

### General

Application: Tubular drive for roller shutters and textile sun protection

Power supply: 230 V ~

Limit stop: Mechanical

Special feature: Noiseless soft brake (up to 20 Nm)

Shaft size: from Ø 50 mm

#### Standard scope of delivery

- 2 m plug-in connecting cable, assembly instructions

#### Accessories

- Adapter sets, motor bearing, control units

### Safety instructions



General safety instructions for use including installation of drives for roller shutters, awnings and textile sun protection can be found in the "Safety instructions" leaflet supplied with each drive. Please read the general safety instructions and this installation manual carefully as the procedure in this manual is a prerequisite for correct use of the product. Any intervention by unqualified personnel or failure to comply with warnings may lead to personal injuries or material damage. Figures included are for illustration purposes only. The illustrations may differ from your product with respect to minor details and are provided for general information only. **elero** GmbH continuously strives to improve all products. As a result, the specifications, features and technology of this product may be changed at any time. The information provided is based on current information at the time of publication. No claims can be derived from the technical data, images and information provided in this manual.

### Assembly

- Only connect the drive with the power turned off.
- Only insert the drive's plug with the power turned off.
- The drive is only capable of operation while installed.
- Never adjust the end position to a mechanical stop.
- The length of the winding shaft is determined for each specific installation depending on the drive head and motor bearing used at the installation site.
- Do not drill holes in the area of the tubular drive.

#### Installation in profile tubes

- Push drive with the suitable drive adapter and limit switch crown into the profile tube. Install the shaft with drive and counterpart support so that the limit switch setting mechanism is accessible.
- Secure the counterpart support to prevent axial movement (screw on the idler or rivet it on).
- Connect the drive to the **elero** assembly cable, matching up the core colours.
- Allow the drive to run in DOWN/CLOSED direction until the limit switch cuts out.
- Attach the blind to the shaft.

#### Installation in round tubes

- On the round tube, cut a slot in the end of the tube on the drive side.
- Push the drive in so that the lug of the drive engages in the slot.
- Screw in the drive adapter or rivet it.
- Allow the drive to run in DOWN/CLOSED direction until the limit switch cuts out.
- Attach the blind to the shaft.

### Adjusting aid for adjustment of the end positions



Article no. 13 109.6401

**NOTE:** For activation of the limit switch setting screws, use the setting tool or Phillips/hexagon socket tool. Never use an electric screwdriver!

### Adjustment of end positions



**Important:** The limit switch setting screws for the upper end position and lower end position are assigned depending on the parallelism of the rotating limit switch crown with the running direction arrow.

#### Upper end position

1. Allow the drive (without blind) to run fully in DOWN/CLOSED direction.
2. Attach the rolled-down blind to the shaft.
3. Push the **OPEN** button and keep this held down.
4. Using the setting tool, turn the limit switch setting screw in positive or negative direction until you reach your desired upper end position.

#### Lower end position

5. Push the **DOWN/CLOSED** button and keep this held down.
6. Using the setting tool, turn the DOWN limit switch setting screw in positive or negative direction until you reach your desired lower end position.

6 turns of one of the two limit switch setting screws corresponds to 1 turn of the winding shaft.

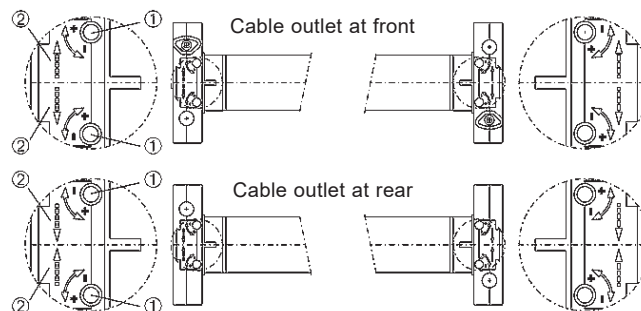
Turning the limit switch position setting screw from negative to positive causes the travel path of the blind to increase [positive (+) = greater travel path of blind].

#### Checking the end positions

Allow the drive to run into the relevant end position until the limit switch cuts out. The electric cut-out must take place before the blind has reached the end position of its mechanical travel path.

If the blind is constantly operated as far as its end position, there is a risk of damage to the drive and/or blind or even a danger it will be destroyed.

Take into account any possible changes to the length of the blind due to temperature fluctuations or weather influences. Allow for a safety margin.



### Emergency crank handle



#### Note:

Tubular drive versions with the additional code NHK are fitted with an emergency unlocking device.

The emergency unlocking device ensures that the blind can be opened or closed in case of an emergency. Examples of emergencies might be blackouts or a defect to the tubular drive.

The emergency unlocking device is not intended to be used on regular basis as otherwise the tubular drive may become damaged.

#### Emergency release of the tubular drive via the manual override/emergency crank handle

- Risk of crushing due to unexpected start-up of the tubular drive (e.g. due to restoration of electric current).
- Hands, loose items of clothing or long hair may become entrapped and crushed.
- Disconnect the tubular drive from the mains power prior to emergency unlocking.
- Attach the manual override/emergency crank handle to the tubular drive.
- Open or close the blind slowly by turning the manual override/emergency crank handle.
- Ensure that you do not go past the limit switches set.



# RevoLine VariEco M NHK

## Assembly instructions



### Electrical connection



#### Note:

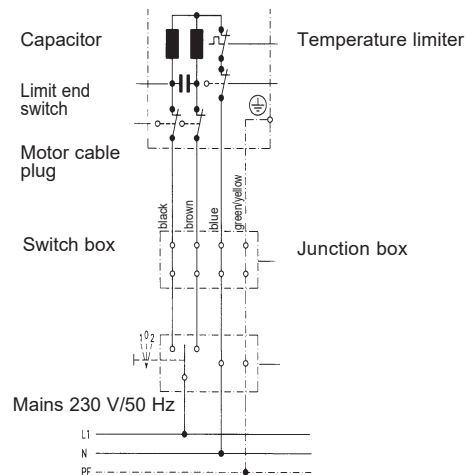
Due to feedback voltage from the installed capacitor, never connect several drives in parallel.

The motor controls in UP/DOWN direction must be interlocked with one another. A reversing delay of at least 0.5 sec. must be ensured.

### Technical data and dimensions

The technical data specified is subject to tolerance factors (according to applicable standards).

Size / Type	VariEco M20 NHK	VariEco M30 NHK	VariEco M40 NHK	VariEco M50 NHK
Rated voltage [V]	1 ~ 230	1 ~ 230	1 ~ 230	1 ~ 230
Noiseless soft brake	•	-	-	-
Rated torque [Nm]	20	30	40	50
Rated speed (rpm)	14	14	14	14
Rated current [A]	0.90	0.90	1.05	1.30
Rated power consumption [W]	200	200	242	300
Shaft diameter	50	50	50	50
Protection class (IP)	44	44	44	44
Limit switch range (revolutions)	40	40	40	40
Operating time (min S2)	4	4	5	4
Length C [mm]	687	651	545	707
Length D [mm]	670	634	528	690
Length E [mm]	26	26	26	26
Weight [kg]	2.2	2.5	2.7	3.1
Ambient operating temperature [°C]	-20 ... 60	-20 ... 60	-20 ... 60	-20 ... 60
Conformity	•	•	•	•
Protection class I	•	•	•	•
Plug-in connection cable [m]	2.0	2.0	2.0	2.0
Item number	348330001	348430001	348530001	348630001



### Notes on troubleshooting

Fault	Cause	Remedy
<ul style="list-style-type: none"> <li>The drive does not switch off in the end position via the limit switches</li> <li>Drive does not react</li> </ul>	<ul style="list-style-type: none"> <li>Limit switch crown is not being driven</li> </ul>	<ul style="list-style-type: none"> <li>Readjust installation and limit switches via the limit switch adjustment screws</li> <li>Set limit switch</li> </ul>
<ul style="list-style-type: none"> <li>Drive does not react</li> </ul>	<ul style="list-style-type: none"> <li>Incorrect connection</li> </ul>	<ul style="list-style-type: none"> <li>Readjust connection</li> </ul>

### EU Conformity



elero hereby declares that this product is in compliance with the essential requirements and other relevant provisions of European directives 2006/42/EG that are applicable in Europe. A declaration of conformity is available at the website [www.elero.com/downloads-service](http://www.elero.com/downloads-service). All illustrations are non-binding.

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### Service

If malfunctions have occurred or the device has been damaged despite proper handling, please contact your contractor or dealer.

