

# ELECTRIC ACTUATOR SR SERIES 05, 10, 20, 30

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EUNHA MACHINERY INDUSTRIAL CO.,LTD(EMICO)

## 1. Standard Specification

Enclosure	Watertight Ingress Protection 67 Nema 4 and 6
Ambient Temperature	-20°C - 55°C
Power Supply	110 / 120 / 220 / 230 V AC 50/60Hz , 380 / 440V AC 50/60Hz, DC24V
Limit Switches	Open / Close Limit Switch (250VAC 15A)
Travel Angle	90° ± 5°
Indicator	Continuous Position Indicator
Manual Override	Hand / Auto Decoupling Mechanism
Self Locking	Provided by Means of Worm Gearing
Space Heater	20W
Cable Entries	Two PF 3/4", Two NPT 3/4" , Two M-20
Lubrication	Shell Gadus S2 V220 2
Materials	Aluminium
Surface Treatment	Anodizing
External Coating	Polyester (TGIC - Free)
Mechanical Stops	External Adjustable Screws

## 2. Optional Specification

EXP	Flameproof Enclosure Ex d IIB T4
ALS	Auxiliary Open, Close Limit Switches
CPT	Current Position Transmitter / Output : DC 4-20mA
PIU	Potentiometer 1 K Ohm
PCU	Proportional Contact Unit ( Modulation ) Input : 4-20mA DC 1-5VDC, 2-10VDC, 0-5VDC, 0-10VDC Output : 4-20mA DC
IMS	Integral Motor Starter
LCU	Local Control Unit
GOV	Governor (SR05,10: Option / SR30: Standard)
Mod-Bus	
Profi-Bus	
Can-Bus	

### 3. Performance

Type		SR05	SR10	SR20	SR30	
Max Output Torque	Kg.m	5	10	20	30	
	Nm	50	100	200	300	
Spring Return Time (90°)	sec	1 (When Governor Setting: 2 ± 1 sec)		1~2 (Governor Standard)	2 ± 1 (Governor Setting)	
Operating Time (90°) sec (Open/Close)	110V	50hz	16/14	18/16	61/56	90/81
		60hz	14/12	16/14	51/46	72/68
	220V	50hz	16/14	20/19	62/57	99/82
		60hz	13/12	17/15	51/47	75/68
	380V	50hz	17/15	21/19	62/57	87/82
		60hz	15/13	19/16	52/47	74/68
	440V	50hz	17/15	21/19	62/57	86/82
		60hz	15/13	17/16	52/47	73/67
	DC24V	13/10	20/12	56/35	86/56	
	Motor (W)	AC	60	90	90	90
DC		40	40	40	40	
Duty(S2)	Min	15	15	15	15	
Rated Current (A) (Open/Close)	110V	50hz	1.75/1.68	2.4/2	2.8/2.43	2.3/1.8
		60hz	1.7/1	3/2.2	3.9/2.9	3.15/2.3
	220V	50hz	1/0.95	1.06/0.98	1.3/0.97	1.02/0.98
		60hz	1.03/0.7	1.3/0.9	1.8/0.43	1.3/0.95
	380V	50hz	0.24/0.18	0.4/0.33	0.38/0.3	0.35/0.3
		60hz	0.25/0.15	0.4/0.22	0.35/0.3	0.29/0.2
	440V	50hz	0.28/0.27	0.5/0.5	0.5/0.5	0.62/0.6
		60hz	0.24/0.17	0.4/0.3	0.36/0.31	0.31/0.27
	DC24V	6.3/1.9	8.6/1.65	9/1.8	7.6/1.8	
	Stall Current (A)	110V	50hz	3.72	4.0	4.78
60hz			3.55	4.1	5	4.72
220V		50hz	1.95	2.55	2.4	2.8
		60hz	1.9	2.5	2.5	2.93
380V		50hz	0.82	0.8	1.3	0.7
		60hz	0.77	1.22	1.3	0.8
440V		50hz	0.92	0.83	1.54	0.6
		60hz	0.9	1	1.45	0.7
DC24V		15	13	15.7	13.5	
Mounting Base (ISO 5211)		ISO6211	F07	F07 / F10	F10/ F12	F10 / F12
Number Of Handle Turns		25	25	75	113	
Weight	Kg	SR05:26 / SR05X:31	SR10:35 / SR10X40	51	SR30:62 / SR30X:67	

### 3. Actuator Configuration



#### Features

##### Sealing

Standard enclosure with o-ring sealing is watertight to IP67, NEMA 4 and 6. The actuator is available with optional explosion-proof enclosure.

##### Motor

Squirrel caged induction motor is totally enclosed type with high stall torque and low inertia force to suit sealing/unsealing of valves. Integral thermal protection to prevent damage to the single/three phase motor.

##### Heater

A space heater inside the actuator prevents condensation due to temperature and weather changes. Standard 20W heater keeps all electrical components in the actuator lean and dry.

##### Adaption

Base mounting is standard to ISO 5211. Drive bush is removable for machining to valve stem requirement. The actuator position on the valve can be selected for 4 positions by means of 4 bolt holes in the drive bush.

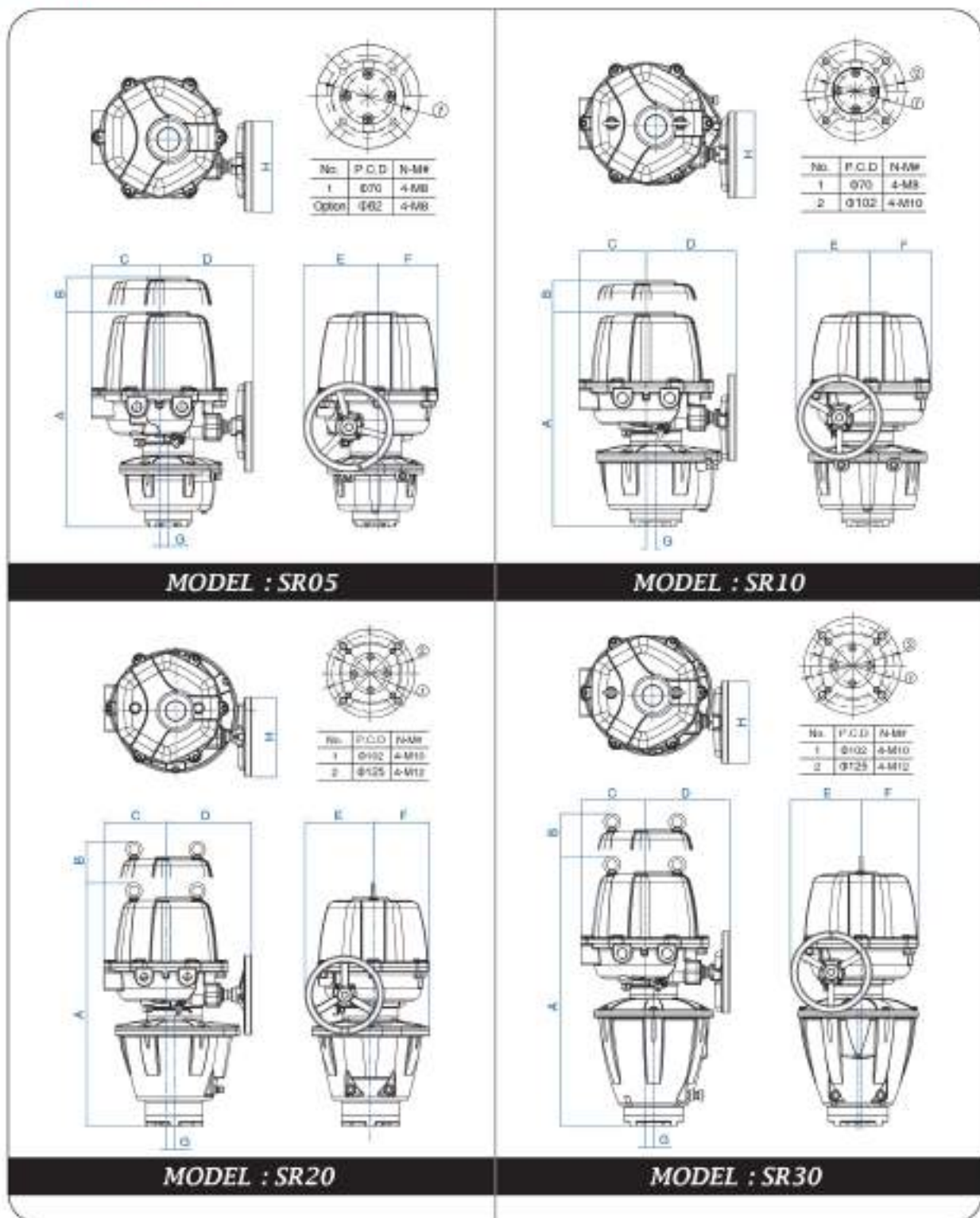
##### Wiring

Electric wiring of control circuit is standard size for single and three phase power supply in a signal module. Multiple terminal contacts sufficiently cover additional requirements such as auxiliary contacts for DCS, interlocking and other options.

##### Limit Switches

The limit switch is activated by means of a simple and yet reliable cam mechanism mounted and driven by the center column. The valve position can be accurately and easily set with the simple adjustable switch mechanism. The set position is permanent and is not affected by over-travel resulting from manual operation.

## 5. Dimensions



Model	A	B	C	D	E	F	G	H
SR05	477	155	150	206	164	134	20	200
SR10	498	212.5	156	208	172	141	22	200
SR20	614.5	212.5	156.5	217	172.5	141.5	22	200
SR30	658.5	212.5	156	214	173	141	22	200