



Motorized Pulley 80LP

Ø 3.37 in. (80 mm), planetary polymer gearbox

Product description

Due to its strength, reliability, and need for no maintenance, this Motorized Pulley is used in small conveyors, packaging machines, and simple transfer units.

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 21.65 inches have reinforced shaft

Applications

- Small conveyors for light loads, non-continuous use
- Transfer conveyors
- Packaging machines for light loads
- Metal detection, x-ray scanners
- Check stands in supermarkets
- Dry or humid applications

Technical data

Type of motor	Asynchronous squirrel-cage, IEC 34 (VDE 0530)
Insulation class of motor windings	Class F, IEC 34 (VDE 0530)
Available power supplies*	115v/1ph/60Hz, 230v/1ph/60Hz, 230v/3ph/60Hz, 460v/3ph/60Hz
Seal protection rating	IP66
Thermal protection	Bimetallic contact
Allowable ambient temp., 3-ph motor	+41°F to +104°F
Allowable ambient temp., 1-phase motor	+50° F to +104° F
Max. roller length (RL)	35.91 in

* Other power supply voltages and frequencies are available. Please verify availability with Rulmeca prior to placing order because not all motor powers are available in all power supplies.



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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

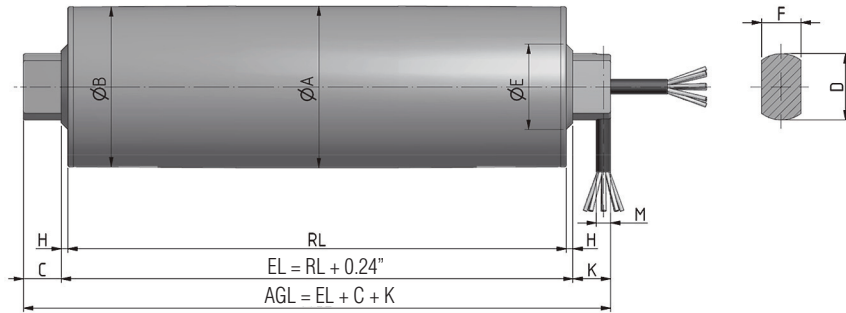
Power Cord Specifications

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

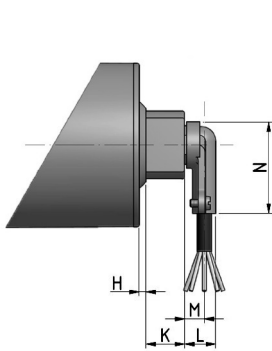


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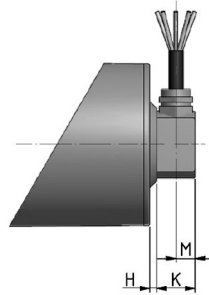
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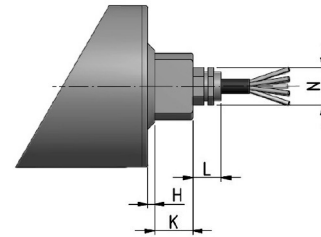
Motorized Pulley Standard Version.



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
Motorized Pulley Standard Version	3.37	3.33	0.79	1.38	1.77	0.83		0.12	0.79		0.31			
Elbow connector in aluminum									0.79	0.71	0.47	1.89		
Cable connection 90 °									0.79		0.39			
Straight Connector									0.79	0.59		0.79		

Std. RL shell lengths (in)	11.81	13.78	15.75	17.72	19.69	21.65	23.62	25.6	27.56	29.53	31.5	33.46	35.43
Avg. weight (lbs)	9.5	10.0	10.5	11.0	11.0	11.5	12.0	17.0	17.5	18.0	19.0	20.0	20.5

- Min length: 9.96 in.
- Max length: 35.43 in
- 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) ¹	No. Gear Stages	Gear Ratio	Nominal belt speed at Full Load 60 Hz fpm ²	Actual belt speed at Full Load 60 Hz fpm ²	Belt Pull lbs	Max. Radial Load T1 + T2 lbs ³	RL in
0.08	4	0.6/0.4	3	77.1	12	14	112*	450	min 10.47 max 35.43
				64.4	14	16	112*		
				54.5	18	20	112		
				46.0	24	22	101		
				43.7	26	24	92		
				36.8	30	30	75		
				35.0	35	32	70		
				29.5	38	38	59		
			23.2	48	48	47			
			2	14.2	76	78	29		min 10.04 max 35.43
0.16	4	0.9/0.7	3	29.5	38	38	94*	450	min 11.42 max 35.43
				23.2	48	48	94		
			2	14.2	76	78	58		
				12.0	90	92	49		
				11.3	96	98	46		
				9.5	120	118	38		
				7.5	150	155	29		

Power & Speed Combinations: 1 phase									
Power HP	Poles	FLA (amps) ¹	No. Gear Stages	Gear Ratio	Nominal belt speed at Full Load 60 Hz fpm ²	Actual belt speed at Full Load 60 Hz fpm ²	Belt Pull lbs	Max. Radial Load T1 + T2 lbs ³	RL in
0.1	4	0.7	3	36.8	30	30	90	450	min 11.46 max 35.43
				35.0	35	32	84		
				29.5	38	38	70		
				23.2	48	48	58		
			2	14.2	76	78	36	340	min 11.02 max 35.43
				12.0	90	92	31		
				11.3	96	98	29		
				9.5	120	118	24		

- 1 FLA = full load amps at 230 volts & 460 volts (in 3 phase) and 230 volts (in 1 phase), respectively.
 - 2 Use "Nominal Speed" to specify pulley. "Actual belt speed" is presented (for unlagged pulley) to assist with process design calculations. See "Actual Speed vs Nominal Speed" section in Technical Precautions. 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". See "Belt Tension" section in Technical Precautions.
- * Note that belt pull is restricted in certain (slow speed) cases. Contact Rulmeca for more information.



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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

80LP Standard:

