

DRUM MOTOR 113LP

113.5Ø 0.06kW - 0.37kW, with planetary gearbox
in polymer or polymer / steel combination for non-continuous operation

Product description

This Pulley is the ideal operator for light and medium conveyors, for non-continuous use.

Characteristics

- 3-phase or 1-phase AC induction motor
- Single supply voltage
- on request: 3-phase dual supply voltage (possible delta/star connection)
- Integral motor protection
- Gearbox planetary-type polymer or polymer / steel combination
- Low noise operation
- Light and distributed weight
- Maintenance free
- Reversible operation

Applications

- Conveyors for light loads, non continuous use
- Recycling bottles
- Packaging equipment
- X-ray inspection systems at airports
- Pharmaceutical industry
- Food processing
- Cash desks in supermarkets
- Dry, Damp and frequent wash down applications

TECHNICAL DATA

Motor Data	
Type of Motor	Asynchronous squirrel-cage, IEC 34 (VDE 0530)
Insulation class of motor windings	Class F, IEC 34 (VDE 0530)
Voltage	230 or 400 V ± 5% (IEC 34/38)
Frequency	50/60 Hz
Internal shaft sealing system	Double-lipped of nitrile rubber, NBR
External shaft sealing system	Deflection seal nitrile rubber, NBR
Protection rate	IP66
Thermal protection	Bimetallic Contact
Ambient temperature, 3-phase motor	+5 to +40 °C
Ambient temperature, 1-phase motor	+10 to +40 °C
General technical data	
Max. Roller length (RL)	1212 mm

Drum motor with RL length greater than 706 mm have reinforced shaft.

All data and values declared in the catalogue refer to operation with a frequency of 50 Hz.



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Materials

The following drum motor components are available in different versions, as shown in the below chart, with further options for the material type as indicated.

Components	Version	Material			
		Standard Aluminium	Option		
			Steel	Stainless Steel	Brass /Nickel
Shell	Crowned	Std	✓	✓	
	Cylindrical	✓	✓	✓	
	Special crowns with grooves	✓	✓	✓	
End housing	Standard	Std		✓	
Shaft cap	Standard	Std			
	With cable protection			✓	✓
Electrical connection	Straight or 90° cable connector			✓	✓
	Elbow connector	✓		✓	

Please contact Rulmeca for further versions.

Options

- Rubber lagging for standard belts
- Dynamic balancing
- 3-phase dual supply voltage (possible delta/star connection)
- Oil for Food (EU, FDA and USDA)
- Oil for low temperatures
- Non-horizontal mounting (more than $\pm 5^\circ$)
- For special versions, please contact RULMECA.

Accessories

- Mounting brackets
- Idler Pulleys
- Rollers for conveyors

Cable Specifications

Cable options available:

- Standard, screened
- Standard, unscreened
- Halogen-free, screened
- Halogen-free, unscreened

Available lengths: 1,9 m (other lengths available on request).

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MECHANICAL DATA DRUM MOTOR 113LP - 3PHASE - 50HZ

Rated power [kW]	Poles n.	Gear stages n.	Rated speed of the shell [m/s]	Rated revolutions of the shell [min ⁻¹]	Rated torque of motorized pulley [Nm]	Rated tangential force [N]	Max. belt tension T1+T2 [N]	Min. Length RL [mm]	
0.06	4	4	0.03	5.1	96.1	850	2000	256	
			0.04	6.8	72.0	850			
			0.06	10.1	48.0	850			
			0.08	13.5	35.7	638			
		3	0.12	20.3	23.8	425			
			0.15	25.4	19.1	340			
			0.20	33.8	14.5	255			
			0.26	43.9	11.1	196			
			0.31	52.4	9.4	165			
			0.36	60.8	8.1	142			
2	0.50	84.5	6.0	102	1500				
	0.69	116.6	4.3	74					
0.12	4	3	0.12	20.3	48.0	850	2000	256	
			0.15	25.4	38.3	680			
			0.20	33.8	28.9	510			
			0.26	43.9	22.1	393			
			0.31	52.4	18.7	329			
		0.36	60.8	16.2	283				
		2	0.50	84.5	11.5	204	1500		
			0.69	116.6	8.5	148			
0.81	136.9		7.2	126					
0.18	4	3	0.20	33.8	43.4	765	2000	256	
			0.26	43.9	33.2	588			
			0.31	52.4	28.1	494			
			0.36	60.8	24.2	425			
		2	0.50	84.5	17.4	306	1500		
			0.69	116.6	12.3	222			
			0.81	136.9	10.6	189			
0.91	153.8	9.4	168	1500					
	1.05	177.5	8.1		145				
0.25	4	3	0.26	43.9	46.3	818	2000	276	
			0.31	52.4	38.7	685			
			0.36	60.8	33.2	590			
		2	0.50	84.5	24.2	425	1500		
			0.69	116.6	17.4	308			
			0.81	136.9	14.9	263			
			0.91	153.8	13.2	234			
1.05	177.5	11.5	202	1500					
0.37	4	3	0.36		60.8	49.3	874	2000	294
			0.50		84.5	35.7	629		
		2	0.69		116.6	25.9	456	1500	
			0.81	136.9	22.1	388			
			0.91	153.8	19.6	346			
1.05	177.5	17.0	299	1500					

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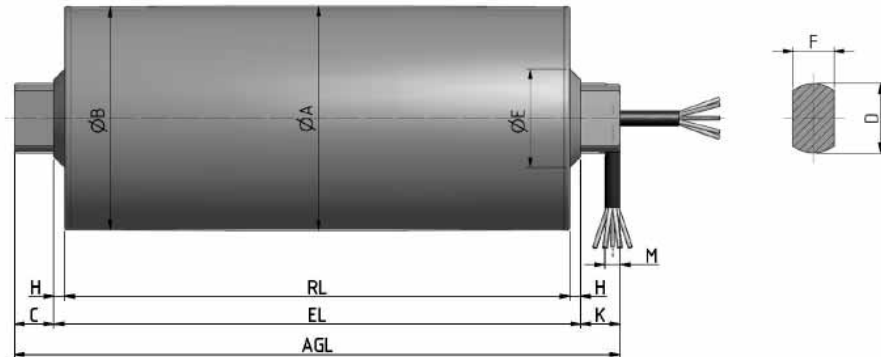
in polymer or polymer / steel combination for non-continuous operation

MECHANICAL DATA DRUM MOTOR 113LP - 1PHASE - 50HZ

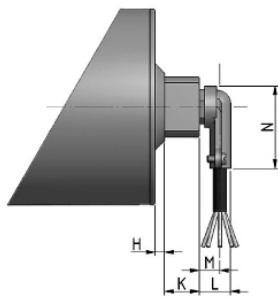
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			0.36	60.8	8.1	142						
			2	0.50	84.5	6.0			102			
				0.69	116.6	4.3			74			
		0.12	4	3	0.12	20.3			48.0	850	2000	256
					0.15	25.4			38.3	680		
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0.26	43.9				22.1	393						
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0.36	60.8				16.2	283						
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	0.69			116.6	8.5	148						
	0.81			136.9	7.2	126						
	0.18			4	3	0.20	33.8	43.4	765	2000	276	
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0.36		60.8	24.2			425						
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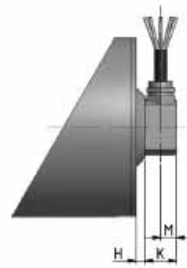
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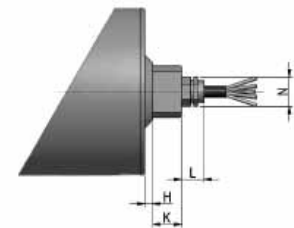
Drum motor Standard Version.



Elbow connector in aluminium.



Cable connection 90°.



Straight connector.

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Type/Option	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm	L mm	M mm	N mm	Q mm	T mm
Drum motor Standard Version	113,6	112,6	20	35	50	21		5,5	20		8			
Elbow connector in aluminium									20	18	12	48		
Cable connection 90°									20		10			
Straight Connector									20	15		20		

Average weights for drum motor & idler type 113LP

RL [mm]	300	350	400	450	500	550	600	650	700	750	800	+50mm up to	1200
	306	356	406	456	506	556	606	656	706	756	806		1206
all motors	6.8	7.2	7.5	7.9	8.2	8.6	8.9	9.3	9.6	11.0	11.4	+0.45 kg up to	14.9
idler 80LP	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.8	5.2	5.6	6.0	+0.35 kg up to	8.8

- Min lengths: see table at pages 22-23
- Max length: 1212 mm
- Weights are orientative due to different shell executions and motor powers