

ROLLERDRIVE SERIES EC5000

ø 60 mm, cylindrical, IP54, for -30 to 0 °C



24V

Application area

Drive for unit handling conveyor systems, such as transporting containers, platens, (truck) tires or medium weight pallets in applications in deep freeze area. Suitable for straight conveyors and especially zero-pressure accumulation conveyors. Also usable in aligning conveyor segments or transfers or other "conveyor system branches".

48V

20W

35W

50W

AI

BI

Compact design

The motor integrated in the tube allows a very compact design of the conveyor system.

Very energy-efficient

The brushless drive features energy recovery when braking. The conveyor system can operate without pneumatics or conventional drives, which must be operated continually.

Flexible possible applications

RollerDrive is available in many variations, allowing it to be used in all types of different conveyor systems. For the user, this translates into a single interface instead of many. The electronic holding brake (Zero-Motion-Hold) holds conveying goods in position, even on gravity conveyors.

Low-noise

The use of decoupling elements achieves particularly low-noise running.

Maintenance-free and installation-friendly

The drive with internal commutation electronics does not require any maintenance. It features an overload protection that prevents damages due to overtemperature or blockage. It is connected securely without complex screw connection by using a motor cable with 5-pin snap-in plug.



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Technical data

Rated voltage	24 V	48 V
Power	50 W	50 W
Rated current	3.4 A	1.7 A
Starting current	7.5 A	3.8 A
Max. noise emission (installed)	55 dB (A), application-dependent	
Length of motor cable	500 mm	
Max. reference length	1500 mm	
Ambient temperature in operation	-30 to 0 °C	
Max. load capacity for each zone	5000 N	
Motor shaft	Stainless steel, 11 mm HEX, thread M12 x 1	
Anti-static version	Yes (< 10 ⁶ Ω)	
Tube wall thickness	2 mm	
Tube material	Zinc-plated steel, stainless steel	
Tube sleeving	PVC sleeve 2 mm	
Drive head material	Steel	

Maximum load capacity

The value refers to a two-dimensional loading of the tube. In case of one-dimensional loading, such as pallets, the loading of the RollerDrive is reduced. When transporting pallets, it must be noted that not all rollers are supporting the pallet. Further information can be found starting with page 104.

Maximum load capacity of a RollerDrive with welded steel PolyVee drive head or welded steel double sprocket head	1100 N
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Design versions

50 W

Gear ratio	Max. conveying speed [m/s]	Min. conveying speed [m/s]	Rated torque [Nm]	Acceleration torque [Nm]	Zero motion hold [Nm]
78:1	0.28	0.01	5.07	13.00	13.00
108:1	0.20	0.01	7.07	13.00	13.00

Before the run-in, the values may differ up to ±20 %. After a run-in phase, the values vary only in the range of ±10 % for 95 % of all RollerDrive used.

Dimensions

Ordering dimensions for tube sleeves starting at page 99

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RL = Reference length/ordering length
EL = Installation length, clear width between side profiles

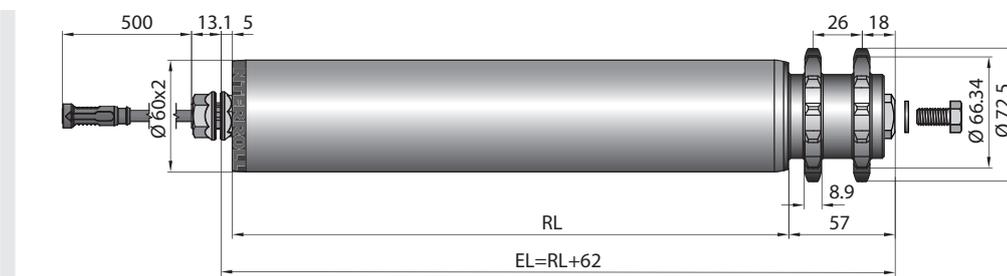
48V

The minimum reference length depends on the gear box variant and the drive or the bearing assembly. A sufficient axial play is already taken into account, so that the actual clear width between side profiles is required. A hexagon hole measuring at least 11.2 mm is recommended for fastening on the cable side. If the RollerDrive is inserted obliquely, the fastening hole must be designed larger accordingly. A drilled hole with a diameter of 8.5 mm should be planned for the opposite side.

20W

35W

Welded 5/8" steel double sprocket head with 13 teeth and M8 female thread



50W

AI

BI

Welded steel PolyVee drive head with M8 female thread

