

ELECTRIC LINEAR ACTUATOR NL SERIES

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EMICO

EUNHA MACHINERY INDUSTRIAL CO.,LTD(EMICO)

□ Performance

Type	Max Output Torque	Speed (50/60Hz)	Stroke	Duty Cycle	Rated Current										Motor		Number of Handle Turns	Valve Stem Threads (Max)	Pillar Threads	PCD in Flange	Weight
					110V		220V		380V		440V		DC 24V								
					KN	mm/sec	mm	S4 (%)	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz					
NL04	4	0.8/0.93	40	50	0.46	0.43	0.28	0.27	0.11	0.09	0.1	0.09	1.65	15	F (150°)	190	M20	M16	100	16	
NL06	6	0.79/0.9	40	50	0.73	0.72	0.38	0.37	0.14	0.12	0.12	0.11	1.87	25	F (150°)		M20	M16	100	16	
NL08	8	0.75/0.86	50	50	0.84	0.81	0.46	0.43	0.16	0.14	0.15	0.13	2.46	25	F (150°)	250	M20	M16	100	18	
NL10	10	0.72/0.83	50	50	1.52	1.5	0.79	0.75	0.25	0.24	0.23	0.21	4.02	40	F (150°)		M20	M16	100	18	
NL20	20	0.85/1	100	50	1.9	1.95	1	1.5	0.33	0.33	0.25	0.32	9.45	60	F (150°)	475	M24	M20	150	31	
NL25	25	0.72/0.87	100	50	2.53	3.25	1.05	1.45	0.45	0.45	0.54	0.45	-	90	F (150°)	550	M24	M20	150	31	

□ Standard Specification

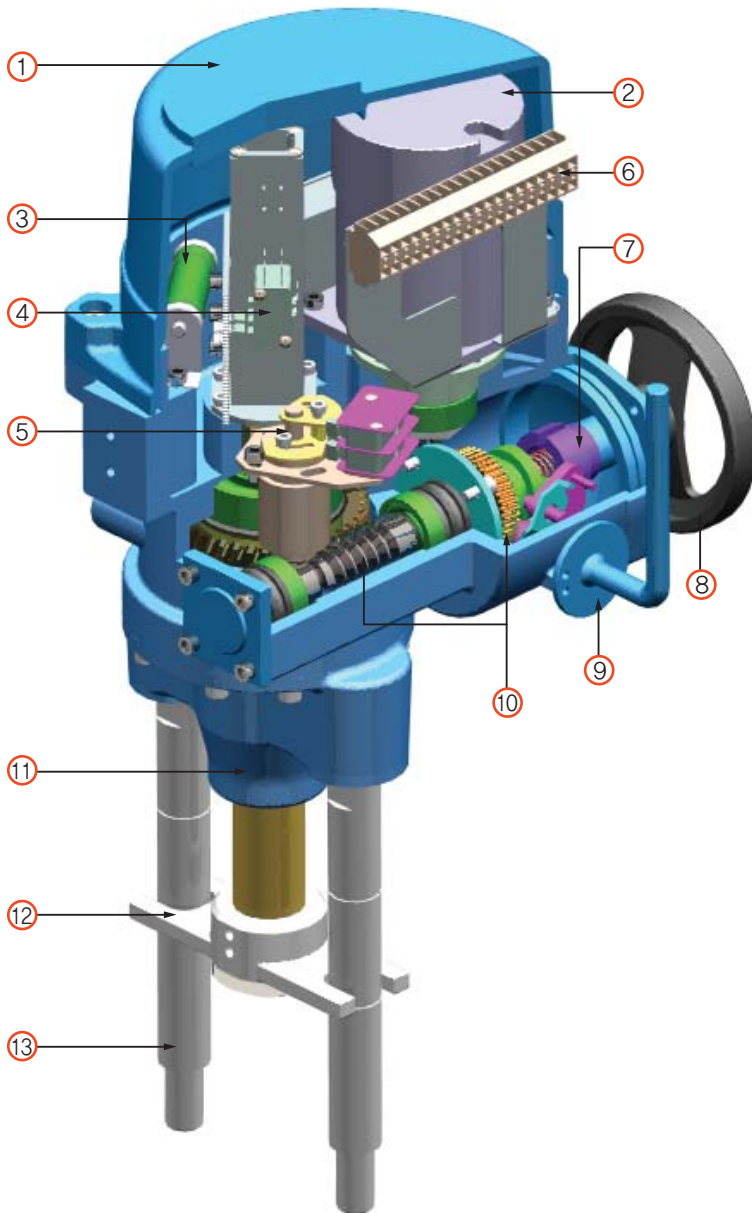
Enclosure	Watertight Ingress Protection 67 Nema 4 and 6 (Option : IP68, Ex d IIB T4)
Ambient Temperature	-20°C ~ +70°C 150°C/1hr
Power Supply	110 / 220V AC 50/60Hz , 380 / 440V AC 50/60Hz, Option : DC24V
Torque Switches	Open / Close Torque Switch (※Except : NL04 , NL06)
Limit Switches	Open / Close Limit Switch
Stall Protection	Thermal Protection (Open 150°C)
Indicator	Continuous Position Indicator
Manual Override	Hand / Auto Declutching Mechanism
Self Locking	Provided by Means of Worm Gearing
Space Heater	20W
Conduit Entries	Two PF 3/4" (Option : Two M20 Pitch 1.5 , Two NPT 3/4")
Lubrication	Shell Gadus S2 V220 2
Materials	Aluminium
Surface Treatment	Anodizing
External Coating	Polyester
Dielectric Strength	AC1800V / 1min
Insulation	DC500V more Than 100M Ohm

□ Optional Specification

E X P	Explosion Proof Ex d II B T4
IP68	Watertight Enclosure IP68
A L S	Auxiliary Open, Close Limit Switches
A T S	Auxiliary Open, Close Torque Switches
L C U	Local Control Unit
P C U	Proportional Contact Unit (Modulation) Input : 4~20mA DC 1~5VDC, 2~10VDC, 0~5VDC, 0~10VDC Output : 4~20mA DC
C P T	Current Position Transmitter / Output : DC 4~20mA
P I U	Potentiometer 1 K Ohm
I M S	Integral Motor Starter
INTEGRAL	

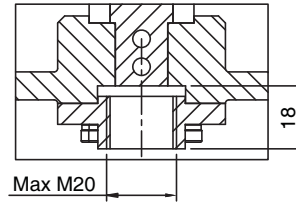
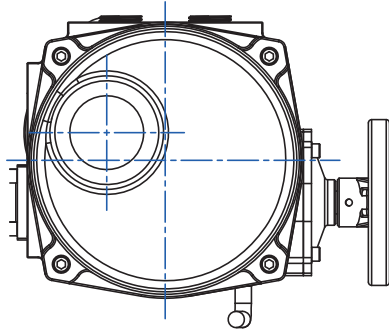
NL Series Configuration

Features



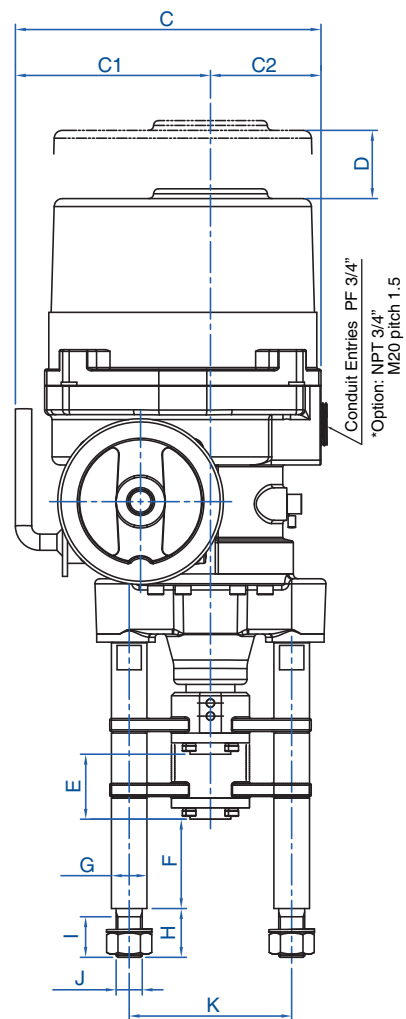
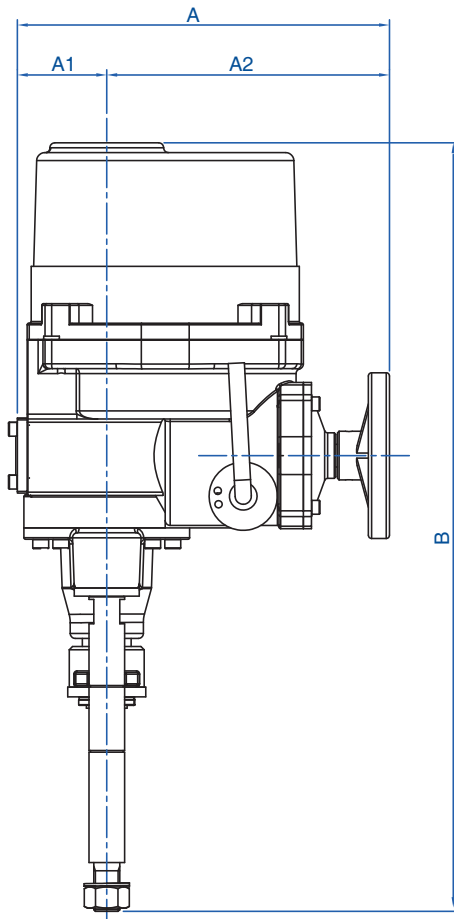
- ① Top Cover
- ② Motor
– Squirrel caged induction motor is totally enclosed type with high stall torque and low inertia force to suit seating/unseating of valves. Integral thermal protection to prevent damage to the single/three phase motor
- ③ Heater
– A space heater inside the actuator prevents condensation due to temperature and weather changes. Standard 20W heater keeps all electrical components in the actuator clean and dry.
- ④ Cam Limit Switch (Open, Close)
– 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 Torque Switch
– Cam activated torque switches are easily adjustable to provide over-load protection.
- ⑥ Terminal
- ⑦ Manual Override (Hand/Auto Clutch System)
- ⑧ Handle Wheel
– Size of handle wheel is designed for safe and efficient emergency manual operation.
- ⑨ Lever
- ⑩ Worm Gear
– Worm, Worm Wheel precision machining of high-efficiency, low noise (50db or less), and compact, delivers greater Torque.
- ⑪ Base
- ⑫ Indicator
- ⑬ Pillar

Dimension



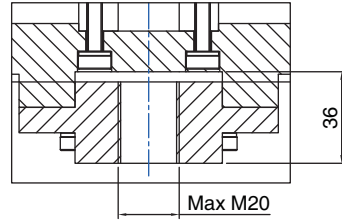
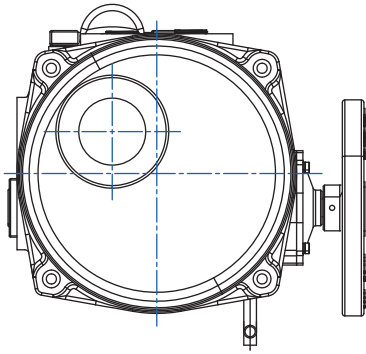
Max M20

Bushing

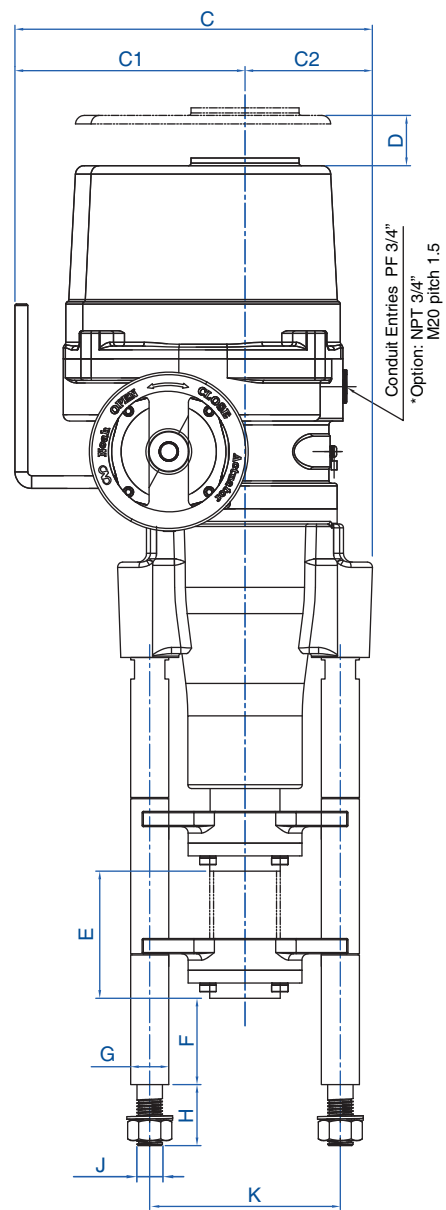
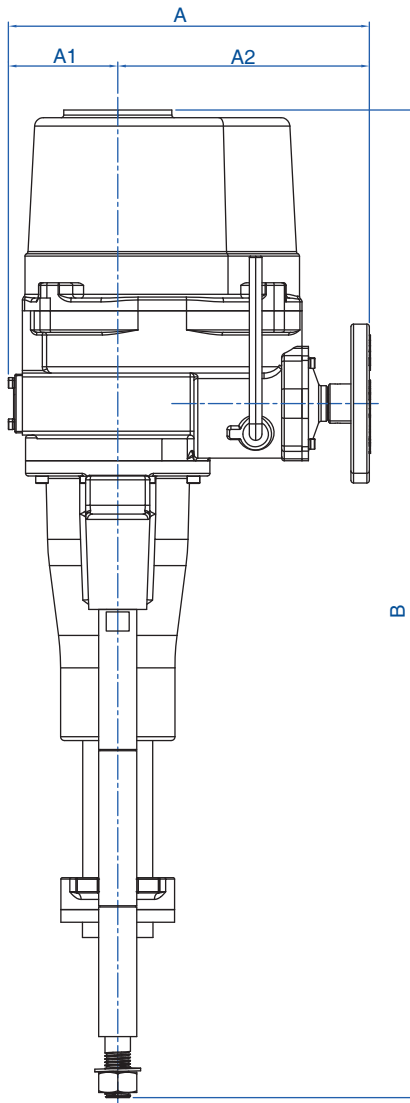


Type	A	A1	A2	B	C	C1	C2	D	E	F	G	H	I	J	K
NL04, NL06	229	55	174	494	188	120	68	108	40	76	∅ 22	30	25	M16	100
NL08, NL10	260	76	184	508	216	139	77	108	50	66	∅ 22	30	25	M16	100

Dimension



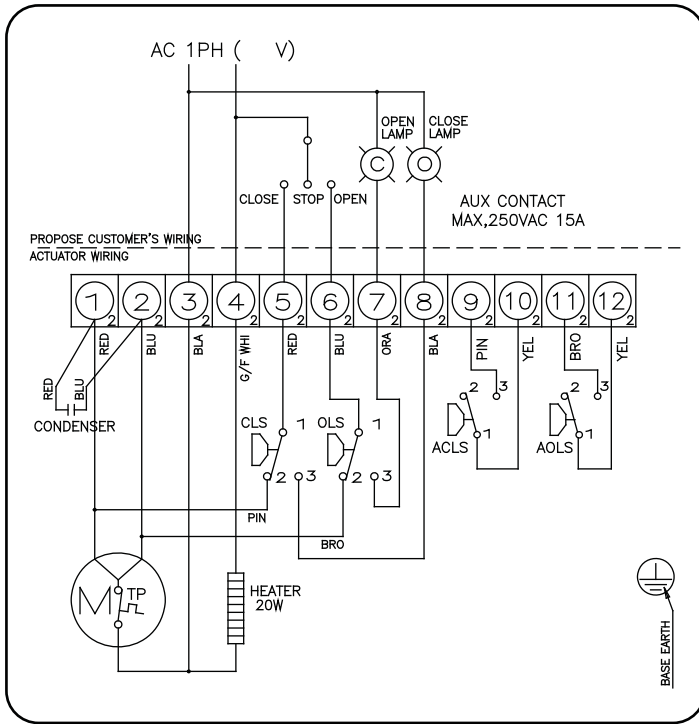
Bushing



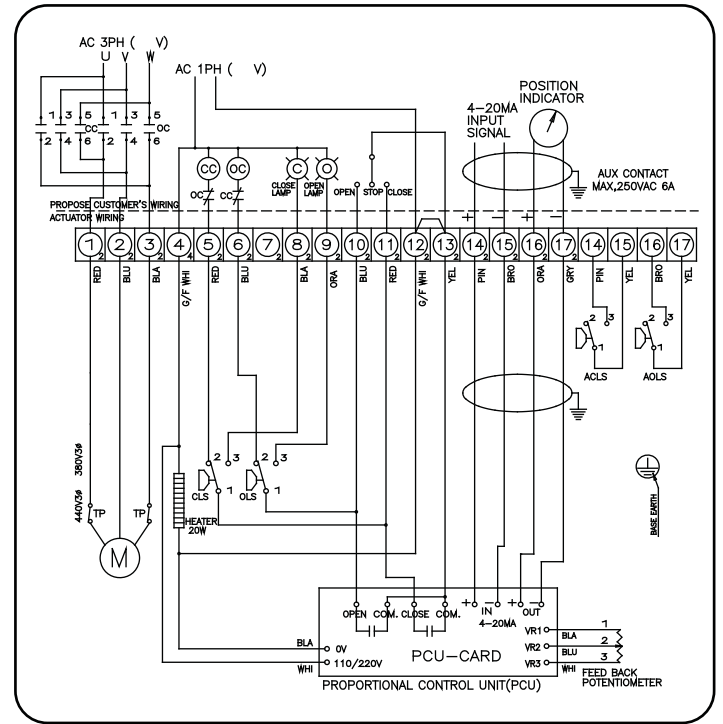
Type	A	A1	A2	B	C	C1	C2	D	E	F	G	H	J	K
NL20, NL25	284	86	198	777	281	181	100	130	100	68	∅ 30	48	M20	150

NL04, NL06 Wiring

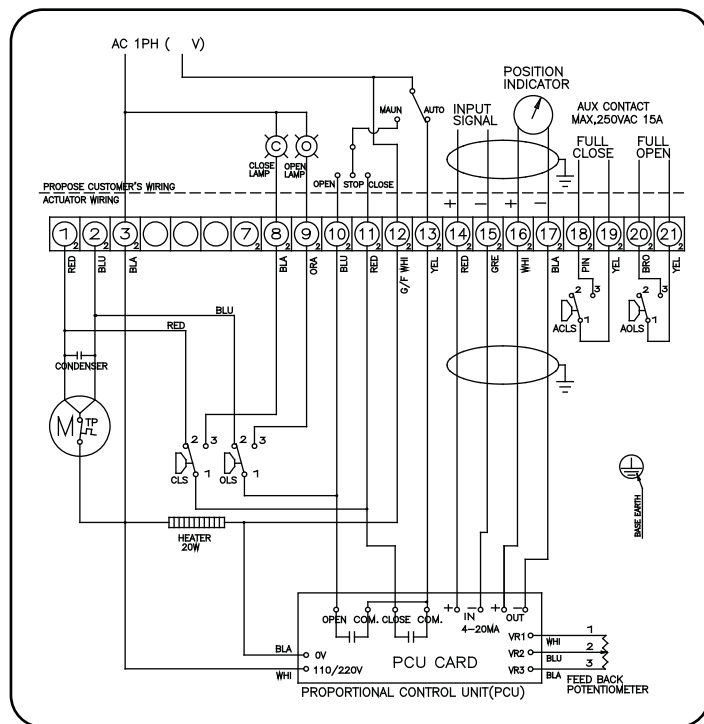
On,Off Type 1PH 110 / 220 VAC



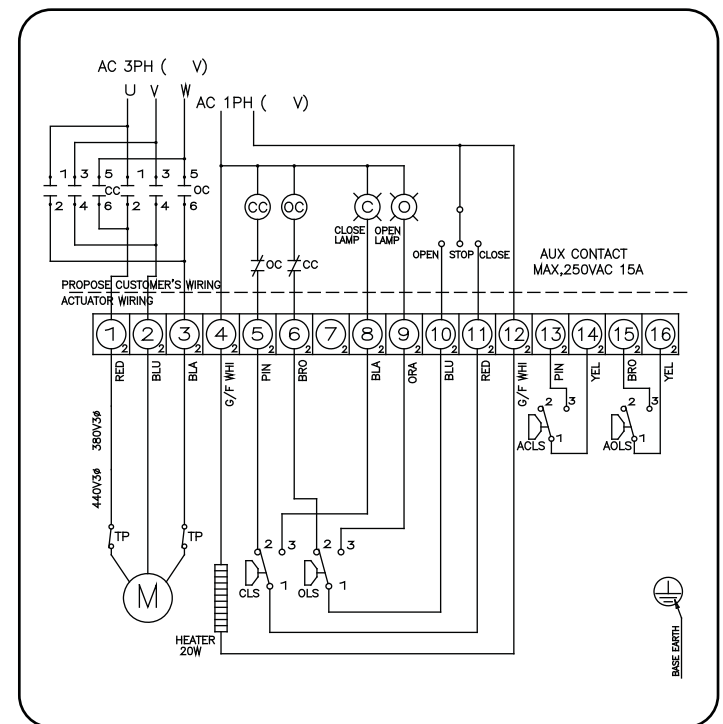
On,Off Type 3PH 380 / 440 VAC



Modulating Type 1PH 110 / 220 VAC

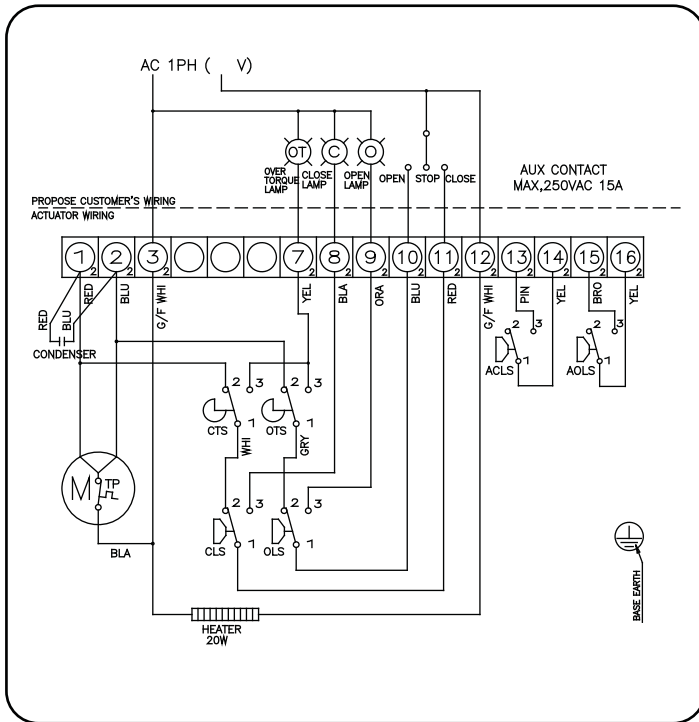


Modulating Type 3PH 380 / 440 VAC

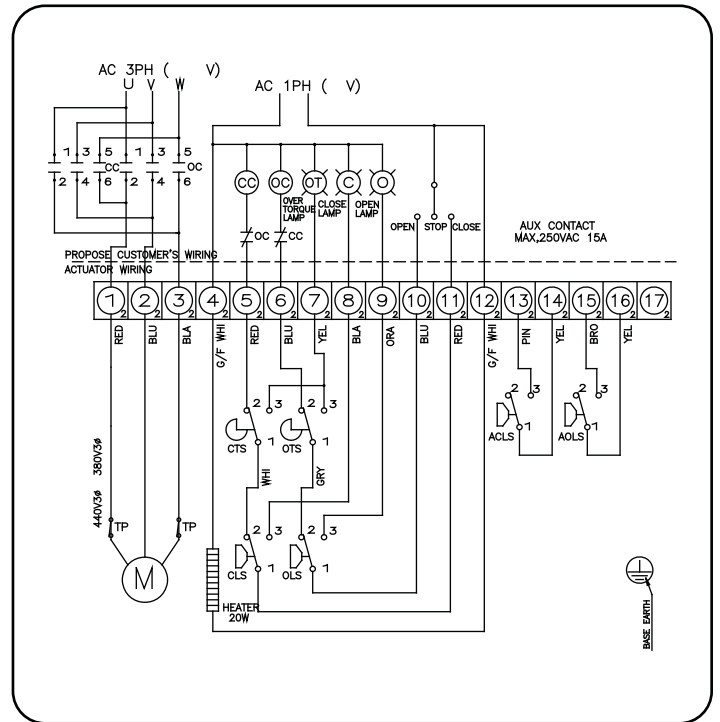


NL08, NL10, NL20, NL25 Wiring

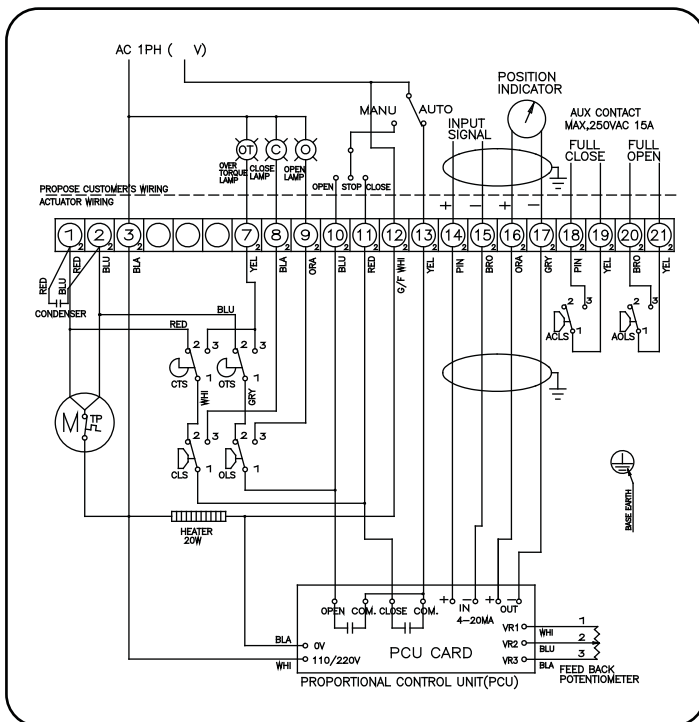
On,Off Type 1PH 110 / 220 VAC



On,Off Type 3PH 380 / 440 VAC



Modulating Type 1PH 110 / 220 VAC



Modulating Type 3PH 380 / 440 VAC

