



Motorized Pulley 138LP

Ø 5.32 in. (135 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

- 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
- Reversible operation

Applications

- Conveyors for light loads
- Transfer conveyors
- Packaging equipment
- X-ray inspection systems at airports
- Recycling bottles
- Pharmaceutical equipment
- Food processing equipment
- Cash desks in supermarkets
- Dry, humid and wash down 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-ph motor	+50° F to +104° F
Max. Roller length (RL)	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

- Rubber lagging
- Dynamic balancing
- Food grade oil (EU, FDA and USDA)
- Oil for low temperatures
- Non-horizontal mounting (more than ± 5 °)
- For special versions, please contact RULMECA

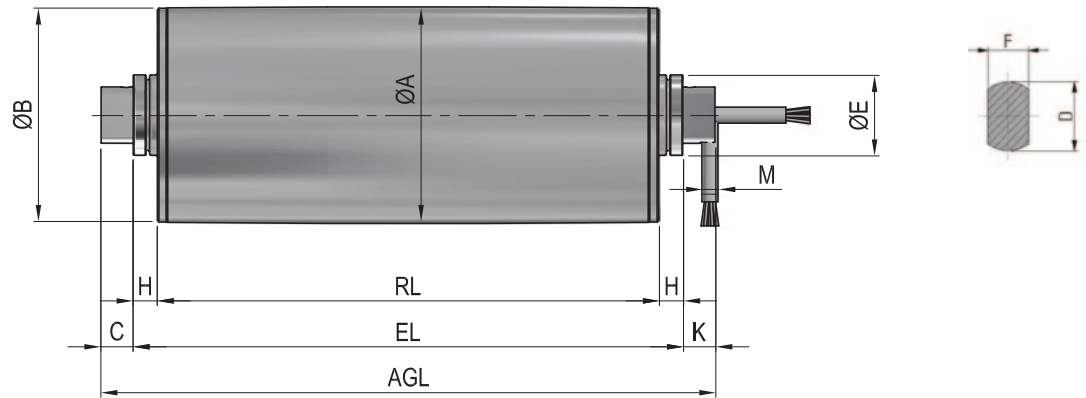
Power Cord Specifications

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

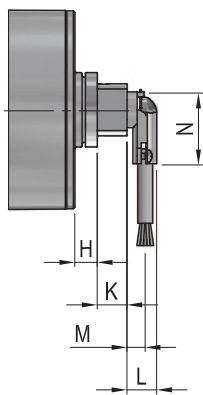


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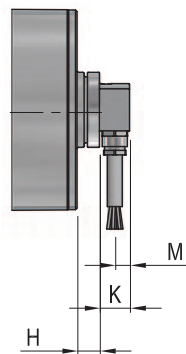
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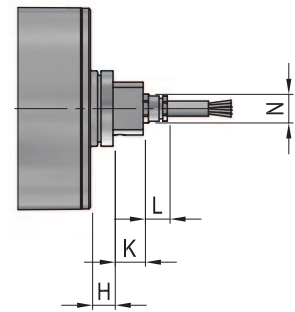
Motorized Pulley Standard Version.



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	5.30	5.26	0.79	1.38	1.97	0.83		0.59	0.79		0.31			
Elbow Connector in aluminum									0.79	0.71	0.47	1.89		
Cable Connector 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	25.60	27.56	29.53	31.50	+ 1.97 up to 47.24		
Average weight (lbs)	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 tables on pages 29 - 32.
- 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) 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	Belt Pull lbs	Max. Radial Load T1 + T2 lbs ³	RL in			
0.08	4	0.38/ 0.22	4	316.8	8	7	397	450	min 11.02 max 47.72			
				185.1	12	11	232					
				141.4	14	15	177					
				108.0	18	20	135					
			3	74.3	30	28	93					
				56.6	38	37	71					
				43.1	48	49	54					
				32.7	60	64	41					
				28.4	76	74	36					
				24.6	90	86	31					
				21.3	96	99	27					
				2	16.8	120	125			21	340	min 10.83 max 47.72
			0.16	4	0.7/ 0.5	4	185.1			12	11	464
141.4	14	15					355					
108.0	18	20					271					
3	74.3	30				28	186					
	56.6	38				37	142					
	43.1	48				49	108					
	32.7	60				64	82					
	28.4	76				74	71					
	24.6	90				86	62					
	21.3	96				99	53					
2	16.8	120				125	42	340	min 11.61 max 47.72			
	12.6	165				167	32					
	10.9	192				194	27					
	9.4	220				223	24					
	8.1	240				260	20					
0.24	4	1.0/ 0.6				4	141.4	14	15	532	450	min 12.20 max 47.72
							108.0	18	20	406		
			3	74.3	30	28	279					
				56.6	38	37	213					
				43.1	48	49	162					
				32.7	60	64	123					
				28.4	76	74	107					
				24.6	90	86	92					
			2	21.3	96	99	80	340	min 12.01 max 47.72			
				16.8	120	125	63					
				12.6	165	167	48					
				10.9	192	194	41					
				9.4	220	223	36					
				8.1	240	260	30					

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.



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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	Belt Pull lbs	Max. Radial Load T1 + T2 lbs ³	RL in						
0.34	4	1.3/ 0.75	4	108.0	18	20	575	450	min 12.60 max 47.72						
				3	74.3	30	28			396					
			56.6		38	37	302								
			43.1		48	49	230								
			32.7		60	64	174								
			28.4		76	74	151								
			24.6		90	86	131								
			2	21.3	96	99	113								
				16.8	120	125	90								
				12.6	165	167	67								
				10.9	192	194	58								
				9.4	220	223	50								
				8.1	240	260	43								
			0.5	4	2.4/ 1.4	3	74.3			30	28	582	450	min 12.99 max 47.72	
56.6	38	37					444								
43.1	48	49					338								
32.7	60	64					256								
28.4	76	74					222								
24.6	90	86					192								
2	21.3	96				99	167								
	16.8	120				125	132								
	12.6	165				167	99								
	10.9	192				194	85								
	9.4	220				223	74								
	8.1	240				260	63								
	0.74	4				2.9/ 1.7	3	43.1	48	49	500	450			min 13.39 max 47.72
								32.7	60	64	380				
28.4			76	74	329										
24.6			90	86	285										
21.3			96	99	246										
2			16.8	120	125		195								
	12.6	165	167	147											
	10.9	192	194	126											
	9.4	220	223	109											
8.1	240	260	94												

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Power & Speed Combinations: 1 phase											
Power HP	Poles	FLA (amps) ¹	No. Gear Stages	Gear Ratio	Nominal belt speed at Full Load 60 Hz ²	Actual belt speed at Full Load 60 Hz fpm	Belt Pull lbs	Max. Radial Load T1 + T2 lbs ³	RL in		
0.12	4	0.7	4	185.08	12	11	348	450	min 11.42 max 47.74		
				141.38	14	15	266				
				107.95	18	20	203				
			3	74.27	30	28	140				
				56.60	38	37	106				
				43.07	48	49	81				
				32.72	60	64	62				
				28.36	76	74	53				
				24.56	90	86	46				
				21.25	96	99	40				
			2	16.83	120	125	32			340	min 11.22 max 47.72
				12.64	165	167	24				
10.88	192	194		20							
9.44	220	223		18							
0.16	4	1.05	4	185.08	12	11	464	450	min 11.42 max 47.72		
				141.38	14	15	355				
				107.95	18	20	271				
			3	74.27	30	28	186				
				56.60	38	37	142				
				43.07	48	49	108				
				32.72	60	64	82				
				28.36	76	74	71				
				24.56	90	86	62				
				21.25	96	99	53				
			2	16.83	120	125	42		340	min 11.61 max 47.72	
				12.64	165	167	32				
10.88	192	194		27							
9.44	220	223		24							
8.09	240	260		20							
0.24	4	1.6	4	141.38	14	15	532	450	min 11.81 max 47.72		
				107.95	18	20	406				
			3	74.27	30	28	279				
				56.60	38	37	213				
				43.07	48	49	162				
				32.72	60	64	123				
				28.36	76	74	107				
				24.56	90	86	92				
			2	21.25	96	99	80		340	min 12.60 max 47.72	
				16.83	120	125	63				
				12.64	165	167	48				
				10.88	192	194	41				
9.44	220	223		36							
8.09	240	260		30							

1 FLA = full load amps at 230 volts.

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0.34	4	2.1	4	107.95	18	20	575	450	min 12.40 max 47.72				
				3	74.27	30	28			396			
			56.60		38	37	302						
			43.07		48	49	230						
			32.72		60	64	174						
			28.36		76	74	151						
			24.56		90	86	131						
			21.25	96	99	113							
			2	16.83	120	125	90		340	min 12.80 max 47.72			
				12.64	165	167	67						
				10.88	192	194	58						
				9.44	220	223	50						
			0.5	4	2.6	3	74.27		30	28	582	450	min 13.39 max 47.72
							56.60		38	37	444		
43.07	48	49					338						
32.72	60	64					256						
28.36	76	74					222						
24.56	90	86					192						
21.25	96	99				167							
2	16.83	120				125	132	340	min 13.19 max 47.72				
	12.64	165				167	99						
	10.88	192				194	85						
	9.44	220				223	74						
0.67	4	3.6				3	56.60	38	37	594	450	min 13.78 max 47.72	
							43.07	48	49	452			
							32.72	60	64	344			
			28.36	76	74		298						
			24.56	90	86		258						
			21.25	96	99		223						
			2	16.83	120	125	177	340	min 13.58 max 47.72				
				12.64	165	167	133						
				10.88	192	194	114						
				9.44	220	223	99						
				8.09	240	260	85						

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Spare Parts List and Sectional Drawings

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

138LP Standard:

