

Technical information and instructions

Rollex pallet motor roller model 850-89



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In this document all decimals are comma separated, thousands are separated by dots.

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1. Introduction

The **Rollex palette motor roller model 850-89** provides a quiet and space-saving drive concept that is used frequently in the logistics and packaging industry.

Using the pallet motor roller, transport weights up to 1.500 kg (depending on the variant) can be conveyed.

The **pallet motor roller model 850-89** is the ideal drive for zero pressure systems or during set-up of a one to two position roller conveyor.

The oil-free pallet motor roller is maintenance free and has a lifetime lubrication.

Advantages:

- Space-saving
- Quiet
- Simple installation
- Low clearance
- Maintenance free

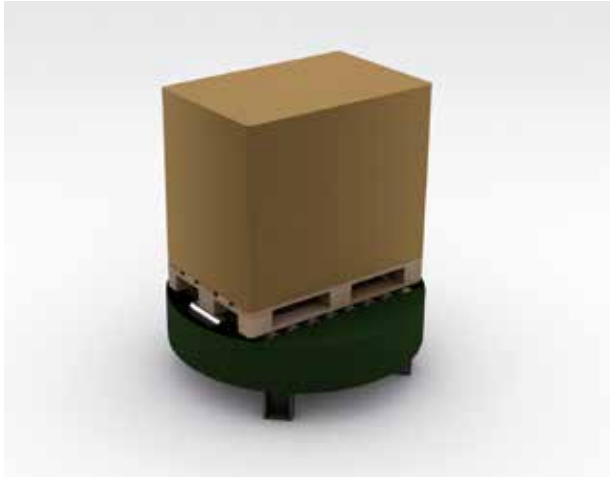
1.1 Function

The **pallet motor roller model 850-89** is driven by a high performance asynchronous motor. Force is transferred by a robust planetary drive onto the pipe or drive unit.

1.2 Use

The **pallet motor roller model 850-89** can be used as a drive in the following applications:

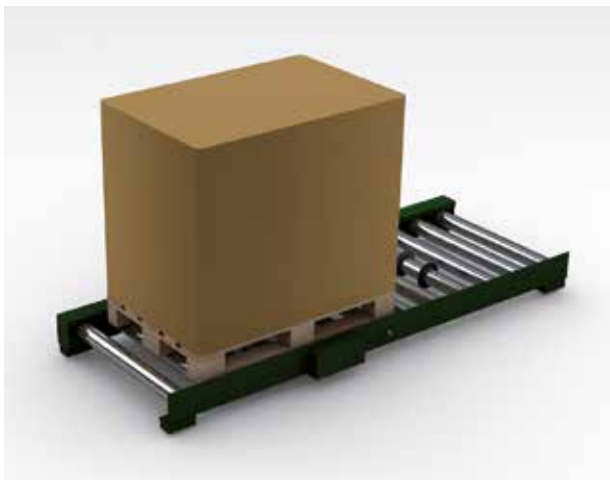
Pallet rotary plate corner transfer unit



Packaging machines



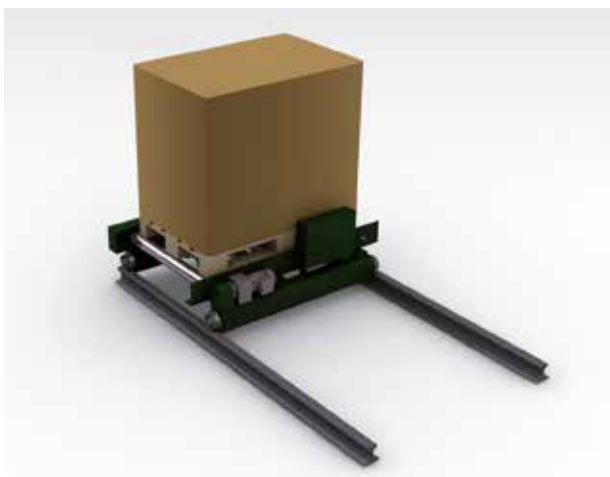
Floor tracks



Zero pressure systems



Mobile wagons

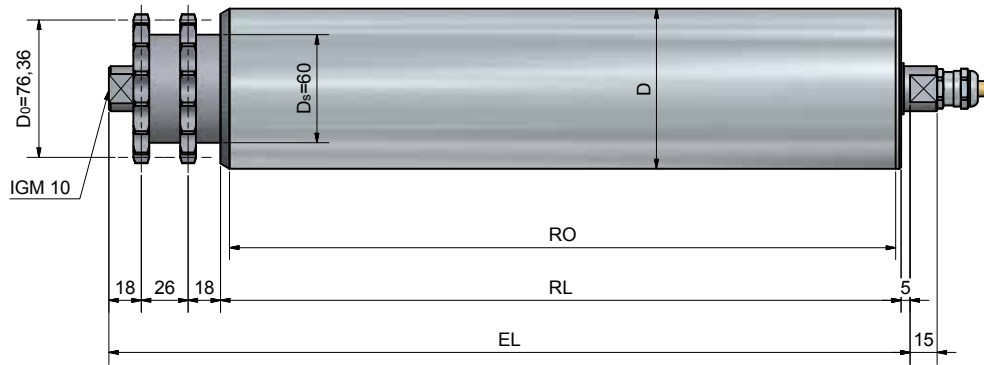


1.3 Technical data

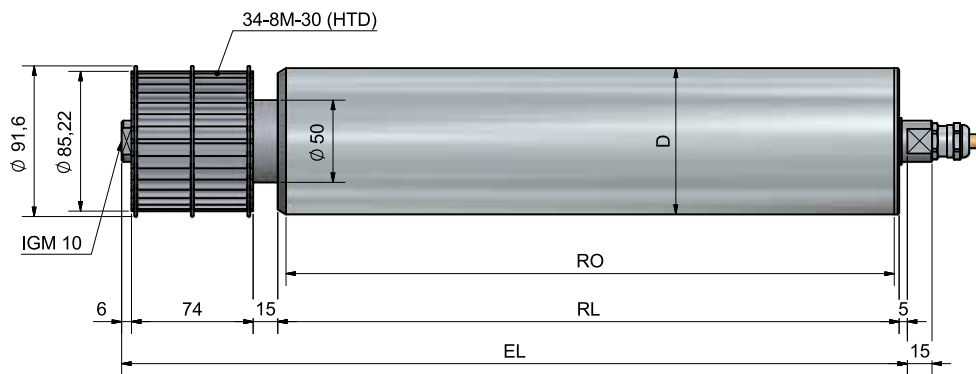
Variants	850V1	850V2
Speed	0,18 m/s	0,32 m/s
Power	0,12 kW	0,12 kW
Frequency	50 Hz	50 Hz
Voltage	230 V/400 V	230V/400 V
Nominal current	0,66 A/0,38 A	0,66 A/0,38 A
Nominal force*	650 N	400 N
Nominal torque	29 Nm	17 Nm
Start up torque	94 Nm	54 Nm
Nominal rotation speed	2.700 rpm	2.700 rpm
Drive levels	2	2
Drive translation	70:1	40:1
Number of poles	2	2
Insulation class	F	F
Protection class	IP52	IP52
Permitted loads	1.500 kg At 5 starts per minute (load 7s, pause 5s)	1.000 kg At 6 starts per minute (load 5s, pause 5s)
Load carrying capacity per roller	2.500 N	
Operating mode	S4 60%	
Minimum mounting length (without torque supports)	520 mm (with model 402ST) 580 mm (with timing chain model 510)	
Usage temperature range	0 °C to + 40 °C	
Thermal fuse:	Alternating current: 2,5 A max. Cable shield - bi-metallic switch (NC): Switch temperature 100°C Coil shield - bi-metallic switch (NC): Switch temperature 155 °C	

*Dependent on drive element

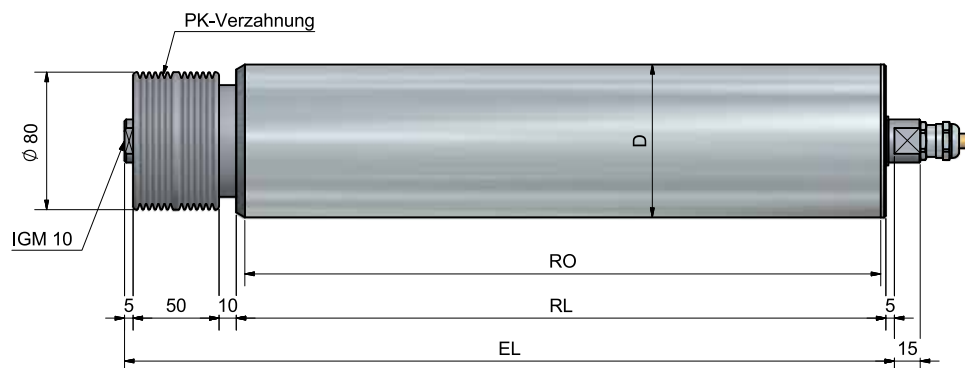
Technical drawing model 850 V_/510z15



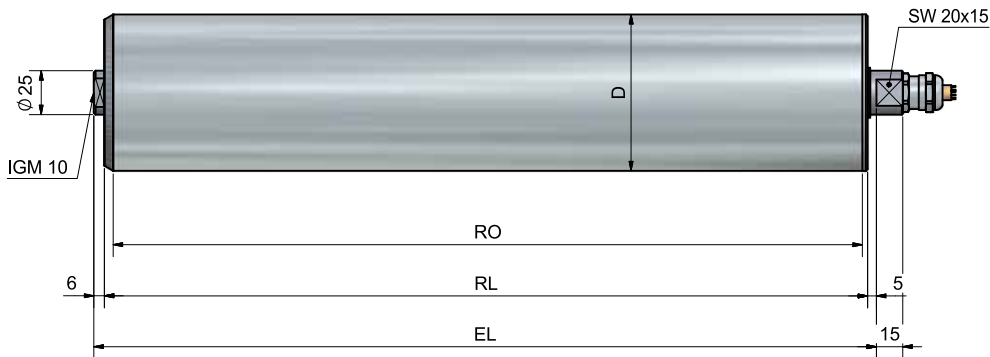
Technical drawing model 850 V_/534z34



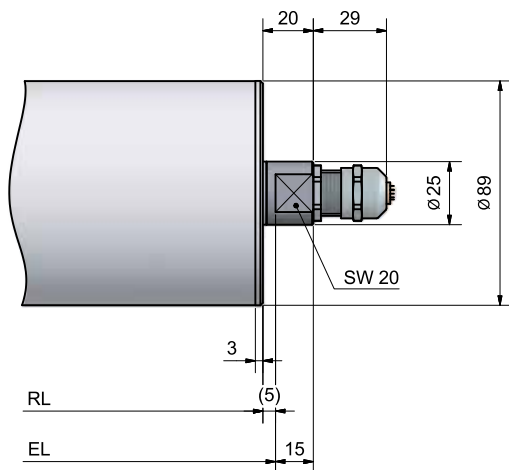
Technical drawing model 850 V_/539



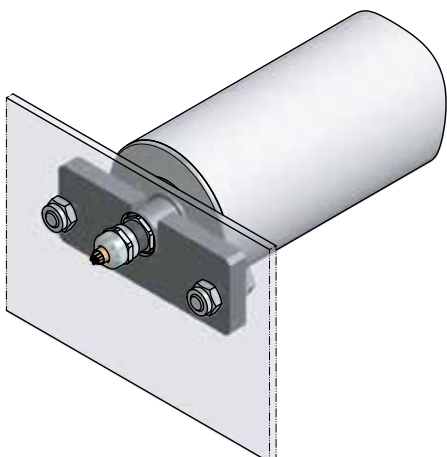
Technical drawing: Model 840 V_(402 ST)



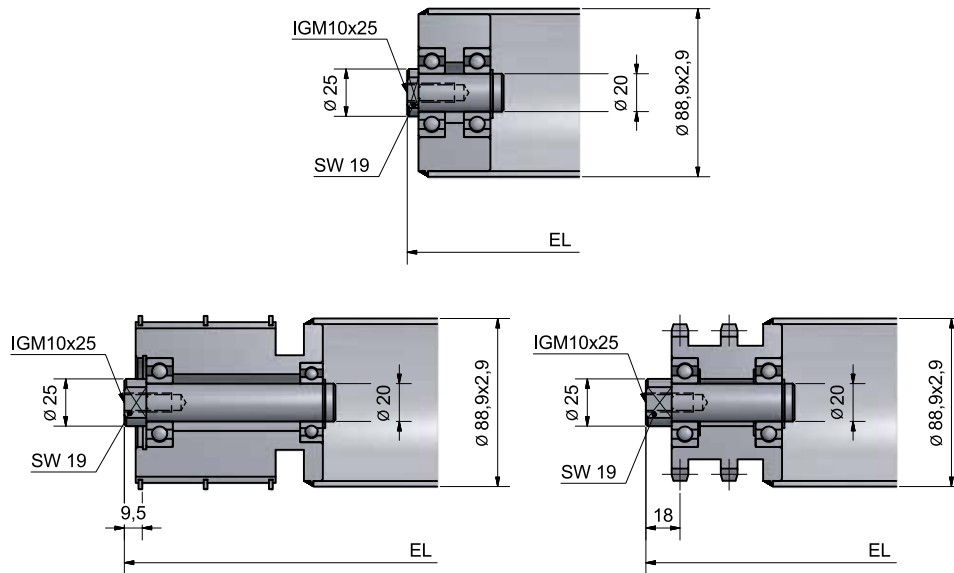
Axis design motor side



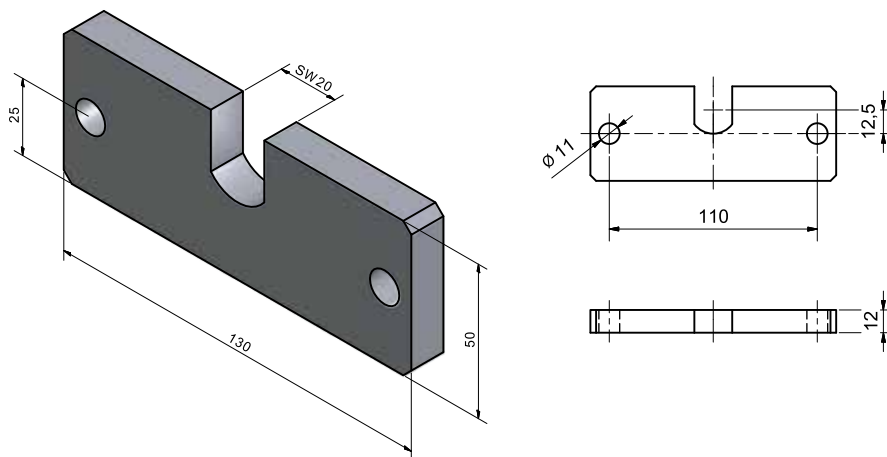
Integration with torque support



Axis design opposite side:

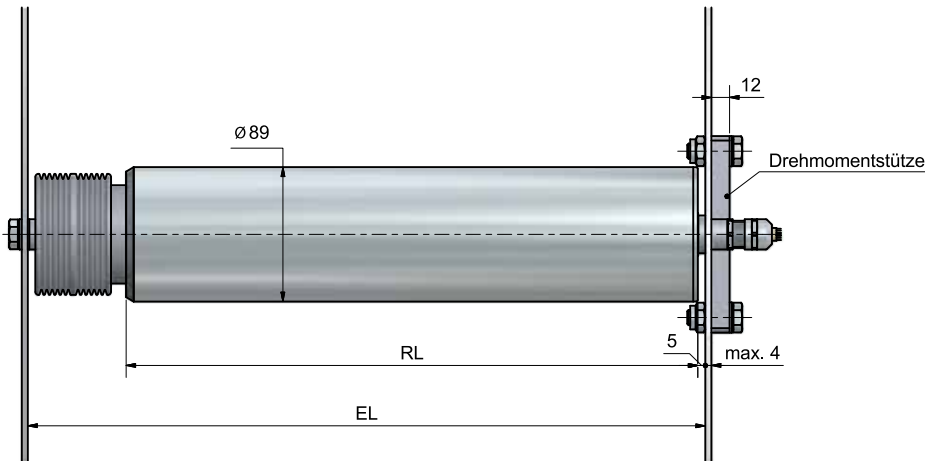


Torque support



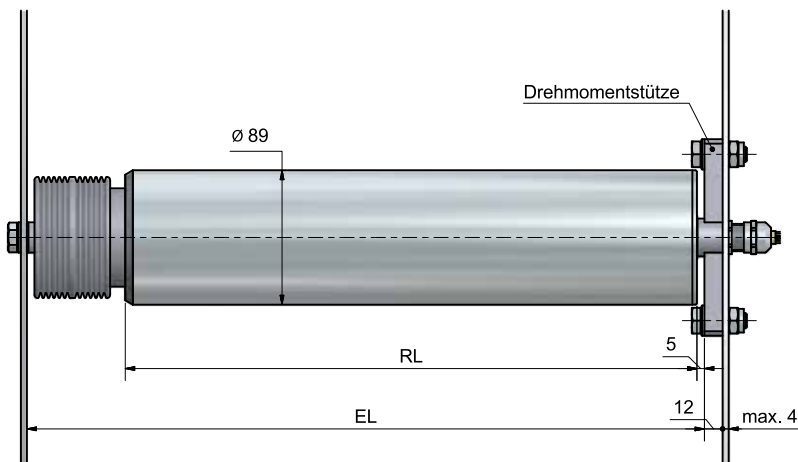
Torque support outside the frame profile

Information: Due to the torque support and the thickness of the frame profile, the mounting length EL of the pallet module frame to the other conveyor rollers may vary. For an externally mounted torque support the profile thickness may not be more than 4 mm.



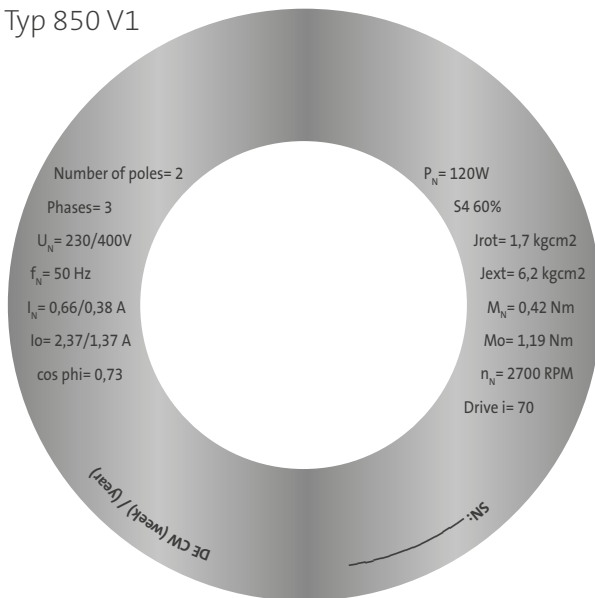
Torque support within the frame profile

Information: Due to the torque support, the mounting length EL of the pallet motor roller may vary compared to the other conveyor rollers.

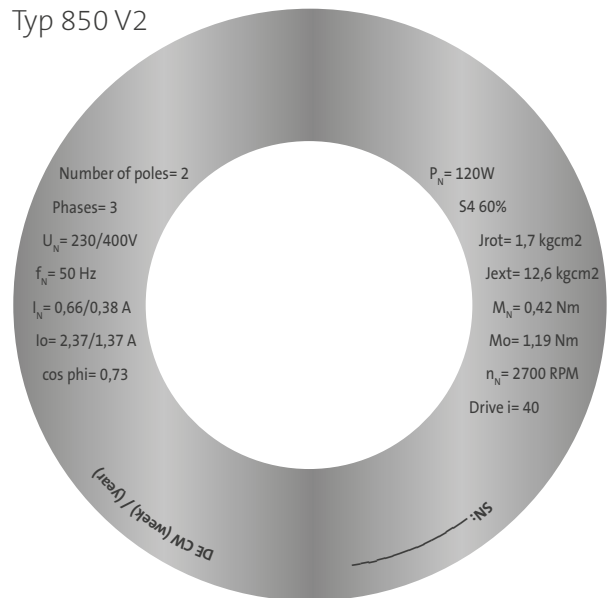


Model plate:

Typ 850 V1



Typ 850 V2



1.4 Safety information

This section contains important information and instructions about installation of the **pallet motor roller model 850-89**. Changes that are done after installation by Rollex are not included here.

Damage or operating errors resulting from failure to comply with the operating manual are not the liability of **Rollex Förderelemente GmbH & Co. KG**.

When integrating and operating the pallet motor roller comply with all general safety regulations and accident prevention measures. This not only includes wearing safety clothing and general behaviour during assembly work but also the following points:

- To prevent personnel injury, the pallet motor roller can only be put into operation by educated, authorised and trained specialists.
- Installations and also maintenance work may only be done on the pallet motor roller with the power disconnected. Unauthorised personnel may not stand near the system. Secure the drive against unintended activation during installation.
- Do not use the pallet motor roller in spaces at risk of explosion.
- Do not remove or open the pallet motor roller.
- Ensure that people are not standing in the hazardous area.
- Ensure that all safety devices have been properly installed.
- Ensure that connections and wiring meet all legal conditions.



Motor parts can be hot and may lead to burns on contact.

Caution of rotating parts (loose clothing, long hair, jewellery, etc.).

The pallet motor roller is only suitable for industrial use and may not be used for any purpose related to the conveying of people or for transport of bulk goods. The application case should be coordinated in advance with the sales department of **Rollex Förderelemente GmbH & Co KG**.

The pallet motor roller may only be operated within the technical performance limits listed above.

The pallet motor roller may not be used in wet areas or be placed under impact loads.

2. Commissioning

2.1 Assembly

The pallet motor roller can only be mounted horizontally into the conveyor.

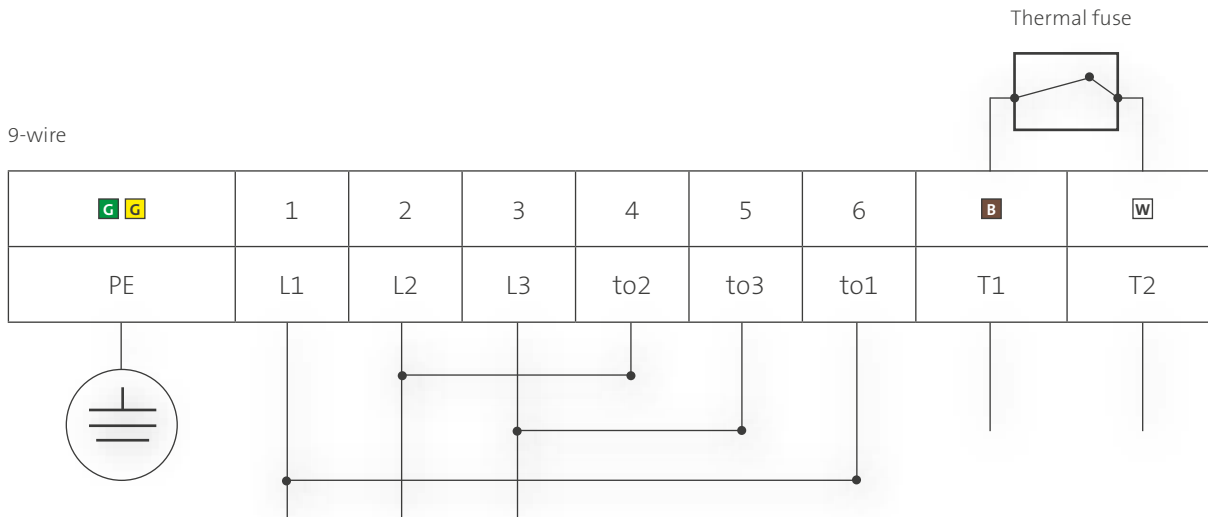
The following points should be considered:

- Before installation, check the motor and the cable for damage.
- The key area of the motor side must be mounted in the torque support.
- The pallet motor roller should be installed with its axis parallel to the other conveyor rollers.
- The pallet motor roller should not be integrated under tension.
- Tighten screws on the opposite side.
- Do not place cable under tension.
- Do not kink cable.

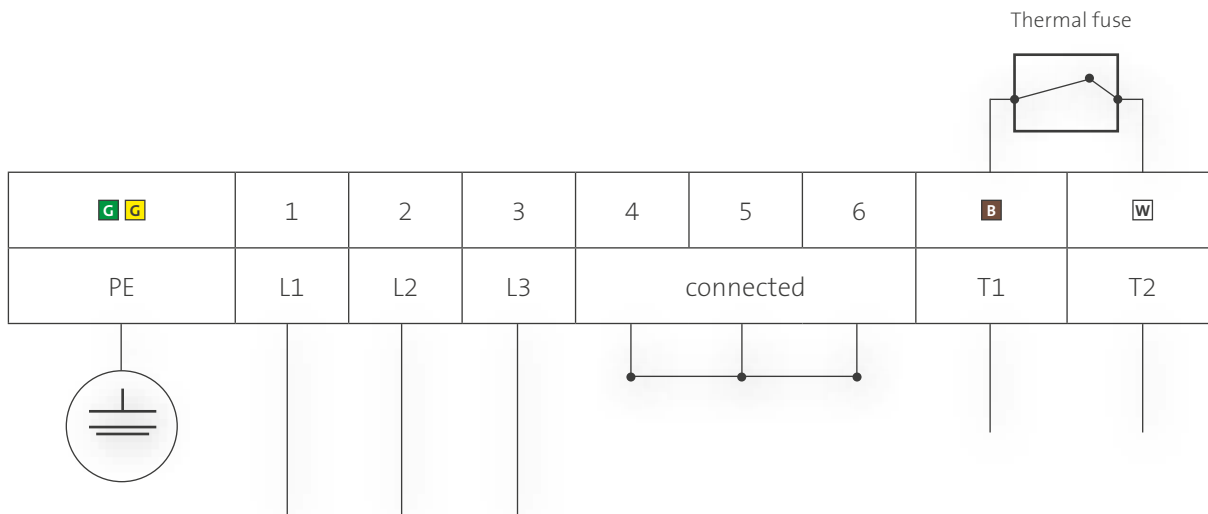
2.2 Installation

The pallet motor roller may only be wired in accordance with the following wiring diagrams:

Wiring diagram for delta connection



Wiring diagram for star connection



The electrical connection may only be done after disconnection from power. Please check whether the grounding cable has been correctly connected and the proper mains voltage is present.

During first commissioning check:

- The data of the pallet motor roller should match the contract data.
- Wiring according to wiring diagram
- Personnel may not stand in the hazardous area.
- The pallet motor roller should be freely movable and must not be in contact with an object.
- All screw fittings should be done properly.

Stop and secure against unintended activation when there is a drum motor error.
The error may only be corrected by specialists.

3. Other

3.1 Frequency converter

The **pallet motor roller model 850-89** is designed for both mains power operation as well as with a frequency converter.

The speed, and also the brake and acceleration ramps can be set via a frequency converter. Please observe any reduced performance of a motor when setting a braking ramp (braking momentum generated in the motor). Make sure that the load cycle is adjusted or the load reduced during this operation. This also applies for use in the so-called „87 Hz“ operating mode. Here, the cycles and load must absolutely be reduced.

Please note that the torque becomes lower at increased operating frequency.

The thermal switch of the pallet motor roller can also be connected to the converter to prevent thermal overload of the motor.

The cable is shielded and a cable screw fitting with EMC insert can be implemented (the shield is then in large area contact with the cable screw fitting).

3.2 Error handling

Motor does not start

- Check voltage
- Check connections
- Remove conveyed goods – possible motor overload
- Check whether the motor can turn freely

Motor switches off

- Thermal fuse switch
 - = Coil more than 155 °C
 - = Cable fuse more than 100 °C

Switch off motor and switch on again after cooling

Evaluate any overload (transport goods) or loads over max. values (conveying goods / cycle).

3.3 Transport

To ensure secure and seamless use, comply with the following points during transport of the pallet motor roller:

- Transport the pallet motor roller in such a way that damage is prevented.
- Prevent impacts and blows to the pallet motor roller.
- Report transport damage directly to the transport company as well as **Rollex Fördererlemente GmbH & Co. KG**.
- Prevent excessive temperature differences when transporting to prevent condensation and subsequent oxidation inside the motor rollers.

3.4 Storage

Store the pallet motor roller in a clean, dry and enclosed space. Ambient temperature should be between 10 and 30 °C. After storage check for damage.

3.5 Disposal

The operating company of the conveying unit is responsible for the disposal of the pallet motor roller in compliance with disposal regulations.

3.6 Order designation

Ordering example

Model	850V1/ 534 RS - 88,9x2,9 STI A25 SW20 IGM 12x20 EL=1.000mm
Drive model	850V1
Counter bearing / drive model	534 RS
Ball bearing seal	88,9x2,9
Pipe diameter and wall thickness	STI
Pipe quality	A25
Axis diameter	SW20
Axis end	IGM
Insertion length	12x20 EL=1.000mm

3.7 Guarantee exclusions

Rollex Förderelemente GmbH & Co. KG assumes the guarantee for delivered products in terms of the general terms and conditions.

Pallet motor rollers are excluded from this guarantee if the following points are present:

- Overload of the pallet motor roller
- Rotation of the pallet motor roller against an end stop or return flow barrier
- Pallet motor roller is operated in reverse mode without a stop
- Torque supports not available or mounted
- Insufficient motor protection
- Erroneously connected cabling
- Use conditions not contained in this manual
- Changes to pallet motor roller that are not cleared with **Rollex Förderelemente GmbH & Co. KG**
- Intentional damage, normal and natural wear and tear.

Your notes

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