ELEPHANT

Manufacturer of shut-off and control valves

TECHNICAL DATA SHEET

Electric actuator control cabinet

ELEPHANT SHUEP-X XXX.XXX.220

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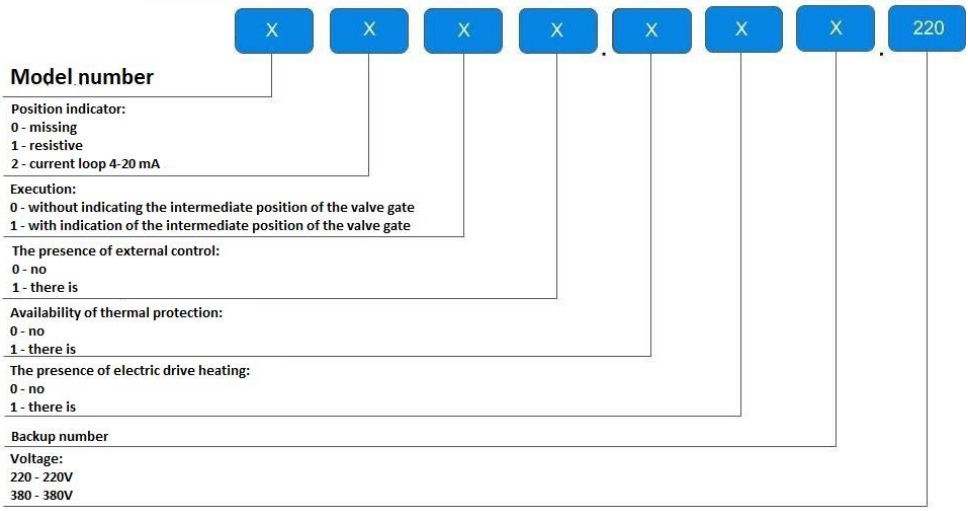
Carrer d'Aragó,264,3-1,08007 Barcelona, Spain

1. GENERAL PRODUCT INFORMATION

1.1. Product Name. Electric drive control cabinet Electric actuator control cabinet ELEPHANT SHUEP-X XXX.XXX.220.
1.2. Manufacturer (supplier): "ELEPHANT". Carrer d'Aragó,264,3-1,08007 Barcelona, Spain.

1.3. Purpose: The electric actuator control cabinet is designed to operate as a control device for electric actuators installed on shut-off and regulating pipeline valves.
1.4 Principle of operation: Opening and closing of pipeline valves is carried out in manual mode from the front control panel of the control cabinet or by means of external control (if there is a possibility of external control in a particular model of the control cabinet). The installed automation and switching devices provide protection against overloads and short-circuit currents.

1.6. Explanation of drive control cabinet designations:



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2. BASIC TECHNICAL DATA AND CHARACTERISTICS

Table 1

Model SHUEP	Number of power supplies, pcs	Number of controlled actuators, pcs	Nominal voltage power supply, B	Nominal frequency mains, Hz
1 000.000.220 basic	1	1	230	50
2 000.000.220				
3 001.000.220				
4 000.100.220				
5 000.110.220				

Table continuation 1

Model SHUEP	Maximum switched current, A	Maximum power, kW	Average operating time to failure, not less
1 000.000.220 basic	3	0,66	30 000
2 000.000.220			
3 001.000.220			
4 000.100.220			
5 000.110.220			

* voltage in control circuits - 230V AC (optional version 12V DC, 24V DC, 110V AC possible)

Table 2

Model SHUEP	Presence function Emergency stop	Presence indications	External management	Degree degree of protection shell casing	Heating availability	Availability thermal protection
1 000.000.220 basic	no	no	no	IP31	no	no
2 000.000.220	have		no	IP31	no	no
3 001.000.220	have		have	IP31	no	no
4 000.100.220	have		no	IP31	no	have
5 000.110.220	have		no	IP54	have	have

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3. OVERALL DIMENSIONS

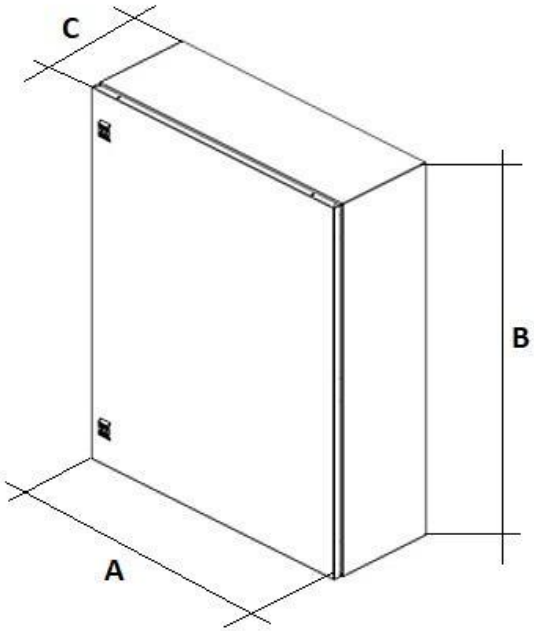
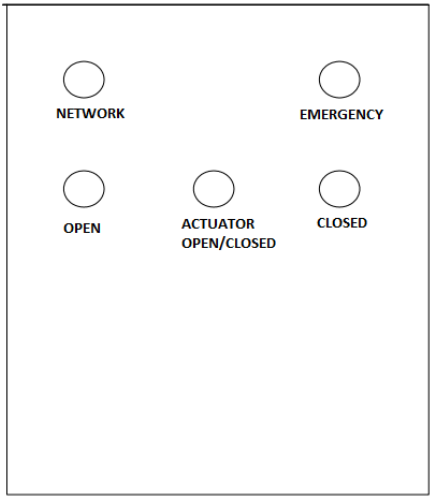


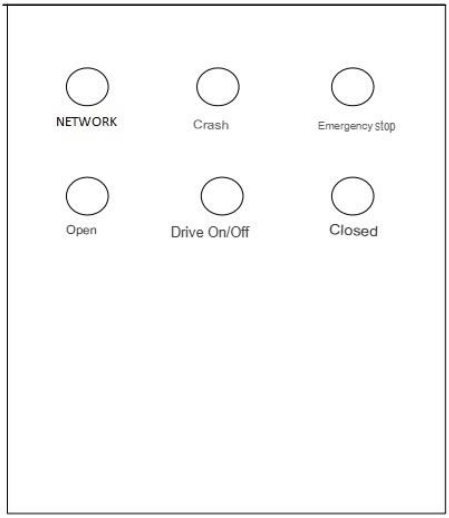
Table 3

Model SHUEP	A, mm	B, mm	C, mm	Cable glands (location/number)	Connection (screw terminals), mm	Weight, kg	Execution
1 000.000.220 basic	310	200	150	underneath / 3 pcs	4	4	general industrial
2 000.000.220	310	240	160			4	
3 001.000.220	310	240	160			4	
4 000.100.220	500	400	220			11	
5 000.110.220	500	400	220	underneath / 7 pcs		12	

4. FRONT PANEL VIEW



Model SHUEP -1 000.000.220 basic



Model SHUEP -2 000.000.220

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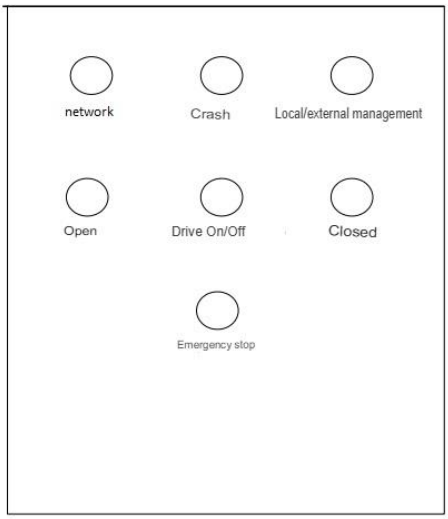
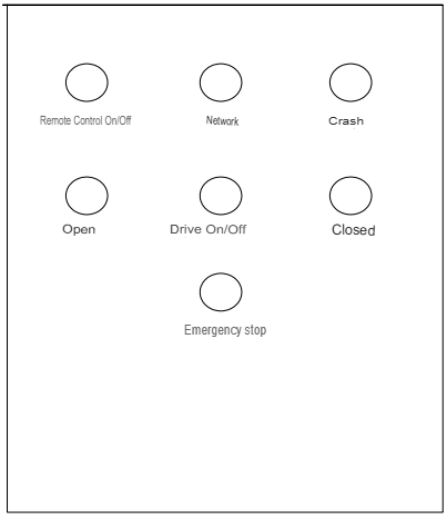
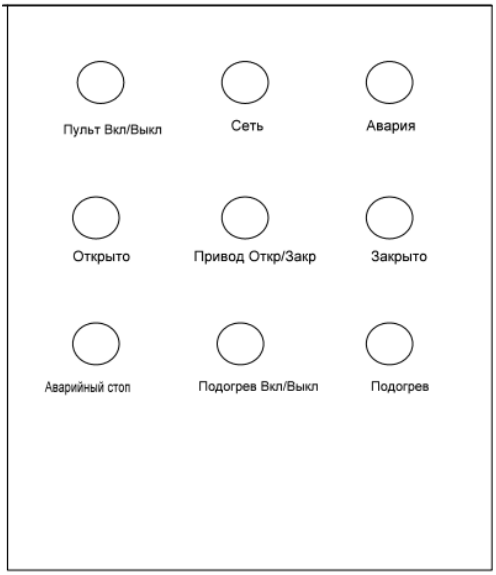


Model SHUEP -3 001.000.220



Model SHUEP -4 000.100.220



Model SHUEP -5 000.110.220

5. CONTROLS AND INDICATORS

1. The switch "Remote On/Off" is responsible for supplying voltage to the control elements of the control panel. The switch has two positions.

To turn on the control elements of the control panel, turn the switch to the left or to the right. When switching to the corresponding side, the switch is fixed in this position. To disconnect the power supply to the actuator operation it is necessary to move the switch to the neutral position.

2. The "Actuator Open/Close" switch is responsible for triggering the opening or closing of the shut-off valve. The switch has 3 positions: neutral in the middle, left and right.

To switch on the actuator it is necessary to turn the switch to the left or to the right. When switching to the corresponding side, the switch is fixed in this position. To de-energize the actuator, turn the switch to the neutral position.

3. The "Local/External Control" switch is responsible for the possibility to control the actuator either manually, using the controls on the control panel of the control panel, or via terminal blocks, using external control devices. The switch has 2 positions: left and right.

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To switch on local or external control it is necessary to turn the switch to the left or right, which is fixed in this position when switching to the corresponding side.

4. The "Heating On/Off" switch is responsible for switching the actuator heating on and off. The switch has 2 positions.

To switch the heating on, turn the switch to the left or right When switching to the corresponding side, the switch is fixed in this position. When the heating is switched on, the "Heating" indication lamp is switched on.

5. The "Emergency Stop" button is responsible for disconnecting power to the actuator and stopping it in emergency cases (e.g. foreign object falling into the valve)**.**

6. The green "Mains" indication lamp signals the voltage supply to the control panel.

7. The red indication lamp "Alarm" signals the fact of an emergency situation.

8. Green indication lamp "Open" signals the open position of the shut-off valve.

9. Orange indication lamp "Closed" signals the closed position of the shut-off valve.

10. The orange colored indication lamp "Heating" signals that the actuator heating is on.

* The manufacturer has the right to make changes in the design of the product that do not affect its technical characteristics.

6. SAFETY INSTRUCTIONS

6.1. Personnel familiarized with this Technical Data Sheet, trained and authorized in accordance with the “Rules for Operation of Electrical Installations of Consumers” and “Interindustry Rules for Occupational Health and Safety (Safety Rules) for Operation of Electrical Installations” and having a qualification group for safety not lower than III are allowed to install, start-up and adjustment works and maintenance of the control panel..

6.2. Operation, installation and repair of the control panels shall be carried out in accordance with the procedure established at the enterprise.

6.3. It is forbidden to carry out installation work in the switchgear under voltage.

7. INSTALLATION AND CONNECTION INSTRUCTIONS

7.1. The installation of the control panel and commissioning work may only be carried out by specially trained personnel authorized to work on electrical installations up to 1000 V. Cables must be inserted into the enclosure through glands of appropriate IP.

7.2. Grounding scheme of the panel TN-S. TN-C-S is acceptable. The actuator is earthed directly from the enclosure, for which purpose an attachment for the earthing conductor is provided on the actuator enclosure.

7.3. Selection of cables shall be made by the installation organization taking into account the capacity of the electric motor used and the requirements, edition 7.

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8. INSTALLATION PROCEDURE

8.1. Unpack the cabinet and perform an external inspection for mechanical damage to the cabinet.

8.2. Check that there are no:

- foreign objects inside the cabinet;
- Internal mechanical damage;
- loose parts.

8.3. Fasten the cabinet to the wall through holes in the back of the cabinet or with hangers.

8.4. Insert the supply cable through the holes in the bottom of the enclosure using rubber glands. Fasten the wires in the terminals according to their numbers.

8.5. Start the motor supply cable. Fasten the wires in the terminals according to their numbers.

8.6. Start the control cable (recommended at least 12x0.9 500V with copper conductors). The maximum cable length is 50 m. Fasten the wires in the terminals according to their numbers.

8.7. Connect the motor power cable and control cable to the drive terminals according to the following numbers.

8.8. If there is a possibility of condensation inside the actuator enclosure, the actuator's built-in heater must be connected (if supplied with the control panel).

8.9. Connection of the neutral conductors is mandatory.

9. INSTRUCTIONS FOR COMMISSIONING

9.1. Power supply:

- Turn the remote control On/Off two-position switch to the “Off” position.
- Supply ~220V power supply from the power source.
- Turn the Remote On/Off two-position switch to the “On” position.9.2. Checking the operation of the actuator:

- Check the operation of the actuator from the “Actuator Open/Close” switch of the local control on the front panel.
- Check the correct direction of rotation of the actuator.
- Check that the actuator stops when the corresponding travel (limit) switch is actuated.
- Check the operation of the “Emergency stop” button.

10. OPERATING PROCEDURE

The control cabinet may be operated by persons who have been instructed in safety and have studied the operator's work procedure.

Before starting work, make sure by external inspection that there is no mechanical damage to the enclosure, connecting cables and controls, and that there are no signs of wetting on the enclosure, cables, controls and floor. If damage or signs of wetting are detected, it is necessary to take measures to eliminate them. Operation of the control panel until the damage or wetting is repaired is prohibited.

10.1. BEGINNING OF WORK

10.1.1. When power is applied to the control panel, the following signaling options are available:

- The green indication lamp “Open” is illuminated, which indicates that the valve is in the open position.
- The orange indicator lamp “Closed” is illuminated, signaling the closed position of the shut-off valve.
- The red “Alarm” indicator lamp is illuminated, which indicates that the motor overload protection has been activated (e.g. by foreign objects entering the gearbox).

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10.2. CONTROL SWITCHING

10.2.1. Set the “Local/External Control” control mode switch to “Local Control” or, only if necessary, “External Control”.

10.3. SHUT-OFF VALVE OPENING

10.3.1. Turn the “Actuator Open/Close” switch to the left, which will lock in this position when switching. At this command the actuator will start to open the shut-off valve. The green indication lamp “Open” will light up. To disconnect the actuator operation power supply, move the switch to the neutral position.

10.4. SHUT-OFF

10.4.1. Turn the “Actuator Open/Close” switch to the right, which will lock in this position when switching. At this command the actuator will start to close the shut-off valve. The indication lamp of orange color “Closed” will light up. To disconnect the actuator operation power supply, move the switch to the neutral position.

10.5. DRIVE HEATING

10.5.1. Turn the “Heating On/Off” switch to the “On” position. The orange “Heating” indicator lamp will illuminate, signaling that the actuator heating is on. To deactivate the heating, turn the “Heating On/Off” switch to the “Off” position».

10.6. EXTERNAL CONTROL MODE

10.6.1. In order to use the possibility of controlling the actuator via terminal blocks using external control devices, the “Local/External Control” switch must be set to the appropriate position (if supplied with the actuator).

11. MAINTENANCE SERVICE

11.1. The control panel is a product with periodic maintenance. The maintenance data should be entered in the maintenance log. The list of regulated works is given in Table 3.

Table 4

Names of works to be performed	Frequency of works
External inspection of the cabinet for mechanical damage	monthly
Checking of the cabinet operability together with checking of the equipment controlled by it	monthly
Checking the insulation resistance of connecting lines	monthly
Checking the tightness of screwed cable connections	monthly
Measurement of protective earth resistance	annually

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12. EMERGENCY MODES

Table 5

External sign	Possible cause	Remedy
The “Mains” light is not illuminated	No voltage at the control panel. The circuit breaker in the control panel has tripped.	Check the power supply at the terminals. Check that the circuit breaker is in the on position. Check for continuity of the fuse.
The “Alarm” indicator light is on	Characteristics of actuator operation are out of factory specifications: actuator overload - foreign objects falling into the actuator gate valve and, as a consequence, tripping of the protection (if the protection is installed in the control panel or outside the switchboard).	See a specialist.
	The drive control automation, which may include drive protection devices, has tripped.	

13. PACKAGING AND TRANSPORTATION INFORMATION

13.1. The cabinet is packed by placing it in cardboard containers.
13.2 The storage room must be free of conductive dust, vapors of acids and alkalis, as well as gases that cause corrosion and destroy insulation.
13.3 The cabinet may be transported and stored at temperatures from minus 50 to plus 50 degrees Celsius and relative humidity not exceeding 98 percent.

14. UTILIZATION

14.1. The product is disposed of in accordance with the procedure established at the enterprise (remelting, burial, resale).

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15. WARRANTY OBLIGATIONS

15.1. Warranty period - 12 months from the date of commissioning, but not more than 18 months from the date of sale.
15.2. The warranty applies to equipment installed and used in accordance with the installation instructions and product specifications described in this data sheet.
15.3. The manufacturer guarantees compliance of the product with safety requirements, provided that the consumer complies with the rules of transport, storage, installation and operation.
15.4. The warranty covers all defects caused by the fault of the manufacturer.
15.5. The warranty does not apply:

- parts and materials of the product subject to wear and tear;
- for cases of damage caused by:
    - modifications to the original design of the product;
    - violation of general installation recommendations;
    - faults caused by improper maintenance and storage; improper operation and use of the equipment.

16. WARRANTY TERMS

16.1. Claims to the quality of the goods may be made during the warranty period.
16.2. Defective products are repaired or exchanged for new ones free of charge during the warranty period. ELEPHANT decides whether to replace or repair the product. The replaced product or its parts resulting from the repair shall become the property of 'ELEPHANT'.
16.3. Costs related to dismantling, installation and transport of the defective product during the warranty period shall not be reimbursed to the Buyer.
16.4. If the claim is unfounded, the Buyer shall pay the costs of diagnostics and expertise of the product.
16.5. Products are accepted for warranty repair (as well as for return) fully assembled.

WARRANTY CARD №____

№	Product Name	Packs

Name and address of the trading organisation

_____

Date of sale _____ Seller's signature _____

Stamp or seal of the trading organisation Acceptance stamp

I agree with the terms and conditions of the warranty:
Buyer _____ (signature)

Warranty period - 12 months from the date of commissioning, but not more than 18 months from the date of sale.

For warranty repairs, complaints and product quality claims, please contact ELEPHANT at: Carrer d'Aragó,264,3-1,08007 Barcelona, Spain E-mail address: sales@valveelephant.com.

When making a complaint about the quality of goods, the buyer shall present the following documents:

1. A free-form application, which shall specify:
   - name of the organisation or full name of the buyer, actual address, contact telephone numbers;
   - name and address of the organisation that carried out the installation;
   - basic parameters of the system in which the product was used;
   - a brief description of the defect.
2. Document confirming the purchase of the product (delivery note, receipt)..
3. Act of hydraulic test of the system in which the product was installed.
4. This completed warranty card.

A note on the return or exchange of goods _____

Date: «___»_____202__r. Caption _____

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