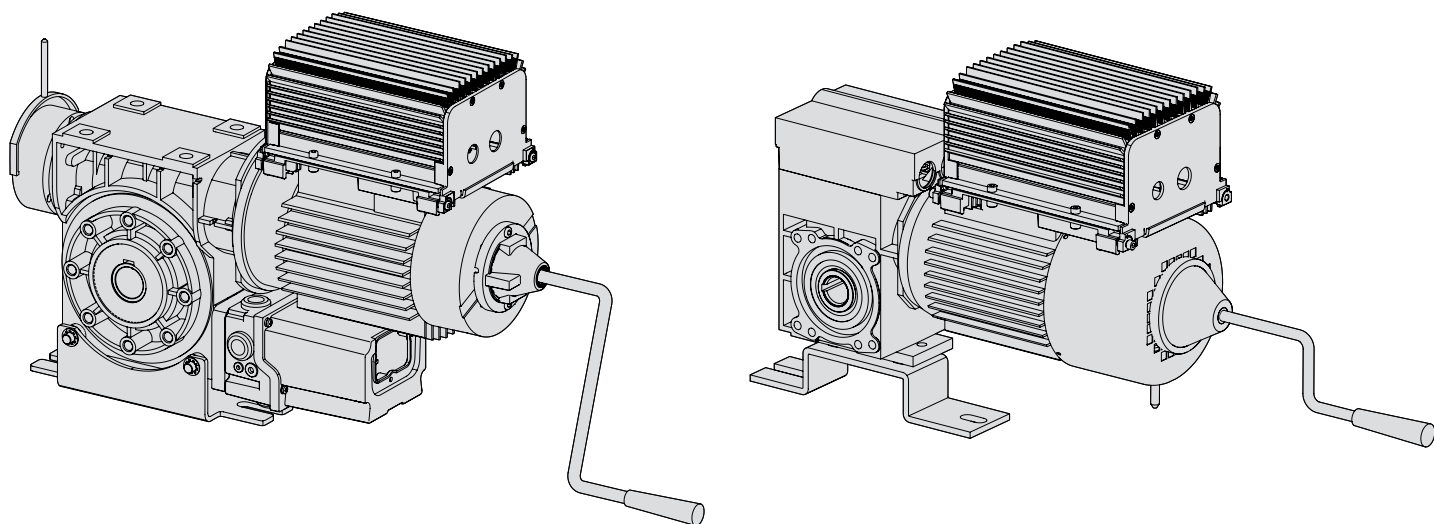


Nice

HDFI

CE



INDUSTRIAL DOORS

EN - Instructions and warnings for installation

Nice

GENERAL WARNINGS: SAFETY - INSTALLATION - USE (original instructions in Italian)

CAUTION Important safety instructions. Observe all the instructions as improper installation may cause serious damage

CAUTION Important safety instructions. It is important to comply with these instructions to ensure personal safety. Store these instructions

- Before commencing the installation, check the "Product technical specifications", in particular whether this product is suitable for automating your guided part. Should it be unsuitable, DO NOT proceed with the installation
- The product cannot be used before it has been commissioned as specified in the "Testing and commissioning" chapter

CAUTION According to the most recent European legislation, the implementation of an automation system must comply with the harmonised standards set forth in the Machinery Directive in force, which allow for declaring the presumed conformity of the automation. On account of this, all operations regarding connection to the mains electricity, as well as product testing, commissioning and maintenance, must be performed exclusively by a qualified and skilled technician!

- Before proceeding with the product's installation, check that all materials are in good working order and are suitable for the intended applications
- The product is not intended for use by persons (including children) with reduced physical, sensory or mental capacities, nor by anyone lacking sufficient experience or familiarity with the product
- Children must not play with the appliance
- Do not allow children to play with the control devices of the product. Keep the remote controls out of reach of children

CAUTION In order to avoid any danger from inadvertent resetting of the thermal cut-off device, this appliance must not be powered through an external switching device, such as a timer, or connected to a supply that is regularly powered or switched off by the circuit

- Provide a disconnection device (not supplied) in the plant's mains power supply, with a contact opening distance that ensures complete disconnection under the conditions envisaged by Overvoltage Category III
- Handle the product with care during installation, taking care to avoid crushing, knocks, falls or contact with liquids of any kind. Keep the product away from sources of heat and open flames. Failure to observe the above can damage the product and increase the risk of danger or malfunctions. If this should happen, stop installation immediately and contact the Customer Service
- The manufacturer assumes no liability for damage to property, items or persons resulting from non-compliance with the assembly instructions. In such cases the warranty does not cover material defects
- The weighted sound pressure level of the emission A is lower than 70 dB(A)
- Cleaning and maintenance to be carried out by the user must not be effected by unsupervised children
- Before intervening on the system (maintenance, cleaning), always disconnect the product from the mains power supply
- Check the system periodically, in particular all cables, springs and supports to detect possible imbalances, signs of wear or damage. Do not use if repairs or adjustments are necessary, because a failure with the installation or the incorrectly balanced automated system may lead to injury
- The packaging materials of the product must be disposed of in compliance with local regulations
- **The product must not be installed outdoors**
- Keep an eye on moving doors and do not let anyone go near them until they have opened or closed fully
- Be careful when activating the manual release device, as an open door may fall suddenly due to weak or broken springs, or if it is unbalanced
- Every month, check that the drive motor reverses when the door encounters a 50 mm-high object placed on the ground. If necessary, readjust the door and check it again, as incorrect adjustment is potentially dangerous (for drive motors incorporating a trapping safety system that intervenes when the door's lower edge encounters an obstacle)
- If the power cable is damaged, it must be replaced by the manufacturer or by the latter's technical assistance service, or by a similarly qualified person, in order to prevent any type of risk

INSTALLATION PRECAUTIONS

- Prior to installing the motor, remove all unnecessary cables or chains and deactivate any equipment – such as locking devices – not required for motorised operation
- Check that there are no points where trapping or crushing against fixed parts can occur when the moving section is in the fully open or closed position; adequately protect any such parts
- Install the manoeuvring assembly for manual release at a height below 1.8 m
NOTE: if removable, the manoeuvring assembly must be kept close to the door
- Make sure that the controls are kept at a safe distance from moving parts, while allowing a good view of these.
Unless a selector is used, the controls should be installed at least 1.5 m from the ground and must not be accessible
- Permanently attach the trapping hazard warning labels in a highly visible location or near the fixed control devices (if present)
- Permanently attach the manual release label close to the manoeuvring assembly
- After installation, make sure that the motor prevents or stops door opening when the latter is loaded with a 20 kg weight secured to the centre of its bottom edge (for drive motors that can be used with doors having opening widths exceeding 50 mm)
- After installation, make sure that the mechanism is properly adjusted and that the motor reverses when the door collides with a 50 mm-tall object placed on the ground (for drive motors incorporating a trapping safety system that intervenes when the bottom edge of the door encounters an obstacle);
Following installation, check and ensure that no door parts obstruct public roadways or pavements.

1 PRODUCT DESCRIPTION AND INTENDED USE

This product belongs to the HDFI range of gear motors, designed to automate non-balanced doors: section doors, quick doors and industrial shutters.

Models “HDFI-45-95” - “HDFI-60-130” - “HDFI-80-90” - “HDFI-100-120” - “HDFI 220-60” - “HDFI-280-40” are equipped with electronic end-of-travel device ENAS003-ENAS004, which is an absolute value encoder.

The positions are set using the control unit.

⚠ WARNING! – All uses other than the intended use, or use in conditions other than those described in this manual should be considered improper and forbidden!

2 LIMITS OF USE

Before proceeding with installation, check the suitability of the product: consult the technical data on product performance (chapter 8 - Technical specifications).

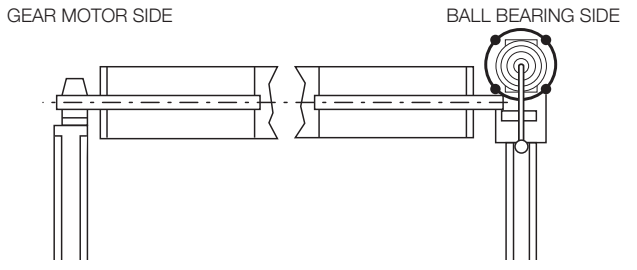
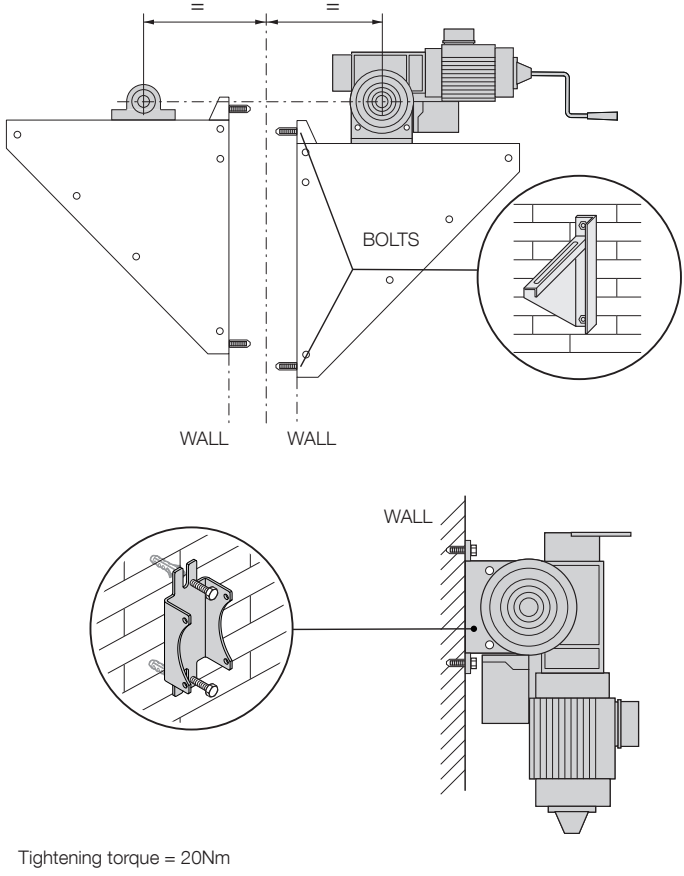
⚠ WARNING! – The gear motor model should be selected based on the total weight the motor must lift, the winding reel, the thickness of the wall/sheet and the friction this creates against the structure of the door/shutter.

3 INSTALLATION AND ELECTRICAL CONNECTION

3.1 - Gear motor installation

⚠ Important! Before installing the gear motor (chapter 2), check the contents of the packaging and verify the material and footprint of the gear motor (product data sheets HDFI-45-95, HDFI-60-130, HDFI-80-90, HDFI-100-120, HDFI-220-60, HDFI-280-40, pages 8 - 9).

⚠ IMPORTANT! - The winding shaft must be concentric to, and aligned with, the motorised shaft: if not imbalances and defective angles could be created, causing either damage or excessive wear in the drive elements.

01.	Grease the end of the winding shaft where the motor is connected.
02.	<p>Insert the gear motor onto the end of the winding shaft: Check if the housing for the tab on the winding shaft is feed-through; if it is, it must be blocked in order to avoid accidental axial movement.</p> <div data-bbox="858 421 1497 689">  <p>GEAR MOTOR SIDE</p> <p>BALL BEARING SIDE</p> </div>
03.	<p>Secure the fastening brackets: the gear motor can be positioned either horizontally or vertically: as long as the winding shaft is horizontal and perfectly level.</p> <p>Note: if you wish to position the gear motor differently, please contact Nice technical service.</p> <div data-bbox="810 712 1497 1585">  <p>BOLTS</p> <p>WALL</p> <p>WALL</p> <p>Tightening torque = 20Nm</p> </div>
04.	Check that the winding shaft cannot move axially: if necessary use the adjustment devices to secure it.

Note: if the gear motor is to be painted, the seals should be protected and must not come into contact with the paint.

3.2 - Electrical connections

⚠ WARNING! – All electrical connections must be made with the system disconnected from the power supply. Incorrect connections may damage the device and cause harm.

Only connect the power supply cable to the control unit: when using Nice D-PRO (Action - Comfort - Automatic) control units, refer to the instruction manuals for these products.

3.3 - Emergency manual device

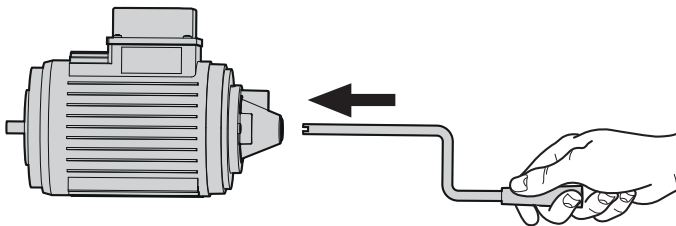
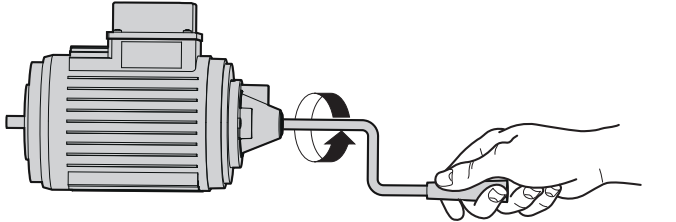
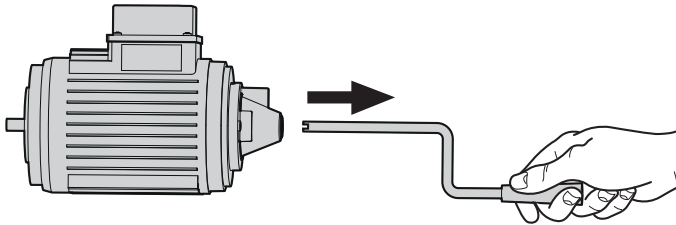
The emergency manual device should be used exclusively to open and close the door in the event of a power failure.

⚠ WARNING!

- DO NOT use it for any other situations!
- Incorrect use of the device may cause harm!

WARNINGS:

- The emergency manual device should be operated exclusively with the motor stopped.
- The emergency manual manoeuvre should only be carried out from a safe place.
- With a gear motor equipped with a spring-operated brake, the door should be opened or closed with the brake on/closed.
- For safety reasons, on unbalanced doors, the brake should only be released for the purpose of control with the door closed.
- The emergency manual device should not make the automation exceed the end position because this would activate the emergency end-of-travel switch. The automation cannot be activated in electrical power mode.

01.	Switch off the mains power to the automation	
02.	Insert the handle into the dedicated hole and apply reasonable pressure.	
03.	Insert the handle into the dedicated hole and apply reasonable pressure, turning it until it clicks into the position that allows manual operation. This interrupts the control power supply and the door can no longer be operated electrically.	
04.	Open and/or close the door by turning the handle.	
05.	Removing the handle resets the control voltage and the door can then be operated electrically.	

4 TESTING AND COMMISSIONING

These are the most important phases during the set-up of the automation to ensure maximum system safety.

They must be performed by skilled and qualified personnel, who are responsible for the tests required to verify the solutions adopted according to the risks present, and for ensuring observance of all legal provisions, standards and regulations: in particular all the requirements of Standard EN 12445, which establishes the test methods for checking automated mechanisms for gates and doors.

Additional devices should be subjected to specific tests examining both functionality and correct interaction with HDFI: refer to the user manuals of the various individual devices.

4.1 - Testing

Testing can also be adopted as a method of periodically checking that all the various devices in the system are functioning correctly. Each component of the system, (safety edges, photocells, emergency stop, etc.) requires a specific testing phase; follow the procedures given in the instruction manuals for each of these devices. Perform the test as follows:

01.	Make sure that the provisions contained in the WARNINGS chapter have been carefully observed.
02.	Close the door.
03.	The test should be carried out a number of times to make sure that the door moves smoothly, that there are no points of excessive friction and that there are no defects in the assembly or adjustments.
04.	Check that there are no points of friction while the door is in motion.
05.	Check the proper operation of all the safety devices on the system (photocells, safety edges, etc.).
06.	If the dangerous situations caused by the movement of the door have been safeguarded by limiting the force of impact, the user must measure the impact force in accordance with Standard EN 12445.
07.	Once the tests are complete, supply the control unit with power and start-up the gear motor after having switched off the emergency manual device.

4.2 - Commissioning

Commissioning can take place only after all testing phases have been terminated successfully (paragraph 4.1).

Partial or "makeshift" commissioning is strictly prohibited.

01.	Prepare and store (for at least 10 years) the technical documentation for the automation, which should include: assembly drawing of the automation, wiring diagram, analysis of hazards and solutions adopted, manufacturer's declaration of conformity of all the devices installed (for HDFI use the annexed CE declaration of conformity), copy of the instruction manual and maintenance schedule of the automation.
02.	Post a permanent label or sign near the door detailing the manual release and manoeuvre operations (refer to the figures in "Instructions and warnings for users of the HDFI gear motor").
03.	Post a label on the door providing at least the following data: type of automation, name and address of manufacturer (responsible for commissioning), serial number, year of construction and CE mark.
04.	Prepare the declaration of conformity for the automation and deliver it to the owner.
05.	Deliver the user manual for the automation (removable insert) to the owner.
06.	Create a maintenance schedule for the automation and deliver it to the owner.
07.	Before commissioning the automated mechanism, ensure that the owner is adequately informed of all associated residual risks and hazards.

5 FURTHER DETAILS

5.1 - Integrated anti fall back system

The gear motors are equipped with an integrated anti fall back system, which operates independently of rpm and position. The anti fall back system creates neither load nor wear and is only activated in the event the mechanism fails.

⚠ WARNING! - Once the anti fall back system has activated, the gear motor must be replaced!

The anti fall back system has the following features:

- Prevents the breakage and wear of the toothed wheel
- Operates independently of rpm
- Operates independently of direction of rotation
- Operates independently of position
- Operates independently of vibrations
- Does not require maintenance
- In the event of activation it blocks the descent of the door in accordance with Standards EN 12605

6 SCRAPPING

This product is an integral part of the automation and must be scrapped with it.

As when installing the product, when the product reaches the end of its service life, it must be scrapped by a qualified technician.

This product comprises various types of materials: some may be recycled others must be disposed of. Seek information on the recycling and disposal systems available in your area for this product category.

⚠ WARNING! Some parts of the product may contain pollutants or hazardous substances which, if released into the environment, may cause serious damage to the environment or human health.



As indicated by the symbol, the product may not be disposed of as domestic waste. Sort the materials for disposal, according to the methods envisaged by current legislation in your area, or return the product to the retailer when purchasing a new version.

⚠ WARNING! - Local legislation may include the application of serious fines in the event of improper disposal of this product.

7 BASIC TROUBLESHOOTING

To check and resolve any problems not described in this manual, please see the DPro-Automatic manual.

8 TECHNICAL SPECIFICATIONS

⚠ All technical specifications stated herein refer to an ambient temperature of 20° C (± 5° C). • Nice S.p.a. reserves the right to apply modifications to products at any time when deemed necessary, maintaining the same intended use and functionality.

Product	HDFI-45-95	HDFI-60-130	HDFI-80-90	HDFI-100-120	HDFI-220-60	HDFI-280-40
Hollow shaft Ø (mm)	25 / 30	25 / 30	25 / 30	40	40	40
Max. torque [Nm]	45	60	80	100	220	280
Nominal torque	36	48	64	80	176	224
Output RPM [min ⁻¹]	95	130	90	120	60	40
Motor power [kW]	0,9	1,1	0,9	2,2	2,2	2,2
End-of-travel range (max rotations of cable shaft)	15	15	15	20	20	20
Operating voltage	1x230	1x230	1x230	1x230	1x230	1x230
Frequency	50Hz	50Hz	50Hz	50Hz	50Hz	50Hz
Nominal draw	7,2	8	7,2	14	14,3	14,3
Duty cycle	100	130	76	85	40	26
Working temperature [°C]	-5/+C40	-5/+C40	-5/+C40	-5/+C40	-5/+C40	-5/+C40
Noise level (sound pressure) db(A)	70	70	70	70	70	70
Degree of protection	IP54	IP54	IP54	IP54	IP54	IP54
Weight [kg]	16	16	16	37	37	37

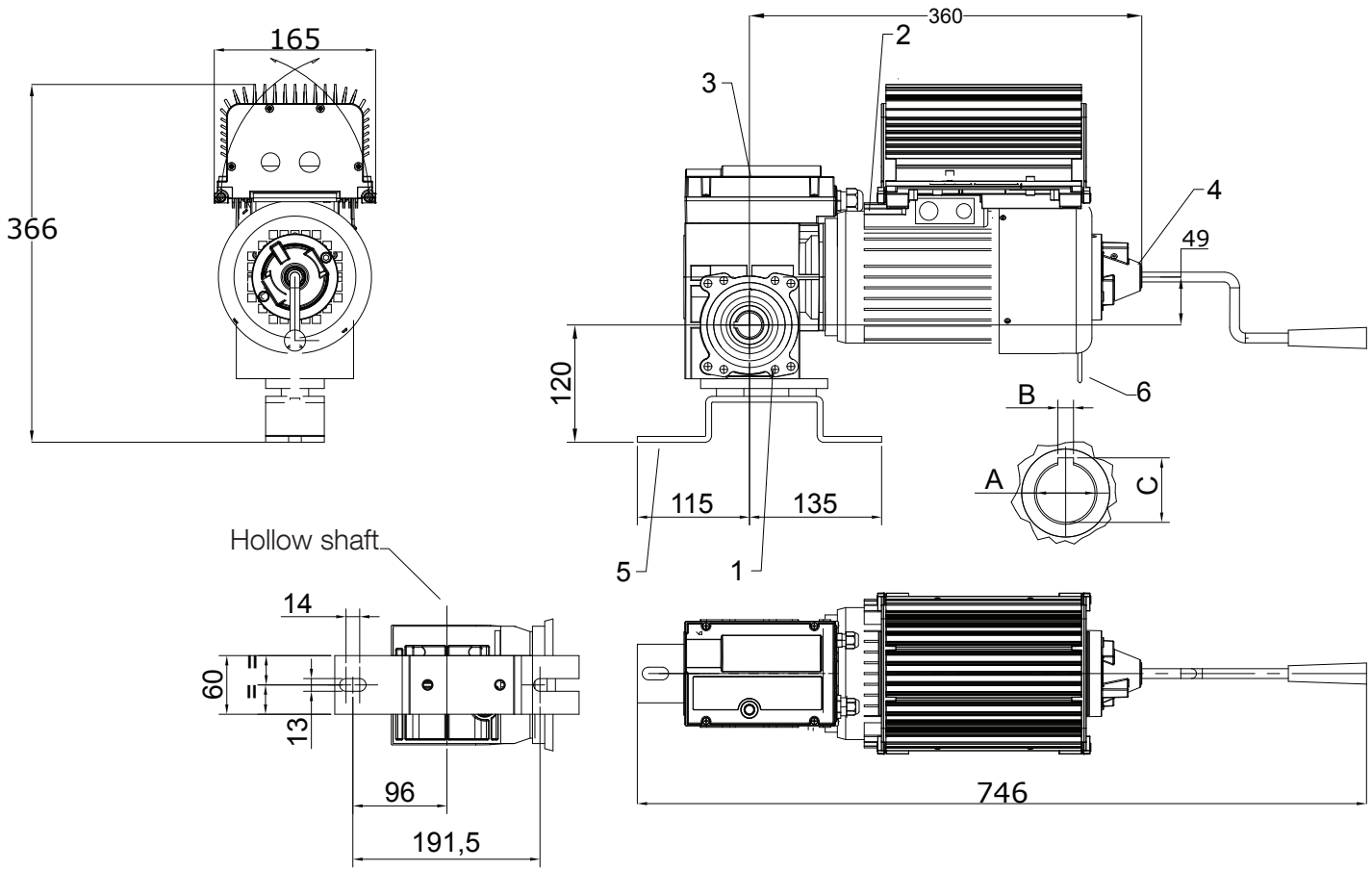
Product data sheet 45-95 / HDFI 60-130 / HDFI 80-90

Table 1

Description	Ø A	B	C
HDFI 45-95	25	8	28,3
HDFI 60-130	25	8	28,3
HDFI 80-90	25	8	28,3
HDFI 45-95	30	8	33,3
HDFI 60-130	30	8	33,3
HDFI 80-90	30	8	33,3

Table 2

N.	Description
1	Gear motor
2	Electric motor
3	End-of-travel housing
4	Emergency manual device
5	Wall-mounting unit
6	Brake



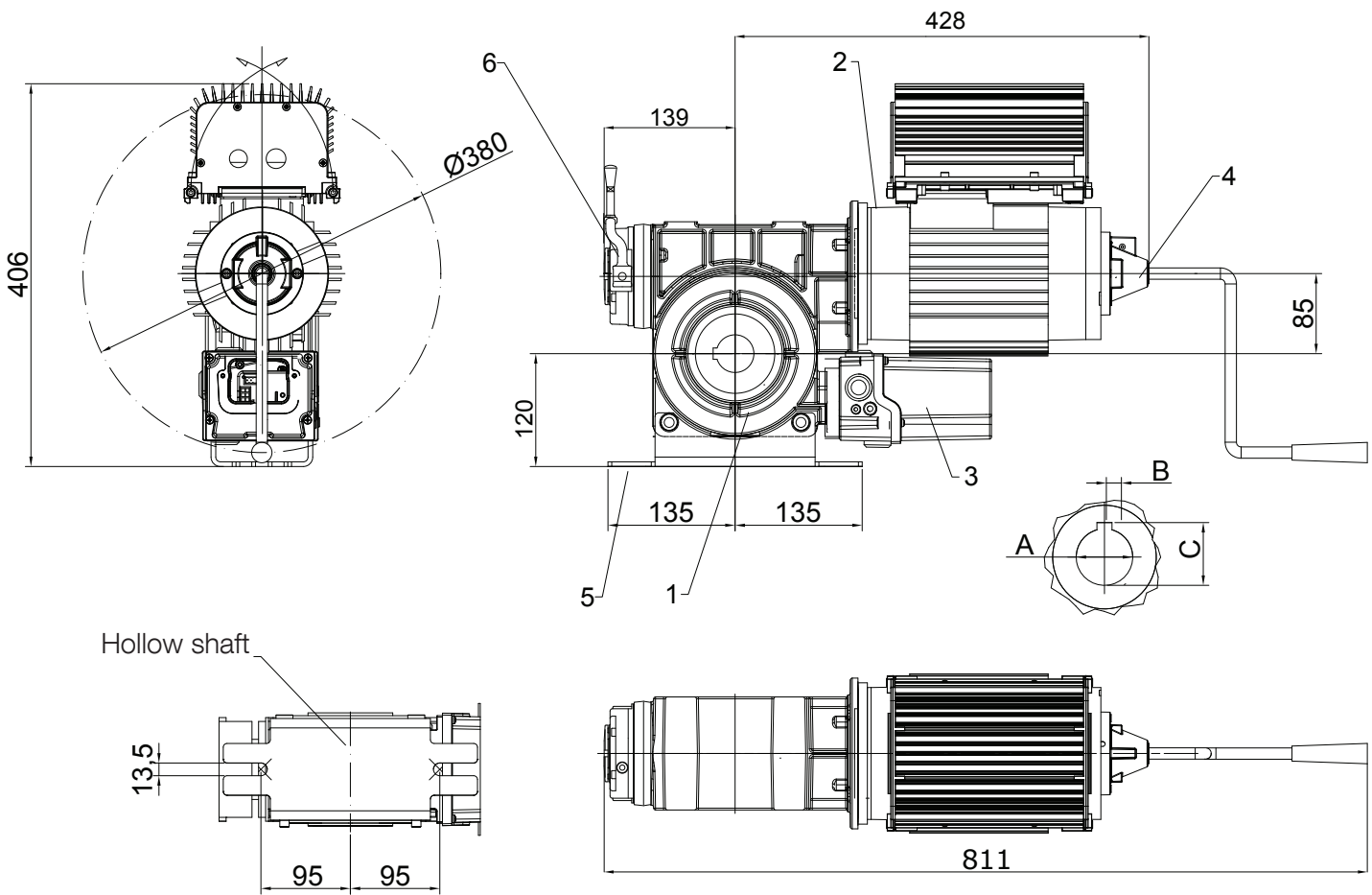
Product data sheet HDFI 100-120 / HDFI 220-60 / 280-40

Table 1

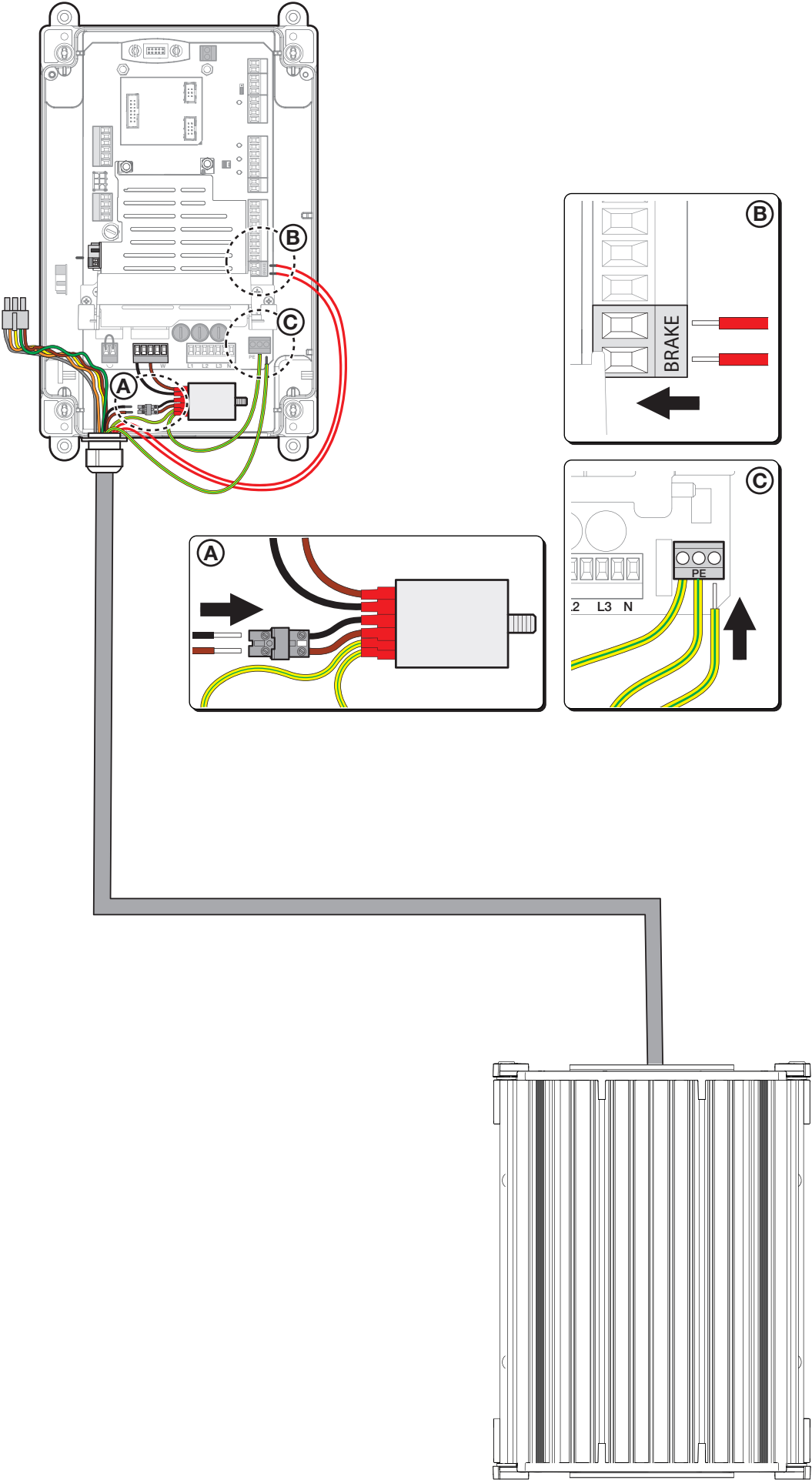
Description	Ø A	B	C
HDFI 100 -120	40	12	43,3
HDFI 220 - 60	40	12	43,3
HDFI 280 - 40	40	12	43,3

Table 2

N.	Description
1	Gear motor
2	Electric motor
3	End-of-travel housing
4	Emergency manual device
5	Wall-mounting unit
6	Brake



Connecting D-Pro Automatic and wall-mounted inverter.



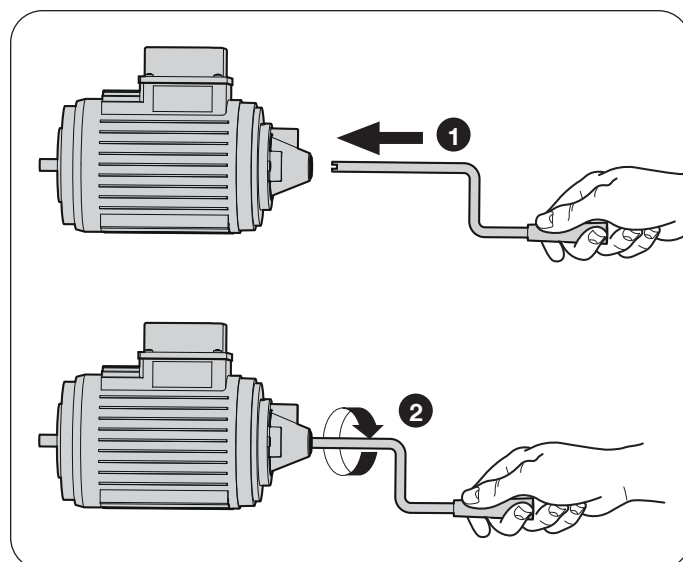
Procedure for using the product

- When using the automation for the first time it is important to be informed by the installer of any residual hazards and to take a few minutes to read this instruction manual: especially the general precautions (product instruction manual).
- It is important to keep this instruction manual (provided by the installer) for any future doubts and to pass it on to any new owners of the automation.
- Your automation is a machine that performs commands imparted by the user; improper use may constitute a hazard: never activate the automation if persons, animals or objects are present in the operating range.
- **Children:** automated systems are designed to guarantee high levels of safety and security. They are equipped with detection devices that prevent movement if people or objects are in the way, guaranteeing safe and reliable activation. However, children should not be allowed to play in the vicinity of the automation; keep all remote controls away from children: they are not toys!
- **System check:** check for any imbalance, signs of wear or damage.
- On a monthly basis, check that the gear motor inverts its motion when the door touches an object situated at a height of 50 mm from the ground.
- Do not use the automation if it requires repair or adjustment.
- **Faults:** if the automation displays anomalous behaviour, cut off the power to the system. Never attempt any repairs; contact your local installer for assistance.
- The final test, periodic maintenance and any repairs must be documented by the person who has performed them; these documents remain in the custody of the owner of the system.
- The only recommended maintenance operations that the user can perform periodically are the removal of leaves or debris that may impede the automation.
- **Disposal:** At the end of the automation's lifetime, ensure that it is disposed of by qualified personnel and that the materials are recycled or scrapped according to current regulations in your area for this product category.
- **Control with safety devices out of order:** if the fitted safety devices are not working correctly, the automation can still be controlled.
- **Important:** if the safety devices are out of order the automation must be repaired as soon as possible.
- **Warning:** transit is permitted only if the door is open and still.
- **Maintenance:** The automation must be subjected to maintenance work on an annual basis in order to guarantee long life.

⚠ WARNING! – Maintenance operations must be performed in strict compliance with the safety precautions provided in this manual and in accordance with applicable legislation and standards.

- The mechanism requires no maintenance and is equipped with permanent lubrication.
- **Fastenings:** Make sure that the fastening bolts are all in the correct position and in perfect condition. Maintenance operations on mechanically-operated doors and gates should only be carried out by qualified personnel with the necessary experience and skills.
- **Brake (if present):** The perfect operation of the brake should be checked during the annual check. In the event of the excessive wear of the brake lining, the entire brake should be replaced. Disconnect the power supply to the system before carrying out the replacement.

• Manually releasing and locking the gear motor



TRANSPORT / STORAGE / DISPOSAL

The gearmotor is totally assembled and wired, ready for the connection.

To avoid any damages it is to be transported, and if necessary stored, inside the packaging provided for this purpose or another that is similar with equal characteristics.

For disposal, it is necessary to separate

- metals
- plastic elements
- electrical components
- lubricants.

TECHNICAL ASSISTANCE / SPARE PARTS / ACCESSORIES

We specifically clarify that we neither carry out tests nor are we willing to approve any spare parts and/or accessories not supplied by us.

The assembly and/or the use of products of this type could therefore compromise any predefined characteristics at the construction design level, or reflect on safety.

NICE declines all liability and disclaims any warranty whatsoever for damages, if any, caused by non-original spare parts and/or accessories.

Defects that cannot be remedied internally are to be eliminated only by the Door manufacturer or another specialised Company, from which it is possible to also request any necessary spare parts.

EC Declaration of Conformity

and declaration of incorporation as “partly completed machinery”

The EC Declaration of Conformity can be downloaded from our website www.niceforyou.com