

ERA XL/XLH



Tubular motor

EN - Instructions and warnings for installation and use

IT - Istruzioni ed avvertenze per l'installazione e l'uso

FR - Instructions et avertissements pour l'installation et l'utilisation

ES - Instrucciones y advertencias para la instalación y el uso

DE - Installierungs- und Gebrauchsanleitungen und Hinweise

PL - Instrukcje i ostrzeżenia do instalacji i użytkowania

NL - Aanwijzingen en aanbevelingen voor installatie en gebruik

Nice

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1 SAFETY WARNINGS AND PRECAUTIONS

1.1 - Safety warnings

- **For the safety of persons it is important to follow these installation instructions!**
- **These instructions are intended for the fitter, the electrician and the user.**
- **Please pass on the installation instructions accordingly.**
- **Keep the installation instructions in a safe place!**

These installation instructions include important safety and warning instructions for the proper handling of the drive.

Following the installation instructions is the basic requirement for the safe operation of drives for roller shutters, rolling doors and awnings and for the achievement of various product characteristics and performance features.

The Manufacturer assumes no liability for personal injuries, property damages and financial losses that arise from non-observance of the installation instructions. Liability for material defects is excluded in such cases.

- **The assembler must check that the ambient temperature range stated on the drive is suitable for the installation site.**
- **Never install or take into operation devices which are damaged.**
- **Never hammer the drive as this will damage the bearings and housings.**
- **Use original parts only.**
- **If the drive is opened without permission or used in an improper manner, or if it is incorrectly installed or operated, there is a risk of damage to persons and property.**
- **Please note that with this drive (ERA XL tubular motors) the smallest internal tube diameter corresponds with 94 mm.**
- **The label on the tubular motors may only be covered after the installation.**

- **The drive contains small parts which can be swallowed.**

Risk of injury due to electrocution!

- The connections to the 230 V mains must be made by an electrician.
- Use only original parts.
- Before accessing the connection terminals all mains circuits must be switched off.
- When hooking up the equipment to its power supply, follow applicable utility company regulations and legislation relating to wet and humid environments.
- Check the system regularly for wear or damage to connection cable, fixing devices and safety equipment.
- When working on the system (servicing, cleaning), always separate it from the mains supply.

1.2 - Installation warnings

- All installation work must be carried out by an expert.
- The technician must be appropriately qualified.
- The place of installation must be cordoned off due to the danger of falling objects.
- Before the drive is installed, all cables, ropes, chains etc. that are not required and all facilities that are not needed for operation with a power drive are to be removed.
- When hooking up the equipment to its power supply, follow applicable utility company regulations.
- On the power line to the system, install a device for disconnection from the power mains with a gap between contacts that assures complete disconnection in the conditions of overvoltage category III.
- The drive must be installed at a height of at least 2.50 m above the floor or any other access height.
- If the motor's power cable is damaged, the motor itself must be replaced.
- When working on the system (servicing, cleaning windows etc.), always disconnect it from the mains supply.
- Mount the stationary control device within sight or mount the switch with off presetting of the driven part, and this away from moving parts and at a height of at least 1.5 m.
- The rated voltage, speed, torque and operating time must correspond to the characteristics of the driven part.
- Please check the ratings on the nameplate.

- The drive must be installed so that it is accessible and cannot get wet.
- Do not install drives in surroundings which are at risk of explosion or in mobile appliances (e.g. in vehicles).
- Maintain a distance of at least 0.4 m between moving parts and fixed objects.
- Note any country-specific regulations when installing the device.
- The drive may only be used by persons who have read and understood the operating instructions.

1.3 - Operation warnings

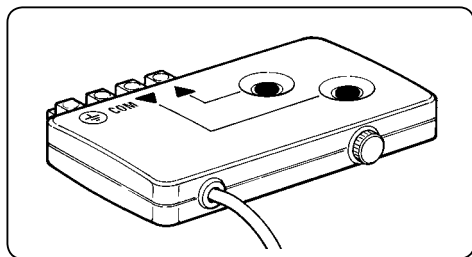
- Only use indoors (please observe the stated protection classes).
- Check the system (roller shutters, awnings and doors) regularly for wear or damage.
- In the case of automatic door systems: Check each month that the drive reverses when the door touches an obstacle with a height of 40 mm standing on the ground. Nobody may be within the range of movement of the door, since the door can start up unexpectedly.
- If one or more transmitters are used for controlling the system, its operating range must stay visible during operation.
- Keep people away from the system until it is at standstill.
- The product is not intended for use by persons, including children, with limited physical, sensory or mental capacities, or lacking experience or knowledge, unless supervised or trained in the use of the product by a person responsible for their safety.
- Ensure that there are no children or other persons within the door
- Observe the control documentation.

2 PRODUCT DESCRIPTION AND INTENDED USE

The product is a tubular motor for automating large-size awnings and shutters.

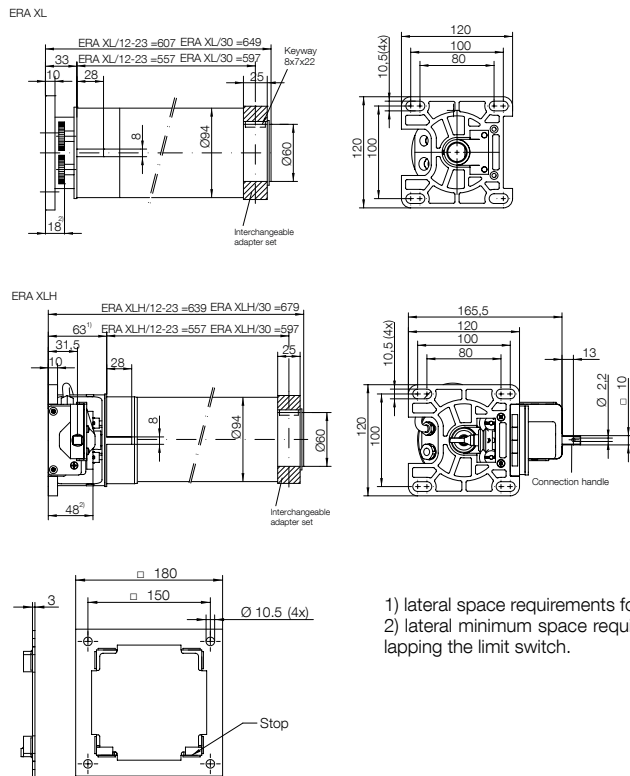
Any other use is strictly prohibited! The manufacturer declines all liability for damage resulting from improper use of the product and other than as specified in this manual.

During the installation and adjustment operations, the motor can be controlled by the "TTU" unit until the final electrical connections have been made.



3 PRODUCT INSTALLATION

3.1 - Mounting dimensions



Lifting capacity chart (kg) for one-piece roller shutters and rolling doors

Type	Rated torque	Shaft Ø	Nom. bar thickness	Rolling door / roller shutter height up to						
				2.0 m	2.5 m	3.0 m	3.5 m	4.0 m	4.5 m	5.0 m
	Nm	mm	mm	kg	kg	kg	kg	kg	kg	kg
120/12	120	100	14	182	175	168	160	155	149	143
		100	19	167	160	150	143	138	132	126
		100	23	157	151	140	132	127	122	116
		133	14	146	146	142	139	136	133	129
		133	19	143	138	133	130	125	121	117
		133	23	139	131	126	123	117	113	109
150/12	150	100	14	227	218	210	200	193	186	179
		100	19	209	200	188	179	172	165	158
		100	23	196	188	174	165	159	152	145
		133	14	182	182	178	174	171	166	161
		133	19	179	172	166	162	156	151	146
		133	23	173	164	158	154	146	141	137
180/12	180	100	14	272	262	251	240	232	223	215
		100	19	251	241	226	214	207	198	190
		100	23	236	226	209	198	191	183	223
		133	14	219	219	213	208	205	199	194
		133	19	215	206	199	194	188	181	176
		133	23	208	196	189	185	176	169	164
230/12	230	100	14	384	335	321	306	296	285	275
		100	19	320	307	288	274	264	253	242
		100	23	301	289	267	253	244	234	223
		133	14	279	279	273	266	261	254	247
		133	19	274	264	255	248	240	231	224
		133	23	265	251	242	236	224	216	203
300/12	300	100	14	454	436	419	400	386	372	358
		100	19	418	401	376	357	344	330	316
		100	23	393	377	349	330	318	305	291
		133	14	364	364	356	347	341	331	323
		133	19	358	344	332	324	313	301	293
		133	23	346	327	315	308	293	281	273

The stated figures refer to the complete roller shutter / rolling door in kg. 15% friction is taken into account. The friction can be higher due to additional door seals, wind loads etc. Carry out necessary corrections.

3.2 - Tubular motor installation

 **Caution!**

- The fitter has to check the solidity of the masonry etc. before installing the system.
- The fixing plates of the ERA XL and ERA XLH tubular motors are not oscillating and must be attached at right angles without tension to the fixing area.
- It is imperative to use the wall bracket plate item no. 537.10001 in case of unevenness.

3.2.1 - Installation in the winding shaft (round tube)

01. Cut a notch into the tube on the motor side.



Tube Ø (mm)	a (mm)	b (mm)
98 x 2	8,5	28
100 x 3	8,5	28
102 x 2	14,5	31
108 x 3,6	14,5	31

Tube Ø (mm)	a (mm)	b (mm)
133 x XX	8,5	28
159 x XX	12,5	26
168,3 x XX	12,5	26

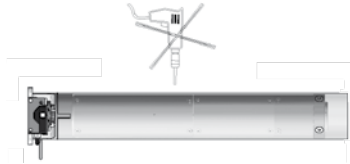
02. Place the drilling template around the tube according to the table of dimensions on page 6 and adhere it. Subsequently mark with a punch.
03. Drill using a 8.5 mm Ø drill bit, then make the recess for the countersink screw head.
04. Push the drive with matching drive adapter and limit switch crown into the tube, as well as the limit switch crown cam into the slot.



Do not knock or let the drive fall into the tube.



05. Screw the drive adapter to the tube (four M8 counter-sunk screws).
06. Mount the shaft; secure the motor and the idler/ counterpart support or the safety brake and the tube against axial shifting.
07. Connect the drive with the installation cable matching the core colours and allow the drive to run in the "Down" direction until the limit switch switches off. The installation cable is only suitable for installation work. See "Limit switch setting".
08. Attach the roller shutter to the shaft.



A - Do not drill in the area of the tubular motor!

3.2.2 - Installation in profile tubes

Push the drive with matching drive adapter and limit switch crown into the profile tube.

See points 6 to 8 of "Installation in round tubes" for further instructions.

4 ELECTRICAL CONNECTIONS

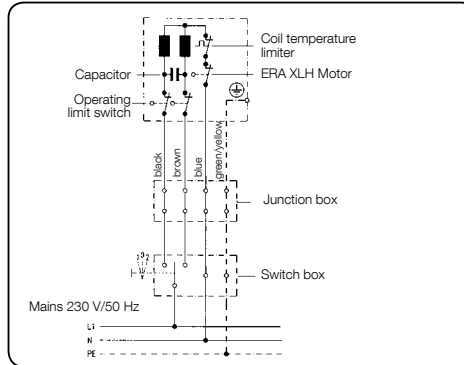
A Caution!

- It is not permitted to connect any further drives or consumers in parallel due to capacitor feedback voltage.
- Only connect a locked venetian blind switch or momentary contact switch or only mechanically or electrically locked switching devices.
- The drive must first be disconnected for at least 300 ms

before changing the direction.

- The drives are designed for short-time operation. The coil temperature limiter switches off once the time is exceeded.
- Disconnect the drive and the coil temperature limiter switches on again automatically after cooling down.
- The limit switches only function if the drive is built into the winding shaft and the shaft is secured against axial movement.

4.1 - Connection example

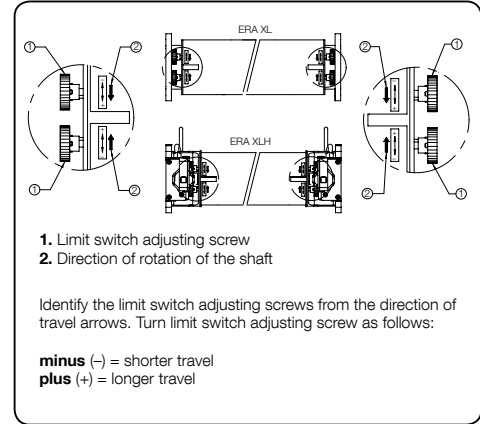


Notice - The drive has safe operating limit switches; hence, no additional emergency limiting device is required. Connection is via an interlocked push button.

5 LIMIT SWITCH ADJUSTMENT

5.1 - Limit switch setting

The operating limit switches are set at the factory to 8 revolutions of the shaft. If more than 8 revolutions of the shaft are necessary, proceed as described under "Use of the entire limit switch range".



5.2 - Setting of the "Up" direction

Allow the drive to run in the "Down" direction, attach the roller shutter to the shaft and run the drive in the "Up" direction. At the same time, turn the adjusting wheel "Up" in - (minus) direction until the drive stops. Maintain pressure on the "Up" button on the installation cable and turn the adjusting wheel "Up" in '+' (plus) direction until the desired limit position is reached. If the limit position is not reached, lower the roller shutter and repeat the procedure as described above.

5.3 - Setting of the "Down" direction

Switch on the drive in the "Down" direction and turn the adjusting wheel "Down" in '-' (minus) direction until the drive stops. Maintain pressure on the "Down" button on the installation cable and turn the adjusting wheel "Down" in '+' (plus) direction until the desired limit position is reached.

5.4 - Use of the entire limit switch range

If more than 8 revolutions of the shaft are necessary, the motor must be switched on in "Down" direction until the drive switches off. Maintain pressure on the "Down" button and turn the adjusting wheel "Down" in '+' (plus) direction until the drive has made approx. 2 revolutions.

5.5 - Functional testing of the end positions

Allow the drive to run to the 'up' and 'down' end positions again and check the end positions. Carry out a fine adjustment if necessary.

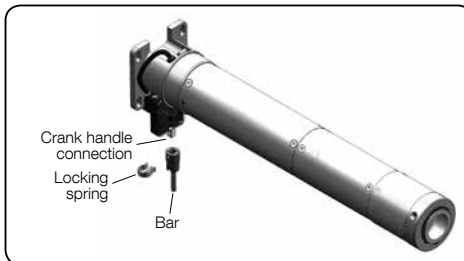
6 EMERGENCY MANUAL MANOEUVRE

- Switch off the circuit breaker (main switch) before manual operation.
- The manual operation is only needed for operating the door, awning, roller shutter etc. in an emergency, e.g. in the case of power failure.
- Operation of ERA XLH drives with a drill etc. is forbidden.
- Keep the crank handle in the immediate vicinity of the door so that it is easily accessible at all times.
- No more travel commands must be present or given.
- Manual operation may only be done with the motor stopped and switched off.
- Manual operation may only be done from a safe position.
- Keep people away during manual operation.
- Do not move the system beyond its end positions during manual operation.
- Make sure the shaft rotates freely when operating it manually.
- Mount the crank handle at a height of no more than 1.8 m.
- The crank handle must be mounted so that it is suitable for use at any time.
- Manual operation can only be done from a safe standing place and with the drive switched off.
- The crank handle connection must not be subjected to impacts.
- The crankshaft must turn freely.
- In roll-up systems, the shaft must not be subject to radial or axial forces, and must rotate freely.

6.1 - Assembly of the crank handle

- Connect the shaft to the crank handle connection.
- Secure it axially using the locking spring.

6 – English



6.2 - Using the crank handle


- The circuit breaker (mains switch) must be switched off before manual operation.
- Do not move the system beyond its end positions during manual operation.
- Open or close the shutter. The motor's limit switch is disabled.
- After manual operation, turn the crank handle back about $\frac{1}{4}$ of a turn to re-enable the motor's limit switch. The door can be operated electrically again.

Product disposal

This product is an integral part of the automation and therefore must be disposed together with the latter.


As in installation, also at the end of product lifetime, the disassembly and scrapping operations must be performed by qualified personnel.

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

 - some parts of the product may contain pollutant or hazardous substances which, if disposed of into the environment, may cause serious damage to the environment or physical health.

As indicated by the symbol alongside, disposal of this product in domestic waste is strictly prohibited. Separate the waste into categories 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.



 - Local legislation may envisage serious fines in the event of abusive disposal of this product.

What to do if... (troubleshooting guide)

Switch off the drive for cleaning and maintenance. After these checks, if the motor still does not move, contact a specialist technician or the Nice Assistance Service.

Fault	Cause	Remedy
Drive does not run	No voltage	Check the mains connection.
Mains connection is OK. Drive does not run.	Coil temperature limiter has switched off.	Disconnect; the coil temperature limiter switches on again automatically after cooling down.
Mains connection is OK. Drive does not run.	ERA XLH motor limit switch disabled.	Turn the crank handle approx. ¼ of a turn back; this re-enables the motor's limit switch.
Drive does not run in the specified direction.	Incorrect connection.	Swap over the black and brown wires.
End positions are incorrect.	End position exceeded in emergency operation.	Readjust the limit switches.
End positions are incorrect.	Winding shaft axially shifted and limit switch crown does not rotate with it.	Repair the system and secure against axial shifting.
Shutter runs diagonally.	Fixings or slats are damaged.	Repair the system.
Shutter does not run smoothly.	Shutter is scraping against an object. Guide rail damaged.	Repair the system.

Technical specifications

Nice reserves the right to apply modifications to the product at any time when deemed necessary, maintaining the same intended use and functionality.

Tipo		120/12	150/12	180/12	230/12	300/12
Nominal voltage	V	230				
Nominal frequency	Hz	50				
Nominal current	A	3,4	3,5	3,7	3,9	5,4
Nominal absorption	W	700	740	780	810	1250
Nominal torque	Nm	120	150	180	230	300
Protection class	IP	44				
Rated operating time S2	min.	6	6	6	4	4
Door cycles per hour*	$f_{\downarrow} h^{-1}$	6				
Minimum temperature	°C	-10°C				
Nominal speed	rpm	12				
Limit switch range	revolutions	12/optional 36				
Smallest tube inside Ø	mm	94				
Drive weight	approx. kg	13				14

* One door cycle consists of: 5 cycles OPEN - 30 s pause - CLOSE.

Other rated voltages on request..

Scope of supply

Drive version	ERA XL	ERA XLH
Circlip 60 x 2 DIN 471	•	•
Key 7 x 8 x 22 DIN 6885	•	•
Hex socket countersunk screw M8 x 16 DIN 7991	•	•
Drilling template	•	•
Installation instructions	•	•
Drive adapter set for winding shaft - optional	•	•
Optional crank handle	-	•

EC Declaration of conformity

Nice S.p.A. hereby declares that the products: **ERA XL** and **ERA XLH** comply with the essential requirements and other relevant provisions as established by the directives 2006/95/CE and 2004/108/CE (applicable only to products with on-board receiver).

The CE declaration of conformity can be consulted and printed out at the web site www.nice-service.com or may be requested from Nice S.p.A.

Ing. **Mauro Sordini**
(Chief Executive Officer)

