



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. Please verify availability with Rulmeca prior to placing order because not all motor powers are available in all power supplies.





Motorized Pulley 138LP

Ø 5.32 in. (135 mm), planetary gearbox
in polymer or polymer / steel combination

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

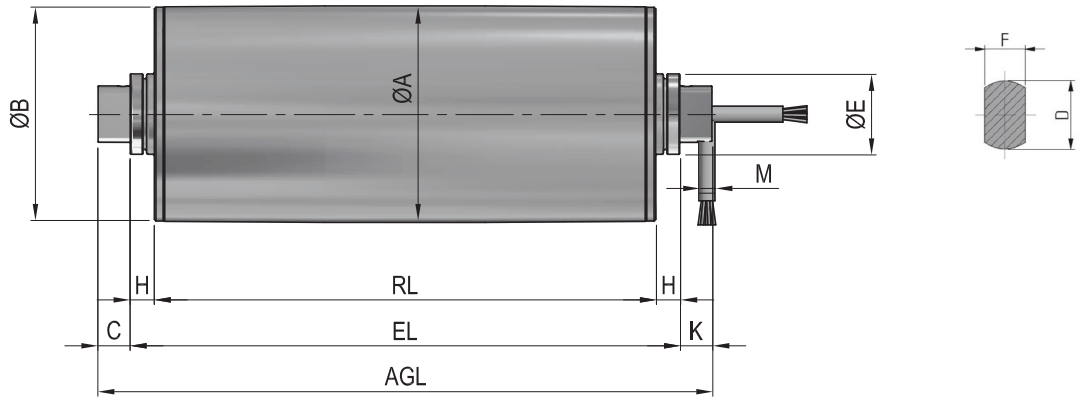
Power Cord Specifications

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

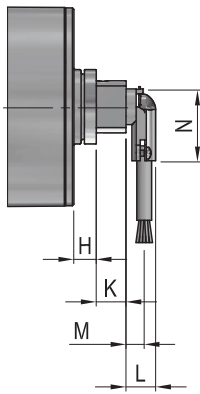


Motorized Pulley 138LP

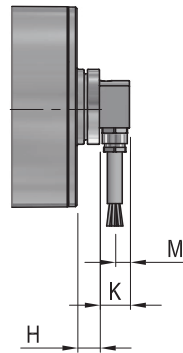
Ø 5.32 in. (135 mm), planetary gearbox in polymer or polymer / steel combination



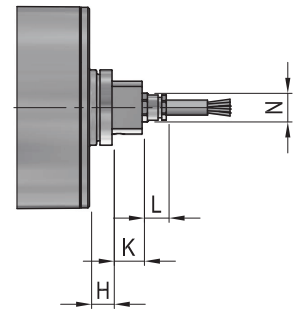
Motorized Pulley Standard Version.



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
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

Motorized Pulley 138LP

Ø 5.32 in. (135 mm), planetary gearbox
in polymer or polymer / steel combination



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 10.71 max 47.72
				185.1	12	11	232		
				141.4	14	15	177		
				108.0	18	20	135		
			3	74.3	30	28	93	450	min 10.04 max 47.72
				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		
			0.16	4	0.7/ 0.5	4	185.1	12	11
141.4	14	15					355		
108.0	18	20					271		
3	74.3	30				28	186	450	min 10.63 max 47.72
	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		
	16.8	120				125	42		
2	12.6	165				167	32	340	min 10.51 max 47.72
	10.9	192				194	27		
	9.4	220				223	24		
	8.1	240				260	20		
	8.1	240				260	20		
0.24	4	1.0/ 0.6	4	141.4	14	15	532	450	min 11.89 max 47.72
				108.0	18	20	406		
			3	74.3	30	28	279	450	min 11.22 max 47.72
				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		
				21.3	96	99	80		
			2	16.8	120	125	63	340	min 11.10 max 47.72
				12.6	165	167	48		
				10.9	192	194	41		
				9.4	220	223	36		
				8.1	240	260	30		
				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.



Motorized Pulley 138LP

Ø 5.32 in. (135 mm), planetary gearbox
in polymer or polymer / steel combination

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			
0.34	4	1.3/ 0.75	4	108.0	18	20	575	450	min 12.32 max 47.72			
			3	74.3	30	28	396	450	min 11.69 max 47.72			
				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					
				21.3	96	99	113					
			2	16.8	120	125	90	340	min 11.50 max 47.72			
				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 12.09 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					
21.3	96	99					167					
2	16.8	120				125	132	340	min 11.89 max 47.72			
	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 12.83 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	340	min 12.64 max 47.72			
				12.6	165	167	147					
				10.9	192	194	126					
				9.4	220	223	109					
				8.1	240	260	94					

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.



Motorized Pulley 138LP

Ø 5.32 in. (135 mm), planetary gearbox
in polymer or polymer / steel combination

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			
0.16	4	1.05	4	185.08	12	11	464	450	min 11.10 max 47.72			
				141.38	14	15	355					
				107.95	18	20	271					
			3	74.27	30	28	186		min 10.35 max 47.72			
				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 10.28 max 47.72			
				12.64	165	167	32					
				10.88	192	194	27					
				9.44	220	223	24					
			0.24	4	1.6	4	141.38	14	15	532	450	min 11.69 max 47.72
							107.95	18	20	406		
3	74.27	30				28	279	min 11.10 max 47.72				
	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 10.91 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.
- 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.



Motorized Pulley 138LP

Ø 5.32 in. (135 mm), planetary gearbox
in polymer or polymer / steel combination

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	Belt Pull lbs	Max. Radial Load T1 + T2 lbs ³	RL in
0.34	4	2.1	4	107.95	18	20	575	450	min 12.52 max 47.72
				3	74.27	30	28		
			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 11.81 max 47.72
				12.64	165	167	67		
				10.88	192	194	58		
				9.44	220	223	50		
				8.09	240	260	43		
0.5	4	2.6	3	74.27	30	28	582	450	min 12.05 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 11.85 max 47.72
				12.64	165	167	99		
				10.88	192	194	85		
				9.44	220	223	74		
				8.09	240	260	63		
			0.67	4	3.6	3	56.60	38	37
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 12.64 max 47.72
	12.64	165				167	133		
	10.88	192				194	114		
	9.44	220				223	99		
	8.09	240				260	85		

- 1 FLA = full load amps at 230 volts.
- 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.



Motorized Pulley 138LP

Ø 5.32 in. (135 mm), planetary gearbox
in polymer or polymer / steel combination

Spare Parts List and Sectional Drawings

1	End shaft	14	Wavy 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	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:

