

About ZHAOWEI



SUZHOU ZHAOWEI is a subsidiary of ZHAOWEI GROUP, which is committed to the field of intelligent transportation and distribution, and provides customers with cost-effective power roller units. SUZHOU ZHAOWEI focuses on the R & D, design, and production of the core drive components of Intelligent conveyor, with a fully independently-developed industry chain. ZHAOWEI's industrial power roller solution mainly serves in goods transportation of e-commerce, airports, pharmaceuticals, factories and other automation fields, to improve operational efficiency and reduce logistics costs.

ZHAOWEI GROUP is a micro-drive system solution provider integrating design, R&D and manufacturing. ZHAOWEI was

listed on the Shenzhen Stock Exchange in 2020. Its headquarter is located in the beautiful seaside city of Shenzhen, with subsidiaries and offices in Dongguan, Suzhou, Hong Kong, Germany, Shanghai, and the U.S.A. for a global strategic layout.

National Enterprise  
Technology Center

Individual Championship  
For National Manufacturing  
Industry

China Grand Awards for Industry  
Commendation Award

China Patent Award  
Outstanding Award

Quality and System Certification

- ZHAOWEI management system is the core part of company operation. All employees strictly comply with the ISO system from product design, development to production.
- We are committed to controlling risks and improving product reliability under harsh environmental conditions.
- Our mission is to provide innovative products that meet customer's needs.



Products Certification:



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No.180 Lvliangshan Road, Suzhou New Zone, Suzhou City, Jiangsu Province  
**Power Roller R&D and Production Base**  
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· Shenzhen · Dongguan · Suzhou · Shanghai · Hong Kong · Germany · USA



Magnetic Encoder Drive Controller (80W)



Feature

1. Speed Setting (Rotary switch code-15 gears, IO input-7 gears)
2. Rotation Direction Options(Rotary switchcode / IO Input)
3. Acceleration and Braking Ramp Adjustment
4. Switch between Digital to Analog
5. LED Light Status Indicator
6. Braking Resistor
7. RS485 Communication

IP54 Drive Controller (80W)



Feature

1. Speed Setting(DIP switch -15 gears, IO input-7 gears)
2. Rotation Direction Control (DIP switch / IO Input)
3. Acceleration and Braking Ramp Adjustment
4. LED Light Status Indicator
5. Braking Resistor

IP20 Drive Controller (255W)



Feature

1. Speed Setting(DIP switch-15 gears, IO Input-7 gears)
2. Rotation Direction Control (IO input)
3. Acceleration and Braking Ramp Adjustment(8-step DIP switch)
4. LED Light Status Indicator
5. Braking Resistor

IP20 Drive Controller (450W)



Feature

1. Speed Closed-Loop Control
2. 15-Step DIP Switch Speed Adjustment
3. Stepless Speed Control via 2-10V Analog Input
4. 4-Step Digital Speed Preset
5. 16-Step Accel/Decel Time Adjustment
6. T2-Wire Forward/Reverse Operation
7. Electronic Brake / Servo Brake
8. Dual LED Status Indicators
9. Fault Output Signal
10. PNP/NPN Switchable IO Inputs
11. 48V Power Supply(Withstands>60V)
12. RS485 Communication

Drive Controller-750W



Feature

1. Speed Closed-Loop Control
2. 15-Step DIP Switch Speed Adjustment
3. Stepless Speed Control via 2-10V AnalogInput
4. 4-Step Digital Speed Preset
5. 16-Step Accel / Decel Time Adjustment
6. T2-Wire Forward / Reverse Operation
7. Electronic Brake / Servo Brake
8. Dual LED Status Indicators
9. Fault Output Signal
10. PNP / NPN Switchable IO Inputs
11. RS485 Communication

1 Drive 4 (Internal Motor Control) ECT Bus Controller



Feature

1. Plug and use after replacement, no addressing or configuration required
2. LED light status indicator for all function
3. Integrated logic for zero-pressurea ccumulation conveyance
4. Configuration via PLC, PC tools (Currently developed models of power roller)
5. Built-in 100M Ethernet switch
6. Clamp voltage through braking chopper
7. Functional grounding connection of the shielding layer of the communication line
8. Reverse polarity protection for input and output voltage supply
9. Speed closed-loop Control



Stock Code  
003021

POWER ROLLER SERIES

Committed to the development of intelligent transportation and delivery, to become a global supplier of core drive components.



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## ZWG Power Roller Solution

ZHAOWEI launches the MDR product platform under the new brand name ZWG, which utilizes self-developed precision gearboxes, motors and high-performance controllers to bring customers stable and efficient the MDR solutions.

Moreover, ZWG integrates R&D, design, manufacturing and sales to efficiently solve customers' diversified conveying needs.



### High-Load Conveying

ZWG Products adopt self-developed tensioning sleeve

- 50mm Metal Tensioning Structure>150N.m
- 60mm Metal Tensioning Structure>180N.m
- 76/80/89mm Metal Tensioning Structure>300N.m

Chinese Utility Model Patent Number: ZL2023202977237

### Installation and Control

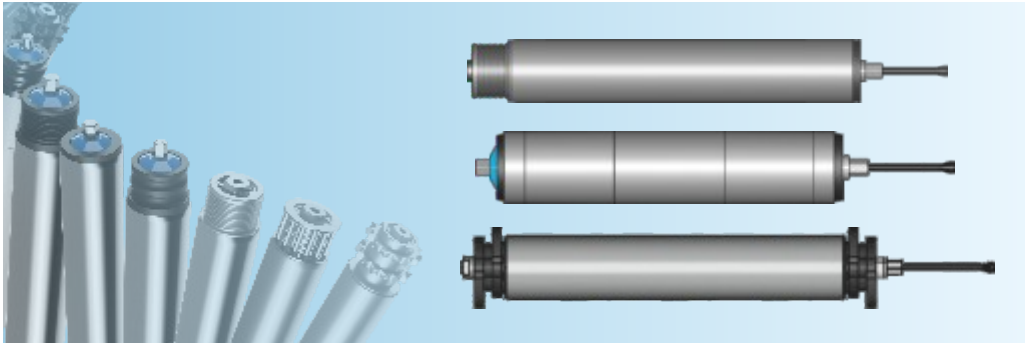
- Diversity and flexibility, widely compatible with common conveyor lines.
- All-in-one integration. Easy to assemble & disassemble.

### High-efficiency Conveying

- Inner gear parts of the gear box are processed by high-precision technology, and the unipolar efficiency reaches more than 97%.
- Product efficiency is achieved at a leading global level.
- More power options: 35W-750W
- Motor design life improved: from 20K+hours to 30K+ hours.

## Power Roller Series

### 50 mm Power Roller



The Φ50mm power roller is designed for case-handling conveyor machinery, such as cardboard boxes, totes, pallets, or tires. It is also suitable for zero-pressure accumulation conveyors.

Crowned Drum Power Roller can effectively mitigate belt misalignment (tracking issues), resulting in a more flexible conveyor system.

Power Roller-Right Angle Transfer is capable of rotating 90° in a single stroke with precision. Efficient connection between different conveyor lines is realized.

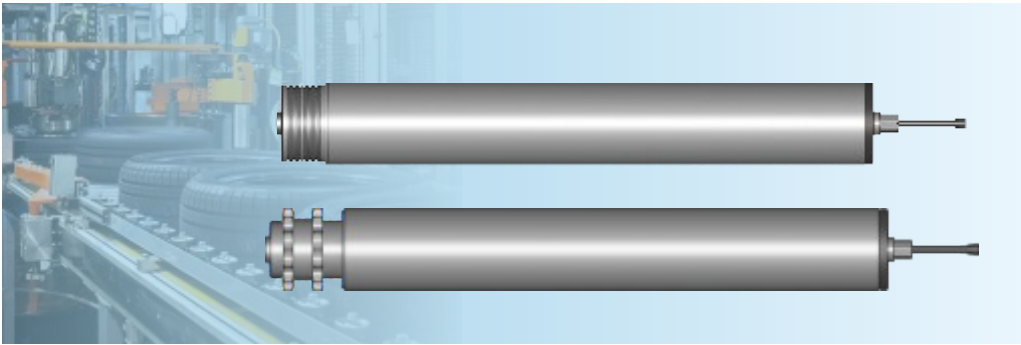
### Feature



### Basic Parameters

Rated Voltage	24V			48V		
Rated Current (A)	2.2	3.1	4.5	1.1	1.5	2.3
Start-up Current (A)	5.5	7.8	11.3	2.8	3.8	5.8
Rated Power (W)	35	50	80	35	50	80
Maximum Noise	50 dB					
Cable Length	Hall Power Roller: 1m (extendable by 1m) Magnetic Encoder Power Roller: 0.5m standard (extendable by 2m)					
Protection Class	IP54 / IP66					
Tube Material	Galvanized Steel, Stainless Steel					
Tube Dimension	50 mm diameter, 1.5 mm thick					
Axis	11 mm HEX, Thread M12 x 1, double D					
Temperature	-40°C to +55°C					

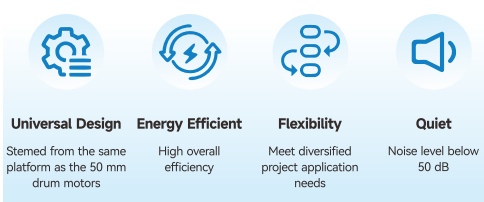
### 60 mm Power Roller



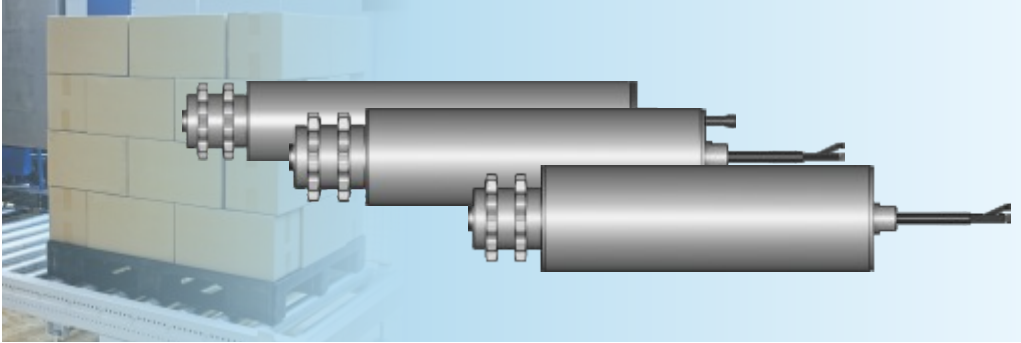
### Basic Parameters

Rated Voltage	24V			48V		
Rated Current (A)	2.2	3.1	4.5	1.1	1.5	2.3
Start-up Current (A)	5.5	7.8	11.3	2.8	3.8	5.8
Rated Power (W)	35	50	80	35	50	80
Maximum Noise	50 dB					
Cable Length	Hall Power Roller: 1m (extendable by 1m) Magnetic Encoder Power Roller: 0.5m standard (extendable by 2m)					
Protection Class	IP54 / IP66					
Tube Material	Galvanized Steel, Stainless Steel					
Tube Dimension	60 mm diameter, 2 mm thick					
Axis	11 mm HEX, Thread M12 x 1, double D					
Temperature	-40°C to +55°C					

### Feature

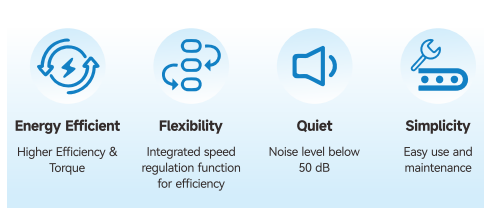


### 76 mm/ 80 mm/ 89 mm Heavy-duty Power Roller



Adopts a 48 V BLDC motor with high performance gearbox, featuring higher efficiency and torque. Flexible application for pallet conveyor, achieving a maximum carrying capacity up to 1500 kg. Integrated design for more efficient space utilization.

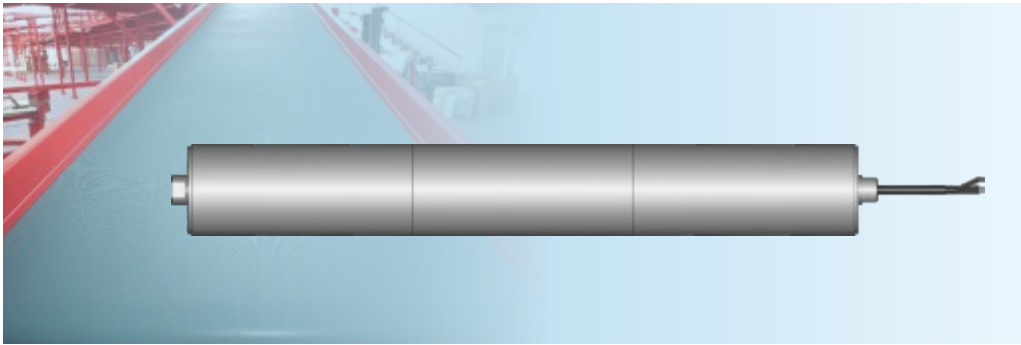
### Feature



### Basic Parameters

Rated Voltage	48 V		
Rated Current (A)	7		
Start-up Current (A)	15		
Rated Power (W)	255		
Maximum Noise	55 dB		
Cable Length	1 m		
Protection Class	IP54 / IP66		
Tube Material	Galvanized Steel, Stainless Steel, Carbon Steel Chrome Plated		
Tube Dimension	Φ76x3mm	Φ80x3mm	Φ89x3mm
Axis	Double D (Φ25 x 20)		
Temperature	-40°C to +55°C		

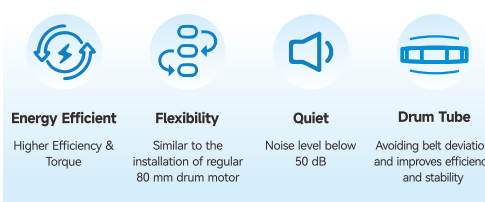
### 80 mm Drum Motor



The 80 mm Drum Motor (for conveyor turnings) utilizes a drum-shaped outer tube to avoid belt deviation and improve efficiency and stability.

For belt conveyor lines with irregular cargo size, especially for bulk goods, it can be combined with traditional roller lines for more flexibility.

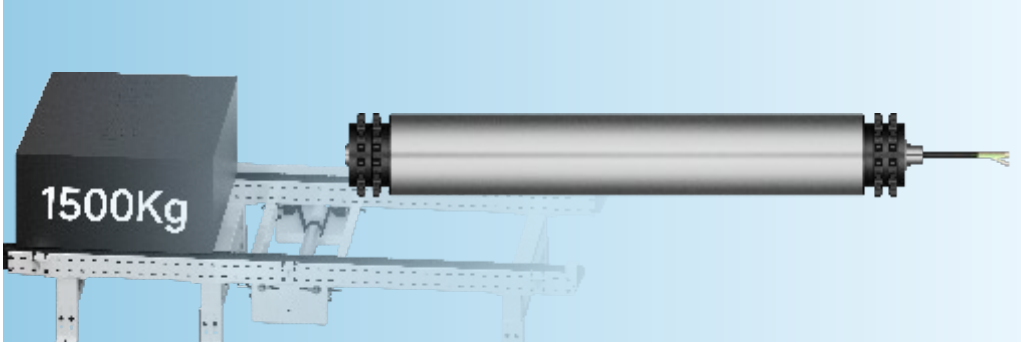
### Feature



### Basic Parameters

Rated Voltage	48 V	
Rated Current (A)	7	
Start-up Current (A)	15	
Rated Power (W)	225	
Maximum Noise	55 dB	
Cable Length	1 m	
Protection Class	IP54 / IP66	
Tube Material	Galvanized Steel, Stainless Steel, Carbon Steel Chrome Plated	
Tube Dimension	80 mm diameter, 3.75 mm thick	
Axis	Double D (Φ25 x 20)	
Temperature	-40°C to +55°C	

### Power Roller-Driving Chain Machine



Double sprocket structure design at both ends, with the use of chain machine, suitable for pallet conveying, can realize heavy-duty cargo conveyance.

### 性能优势



### Basic Parameters

Rated Voltage	48 V		
Rated Current (A)	12		
Start-up Current (A)	25		
Rated Power (W)	450		
Maximum Noise	55 dB		
Cable Length	1m		
Protection Class	IP66		
Tube Material	Galvanized Steel, Stainless Steel		
Tube Dimension	Φ76x3mm	Φ80x3mm	Φ89x3mm
Axis	Φ25*20mm(Cable Outlet End)、M12 Thread(Drive End)		
Temperature	-40°C to +55°C		

## ZWG PR - Drive Controller Series

### Hall Controller: Mini Controller



### Feature

1. Closed-loop speed control
2. 15-level DIP switch speed setting
3. 4-level digital speed adjustment
4. 8-step acceleration/deceleration time setting
5. Bi-directional operation (2-wire forward / reverse)
6. Servo brake function
7. Dual-LED status indication
8. Fault output functionality
9. IO input control (PNP)
10. Signal common terminal grounded with power supply

### Hall Controller: 35W/50W/80W/120W



### Feature

1. Speed Closed-Loop Control
2. 15-Speed DIP Switch Adjustment
3. Stepless Speed Control (2-10VAnalogInput)
4. 4-Step Digital Speed Preset
5. 16-StepAccel/Decel Time Adjustment
6. 2-Wire Forward/Reverse Operation
7. Sensorless Operation Support
8. Electronic Brake / Servo Brake
9. Dual LED Status Indicators
10. Fault Signal Output
11. Built-In Braking Resistor (Zero-Pressure Release)
12. PNP/NPN Switchable IO Inputs
13. 24V/48VQuick Voltage Switching

### Hall Controller: ZPA Accumulation Controller



### Feature

1. Closed-loop speed control
2. 15-level DIP switch speed setting
3. 2-10V analog voltage stepless speed regulation
4. 4-level digital speed adjustment
5. 16-step acceleration/deceleration time setting
6. Bi-directional operation (2-wire forward/reverse)
7. Dual-LED status indication
8. Fault output functionality
9. IO input control, PNP/NPN switchable
10. 24V / 48V quick switching
11. Built-in ZPA logic (ZA/ZP functions)
12. Integrated timer and counter functions