

VtekTM

Controls

VER Series Electric Actuators



Design Specifications

- NEMA 4 Weather Proof environments
- Protection Class IP67
- Direct Mounting ISO5211 F03 to F16
- Available Voltages: 24 VDC, 110/220VAC
- Available Torque: 440 In-Lbs to 70808 In-Lbs.
(50 Nm to 8000 Nm)
- On/Off Control, Modulating Controls,
Super Capacitor Fail Safe Available.

Standards

- IP67, ISO5211, CE, SIL
- **Quality Assurance:** ISO 9001 2000

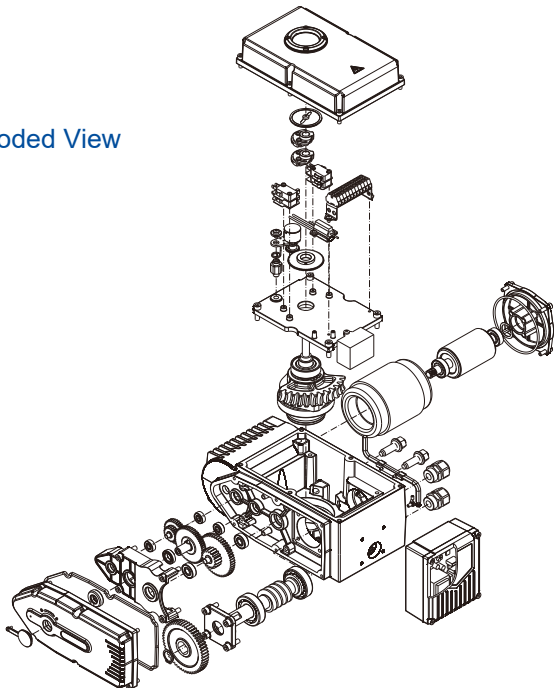


Design:



Housing Shell	IP67 NEMA 4 / 6
Ambient Temperature	-25C to +70C (-30C to +40C Option)
Ambient Humidity	<90% RH
Torque Range	50 Nm to 8000 Nm
Power Supply	Single Phase: 24 VAC, 110 VAC, 220VAC, 240VAC DC: 24 VDC
Limit Switch	ON/ OFF, SPDT 250 V AC, 10 A
Control Signal	4-20 mA / 0-10 VDC
Motor Overheat Protection	Built-in Thermal Protection 120C +/- 5C
Stroke	90 Deg +/- 5 Deg (270 Deg Rotation Optional)
Indicator	Continuous Position Indication (360 Deg View Indicator Optional)
Mechanical Operation	Mechanical Hand Key (Handwheel Optional)
Self Locking	Worm Gear Design
Wiring Connection	(2) 1/2" FNPT (M20 X 1.5 Available)
Lubrication	Molybdenum Disulfide Grease (EP Type)
Main Materials	Aluminum, Steel, Aluminum Green Steel, 304SS
Exterior Coating	Cyclic Polyester Powder Coating
Anti-Seismic	Direction: x, z, y ; Max Acceleration : 12g ; Sweep frequency : 10-55Hz, Amplitude: 0.15mm, Time 30 Minutes

Exploded View



Parameters

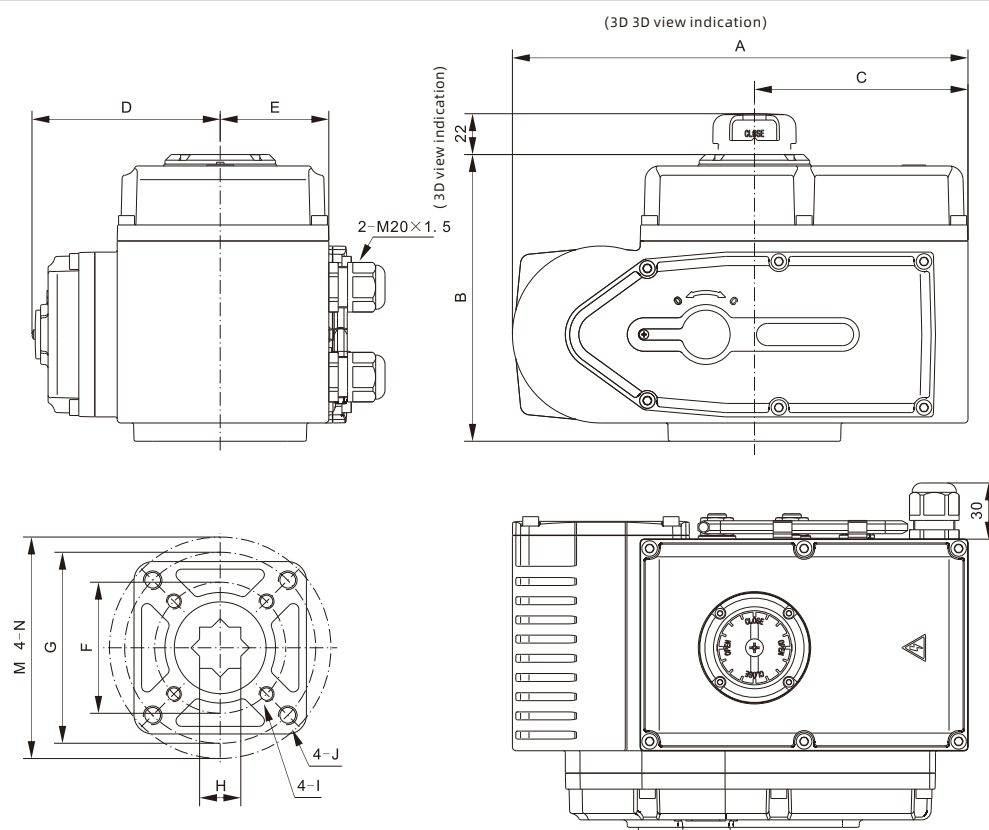
Model	Output Torque	Open/Close time 90°/sec		Installation Dimension	Output shaft size	Output shaft depth	Weight
	In-Lbs/N.m	AC	DC	ISO5211	mm	mm	lb.
VER-05	442/50	27	10	F03/F05/F07	□ 9/□11/□14	9≤15/11≤18/14≤20	7.0
VER-10	885/100	27	10	F05/F07/F10	□ 11/□14/□17	11≤18/14≤20/17≤29	9.9
VER-15	1327/150	32	13	F05/F07/F10	□ 11/□14/□17	11≤18/14≤20/17≤29	10.1
VER-20	1770/200	27	15	F07/F10	□ 14/□17/□22/□27	14≤20/17≤29/22≤32/27≤32	15
VER-50	4425/500	27	10	F07/F10	□ 14/□17/□22/□27	14≤20/17≤29/22≤32/27≤32	16.5
VER-70	6195/700	33	15	F07/F10/F12	□ 17/□22/□27	17≤29/22≤35/27≤39	22
VER-100	8851/1000	33	15	F07/F10/F12	□ 17/□22/□27	17≤29/22≤35/27≤39	23.1
VER-170	15046/1700	38	30	F10/F12/F14/F16	□ 22/□27/□36	22≤40/27≤40/36≤40(F10-F12)	42.3
VER-230	20357/2300	38	30	F10/F12/F14/F16	□ 27/□36	27≤60/36≤60(F14)	44
VER-280	24782/2800	45	30	F10/F12/F14/F16	□ 27/□36	27≤60/36≤60(F16)	44
VER-400	35404/4000	88	70	F14/F16	□ 36/□46(customizable)	≤145	124
VER-600	53106/6000	105	70	F14/F16	□ 36/□46(customizable)	≤145	125.6
VER-800	70808/8000	135	90	F16/F25	□ 46/□55(customizable)	≤150	189.5

Note: 1. Optional Speeds available, please contact Vtek Controls
 2. The weight in the table is VER series on/off type (ordinary)
 * Consult Vtek Controls

Voltage Selection:

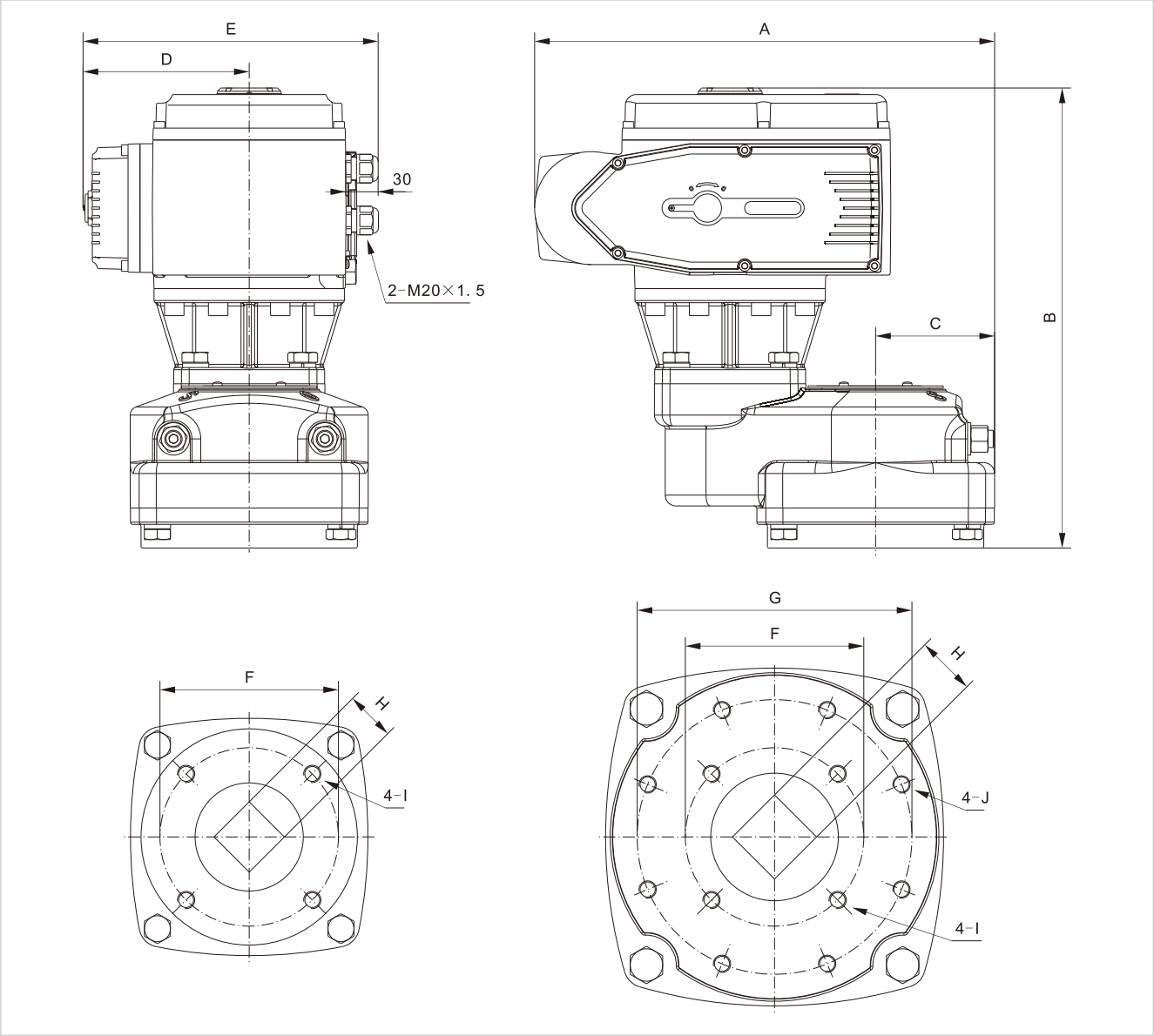
Model	Motor Power	Rate Current (A)	Rate Current (A)	Rate Current (A)	Rate Current (A)	DC Motor Power	Rate Current (A)
	W	AC380V/50Hz	AC220V/50Hz	AC110V/50Hz	AC24V/50Hz	W	DC24V
VER-05	10	0.15	0.2	0.4	1.82	23	2
VER-10	18	0.2	0.28	0.56	2.55	30	2.2
VER-15	20	0.2	0.3	0.6	2.73	38	2.4
VER-20	45	0.45	0.55	1.1	5	70	4
VER-50	90	0.53	0.72	1.44	6.6	130	10
VER-70	100	0.55	0.8	1.6	7.3	150	12
VER-100	130	0.6	0.96	1.92	8.8	200	20
VER-170	170	0.9	1.3	2.6	11.8	300	27
VER-230	230	1.2	1.7	3.4	15.5	300	27
VER-280	230	1.2	1.7	3.4	15.5	300	27
VER-400	170	0.9	1.3	2.6	11.8	300	27
VER-600	230	1.2	1.7	3.4	15.5	300	27
VER-800	230	1.2	1.7	3.4	15.5	300	27

Dimensions On/Off:



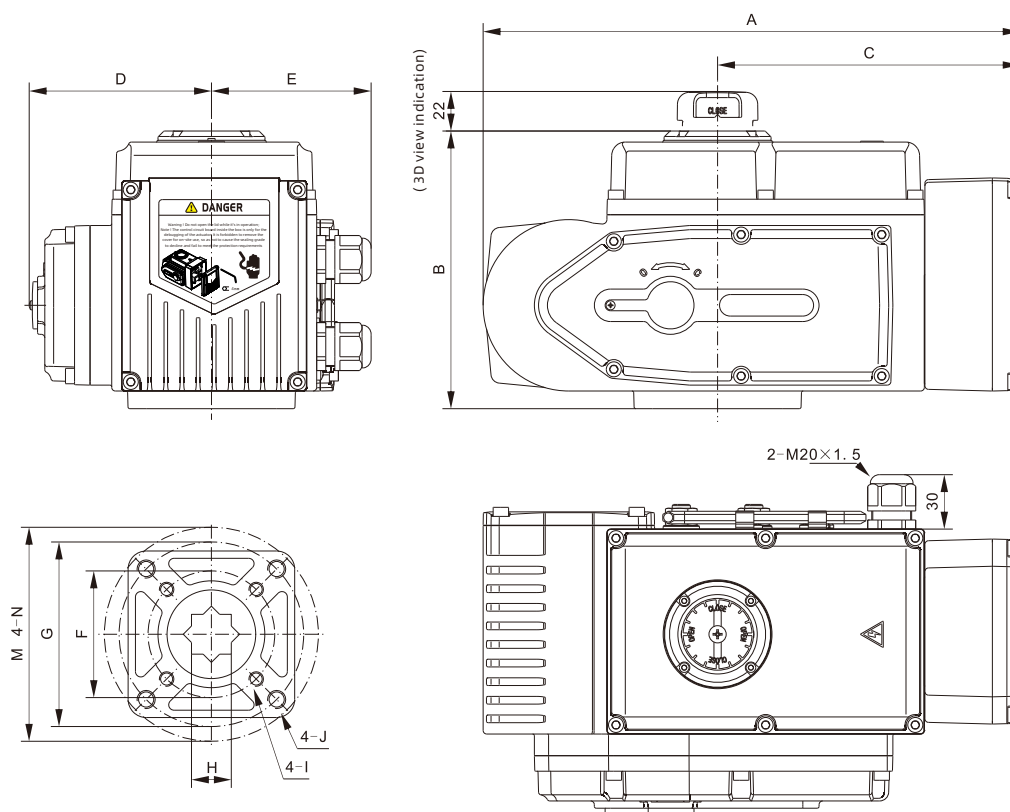
Model	A	B	C	D	E	K	L	ΦF	4-I	ΦG	4-J	ΦM	4-N	H	Internal depth
VER-05	266	123	178	74	79	169	49	36	4-M5	50	4-M6	70	4-M8	9/11/14	9≤15/11≤18/14≤20
VER-10	298	133	192	84	80	171	60	50	4-M6	70	4-M8	102	4-M10	11/14/17	11≤18/14≤20/17≤29
VER-15	298	133	192	84	80	171	60	50	4-M6	70	4-M8	102	4-M10	11/14/17	11≤18/14≤20/17≤29
VER-20	347	153	218	100	83	173	72	70	4-M8	102	4-M10			14/17/22/27	14≤20/17≤29/22≤32/27≤32
VER-50	347	153	218	100	83	173	72	70	4-M8	102	4-M10			14/17/22/27	14≤20/17≤29/22≤32/27≤32
VER-70	377	166	236	114	82	176	82	70	4-M8	102	4-M10	125	4-M12	17/22/27	17≤29/22≤35/27≤39
VER-100	377	166	236	114	82	176	82	70	4-M8	102	4-M10	125	4-M12	17/22/27	17≤29/22≤35/27≤39
VER-170	433	244	252	153	82		113	102	4-M10	125	4-M12	F14(140/4-M16) F16(165/4-M20) Optional		22/27/36	22≤40/27≤40/36≤40(F10-F12)
VER-230	433	264	252	153	82		113	102	4-M10	125	4-M12			27/36	27≤60/36≤60(F14)
VER-280	433	F14/F16	252	153	82		113	102	4-M10	125	4-M12			27/36	27≤60/36≤60(F16)

Dimensions On/Off:



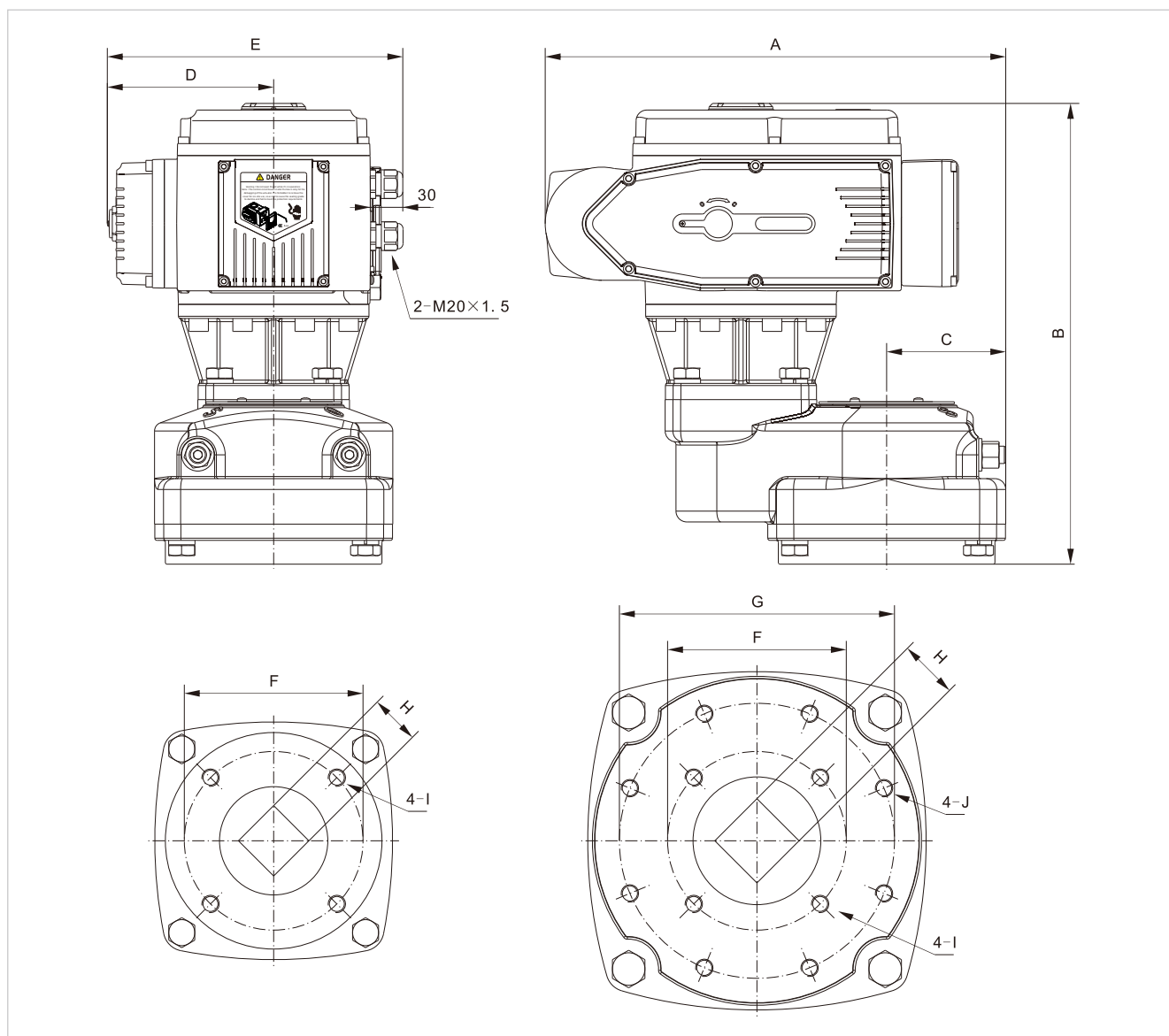
Model	A	B	C	D	E	φF	4-I	φG	4-J	H	Internal depth
VER-400	425	425	110	153	272	165	4-M20	F14 (140/4-M16) Option		36/46	≤145
VER-600	425	425	110	153	272	165	4-M20			36/46	≤145
VER-800	520	432	156	153	272	165	4-M20	254	8-M16	46/55	≤150

Dimensions Modulating:



Model	A	B	C	D	E	φF	4-I	φG	4-J	φM	4-N	H	Internal depth
VER-05	214	123	127	74	69	36	4-M5	50	4-M6	70	4-M8	9/11/14	9≤15/11≤18/14≤20
VER-10	246	133	140	84	77	50	4-M6	70	4-M8	102	4-M10	11/14/17	11≤18/14≤20/17≤29
VER-15	246	133	140	84	77	50	4-M6	70	4-M8	102	4-M10	11/14/17	11≤18/14≤20/17≤29
VER-20	296	153	167	100	88	70	4-M8	102	4-M10			14/17/22/27	14≤20/17≤29/22≤32/27≤32
VER-50	296	153	167	100	88	70	4-M8	102	4-M10			14/17/22/27	14≤20/17≤29/22≤32/27≤32
VER-70	325	166	185	114	96	70	4-M8	102	4-M10	125	4-M12	17/22/27	17≤29/22≤35/27≤39
VER-100	325	166	185	114	96	70	4-M8	102	4-M10	125	4-M12	17/22/27	17≤29/22≤35/27≤39
VER-170	381	244 F10-F12 264 F14/F16	201	153	119	102	4-M10	125	4-M12	F14(140/4-M16)		22/27/36	22≤40/27≤40/36≤40(F10-F12) 27≤60/36≤60(F14) 27≤60/36≤60(F16)
VER-230	381		201	153	119	102	4-M10	125	4-M12	F16 (165/4-M20) Option		27/36	
VER-280	381		201	153	119	102	4-M10	125	4-M12			27/36	

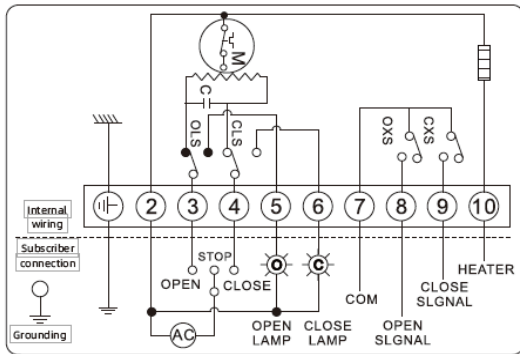
Dimensions Modulating:



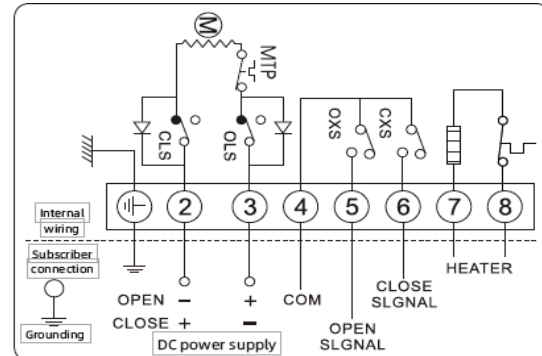
Model	A	B	C	D	E	ΦF	4-I	ΦG	4-J	H	Internal depth
VER-400	425	425	110	153	272	165	4-M20	F14 (140/4-M16) Option		36/46	≤145
VER-600	425	425	110	153	272	165	4-M20			36/46	≤145
VER-800	520	432	156	153	272	165	4-M20	254	8-M16	46/55	≤150

Wiring:

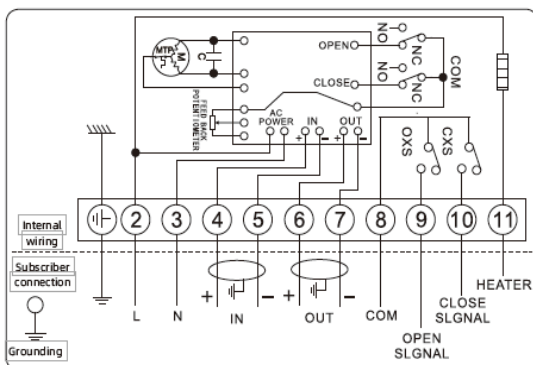
VER-VER-05B - VER280 AC24V, AC110V,
AC220V-50Hz/60Hz (Common Switch Type / On / Off)



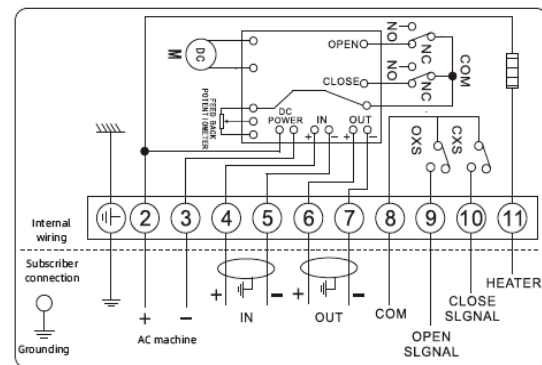
VER-05B - VER280 DC24V-
(Common Switch Type - On/Off)



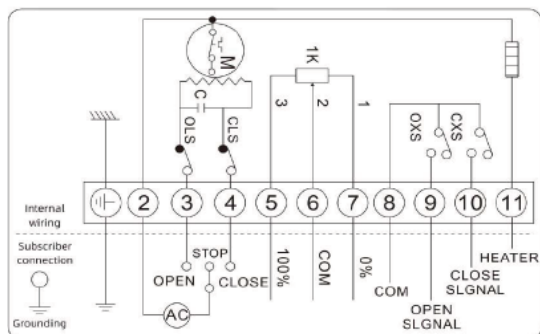
VER-05E - VER280E AC24V, AC110V,
AC220V-50Hz/60Hz (Modulating Service 4-20 mA)



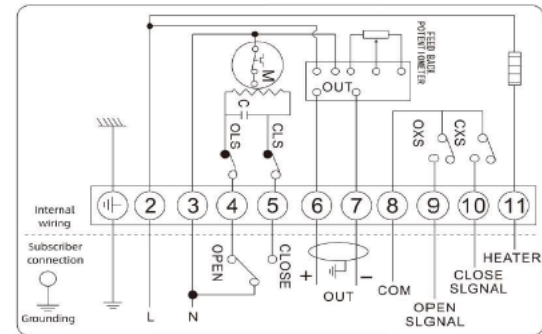
VER-05E - VER280E DC24V
(Modulating 4-20 mA)



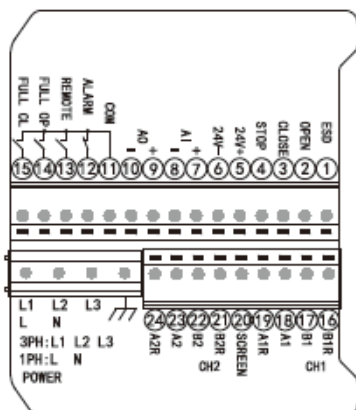
VER-05C - VER280C AC24V, AC110V,
AC220V-50Hz/60Hz (Potentiometer Type)



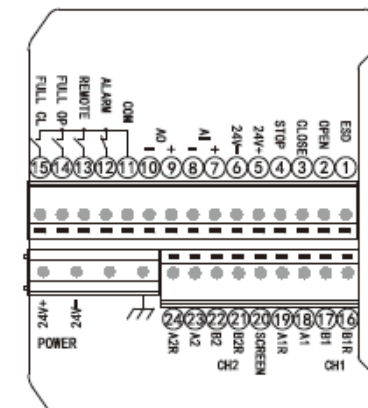
VER-05D - VER100 AC24V, AC110V,
AC220V-50Hz/60Hz (On-Off w/ Output - 4-20mA)



VER-05J - VER280J AC24V, AC110 /
AC220V-50Hz/60Hz (Intelligent type - Digital Display)

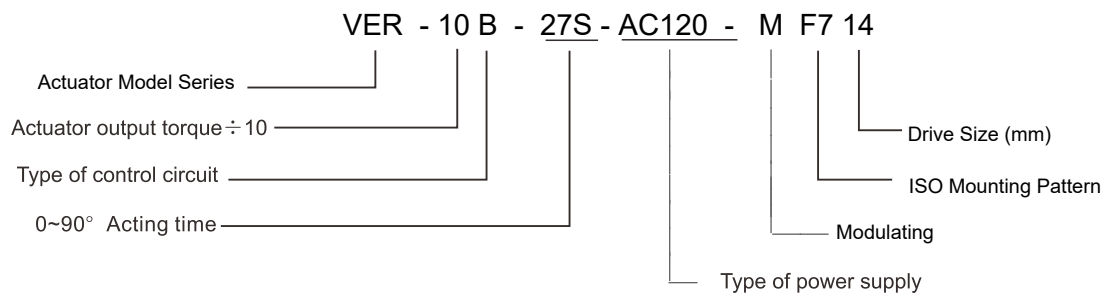


VER-05J - VER50J DC24V
(Intelligent type- Digital Display)



Ordering:

Model Code:



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VER-05E - VER280E AC24V, AC110V,
AC220V-50Hz/60Hz (Modultaing Service 4-20 mA)

