

NA - NA X ACTUATORS

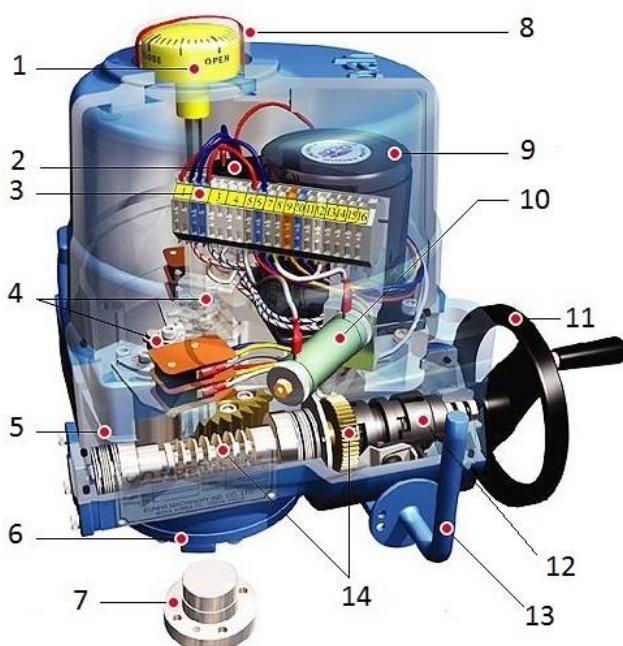
ASSEMBLY AND MAINTAINANCE INSTRUCTIONS



NA



NA-X



1	Position indicator
2	Condenser
3	Terminal box
4	Micro-switch
5	Housing
6	Connection plate
7	Drive spindle
8	Window
9	Motor
10	Anti-condensation heater
11	Wheel
12	Coupling
13	Manual lever
14	pinion and worm drive

1. DESCRIPTION

- 1.1 Electric actuator for motorising 90° turn valves.
- 1.2 The full features of this device are given in sheet FT23110.
- 1.3 Before operating this device, read the present instructions carefully.

2. GUARANTEE

- 2.1 Before any contact with our services, identify the type of actuator.
- 2.2 SECTORIEL actuators have a 12-month guarantee as of the delivery date. The parts recognized as defective by an assessment at our facility will be replaced at our expense.
Complaints generated by incorrect use or a modification of the actuator cannot be taken into account.

Information given as an indication only, and subject to possible modifications

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3. VERIFICATIONS AND ACCEPTANCE

3.1 At acceptance, check that:

- the packaging is in good condition;
- the actuator is as ordered;
- the equipment is not damaged.

3.2 It is recommended to install the actuator as soon as accepted and not to leave it unused.
If the equipment has to be stored, it has to be in a dry place protected from weather..

4. PRECAUTIONS FOR OPERATION

- 4.1** Before installing, make sure that the installation is completely depressurized and brought to ambient temperature.
- 4.2** In a zone classified as explosive, install only model NAX.
- 4.3** The protection class of the actuator is IP67 for an indoors or outdoors installation.
Do not install this actuator in a marine environment and do not immerse it.
- 4.4** The actuator must not be electrically powered during the installation and maintenance of the valve on the pipe installation, and of the actuator on the valve.
- 4.5** Before proceeding to the electrical connection, check the supply voltage of the actuator.
- 4.6** Do not mount the actuator in series or in parallel with other electrical motors. If need be, use relays.
- 4.7** Do not mount the actuator on valves with higher torque than the nominal torque of the actuator.

5. INSTALLATION AND OPERATION

- 5.1** Install the actuator on the valve (already done for units assembled in our workshops)
- 5.2** Perform the electrical wiring as shown in the diagram below.
- 5.3** Adjust the switch stops (already done for units assembled in our workshops).
- 5.4** View the valve's movement through the cover's window.
- 5.5** The NA/NAX actuator can be declutched and re-clutched under tension and to select the manual control, first actuate the lever 13, intended for this purpose, then turn the wheel of the manual control 11.
- 5.6** NA-X actuator: the electrical connection has to be made through the ATEX-approved cable gland (CG) CG M20x1.5
which corresponds to the same operation zones as NA-X.
NA-X has 2 connections M20x1.5. If only one ATEX cable gland is used, the 2nd connection must have an ATEX-approved plug corresponding to the same operation zones as NA-X.
CG and ATEX plug are not provided as standard. Option upon ordering.

6. SWITCH SETTING

- 6.1** The cams are attached to the drive stem.
- 6.2** Clockwise rotation = valve closing. The micro-switch stops the actuator.
- 6.3** Anti-clockwise rotation = valve opening. The micro-switch closes the actuator.

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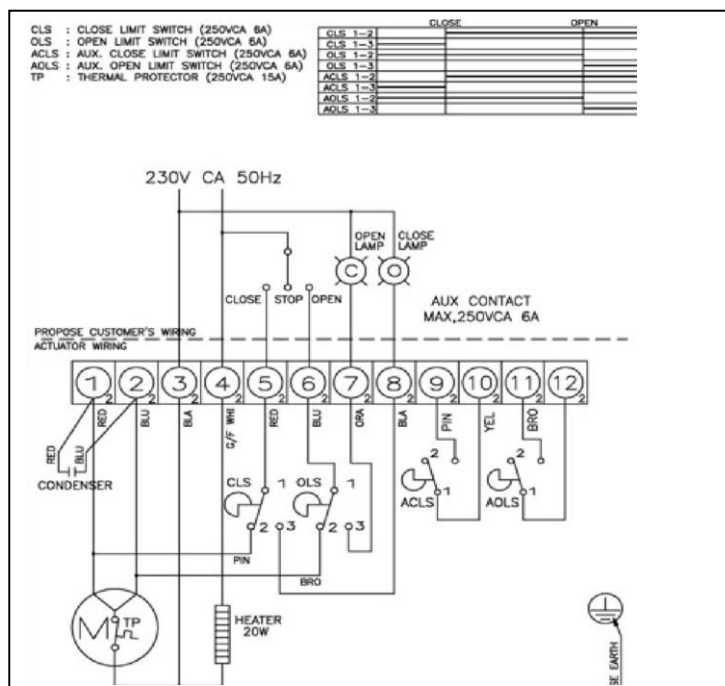
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7. WIRING DIAGRAM

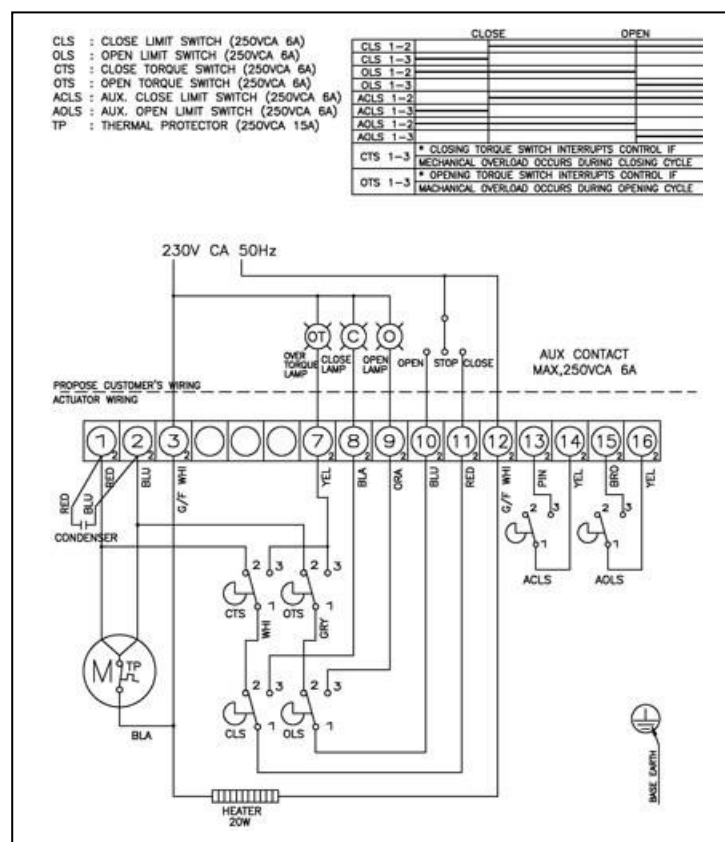
Wiring for 230V 50Hz voltage (NA06-NA09)

1	Do not use
2	Do not use
3	Common
4	phase
5	Closing command
6	Opening command
7	Opening indicator light (suggestion)
8	Closing indicator light (suggestion)
9	Closing auxiliary
10	Closing auxiliary
11	Opening auxiliary
12	Opening auxiliary



Wiring for 230V 50Hz voltage (other models)

1	Do not use
2	Do not use
3	Common
7	Overheating indicator light (suggestion)
8	Closing indicator light (suggestion)
9	Opening indicator light (suggestion)
10	Opening command
11	Closing command
12	phase
13	Closing auxiliary
14	Closing auxiliary
15	Opening auxiliary
16	Opening auxiliary



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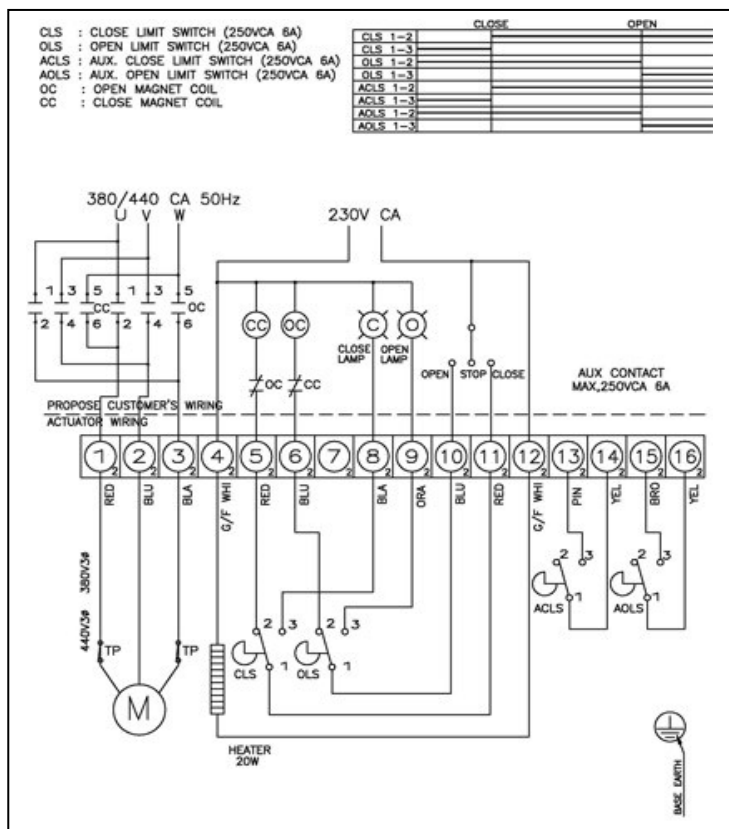
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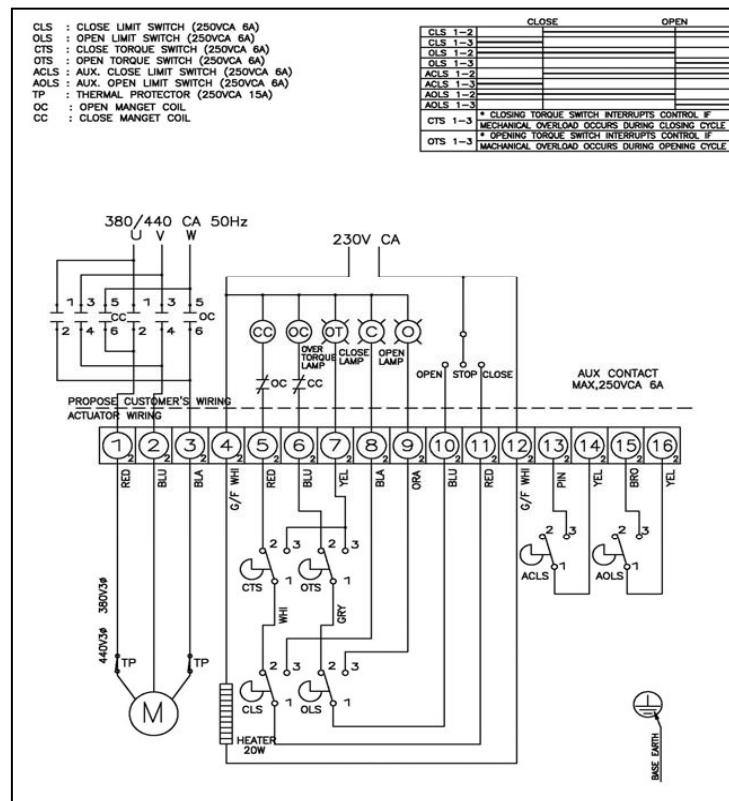
Wiring for 380V 50Hz voltage (NA06-NA09)

1	U phase
2	V phase
3	W phase
4	Heater power supply
5	Connected to the closing 11
6	Connected to the opening 10
7	Not used
8	Closing indicator light (suggestion)
9	Opening indicator light (suggestion)
10	Opening command
11	Closing command
12	Heater power supply
13	Closing auxiliary
14	Closing auxiliary
15	Opening auxiliary
16	Opening auxiliary



Wiring for 380V 50Hz voltage (other models)

1	U phase
2	V phase
3	W phase
4	Heater power supply
5	Connected to the closing 11
6	Connected to the opening 10
7	Overheating indicator light (suggestion)
8	Closing indicator light (suggestion)
9	Opening indicator light (suggestion)
10	Opening command
11	Closing command
12	Heater power supply
13	Closing auxiliary
14	Closing auxiliary
15	Opening auxiliary
16	Opening auxiliary



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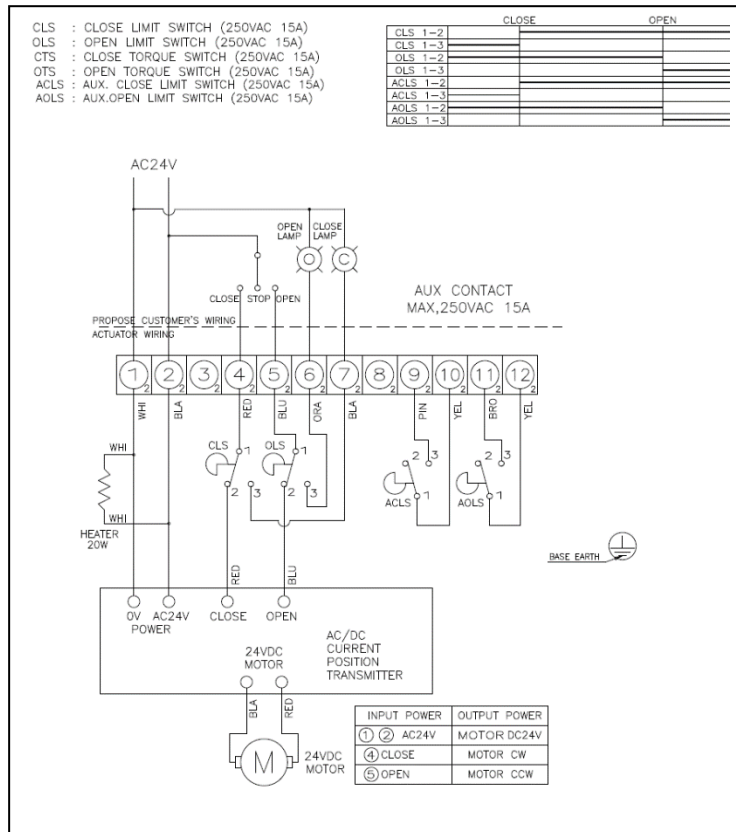
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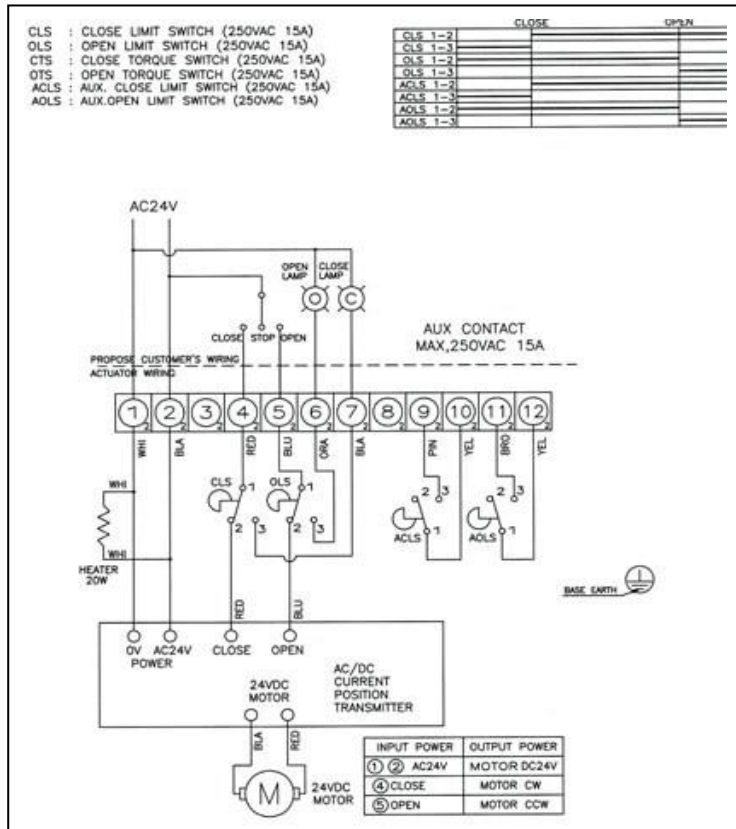
Wiring for 24V 50Hz voltage (NA06-NA09)

1	Do not use
2	Do not use
3	Common
4	phase
5	Closing command
6	Opening command
7	Opening indicator light (suggestion)
8	Closing indicator light (suggestion)
9	Closing auxiliary
10	Closing auxiliary
11	Opening auxiliary
12	Opening auxiliary



Wiring for 24V 50Hz voltage (other models)

1	Common
2	phase
3	Not used
4	Closing command
5	Opening command
6	Opening indicator light (suggestion)
7	Closing indicator light (suggestion)
8	Not used
9	Closing auxiliary
10	Closing auxiliary
11	Opening auxiliary
12	Opening auxiliary



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Proposals for 24Vcc (NA06-NA09) wiring

DLS : CLOSE LIMIT SWITCH (250VCA 6A)
 OLS : OPEN LIMIT SWITCH (250VCA 6A)
 ACLS : AUX. CLOSE LIMIT SWITCH (250VCA 6A)
 AOLS : AUX. OPEN LIMIT SWITCH (250VCA 6A)
 OC : OPEN MAGNET COIL
 CC : CLOSE MAGNET COIL

	CLOSE	OPEN
DLS 1-2		
DLS 1-3		
DLS 1-2		
DLS 1-3		
ACLS 1-2		
ACLS 1-3		
AOLS 1-2		
AOLS 1-3		

24V CC
 OC
 CC
 PROPOSED ACTUATOR WIRING
 CUSTOMER'S WIRING
 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
 RED(BLA) BLA(RED)
 G/F WH
 PIN BRO
 BLA ORA
 BLU RED
 G/F WH
 PIN BRO
 YEL YEL
 M
 HEATER 20W
 CLS OLS
 CLOSE LAMP OPEN LAMP
 OPEN STOP CLOSE
 AUX CONTACT MAX, 250VCA 6A
 ACLS AOLS
 BASE EARTH

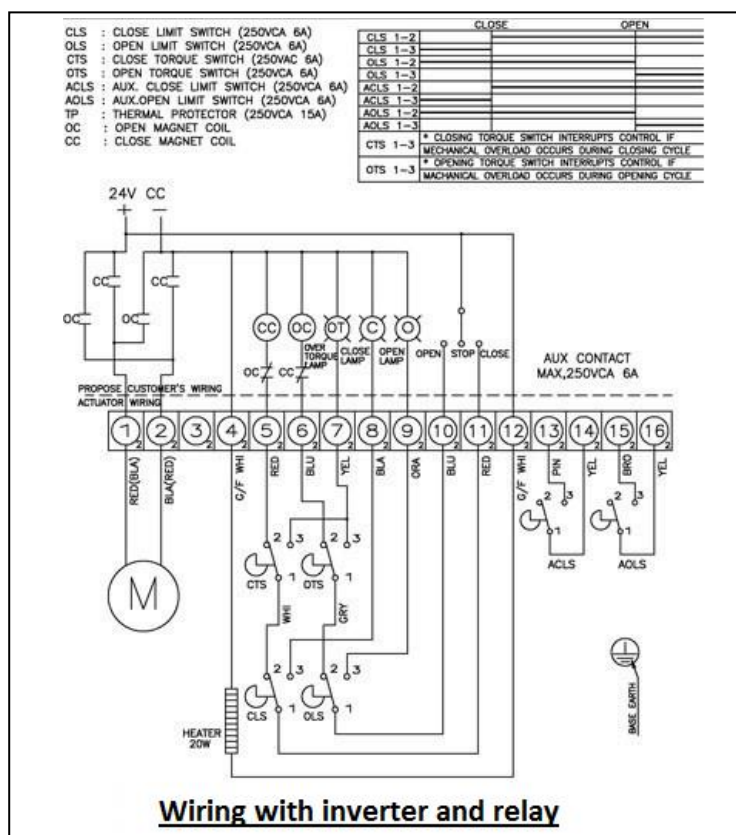
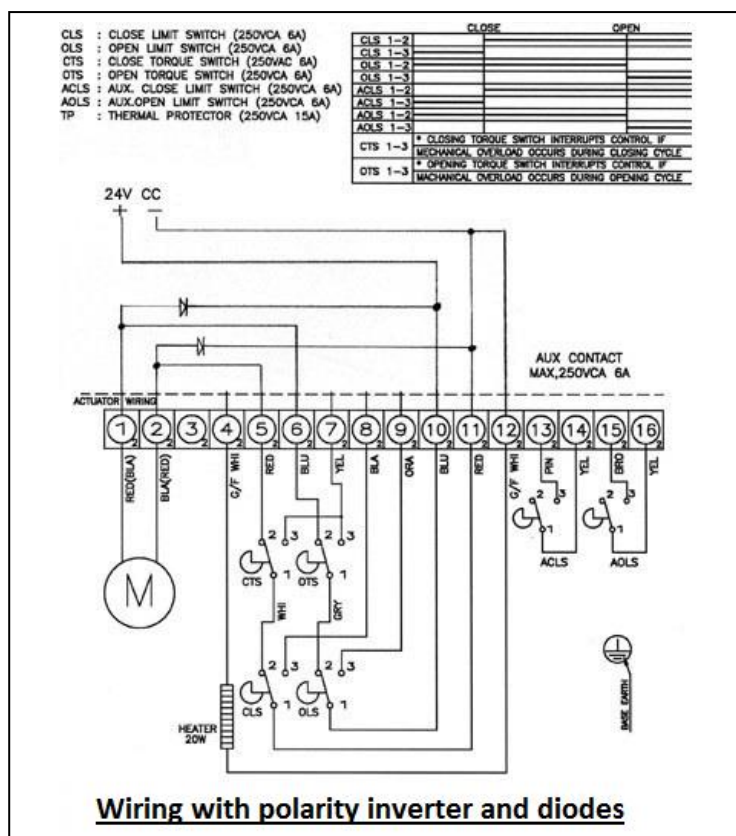
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Proposition for 24V DC wiring (other models)

1	Connected to terminal 10 with diode
2	Connected to terminal 11 with diode
3	Not used
4	Heater power supply
5	Connected to terminal 2
6	Connected to terminal 1
7	Power-supplied over-torque switch
8	Powered closing switch
9	Powered opening switch
10	+ / - Opening command
11	+ / - Closing command
12	Heater power supply
13	Closing auxiliary
14	Closing auxiliary
15	Opening auxiliary
16	Opening auxiliary



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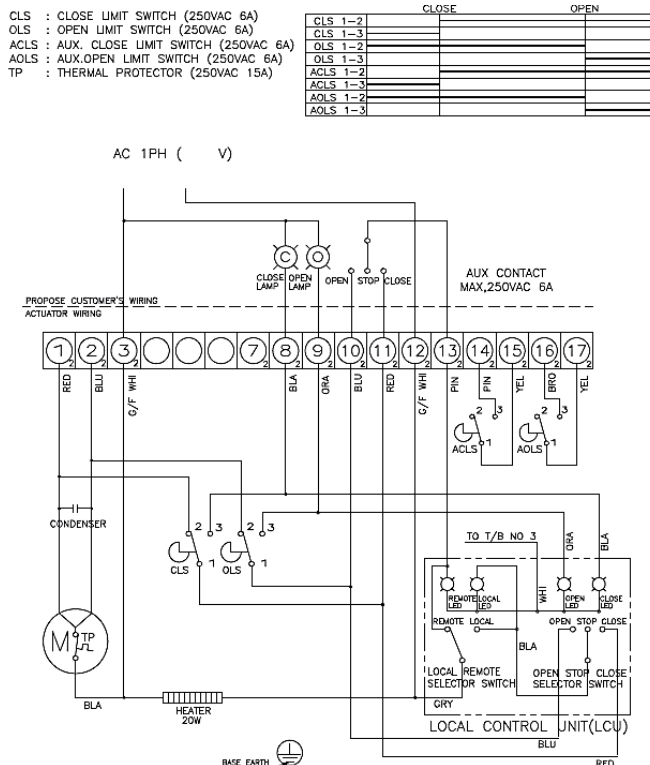
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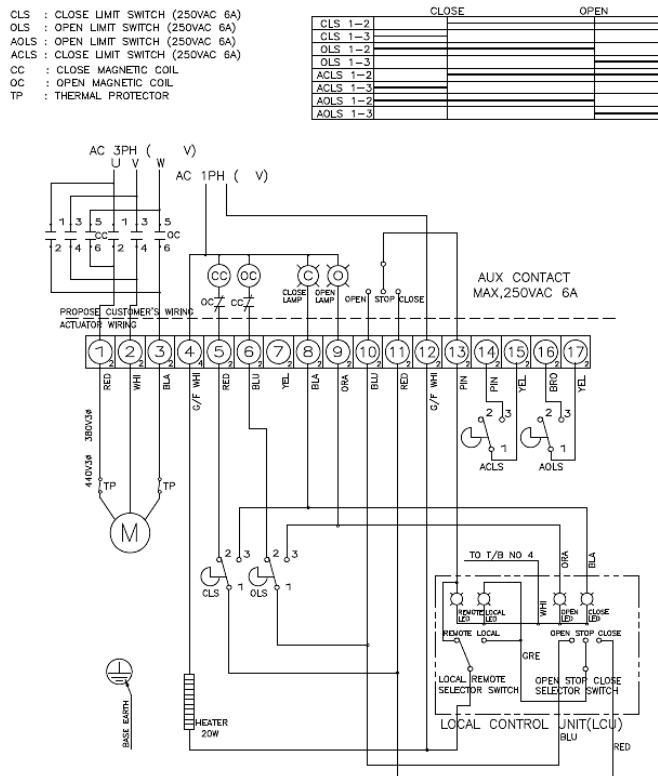
ASSEMBLY AND MAINTAINANCE INSTRUCTIONS

8. OPTION WIRING DIAGRAM for NA LCU

Wiring for 230V 50Hz voltage (NA09)



Wiring for 380V 50Hz voltage (NA09)



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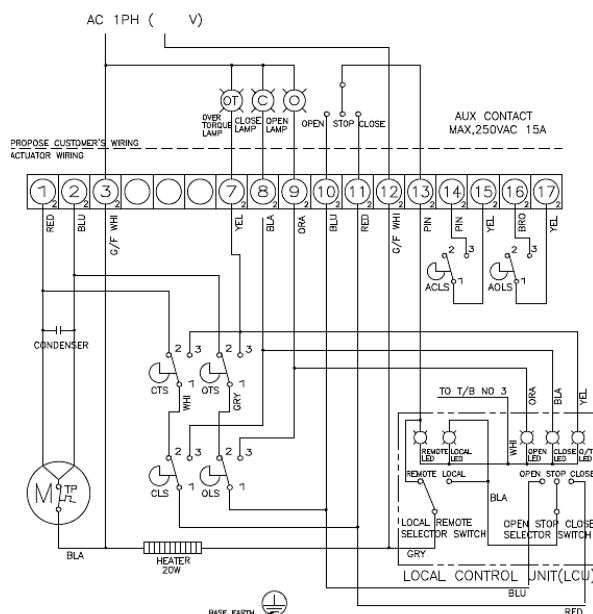
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Wiring for 230V 50Hz voltage (NA15)

CLS : CLOSE LIMIT SWITCH (250VAC 15A)
 OLS : OPEN LIMIT SWITCH (250VAC 15A)
 CTS : CLOSE TORQUE SWITCH (250VAC 15A)
 OTS : OPEN TORQUE SWITCH (250VAC 15A)
 ACLS : AUX. CLOSE LIMIT SWITCH (250VAC 15A)
 AOLS : AUX. OPEN LIMIT SWITCH (250VAC 15A)
 TP : THERMAL PROTECTOR (250VAC 15A)

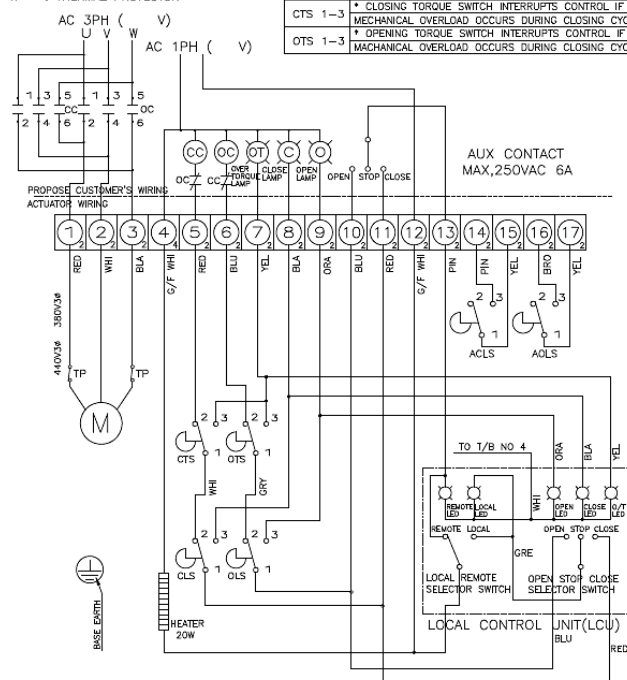
	CLOSE	OPEN
CLS 1-2		
CLS 1-3		
OLS 1-2		
OLS 1-3		
ACLS 1-2		
ACLS 1-3		
AOLS 1-2		
AOLS 1-3		
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE	
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE	



Wiring for 380V 50Hz voltage (NA15)

CLS : CLOSE LIMIT SWITCH (250VAC 6A)
 OLS : OPEN LIMIT SWITCH (250VAC 6A)
 CTS : CLOSE TORQUE SWITCH (250VAC 6A)
 AOTS : OPEN TORQUE SWITCH (250VAC 6A)
 ACTS : CLOSE TORQUE SWITCH (250VAC 6A)
 OTS : OPEN TORQUE SWITCH (250VAC 6A)
 CC : CLOSE MAGNETIC COIL
 OC : OPEN MAGNETIC COIL
 TP : THERMAL PROTECTOR

	CLOSE	OPEN
CLS 1-2		
CLS 1-3		
OLS 1-2		
OLS 1-3		
ACLS 1-2		
ACLS 1-3		
AOLS 1-2		
AOLS 1-3		
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE	
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE	



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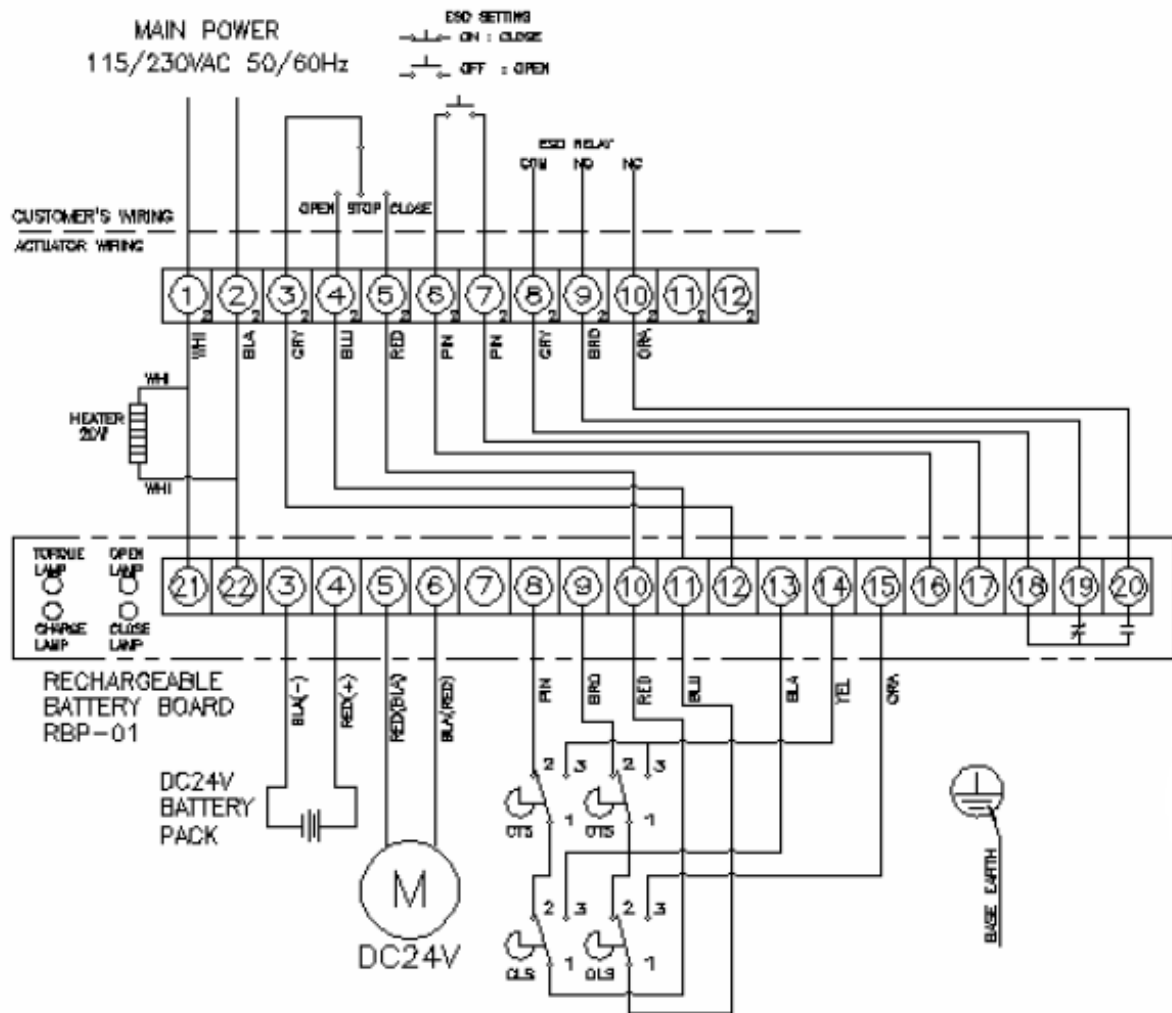
ASSEMBLY AND MAINTAINANCE INSTRUCTIONS

9. OPTION SCHEMA DE CABLAGE pour NA RBP

Wiring for 230V 50Hz voltage (NA RBP)

CLS : CLOSE LIMIT SWITCH (250VAC 6A)
 OLS : OPEN LIMIT SWITCH (250VAC 6A)
 CTS : CLOSE TORQUE SWITCH (250VAC 6A)
 OTS : OPEN TORQUE SWITCH (250VAC 6A)

	CLOSE	OPEN
CLS 1-2		
CLS 1-3		
OLS 1-2		
OLS 1-3		
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE	
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE	



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