



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

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 113LP

Ø 4.47 in. (113 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

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

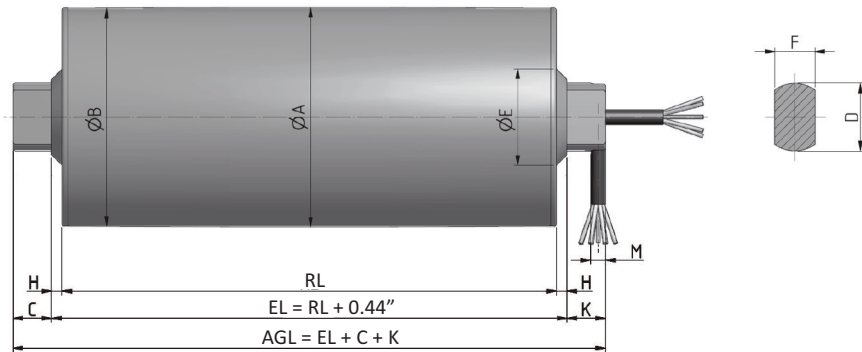
Power Cord Specifications

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

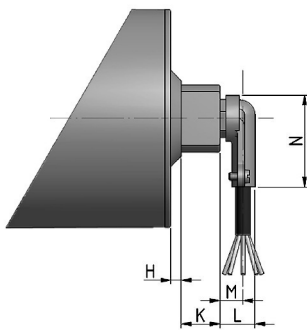


Motorized Pulley 113LP

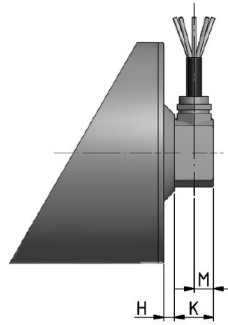
Ø 4.47 in. (113 mm), planetary gearbox in polymer or polymer / steel combination



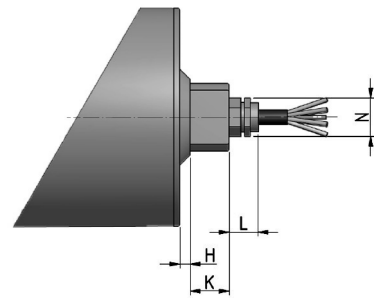
Motorized Pulley Standard Version.



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
Motorized Pulley Standard Version	4.47	4.43	0.79	1.38	1.97	0.83		0.22	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 table at page 8.
- Max length: 47.72in
- Weights are approximate due to different shell executions and motor powers

Motorized Pulley 113LP

Ø 4.47 in. (113 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 ²	Belt Pull lbs	Max.Radial Load T1 + T2 lbs ³	RL in					
0.08	4	0.8/ 0.4	4	267.7	6	6	202*	450	min 10.43 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					
					11.3	150	139		16					
0.16	4	1.0/ 0.7	3	63.4	24	24	187	450	min 10.43 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							
				11.3	150	139	33							
				9.9	165	163	28							
				0.24	4	1.3/ 0.9	3	37.3		38	40	169	450	min 11.22 max 47.24
								28.6		48	52	130		
								24.9		60	62	109		
2	21.9	76	72				94							
	14.9	96	100				67							
	11.3	150	139				49							
340	9.9	165	163	42										
	8.7	192	183	37										
	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							
				11.3	150	139	68							
				9.9	165	163	58							
340	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 11.81 max 47.24				
14.9					96	100	139							
2				11.3	150	139	100							
				9.9	165	163	86							
				8.7	192	183	76							
				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

Ø 4.47 in. (113 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	Actual belt speed at Full Load 60 Hz fpm ²	Nominal belt speed at Full Load 60 Hz fpm ²	Belt Pull lbs	Max. Radial Load T1 + T2 lbs ³	RL in
0.16	4	2.5/ 0.9	3	63.4	24	24	187	450	min 10.24 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	min 10.12 max 47.24
				11.3	150	139	33		
				9.9	165	163	28		
			0.24	4	2.9/ 2.3	3	37.3	38	40
28.6	48	52					130		
24.9	60	62					109		
21.9	76	72					94		
2	14.9	96				100	67	340	min 10.75 max 47.24
	11.3	150				139	49		
	9.9	165				163	42		
	8.7	192				183	37		
	7.5	240				211	32		
0.34	4	4.6/ 1.9	3	28.6	48	52	180	450	min 11.69 max 47.24
				24.9	60	62	151		
				21.9	76	72	130		
			2	14.9	96	100	94	340	min 11.54 max 47.24
				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.



Motorized Pulley 113LP

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

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:

