

# MOTORIZED PULLEY 138LS

## Ø 138 mm



Motorized Pulley 138LS, with machined helical gear box, performs an efficiency, in a compact diameter of 138 mm only. With a min RL of 300 mm and powers ranging from 0.10 to 1.0kW this size of motorized pulley is suitable for most duties requiring such a small diameter - e.g.:

- Light agriculture and bulk solids handling conveyors
- Mobile or portable conveyors
- As a drive unit for brush cleaners etc.

Motorized pulley 138LS has standard IP66/67 enclosure and is available in complete stainless steel execution for wash down application.

For the choice of the Motorized Pulley it is very important to know or to calculate the belt tension T1+T2 (radial load). This **MUST NOT OVERCOME** the "max. radial load" allowed as shown in the catalogue.

Be careful to very high belt tensions when using thick, heavy and/or large belts.

If the type 138LS cannot provide the necessary max. radial load T1+T2, you have to choose a Motorized Pulley with a bigger diameter.

### STANDARD SPECIFICATION of motorized pulley

- Crowned mild steel shell, outside diameter 138mm.
- Mild steel shafts.
- Shell and shafts treated with anti-rust wax.
- Die cast aluminium bearing houses.
- Gearbox from die cast aluminium 2- and 3-stages.
- Sealing system-degree of protection IP66/67 (EN60034-5).
- Die cast aluminium terminal box with WAGO clamp.  
Voltage: most common globally used voltages available. Please specify!
- 3-phase induction motor with one rated voltage – either low or high voltage
- Available in both 50Hz or 60Hz.
- Star connection (Delta connection on request).
- Motor windings with insulation class F (insulation class H on request).
- Dynamical balanced rotor.
- Two oil plugs (one with magnet).
- Minimum roller length (RL) 300mm (0.75kW: min RL 320mm).
- Max. RL 1800mm (from RL800 with reinforced shaft, from RL1000 plus reinforced shell).
- Standard mineral oil ISOVG150 (synthetic oil ISOVG220 on request).
- Oil change recommended every 20.000 operational hours.
- Single phase AC motors available in 0.20, 0.37 and 0.55kW, supplied with all necessary run and start capacitors (if needed) together with current depending relay.
- Without start capacitor the starting torque is 70% of the nominal torque only
- Horizontal installation (angled and vertical installation on request)

### 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.

- Environmental consideration: page 72/73
- Technical precautions: page 75 ff.,
- Optional extras: page 15,
- Connection diagram: page 91 ff.

# MOTORIZED PULLEY 138LS

## Optional extras



SPECIFICATIONS	138LS
Stainless steel option	On request!
Re-greasable labyrinth seals!	
Food grade oil & grease - FDA & USDA recognized - available on request	x
Dust explosion proof Motorized Pulleys - ATEX 95 - Zone 22 - for applications handling of dusty grain etc. According to European Directive 94/9/EC.	On request!
TOTAL acid resistant stainless steel option - AISI 316	x
Black rubber lagging - STANDARD specifications: - Smooth lagging - Hardness 60 ±5 Shore A - Diamond lagging - Hardness 60 ±5 Shore A	o
White smooth rubber lagging (FDA). Oil, fat & grease resistant	o
SPECIAL lagging available on request - e.g. hot vulcanized etc.	o
Single phase motors available on request	x
Electromagnetic brake	x
Min. RL dimensions by (mm)	50
Mechanical backstop	x
Modified for vertical mounting	o
Modified for mounting between 5° - ≤90° - e.g. for magnetic separators	o
Insulation class F - Allowable ambient temperature: -25°C/+40°C	Std.
Insulation class H with synthetic oil - Allowable ambient temperature: -25°C/+40°C	x
Low noise drives for noise sensitive areas	x
Parallel shell	x
Thermal protector	Std.
IP66/67 Compact stainless steel - AISI 304 or 316 range - terminal box	x
Straight or elbow connector with flying lead	x
Straight connector with flying lead - Stainless steel - AISI 304 range	x
Shaft sealing system - degree of protection IP66/67 (EN60034-5)	Std.
Screened cables - a MUST together with Frequency Converters	x
Euro wide range voltage (3x220-240V / 380-415V 50 Hz) with +/-10% tolerance - DIN IEC 38 or (3x380-400V / 660-690V 50 Hz)	Std.
Special voltages - 50 and/or 60 Hz	On request!
Please specify!	
CSA approved motors - available on request only!	x

x = Optional extras

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

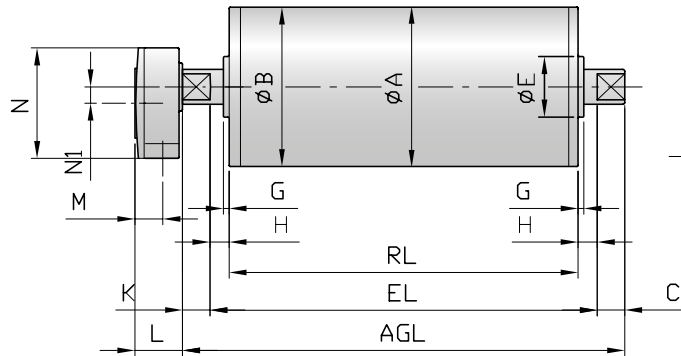
Std. = Fitted as standard

# MOTORIZED PULLEY 138LS

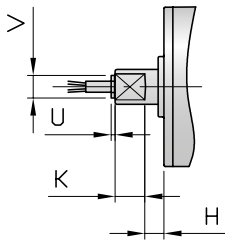
## Ø 138 mm



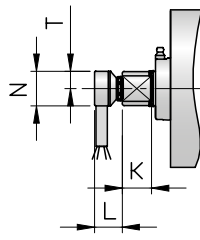
### Motorized Pulley with Terminal box



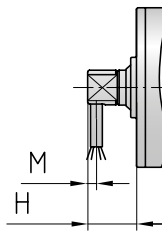
### Motorized Pulley with cable Straight connector



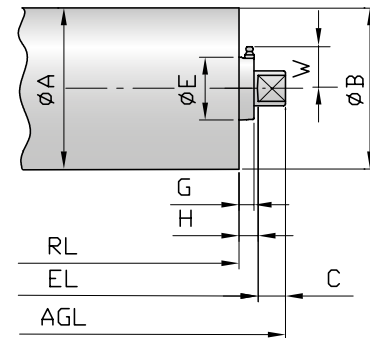
### Elbow connector



### Front shaft with cable slot



### Idler pulley stainless steel version; cylindric option



Standard measurements	Ref.	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	K mm	W mm	L mm	M mm	N mm	N1 mm	U mm	V mm	R mm	S mm	T mm
138LS (UT138LS) / Terminal box		138.5	137	25	30	54	20	5	15	25	36	41	24	95	14					
SS version (regreasable seals)					64.5		20	13.5					36		3.5	19.5				
Straight connector									15	25		3.5				3.5	19.5			
Elbow connector									15	25		20						20	48	12
Front shaft with cable slot										25			8-11							

Idler/UT pulley - minimum requirement :

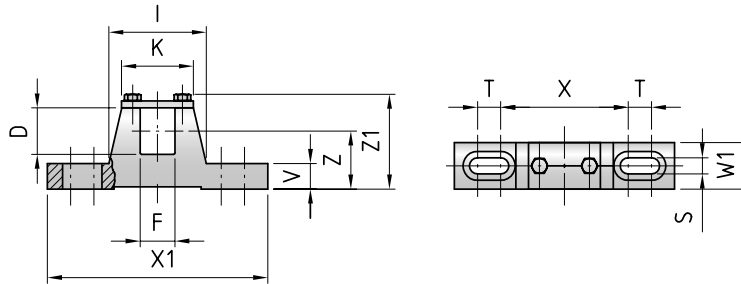
- use of a belt
- the belt need to cover 2/3 of the RL of the pulley
- minimum 180 ° wrap angle

# MOTORIZED PULLEY 138LS

Ø 138 mm



## Mounting brackets KL30



Motorized Pulley	Material	Dimension												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														
138LS	Cast iron	30	20	86	57	11	17	12	24	110	180	44.5	72	0.7

Further product details:



[https://www.rulmeca.com/contenuti/qr\\_code/english/138.pdf](https://www.rulmeca.com/contenuti/qr_code/english/138.pdf)

# MOTORIZED PULLEY 138LS

Ø 138 mm - 50 Hz



Motor			Nominal belt speed at Full Load 50Hz m/sec	Torque Nm	Belt Pull N	Max. Radial Load T1+T2* N	Weight in kg for STANDARD width Dimension RL in mm														per 50 mm up to 1800	Type of Bracket		
Power kW/HP	No. of Poles	Gear stages					300	320	350	400	450	500	550	600	650	700	750	800	850	900			950	1000
0.10/ 0.13	12	3	0.04 0.05 0.06	159 138 111	2295 1990 1600	4740	14	14.5	15	16	17	18	19	20	21.5	23	24	25	26	27	28	29	Available on request	KL30
		2	0.10	62	895																			
0.18 0.25	8	3	0.08 0.10 0.13	163 131 108	2350 1890 1555																			
		2	0.16 0.20	73 62	1050 890																			
0.24/ 0.33	6	3	0.10 0.13 0.16	163 131 108	2255 1735 1410																			
		2	0.20 0.25 0.32	73 62 50	1050 890 720																			
0.37/ 0.50	6	3	0.13	168	2425																			
		4	3	0.16 0.20 0.25	153 126 104	2205 1815 1500																		
	2			0.32 0.40 0.50 0.63 0.80	70 60 48 40 30	1010 865 690 575 430																		
		0.55/ 0.75	2	3	0.25 0.32 0.40 0.50	152 129 104 86	2190 1860 1500 1240																	
2	0.63 0.80 1.00			58 49 40	835 705 575																			
			1.25 1.60	33 24	475 345																			
			0.75/ 1.00	4	3	0.32	159	2295																
	2	2			0.40 0.50 0.63	127 102 84	1830 1470 1210																	
					0.80 1.00	67 54	965 775																	
						1.25 1.60	44 33	635 1312																
		1.00/ 1.34	2	3		0.50 0.63	145 109	2090 1570																
2	0.80 1.00 1.30 1.60			84 67 56 41	121 965 805 590																			

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

# MOTORIZED PULLEY 138LS

Ø 138 mm - 50 Hz



Motor	Max. Radial Load T1+T2* N	Weight in kg for STANDARD width Dimension RL in mm																per 50 mm upto 1800	Type of Bracket
		300	320	350	400	450	500	550	600	650	700	750	800	850	900	950	1000		
Idler Pulley UT138E	4740	6.5	7	7.5	8.5	9.5	10.5	11.5	12.5	13.5	14.5	15.5	16.5	18.5	19.5	20	21.5	Available on request	KL30

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

