CASCAN
Rolling Doors

# Central gearmotors for rolling shutters

Central gearmotors for rolling shutters

Instructions and warnings for fitters
Warning: follow these personal safety instructions very carefully.
Save this manual for future reference.

COMPANY
WITH QUALITY SYSTEM
CERTIFIED BY DNV
ISO 9001

CE

## EC - Declaration of conformity

The central gearmotors for rolling shutters serirs BOLT comply with the following technical standards: UNI EN 292 Part I,UNI EN 292 Part 2,UNI EN 294, UNI EN 418,CEI EN 60335-1,EN 55014-2 and the European directives 98/37/EEC, 73/23/EEC, and 89/336/EEC.

**Declaration of incorporation**

The central gearmotors for rolling shutters serirs BOLT ,when installed and maintained according to the manufacturer's instructions, in conjunction with roller rolling shutter, which must also be installed and maintained according to the instruc-tions of their manufacturers, comply with the provisions of the regulations of the EU Directive 89/392 EEC and successive amendments.

I the undersigned declare that the foregoing equip-ment and all the accessories stated in the handbook comply with the foregoing directives.

## IMPORTANT SAFETY INSTRUCTIONS ATTENTION - FOR REASONS OF PERSO-NAL SAFETY IT IS IMPORTANT TO OB-SERVE THESE INSTRUCTIONS RETAIN THESE INSTRUCTIONS

Do not let children play with fixed con-trol devices. Keep the remote controls out of reach of children Perform fre-quent checks on the system for any signs of unbalance and wear or damage to wires or springs. Do not use the equipment if it requires repair or regulation.

These warning symbols serve to remind you to pay the maximum attention when the equipment is in use.They indicate the procedures to be followed to avoid risks to persons or things.This gearmotor is designed to function safely if installed and used in compliance with the following instructions.The equipment must only be employed for residential uses and must be installed indoors.

You are warned that incorrect installation can cause serious injuries.Follow all the installation instructions.

o not use command buttons that can simultaneously operate the equipment in both directions. Do not com-mand more than one gearmotor with each button. Conduct frequent examinations on the installation to check for signs of unbalance and wear/damage to the wiring. Do not use the equipment if it requires repairs or adjustments. The product cannot be installed for heights of less than 2.5. m.

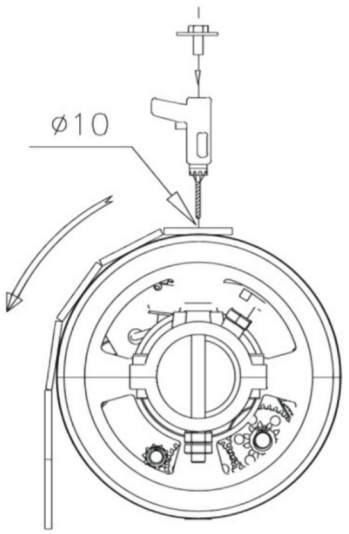
The deployment of a device that guarantees omnipolar disconnection from the mains with an opening of at least 3 mm between the contacts is obligatory.

Before installing the gearmotor for operating the rolling shutter remove all superfluous wires and disable any equipment not necessary for motorised movement.The control button must be placed in sight of the equipment, kept separate from the moving parts and at a height of at least 1.5 m.

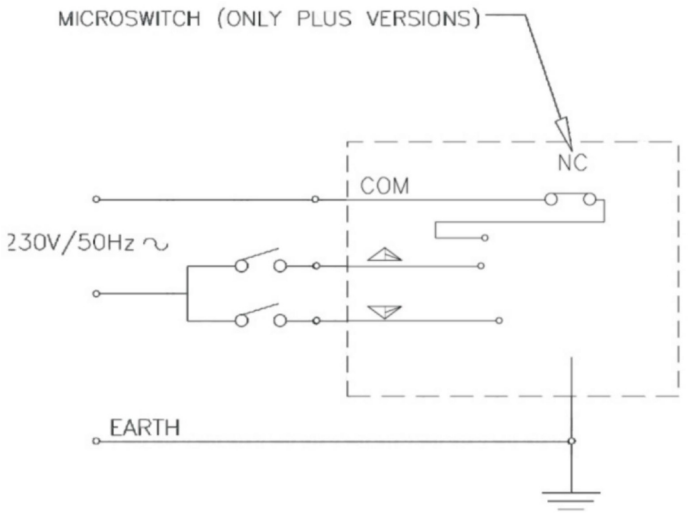
If the power cables are damaged they must be replaced by the constructor or his technical after-sales service or, in any case, by a similarly qualified person in order to avoid all risks.The gearmotor is designed for intermittent operation and is provided with an internal thermal protection that interrupts power supply in the event of overheating caused by continued use.The gearmotor automatically resets itself after a few minutes. However, regular operation will only be possible when the gearmotor cools down.



## c)

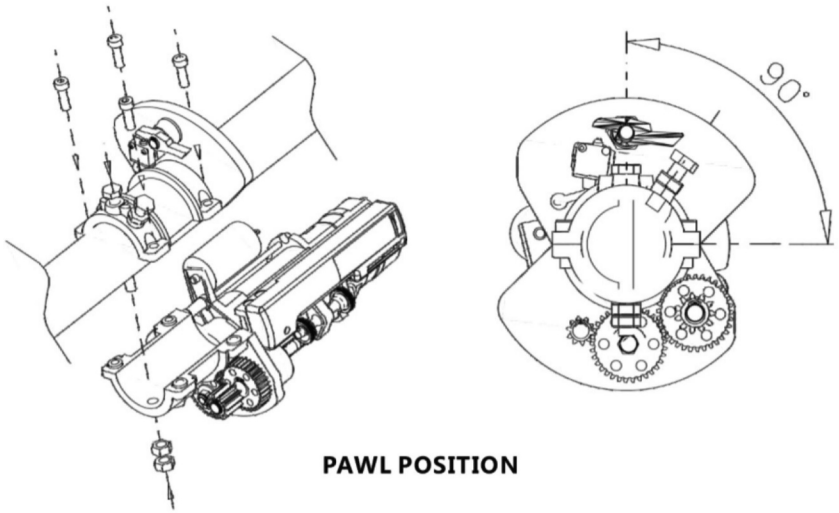



**DOWNWARD RUN OF THE ROLLER SHUTTER**

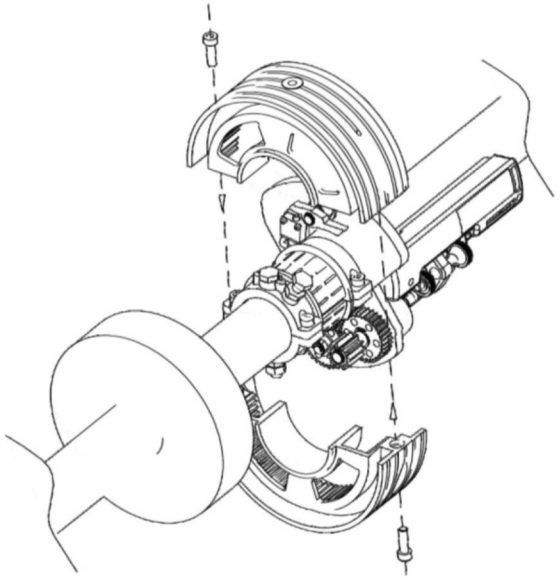



**ELECTRICAL WIRING SCHEME**

## b)




**PAWL POSITION**



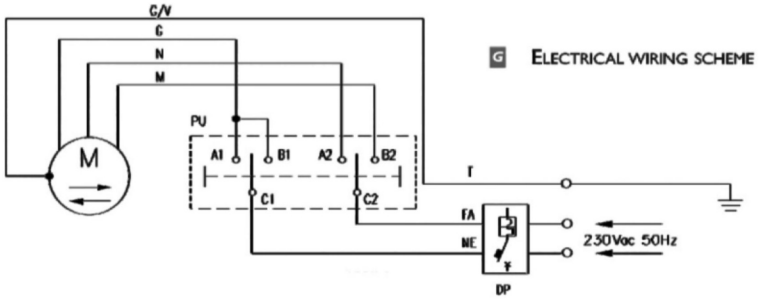
## technical characteristics

| MODEL | TORQUE | L.SWITCH | R.RM. | CONDENSER | MAINS VOLTAGE | ASSORBED POWERA | POWER | THERMAL | WEIGHT |
|---|---|---|---|---|---|---|---|---|---|
| | Nm | m | n° | uf | V | A | W | min. | kg |
| BOLT–C70/CB70 | 70 | 6 | 10 | 10UF | 230–50 Hz | 1.62 | 372 | 4 | 8 |
| BOLT–C80/CB80 | 80 | 6 | 10 | 12UF | 230–50 Hz | 1.66 | 382 | 4 | 8 |
| BOLT–C100/CB100 | 100 | 6 | 10 | 14UF | 230–50 Hz | 1.79 | 412 | 4 | 8.5 |
| BOLT–C120/CB120 | 120 | 6 | 10 | 16UF | 230–50 Hz | 1.85 | 425 | 4 | 8.5 |
| BOLT–C140/CB140 | 140 | 6 | 10 | 18UF | 230–50 Hz | 2.15 | 495 | 4 | 9 |
| BOLT–C160/CB160 | 160 | 6 | 10 | 20UF | 230–50 Hz | 2.49 | 572 | 4 | 9.5 |
| BOLT–C180/CB180 | 180 | 6 | 10 | 22UF | 230–50 Hz | 2.85 | 656 | 4 | 10 |
| BOLT–CDM 300 | 300 | 6 | 10 | 40UF | 230–50 Hz | 4.91 | 1129 | 4 | 12.5 |
| BOLT–F80/FB80 | 80 | 6 | 10 | 10UF | 230–50 Hz | 1.65 | 370 | 4 | 8 |
| BOLT–F100/FB100 | 100 | 6 | 10 | 10UF | 230–50 Hz | 1.61 | 380 | 4 | 8.5 |
| BOLT–F120/FB120 | 120 | 6 | 10 | 12UF | 230–50 Hz | 1.72 | 396 | 4 | 8.5 |
| BOLT–F140/FB140 | 140 | 6 | 10 | 14UF | 230–50 Hz | 1.95 | 450 | 4 | 8.5 |
| BOLT–F160/FB160 | 160 | 6 | 10 | 16UF | 230–50 Hz | 2.21 | 510 | 4 | 9 |
| BOLT–F180/FB180 | 180 | 6 | 10 | 18UF | 230–50 Hz | 2.56 | 590 | 4 | 9.5 |
| BOLT–F200/FB200 | 200 | 6 | 10 | 20UF | 230–50 Hz | 2.68 | 620 | 4 | 9.5 |
| BOLT–F240/FB240 | 240 | 6 | 10 | 24UF | 230–50 Hz | 3.15 | 725 | 4 | 10 |
| BOLT–F260/FB260 | 260 | 6 | 10 | 26UF | 230–50 Hz | 3.48 | 800 | 4 | 10 |
| BOLT–FDM 360 | 360 | 6 | 10 | 40UF | 230–50 Hz | 5.21 | 1198 | 4 | 12.5 |

## TECHNICAL DATA

1)Die-cast aluminium body and rim
2)Steel gears, roller bearings
3)Rim mounted on bearing
4)Drive shaft mounted on double ball bea rings
5)Asynchronous 4 pole motor 1.400 rpm
6)Class B isolation
7)Thermal protection on motor: 160°C.
8)Easy limit-switch adjustment
9)6 mt. maximum shutter height
10)Alimentation electric cable:4x1 mm2 for BOLT C and BOLT F,4x1.5 mm2 for BOLT CDM and BOLT FDM.
11)Operating temperature: -20°C. +85°C.
12)Fittings for electrobrake mounting P-PBM-P115

G ELECTRICAL WIRING SCHEME




G GRIS  N BLACK  M BROWN  G/V EARTH  DP OMNIPOLAR DEVICE 3 mm OPENING DISTANCE BETWEEN CONTACTS

NE NEUTRAL  FA PHASE  PU SWITCH

## INSTALLATION INTRUCTIONS

**1)** Drill a 10 mm diameter hole 5 cm from the centre of the shutter's shaft (see fig. I);

**2)** Remove the M 10 t.e. screws from the gear of the gearmotor.

**3)** Remove the two semi-gears by unscrewing the two M 8 screws (using a 6 mm hexagonal wrench);

**4)** Carefully remove, avoiding any folding, the black plastic roller carrier bandi;

**5)** Separate the two elements of the gearmotor (upper and lower body) acting on the four M 8 screws (using a 6 mm hexagonal wrench);

**6)** Should the shutter shaft be less than 60 mm long, use the dedicated reducing sockets positioning them using the previously drilled 10 diameter mm hole as a reference (point 1);

**7)** Join the upper and lower bodies using the four M8 screws removed before;

**8)** Tighten the M 10 t.e. screw without hexagon nut using a 17 mm wrench and ensure it enters the shutter shaft via the 10 mm hole (previously drilled);

**9)** Install the roller band in its appropriate housing;

**10)** Apply the semi-gears, holding them with the two M 8 screws;

**11)** Tighten the M 10 t.e. screw with nut so as to block the gearmotor on the shaftand tighten said nut;

**12)** Place the last canvas of the shutter on the shaft and drill a 12 mm diameter hole at the same location as the M10 threaded hole on the gear;

**13)** Tighten by hand the gear by 1-1½ turns by bringing the grip towards microswitch I (down) fig. 1 (It must turn easily);

**14)** Lock the shutter to the gearmotor using the M 10 t.e. screw with washer (using a 17 mm wrench);

**15)** Make the electrical connections described in page 7 passing the 4xl mm cable supplied inside the shutter shaft avoiding any contact with the rotating pars;

**16)** After having installed the mechanical parts and electrical contacts, proceed to regulate the end of travel;

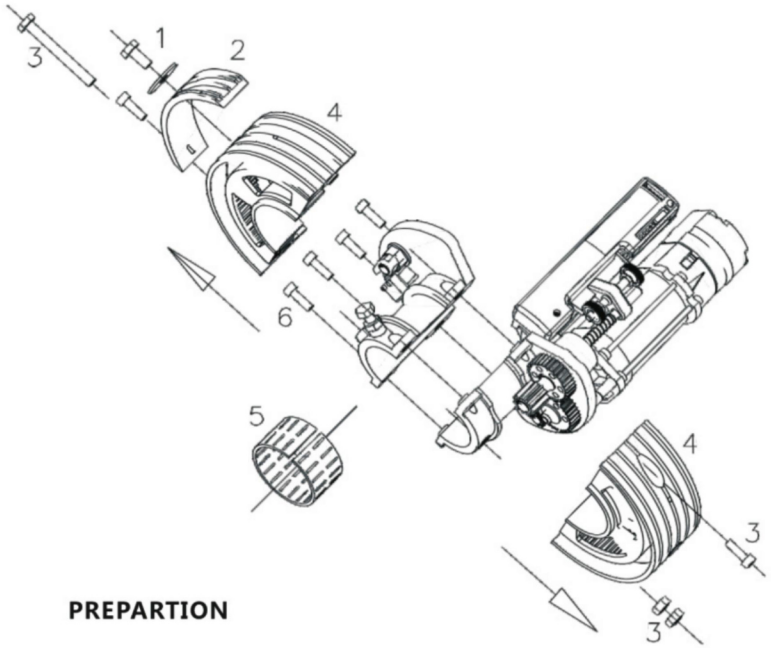
**17)** Turn the end of travel grip by hand unitiyou hear the click of the microswitch's trigger (down regulation completed);

**18)** Turn the other grip towards microswitch II (up). Switch on current to the gearmotor via the key selctor or button to ensure that when rising the shutter stops at the correct point to regulate the position, adjust the grip, using solely and exclusively the electric commands taking all precautions to avoid manual lifting.

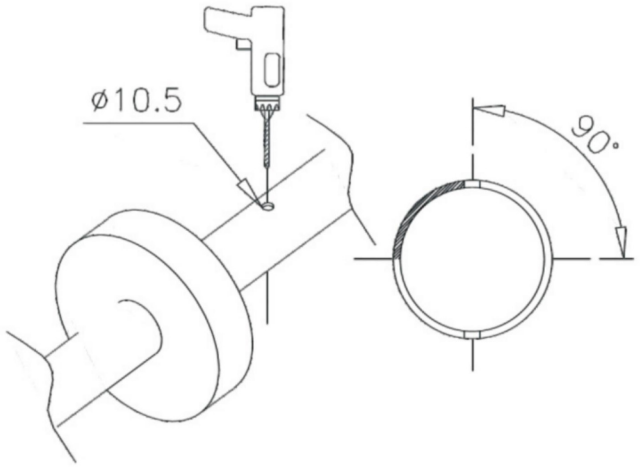
**19)** Should the shutter need to be installed contrary to the description in fig. 1, the steps described above should be carried out to the contrary as microswitch II will stop the descent and microswitch I will stop the opening.



a)

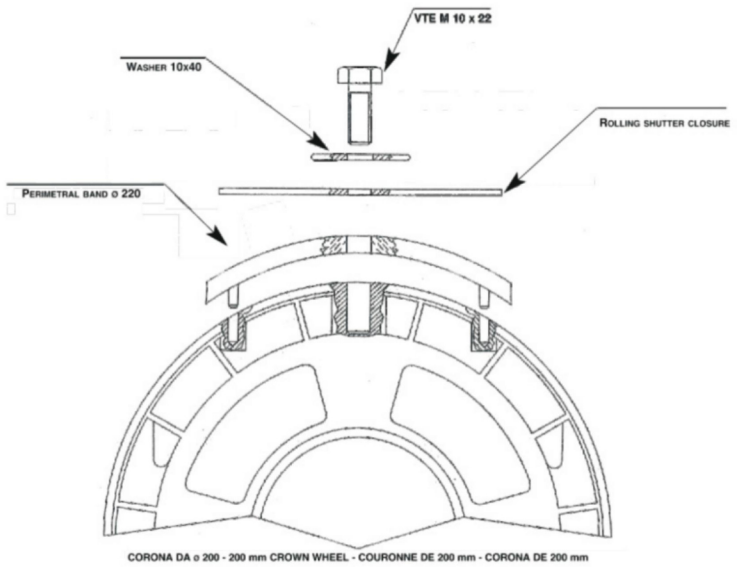



**PREPARTION**



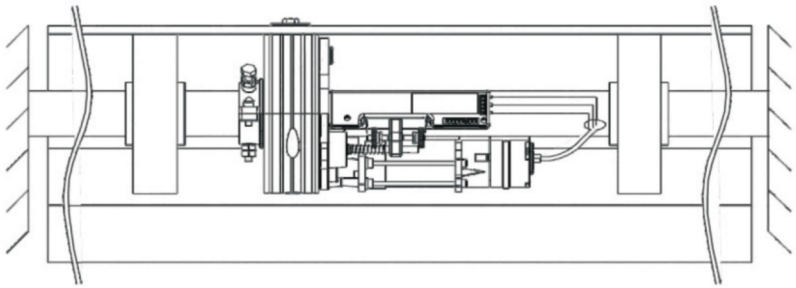

**ON THE AXIS OF THE SHUTTER TO PRACTICE 1 HOLE**

The **Chinabolt** built with a 200 mm crown wheel, which can be converted into a 220 mm crown wheel by the use of a perimetral band.

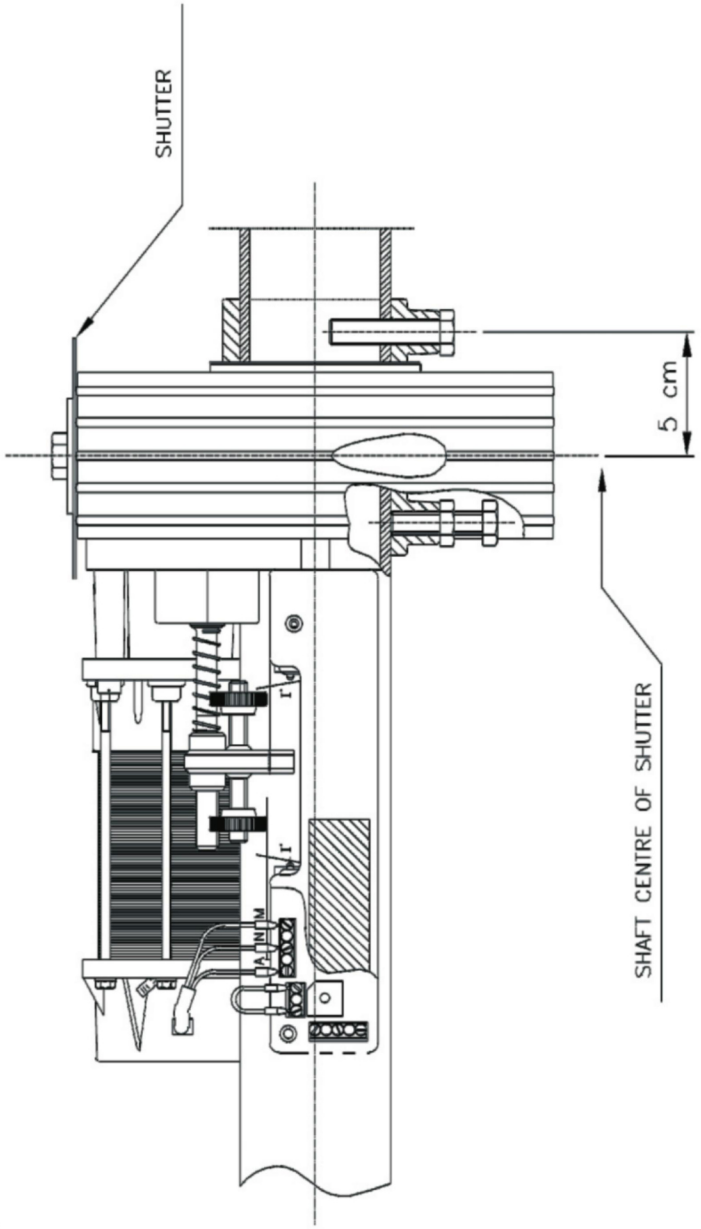


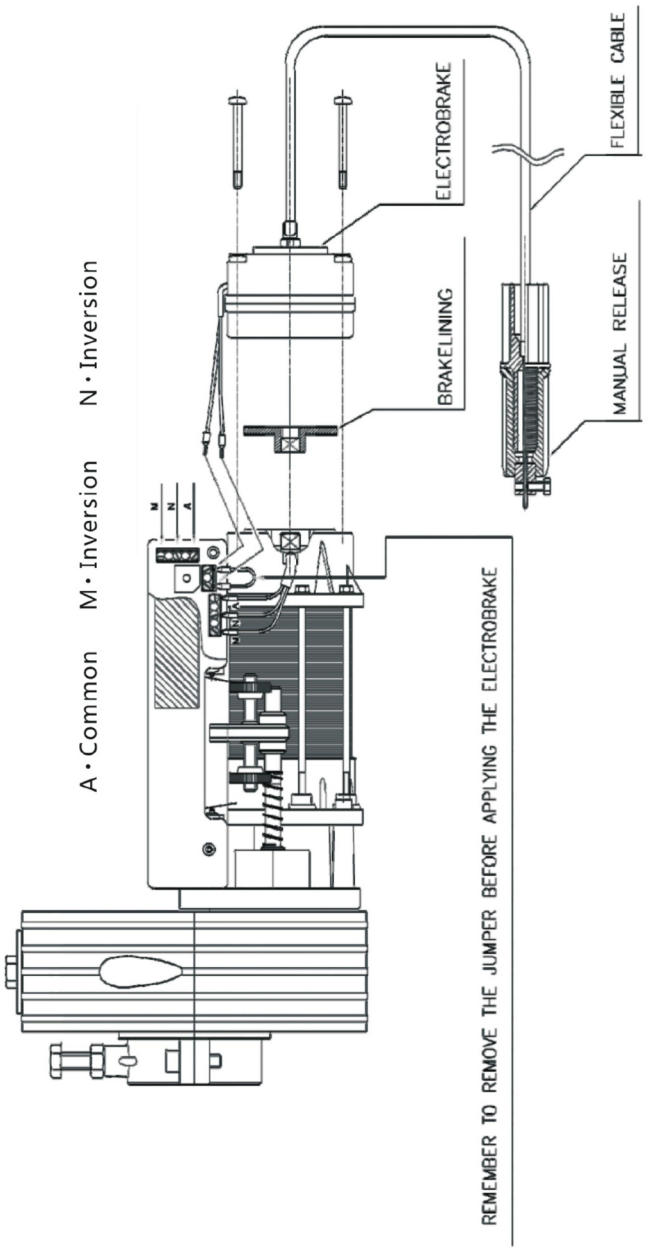

## EUROSAFETY . EUROSAFETY PLUS - UNISAFETY - UNISAFETY PLUS

Eurosafety and Unisafety are version of the geramotors with safety device carried out to the stop the free fall of roller shutters and at the same time, in Plus version, to interrupt the motoreductor's feeding.



## TOWARDS OF INSTALLATION OF THE GEARMOTOR








## Blow up view of the electrobrake

