

SENERGY®

Senergy & Senergy-Ai

The new marketplace standard. Pulseroller Senergy motor rollers have become the performance and reliability standard for the motorized roller conveyor industry. Coupled with Pulseroller's innovative and flexible controllers, Senergy solutions will provide reliable results for the most challenging material handling needs.

Senergy. Pulseroller's original motor roller was designed with a **9-Pin JST** style connector, the most common in the conveyor market. Its robust and unique gearbox design significantly improves life expectancy. Provides a wide range of speed and power and utilizes a safe and effective 24V power supply.

Senergy-Ai. Pulseroller's patented **Ai technology** has all the same benefits as Senergy, but Senergy-Ai provides intelligence inside the motor to allow precision commutation as well as the controller access to the roller specific data and usage. All of this functionality is achieved with simple yet proven and robust **4-Pin M8** style connectivity.

BENEFITS

- Reliable conveyor operation
- Increased throughput
- Precise positioning
- Excellent longevity
- Remote visibility and diagnostics

FEATURES

- Brushless 24V DC motor
- External motor controller
- High overload capacity
- High starting torque
- IP54/66/69K



SENERGY® / Senergy-Ai – proven material handling solutions



Performance Data - Senergy/Senergy-Ai 24V

Models **A, B, W, V, Q, and Z**

48.6 mm Dia.

ECO Mode

Speed Code	Gear Box Stages	Gear Ratio	Speed Range m/s ft/min		Torque N-m in-lbs	
			Min	Max	Rated	Starting
10	3	605/9	0.02 ~ 0.22 3.9 ~ 43.3	4.4 ~ 24.4 39.3 ~ 216.0		
15		45	0.03 ~ 0.33 6.6 ~ 64.6	2.9 ~ 16.3 25.7 ~ 144.3		
20		33	0.05 ~ 0.45 8.9 ~ 88.3	2.1 ~ 12.0 18.6 ~ 106.2		
25		27	0.06 ~ 0.55 10.8 ~ 107.6	1.7 ~ 9.8 15.0 ~ 86.7		
35		55/3	0.08 ~ 0.81 15.7 ~ 159.1	1.3 ~ 6.6 11.1 ~ 58.4		
45	2	15	0.10 ~ 0.99 19.4 ~ 193.9	0.9 ~ 5.4 8.0 ~ 47.8		
60		11	0.13 ~ 1.35 26.2 ~ 265.1	0.7 ~ 4.0 6.2 ~ 35.4		
75		9	0.16 ~ 1.64 32.2 ~ 323.2	0.5 ~ 3.2 4.4 ~ 28.3		
95	1	75/11	0.22 ~ 2.17 42.3 ~ 426.8	0.4 ~ 2.4 3.5 ~ 21.2		
125		5	0.29 ~ 2.96 57.7 ~ 582.0	0.3 ~ 1.8 2.7 ~ 15.9		
175		11/3	0.40 ~ 4.04 78.7 ~ 794.9	0.2 ~ 1.3 1.8 ~ 11.5		
215		3	0.49 ~ 4.93 96.1 ~ 969.8	0.1 ~ 1.0 0.9 ~ 8.9		

Rated Current	Starting Current
2.5A	3.0A

Performance Data - Senergy/Senergy-Ai 24V

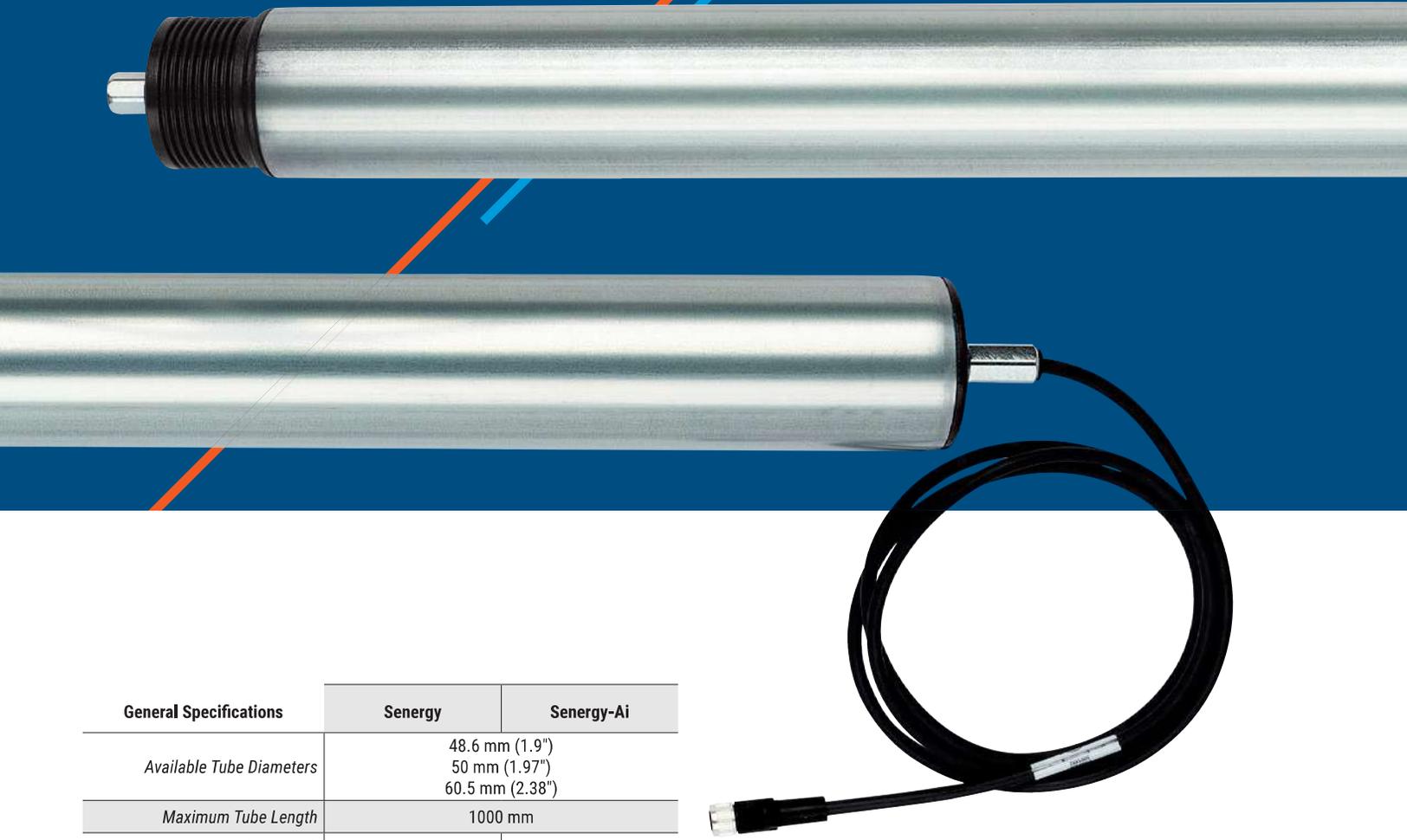
Models **A, B, W, V, Q, and Z**

48.6 mm Dia.

BOOST & BOOST 8 Mode

Speed Code	Gear Box Stages	Gear Ratio	Speed Range m/s ft/min		Torque N-m in-lbs	BOOST Starting	BOOST-8 Starting
			Min	Max			
10	3	605/9	0.02 ~ 0.16 3.9 ~ 31.5	8.1 ~ 36.3 71.4 ~ 321.3			
15		45	0.03 ~ 0.24 6.6 ~ 46.9	5.4 ~ 24.3 47.8 ~ 188.5			
20		33	0.05 ~ 0.33 8.9 ~ 64.0	3.9 ~ 17.7 34.5 ~ 156.6			
25		27	0.06 ~ 0.40 10.8 ~ 78.1	3.2 ~ 14.5 28.3 ~ 128.3			
35		55/3	0.08 ~ 0.58 15.7 ~ 114.8	2.1 ~ 9.8 18.6 ~ 86.7			
45	2	15	0.10 ~ 0.71 19.4 ~ 140.4	1.8 ~ 8.1 15.9 ~ 71.7			
60		11	0.13 ~ 0.97 26.2 ~ 191.6	1.3 ~ 5.9 11.5 ~ 52.2			
75		9	0.16 ~ 1.19 32.2 ~ 233.9	1.0 ~ 4.8 8.9 ~ 42.5			
95	1	75/11	0.22 ~ 1.57 42.3 ~ 308.7	0.8 ~ 3.6 7.1 ~ 28.3			
125		5	0.29 ~ 2.14 57.7 ~ 420.9	0.6 ~ 2.7 5.3 ~ 20.4			
175		11/3	0.40 ~ 2.92 78.7 ~ 574.8	0.4 ~ 1.9 3.5 ~ 16.8			
215		3	0.49 ~ 3.56 96.1 ~ 701.4	0.3 ~ 1.6 2.7 ~ 14.2			

Rated Current	BOOST Starting Current	BOOST-8 Starting Current
3.5A	5.0A	8.0A



4-Pin M8 Connector

General Specifications	Senergy	Senergy-Ai
Available Tube Diameters	48.6 mm (1.9") 50 mm (1.97") 60.5 mm (2.38")	
Maximum Tube Length	1000 mm	
Motor Cable Length	600 mm	1000 mm
Motor Controller Connection	9 Pin JST	4 Pin M8
Washdown Model Available	Yes	
Freezer Rated Model Available	Yes	
Mechanical Brake Option	Yes	No
Ambient Temperature	-10 ~ 40°C (14 ~ 104°F) (No Condensation)	
Ambient Humidity	10 ~ 90% RH (No Condensation)	
Certifications	CE, UKCA, IP54 UL Recognized to UL 1004-1 ETL Listed to UL 1004-1 & UL 1004-6	
Input Voltage	24 VDC	
Nominal Power Output	40W (50W in Boost Mode)	
Rated Current	2.5A (3.5A in Boost Mode)	
Starting Current	5A Boost Mode / 8A Boost-8 Mode	
Maximum Motor RPM	5800 ECO / 4200 Boost & Boost-8	
Minimum Motor RPM	580	
Minimum Duty Cycle	0.5 sec ON / 0.5 sec OFF (1.5 sec OFF when in Boost-8 Mode)	
Continuous Operation	At rated load/current in ECO Mode	
Compatible Controls	ConveyLinX ConveyLinX-HTF ConveyLinXE ConveyLinXE-HTF E-QUBE EZ-QUBE EZ-QUBE-W EZ-QUBE-HTBF	ConveyLinX-Ai2 ConveyLinX-Ai3-24-FC ConveyLinX-Ai3-24-RC MotionLinX-Ai E-QUBE-Ai EZ-QUBE-W-Ai

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Technical Data



Senergy-Ai-48

Double voltage – multiple advantages With a **48V supply voltage**, the established Senergy-Ai motorized roller reaches a new level of performance with the new **Senergy-Ai-48** model. This model is based upon the same established, reliable, and proven mechanical components as all other Senergy models. This combination of known and proven mechanical design coupled with the performance and efficiency of **48V** operation produce an impressive and exceptional product for the motorized roller conveyor industry.



The **Senergy-Ai-48** utilizes the same proven and patented Ai technology controller connectivity as 24V Senergy-Ai with all of the features and advantages it affords.

Senergy-Ai-48 motor rollers are available as options for **PDU-90** transfers and **PPU-30/45** diverter units. The Senergy-Ai-48 engine is also available in our convenient **PGD** package.

When used in conjunction with either the **ConveyLinx-Ai2-48** or **ConveyLinx-Ai3-48-FC** controllers, the use of 48V supply when compared with 24V supply can offer the following advantages:

- Significantly increased torque of the drive for stronger acceleration of heavy goods and higher throughput.
- More precise and smooth acceleration due to high power output for better controllability of the drive when positioning and braking.
- Larger and more powerful PDU-90 transfers with increased length and quantity of belt units.
- By essentially decreasing the current load by 50%, power cables from the supply unit to the controllers can either be smaller gauge conductors or be significantly longer which can reduce the cost and increase flexibility in installation.
- Reduction in the number of power supply units required for a given application can result in cost savings in procurement, cabling, and installation.

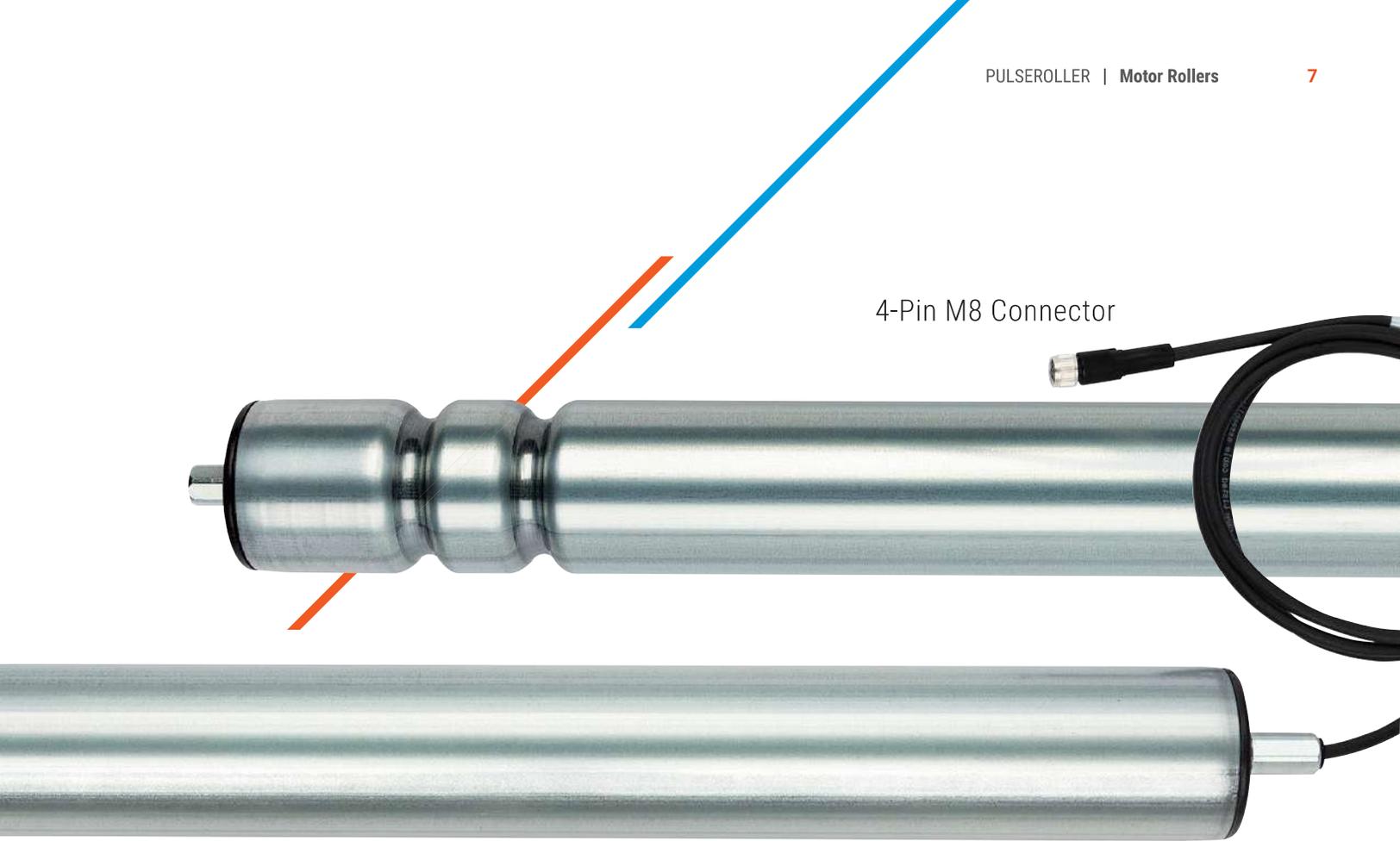
BENEFITS

- Excellent acceleration of heavy goods
- Longer cables feasible
- Less power supplies needed
- More precise, smooth acceleration
- Larger more powerful transfers available
- Excellent longevity
- Remote visibility and diagnostics

FEATURES

- Brushless 48V DC motor
- External motor controller
- High overload capacity
- High starting torque
- Oversized gearbox and parts
- Standard 4-Pin M8 connector
- Internal data memory
- IP54/66/69K





4-Pin M8 Connector

Performance Data - Senergy-Ai-48V

Models ① A, W, V, Q, and Z
48.6 mm Dia.

Speed Code	Gear Box Stages	Gear Ratio	Speed Range		Torque	
			Min <i>m/s</i> <i>ft/min</i>	Max	Rated <i>N-m</i> <i>in-lbs</i>	Holding
15	3	45	0.03 ~ 0.40	5.9 ~ 78.7	2.95 ~ 26.11	7.94 ~ 70.27
20		33	0.04 ~ 0.54	7.9 ~ 106.3	2.16 ~ 19.12	5.82 ~ 51.51
35	2	55/3	0.08 ~ 0.97	15.7 ~ 190.9	1.25 ~ 11.06	3.10 ~ 27.44
45		15	0.10 ~ 1.19	19.7 ~ 234.3	1.02 ~ 9.03	2.54 ~ 22.48
60		11	0.13 ~ 1.62	25.6 ~ 318.9	0.75 ~ 6.64	1.86 ~ 16.46

Rated Performance **Rated Current**
50W 1.6A

General Specifications	Senergy-Ai-48
Available Tube Diameters	48.6 mm (1.9") 50 mm (1.97") 60.5 mm (2.38")
Maximum Tube Length	1000 mm
Motor Cable Length	1000 mm
Motor Controller Connection	4 Pin M8
Washdown Model Available	Yes
Freezer Rated Model Available	Yes
Mechanical Brake Option	No
Ambient Temperature	-10 ~ 40°C (14 ~ 104°F) (No Condensation)
Ambient Humidity	10 ~ 90% RH (No Condensation)
Certifications	CE, UKCA, IP54 UL Recognized to UL 1004-1 ETL Listed to UL 1004-1 & UL 1004-6
Input Voltage	48 VDC
Nominal Power Output	50W
Rated Current	1.6A
Starting Current	4.0A
Maximum Motor RPM	7000
Minimum Motor RPM	580
Minimum Duty Cycle	0.5 sec ON / 0.5 sec OFF
Continuous Operation	No overheat at rated load/current
Compatible Controls	ConveyLinx-Ai2-48 ConveyLinx-Ai3-48-FC



Scan for More
Technical Data