: -50°C ~ 125°C)		
Optional Functions	Dehumidifying Heater		

Configuration Function

Mounting Kit - Bracket & Adapter

- **Universal Connection:** Adapts electric actuators to various valve stems (square, flat, or keyed) for flexible customization.
- **Rigid Support:** Secures perfect shaft alignment and eliminates vibration or deformation during high-torque operation.
- **Wear Protection:** Absorbs direct mechanical friction to protect core components and extend equipment lifespan.



DKJ Bracket

- **Mode Switching:** Integrated mechanical switching on DKJ bracket enables precise motion mode conversion.
- **Cost Reduction:** Modular bracket fits various controlled devices without actuator replacement to cut retrofit cost.
- **Torque Transmission:** High mechanical efficiency ($\geq 80\%$) ensures effective output torque transfer to controlled equipment.



Dehumidifying Heater

- **Moisture Proofing:** Heating reduces internal humidity of actuator in damp conditions such as basements and rainy outdoors to stop condensation, preventing circuit short and metal corrosion.
- **Temperature Control:** Maintains proper internal temperature under low ambient temperature to secure normal operation of electronics like sensors and controllers against cold-induced performance degradation.
- **Insulation Protection:** Prevents insulation deterioration of motor windings and terminals from moisture erosion to avoid electric leakage and breakdown.



Remote Control

- **Remote Operation:** Adjust actuator via 4-20mA or fieldbus signals without on-site attendance to control valve/damper opening for automatic systems.
- **Centralized Management:** Connect to central control system for unified monitoring and operation of multiple actuators to improve process coordination.
- **Emergency Response:** Remote control avoids personal hazards in hazardous high-temp, high-pressure or toxic working conditions.



Handwheel

- **Emergency Operation:** Manually turn handwheel to drive actuator during power cut or motor fault for normal valve/damper switching and continuous system operation.
- **Commissioning & Calibration:** Manually adjust actuator stroke during installation or maintenance to accurately set valve opening and mechanical limit parameters.
- **Safety Assurance:** Enable manual intervention upon automatic control failure to prevent overpressure and medium leakage caused by stuck equipment.
- **Maintenance Assistance:** Manual positioning facilitates easy access to internal parts and simplifies overhaul work.



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