

## DRUM MOTOR 80LP

85.5Ø 0.06kW - 0.12kW,

with planetary gearbox in polymer for non-continuous operation

### Product description

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

### Characteristics

- Asynchronous motor AC three-phase or single-phase
- Single supply voltage
- On request: 3-phase dual 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
- Lifetime lubrication
- Reversible operation

### Applications

- Small conveyors for light loads, non-continuous use
- Transfer Conveyors
- Packaging machines for light loads
- Food processing equipment, metal detection, x-ray
- Cash desks in supermarkets
- Dry, damp and 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)	912 mm

Drum motor with RL length greater than 550 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 (with straight/90° free position cable)	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)
- Food grade Oil (EU, FDA and USDA)
- Low temperature Oil
- 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, shielded
- Standard, unshielded
- Halogen-free, shielded
- Halogen-free, unshielded

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

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MECHANICAL DATA DRUM MOTOR 80LP - 3PHASE - 50HZ

Rated power [kW]	Poles n.	Gear stages n.	Rated speed of the shell [m/s]	Rated revolutions of the shell [min <sup>-1</sup> ]	Rated torque of motorized pulley [Nm]	Rated tangential force [N]	Max. belt tension T1+T2 [N]	Min. Length RL [mm]	
0.06	4	3	0.07	15.8	30.8	600	2000	269	
			0.08	18.1	26.9	600			
			0.10	22.6	21.5	510			
			0.11	24.7	19.7	463			
			0.12	27.0	18.6	417			
			0.15	33.7	14.3	340			
			0.16	36.0	13.3	319			
			0.19	42.7	11.5	268			
0.12	4	3	0.24	53.9	9.1	213	2000	292	
			0.39	87.6	5.7	132			
			0.19	42.7	22.9	536			
			0.24	53.9	18.1	425			
		2	2	0.39	87.6	11.1	264	1500	276
				0.46	103.4	9.4	221		
				0.49	110.1	8.8	208		
				0.59	132.6	7.3	173		
0.77	173.0	5.6	133						

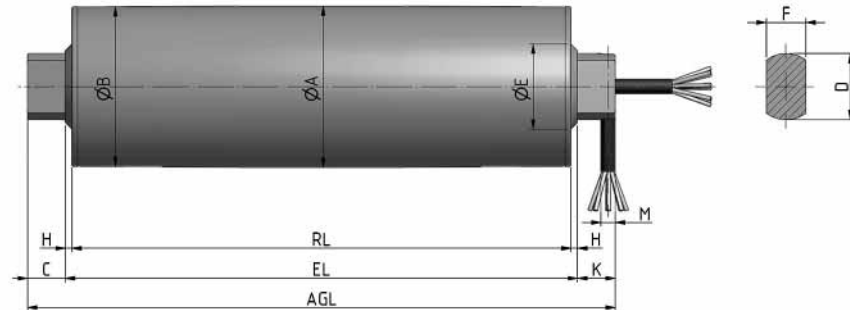
MECHANICAL DATA DRUM MOTOR 80LP - 1PHASE - 50HZ

Rated power [kW]	Poles n.	Gear stages n.	Rated speed of the shell [m/s]	Rated revolutions of the shell [min <sup>-1</sup> ]	Rated torque of motorized pulley [Nm]	Rated tangential force [N]	Max. belt tension T1+T2 [N]	Min. Length RL [mm]	
0.06	4	3	0.07	15.8	30.8	600	2000	280	
			0.08	18.1	26.9	600			
			0.10	22.5	21.7	510			
			0.11	24.7	19.7	463			
			0.12	27.0	18.6	417			
			0.15	33.7	14.3	340			
			0.16	36.0	13.3	319			
			0.19	42.7	11.5	268			
0.075	4	3	0.24	53.9	9.1	213	2000	292	
			0.39	87.6	5.7	132			
			0.15	33.7	17.3	408			
			0.16	36.0	16.2	383			
		2	2	0.19	42.7	13.5	319	1500	276
				0.24	53.9	11.1	265		
				0.39	87.6	6.9	163		
				0.46	103.4	5.8	139		
0.49	110.1	5.4	130						
0.59	132.6	4.6	108						

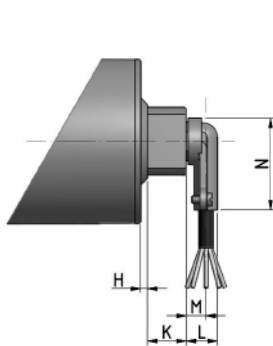
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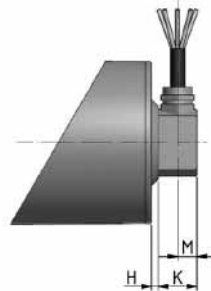
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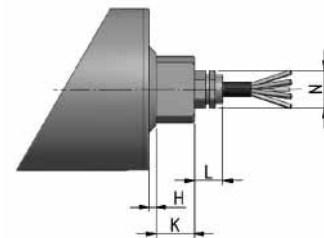
Drum motor Standard Version.



Elbow connector in aluminium.



Cable connection 90°.



Straight connector.

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	85,5	84,5	20	35	45	21		3	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 80LP

RL [mm]	300	350	400	450	500	550	600	650	700	750	800	850	900
all motors	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1	6.3	6.5	6.7
idler 80LP	1.5	2.0	2.2	2.5	2.7	3.0	3.2	3.5	3.7	4.0	4.2	4.5	4.7

- Min lengths: see table at pag. 14
- Max length: 912 mm
- Weights are orientative due to different shell executions and motor powers