

MOTORIZED PULLEY 500L, 500M & 500H

Ø 500 mm



To match your requirements in diameter 500 mm, our product range offers three different loading performances for your BULK applications:

- L for Light-duty
- M for Medium-duty
- H for Heavy-duty

You have a choice.

Therefore, it is important to notice the differences to choose the right type of pulley for the right application based on estimated belt tension (radial load) = T1+T2. The actual radial load **MUST** be **LESS** than the max. allowable radial load shown in this catalogue.

Be aware of increased belt tensions using *multi-ply thick heavy belts* and/or larger belt widths.

If you do not find the belt tension needed in this diameter, you might have to choose a larger one.

L for Light-duty

500L is meant for similar applications as 400M *except* for the fact that the belt requires a larger pulley diameter. (Motor/gearbox origin from 400M). 500L are typically used in grain storage, cement, steel, fertilizer and heavy mobile crushing & screening applications. As to outer dimensions, 500L cannot replace 500H (Former TM500/TM501).

M for Medium-duty

Using a solid and robust 3-stage gearbox, 500M provides the necessary torque & belt pull needed for low speeds combined with high power for irregular loadings. (Motor/gearbox origin from 400H). As to outer dimensions, 500M cannot replace 500H (Former TM500/TM501).

H for Heavy-duty

The construction of 500H is the heaviest of this particular range with internal parts such as gearbox, Ø 65 mm shaft, matching bearings etc. are designed for tough, irregular, extreme and brutal working conditions.

STANDARD SPECIFICATION of Motorized Pulley

- Crowned mild steel Ø 500 mm steel shell painted yellow – min. layer of 60 µm
- Bolted powder coated cast iron bearing housings and covers, all painted yellow – min. layer of 60 µm
- Mild steel shafts
- Shaft sealing system - degree of protection IP66/67(EN60034-5)
- Cast iron terminal box painted yellow – min. layer of 60 µm
- 3-phase induction motors with thermal protector
- 3-phase single voltage.
Most common voltages available.
Please specify!
- Motor winding insulation Class F
- Dynamically balanced rotor
- Two oil plugs each fitted with a magnet to filter the oil
- Black painted brackets – KL60 for 500L and 500M available on request
- Yellow painted graphite cast iron mounting brackets – 500H only!
- Oil change recommended every 20.000 operational hours
- Maximum RL – Please inquire!
- Non standard RL's available
- To be used in horizontal positions ±5 degree only!
- Nitrided shaft sleeves

Please note:

- Special speeds available on request.
- Motorized Pulleys for non-horizontal positions available on request
- Parallel shell available. Diameter equal to dimension Ø A

STAINLESS STEEL

Stainless steel version or rust-resistant version on request -
For an optimum design of the correct anti-corrosion performance, we need the properties of the materials being conveyed. Our sales team will offer you the best available solution.

When ordering, please specify the required voltage, electrical connection and options, brackets and idler pulleys.

- Environmental consideration: page 72/73
- Technical precautions: page 75 ff.,
- Optional extras: page 47,
- Connection diagram: page 91 ff.

MOTORIZED PULLEY 500L, 500M & 500H

Optional extras



SPECIFICATIONS	500L	500M & 500H
Dust explosion proof Motorized Pulleys - ATEX 95 - Zone 22 - for applications handling of dusty grain etc. According to European Directive 2014/34EG	On request!	On request!
Black rubber lagging - STANDARD specifications:	o	o
- Smooth lagging - Hardness 60 ±5 Shore A	8 mm	8 mm
- Diamond lagging - Hardness 60 ±5 Shore A	8 mm	8 mm
White smooth rubber lagging (FDA). Oil, fat & grease resistant	x	x
SPECIAL lagging available on request - e.g. hot vulcanized, ceramic etc.	x	x
Electromagnetic brake	x	x
Min. RL dimensions increases by (mm)	100	100
Mechanical backstop	500L from RL750mm & 500M from RL800 mm	x
Insulation class F - Allowable ambient temperature: -25°C - +40°C	Std.	Std.
Insulation class H with synthetic oil	x	x
Parallel shell	x	x
Thermal protector	Std.	Std.
IP66/67 cast iron terminal box painted yellow	Std.	Std.
Shaft sealing system - degree of protection IP66/67 (EN60034-5)	Std.	Std.
3-phase single voltage (3 x 400V) or (3 x 690V), 50 Hz, with +/-10% tolerance - DIN IEC 38	Std.	Std.
Special voltages - 50 and/or 60Hz Please specify!	x	x
Dual voltage - delta/star - connection possibility!	x	x
CSA approved motors - available on request only!	x	x

x = Optional extras

o = Available as option with certain limitations. Please refer to Technical precautions pages 75 ff.

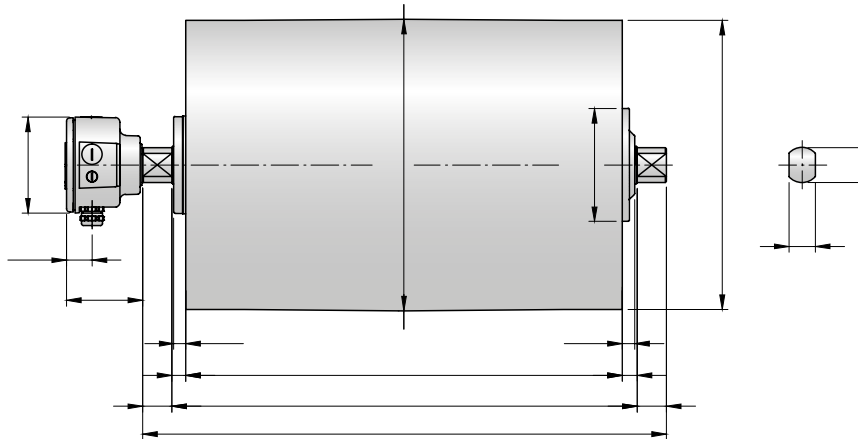
Std. = Fitted as standard

MOTORIZED PULLEY 500L & 500M

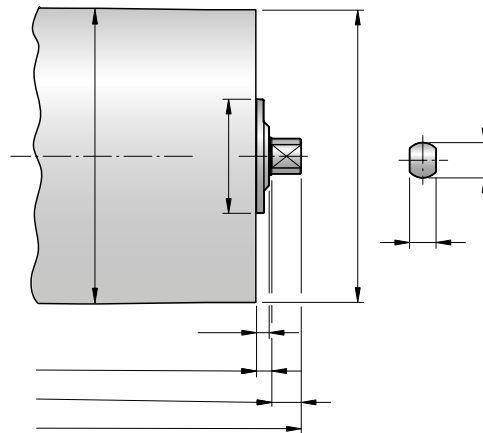
Ø 500 mm



Motorized Pulley with terminal box



Idler Pulley UT400M & UT400H



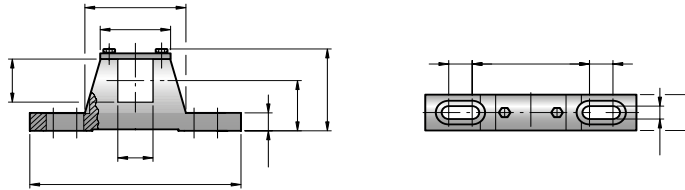
Type	Motorized Pulley or Idler Pulley (UT)									Larger terminal box			
	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm	L mm	M mm	N mm	O mm
500L & 500M	501	497	50	60	194	45	23	25	50	131	46	-	165
UT400M & UT400H	404	400	50	60	168	45	20	25	-				

MOTORIZED PULLEY 500L & 500M

Ø 500 mm



Mounting bracket KL60



Motorized Pulleys & Idler Pulleys (UT)	Material	Bracket description	Dimensions											Weight	
			D mm	F mm	I mm	K mm	S mm	T mm	V mm	W1 mm	X mm	X1 mm	Z mm		Z1 mm
Type															
500L & 500M and UT400M & UT400H	Steel	KL60	60	45	130	90	18	30	25	50	150	270	70	115	4.8

Further product details:



https://www.rulmeca.com/contenuti/qr_code/english/500.pdf

MOTORIZED PULLEY 500L & 500M

Ø 500 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	Max. Radial Load T1+T2* N	Special min. RL	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)										Type of Bracket												
Power kW/HP	No. of Poles	Gear stages							600	650	700	750	800	850	900	950	1000	per 50 mm up to 2000													
2.20/ 3.00	8	3	0.20	2613	10542	42200	650	500M											7 kg	KL60											
			0.25	2090	8360																258	265	272	279	286	293	300	307			
			0.32	1633	6532																										
		2	0.40	1306	5224	35000	600	500L	216	223	230	237	244	251	258	265	272														
			0.50	1045	4180																										
			0.63	829	3316																										
4.00/ 5.50	8	3	0.32	2969	11876	42200	650	500M												KL60											
			0.40	2375	9500																267	274	281	288	295	302	309	316			
			0.50	1900	7600																										
		2	0.63	1508	6032	35000	600	500L	225	232	239	246	253	260	267	274	281														
			0.80	1188	4752																										
			1.00	950	3800																										
5.50/ 7.50	4	3	0.50	2612	10448	42200	650	500M												KL60											
			0.63	2073	8292																258	265	272	279	286	293	300	307			
			0.80	1632	6528																										
		2	1.00	1306	5214	35000	600	500L	216	223	230	237	244	251	258	265	272														
			1.25	1045	4180																										
			1.60	816	3264																										
7.50/ 10.00	6	3	0.63	2827	11308	42200	710	500M												KL60											
			0.80	2226	8904																278	285	292	299	306	313					
			1.00	1781	7124																										
	4	2	1.25	1425	5700	35000	600	500L	222	229	236	243	250	257	264	271	278														
			1.60	1113	4452																										
			2.00	891	3564																										
3.15		2.50	712	2848																											
		3.15	570	2280																											

* T1+T2 value is valid for shortest available RL – in case of any questions please contact Rulmeca sales.

MOTORIZED PULLEY 500L & 500M

Ø 500 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	Max. Radial Load T1+T2* N	Special min. RL	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)										Type of Bracket
Power kW/HP	No. of Poles	Gear stages							600	650	700	750	800	850	900	950	1000	per 50 mm up to 2000	
11.00/ 15.00	4	3	1.00	2612	10448	42200	710	500M				290	297	304	311	318	325	7 kg	KL60
			1.25	2090	8630														
			1.60	1633	6532														
		2	2.00	1306	5224	35000	660	500L				255	262	269	276	283	290		
			2.50	1045	4180														
			3.15	829	3316														
15.00/ 20.00	2	3	1.25	2850	11400	42200	710	500M				290	297	304	311	318	325	7 kg	KL60
			1.60	2227	8908														
			2.00	1782	7128														
		2	2.50	1425	5700	35000	660	500L				255	262	269	276	283	290		
			3.15	1131	4524														

Motor	Max. Radial Load T1+T2* N	Special min. RL	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)										Type of Bracket
				600	650	700	750	800	850	900	950	1000	per 50 mm up to 2000	
Idler Pulley	40500	600	UT400M	113	119	126	132	138	142	148	154	160	7 kg	KL60
	50000	650	UT400H		124	131	137	143	147	153	159	165	7 kg	KL60

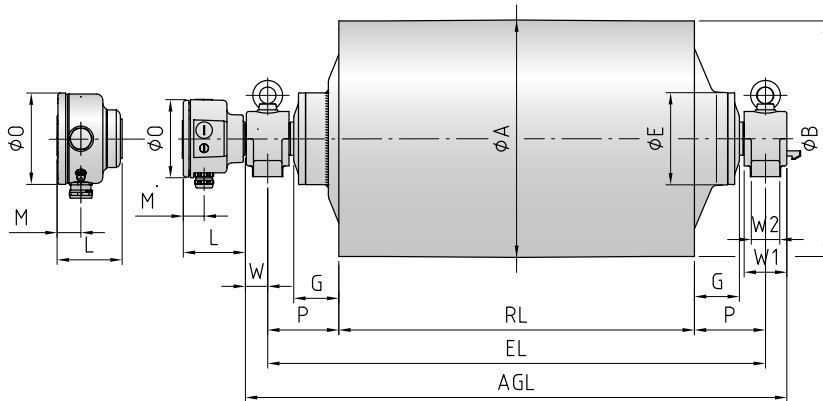
* T1+T2 value is valid for shortest available RL – in case of any questions please contact Rulmeca sales.

MOTORIZED PULLEY 500H

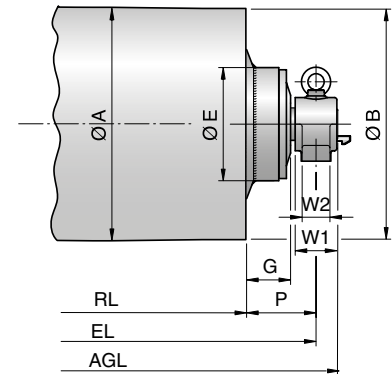
Ø 500 mm



Motorized Pulley with terminal box



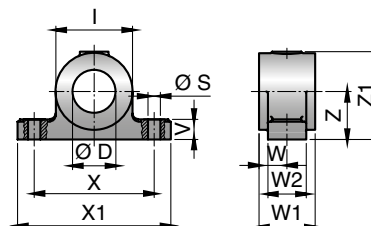
Idler Pulley UT500H



Type	A mm	B mm	C mm	D mm	E mm	G mm	L mm	M mm	O mm	P mm
500H	501	497	-	65	192	95	131	46	165	150
500H (22 & 30kW)	521*	517*	-	65	235	95	166	54	230	150
UT500H	501	497	-	65	235	95	-	-	-	150

* including ceramic lagging

Mounting bracket AL65 & ALO65



Further product details:



https://www.rulmeca.com/contenuti/qr_code/english/500H-800H.pdf

Motorized Pulleys & Idler Pulleys (UT)	Material	Bracket description	Dimensions											Weight kg
			D mm	I mm	S mm	V mm	W mm	W1 mm	W2 mm	X mm	X1 mm	Z mm	Z1 mm	
500H & UT500H	Spheroidal cast iron	AL65 / ALO65	65	115	23	34	45	90	60	180	240	80	141	8.0

MOTORIZED PULLEY 500H

Ø 500 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	Max. Radial Load T1+T2* N	Min. RL	Type	Weight in kg for STANDARD width Dimension RL in mm (RL >2000 mm available on request)										Type of Bracket						
Power kW/HP	No. of Poles	Gear stages																							
									600	650	700	750	800	850	900	950	1000	per 50 mm up to 2000							
5.50/ 7.50	8	2	0.50	2612	10427	46000	750	500H												8 kg	AL65 / ALO65				
			0.63	2073	8276																				
			0.80	1632	6515																				
	1.00	1306	5214	339	348																	357	365	374	381
	1.25	1045	4172																						
	1.60	816	3258																						
7.50/ 10.00	8	2	0.63	2827	11285	46000	750	500H																	
			0.80	2226	8887																				
			1.00	1780	7106																	349	358	367	375
	1.25	1424	5685																						
	1.60	1113	4443																						
	11.0/ 15.0	8	2	1.00	2611																	10423	46000	750	500H
1.25				2089	8340																				
1.60				1632	6515	359	369	379	389	399	405														
2.00		1306	5214																						
2.50		1045	4172																						
15.0		4	2	1.00	3644	14450	46000	750	500H																
	1.25			2850	11377																				
	1.60			2226	8886	370																	378	385	393
	2.00	1781	7110																						
	2.50	1425	5689																						
	18.5 25.0	4	2	1.25	3596	14356																	46000	750	500H
1.60				2746	10962																				
2.00				2197	8771	380	388	395	403	410	419														
2.50		1757	7014																						
3.15		1395	5569																						
22.0/ 30.0		4	2	1.60	3444	13750	46000	850	500H																
	2.00			2611	10423																				
	2.50			2089	8340	380																	388	395	403
	3.15	1600	6385																						
	1.60	4236	16977	443	451																				
	2.00	3801	15236																						
2.50	3049	12222																							
1*) 30.0/ 40.0	4	2	2.50	3049	12222	46000	850	500H																	
			3.15	2498	10012																				
			4.00	1901	7618																	480	488	495	504
	1.60	4236	16977																						
	2.00	3801	15236																						

* T1+T2 value is valid for shortest available RL – in case of any questions please contact Rulmeca sales.

1*) Please note the 30kW motor will be delivered with 10mm bonded ceramic lagging!