



## Motorized Pulley 113LP

Ø 4.47 in. (113 mm), planetary gearbox  
in polymer or polymer / steel combination

### Product description

This Motorized Pulley is the ideal drive for light and medium duty conveyors.

### Characteristics

- Asynchronous 3 phase or 1 phase AC induction motor
- Integral motor protection
- Planetary gearbox in polymer or polymer / steel combination
- Low noise operation
- Light and distributed weight
- Maintenance free
- Lifetime lubrication
- Reversible operation
- Motorized Pulleys with RL greater than 27.80 inches have reinforced shaft.

### Applications

- Small package handling conveyors with high duty cycle
- Transfer conveyors
- Dynamic weighing equipment
- Metal detectors
- Recycling equipment
- Pharmaceutical equipment
- Food processing equipment
- Positive drive and modular belt conveyors
- Dry, humid and wash down applications

### Technical data

<b>Type of Motor</b>	Asynchronous squirrel-cage, IEC 34 (VDE 0530)
<b>Insulation class of motor windings</b>	Class F, IEC 34 (VDE 0530)
<b>Available power supplies*</b>	115v/1ph/60Hz, 230v/1ph/60Hz, 230v/3ph/60Hz, 460v/3ph/60Hz
<b>Seal protection rating</b>	IP66
<b>Thermal protection</b>	Bimetallic contact
<b>Allowable ambient temp, 3-ph motor</b>	+41° F to +104° F
<b>Allowable ambient temp, 1-ph motor</b>	+50° F to +104° F
<b>Max. Roller length (RL)</b>	47.72 in

\* Other power supply voltages and frequencies are available.



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## Materials

Component	Version	Aluminum	Steel	Stainless Steel	Brass /Nickel
Shell	Crowned	Std	Opt	Opt	-
	Cylindrical	Opt	Opt	Opt	-
	Special crowns with grooves	Opt	Opt	Opt	-
End housing	Standard	Std	-	Opt	-
Shaft cap	Standard (with straight/90° free position cable)	Std	-	-	-
Electrical termination	Power cord with straight connector	-	-	Opt	Opt
	Power cord with 90° connector	-	-	Opt	Opt
	Power cord with elbow connector	Opt	-	Opt	-

## Options

- Dynamic balancing
- Food grade oil (EU, FDA and USDA)
- Non-horizontal mounting (more than  $\pm 5^\circ$ )
- For special versions, please contact RULMECA

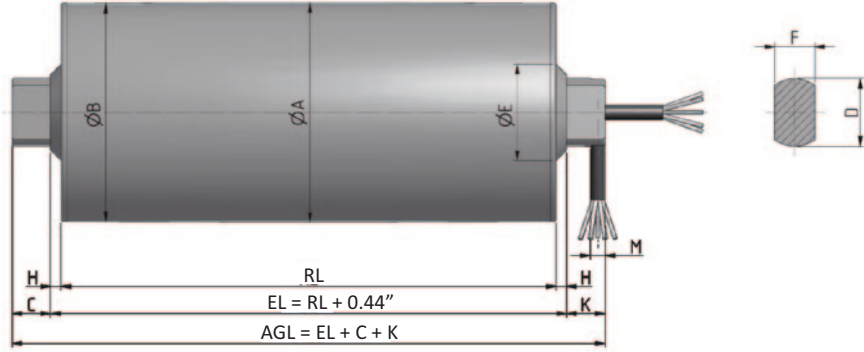
## Power Cord Specifications

- Standard, unshielded, 6 feet long
- Other types & lengths available upon request

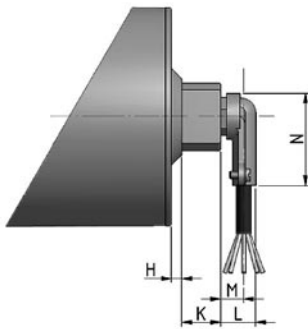


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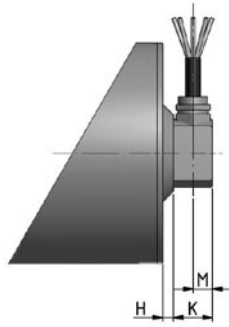
Ø 4.47 in. (113 mm), planetary gearbox in polymer or polymer / steel combination



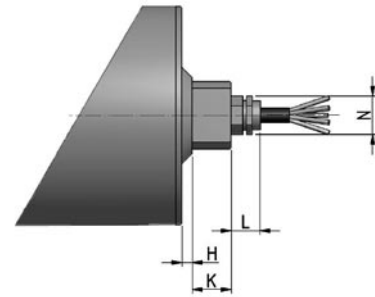
Motorized Pulley Standard Version.



Elbow connector in aluminum.



Cable connection 90°.



Straight connector.

Type/Option	A in	B in	C in	D in	E in	F in	G in	H in	K in	L in	M in	N in	Q in	T in
<b>Motorized Pulley Standard Version</b>	4.47	4.43	0.79	1.38	1.97	0.83		0.22	0.79		0.31			
<b>Elbow Connector in aluminum</b>									0.79	0.71	0.47	1.89		
<b>Cable Connector 90°</b>									0.79		0.39			
<b>Straight Connector</b>									0.79	0.59		0.79		

<b>Std. RL shell lengths (in)</b>	11.81	13.78	15.75	17.72	19.69	21.65	23.62	25.60	27.56	29.53	31.50	+ 1.97 up to 47.24		
<b>Average weight (lbs)</b>	15.0	15.5	16.5	17.5	18.0	19.0	19.5	20.5	21.5	24.0	25.0	+ 1.0 up to 33.0		

- Min lengths: see table at page 8.
- Max length: 47.72in
- Weights are approximate due to different shell executions and motor powers

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Power & Speed Combinations: 3 phase											
Power HP	Poles	FLA (amps) <sup>1</sup>	No. Gear Stages	Gear Ratio	Nominal belt speed at Full Load 60 Hz fpm <sup>2</sup>	Actual belt speed at Full Load 60 Hz fpm <sup>2</sup>	Belt Pull lbs	Max.Radial Load T1 + T2 lbs <sup>3</sup>	RL in		
0.08	4	0.8/ 0.4	4	267.7	6	6	202*	450	min 10.08 max 47.24		
				204.5	8	8	199*				
				120.2	12	12	187				
				92.9	14	16	141				
			3	63.4	26	24	94				
				48.4	30	30	75				
				37.3	38	40	56				
				28.6	48	52	43				
				24.9	60	62	36				
				21.9	76	72	31				
				2	14.9	96	100			22	340
					11.3	150	139			16	
0.16	4	1.0/ 0.7	3	63.4	24	24	187	450	min 10.08 max 47.24		
				48.4	30	30	150				
				37.3	38	40	112				
				28.6	48	52	87				
				24.9	60	62	72				
				21.9	76	72	62				
			2	14.9	96	100	45	340			
				11.3	150	139	33				
				9.9	165	163	28				
				7.5	240	211	32				
0.24	4	1.3/ 0.9	3	37.3	38	40	169	450	min 10.08 max 47.24		
				28.6	48	52	130				
				24.9	60	62	109				
				21.9	76	72	94				
			2	14.9	96	100	67	340			
				11.3	150	139	49				
				9.9	165	163	42				
				8.7	192	183	37				
				7.5	240	211	32				
				7.5	240	211	32				
0.34	4	1.6/ 1.2	3	28.6	48	52	180	450	min 10.87 max 47.24		
				24.9	60	62	151				
				21.9	76	72	130				
			2	14.9	96	100	94	340			
				11.3	150	139	68				
				9.9	165	163	58				
				8.7	192	183	52				
				7.5	240	211	45				
0.5	4	2.1/ 1.2	3	21.9	76	72	193	450	min 11.57 max 47.24		
				14.9	96	100	139				
			2	11.3	150	139	100	340			
				9.9	165	163	86				
				8.7	192	183	76				
				7.5	240	211	66				
				7.5	240	211	66				
				7.5	240	211	66				

1 FLA = full load amps at 230 volts & 460 volts, respectively.

2 Use "Nominal Speed" to specify pulley. "Actual belt speed" is presented (for unlagged pulley) to assist with process design calculations. Note that actual belt speed increases when lagging is used due to increased pulley diameter.

3 Pulley must not be subjected to radial load exceeding "Maximum Radial Load" defined above.

\* Note that belt pull is restricted in certain (slow speed) cases. Contact Rulmeca for more information.



# Motorized Pulley 113LP

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Power & Speed Combinations: 1 phase											
Power HP	Poles	FLA (amps) <sup>1</sup>	No. Gear Stages	Gear Ratio	Actual belt speed at Full Load 60 Hz fpm <sup>2</sup>	Nominal belt speed at Full Load 60 Hz fpm <sup>2</sup>	Belt Pull lbs	Max. Radial Load T1 + T2 lbs <sup>3</sup>	RL in		
0.08	4	NA/ 0.07	4	267.7	6	6	202*	450	min 10.08 max 47.24		
				204.5	8	8	199*				
				120.2	12	12	187				
				92.9	14	16	141				
			3	63.4	24	24	94				
				48.4	30	30	75				
				37.3	38	40	56				
				28.6	48	52	43				
				24.9	60	62	36				
				21.9	76	72	31				
				2	14.9	96	100			22	340
					11.3	150	139			16	
0.16	4	2.5/ 0.09	3	63.4	24	24	187	450	min 10.08 max 47.24		
				48.4	30	30	150				
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				28.6	48	52	87				
				24.9	60	62	72				
				21.9	76	72	62				
			2	14.9	96	100	45	340			
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0.24	4	2.9/ 2.3	3	37.3	38	40	169	450	min 10.87 max 47.24		
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				11.3	150	139	49				
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				8.7	192	183	37				
				7.5	240	211	32				
				7.5	240	211	21				
0.34	4	4.6/ 1.9	3	28.6	48	52	180	450	min 11.57 max 47.24		
				24.9	60	62	151				
				21.9	76	72	130				
			2	14.9	96	100	94	340			
				11.3	150	139	68				
				9.9	165	163	58				
				8.7	192	183	52				
				7.5	240	211	45				

1 FLA = full load amps at 115 volts & 230 volts, respectively.

2 Use "Nominal Speed" to specify pulley. "Actual belt speed" is presented (for unlagged pulley) to assist with process design calculations. Note that actual belt speed increases when lagging is used due to increased pulley diameter.

3 Pulley must not be subjected to radial load exceeding "Maximum Radial Load" defined above.

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## Spare Parts List and Sectional Drawings

1	Shaft cap (rear)	14	Wavey washer	27	Tywrap
2	Set screw	15	Flat washer	28	O-ring
3	Ball bearing	16	Planet gear (short)	29	Set screw
4	O-ring	17	Circlips	30	Compression seal
5	Oil seal	18	Ball bearing	31	Straight connector
6	Ring gear	19	Stator housing	32	End housing
7	Gear holder	20	Rotor	33	Shell
8	Roll pin	21	Stator	34	Shaft
9	Planet gear (long)	22	Stator housing	35	Rotor journal bearing
10	Planet gear (short)	23	Stator bolt	36	Rotor shaft
11	Sun gear (long)	24	Nut	37	Shaft cap (front)
12	Sun gear (short)	25	Rivet	38	Power cord
13	Gear carrier	26	Dowel pin	39	X-ring

## 113LP Standard:

