



Motorized Pulley 165E, Ø 165 mm

Motorized Pulley 165E, with machined helical gear box, performs an efficiency, in a compact diameter of 165 mm only. With a min RL of 400 mm and powers ranging from 0.11kW to 1.5kW 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 165E 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 165E 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 165mm.
- 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) 400mm (0.37kW: min RL 350mm).
- Max. RL 1800mm (longer RL on request).
- Standard mineral oil ISOVG150 (synthetic oil ISOVG220 on request).
- Oil change recommended every 20.000 operational hours.
- Single phase AC motors available in 0.37kW and 1.10kW, 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
- For horizontal installation (angled and vertical installation on request)

STAINLESS SREEL

execution TS 7N

- Crowned stainless steel shell (AISI304), outside diameter 165 mm.
- Stainless steel shafts (AISI303/304).
- Stainless steel covered - ASI 303 - aluminium bearing housing
- Re-greasable labyrinth seals (AISI304).
- FDA & USDA food grade grease
- Option: FDA & USDA food grade recognized oil.
- Fully stainless steel (AISI304) terminal box.
- Fully stainless steel (AISI304) straight connector.
- Two stainless steel oil plugs (one with magnet).

TS7N - solid housing

- As with TS7N but with massive stainless steel bearing housing.

TS8N

- As TS7N but with non-re-greasable labyrinth seals.

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

- Environmental consideration: page 77
- Technical precautions: page 81-92,
- Optional extras: page 15 and back cover,
- Connection diagram: page 98-99,



OPTIONAL EXTRAS

Motorized Pulley 165E

Specification

165E

Total stainless steel option AISI 304 range	Re-greasable labyrinth seals!	x
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!
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
Single phase motors available on request		x
Electromagnetic brake (for 5.5 kW not available)		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
SPECIAL motors for applications with NO belt contact		o
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	Please specify!	x
CSA approved motors - available on request only!		x

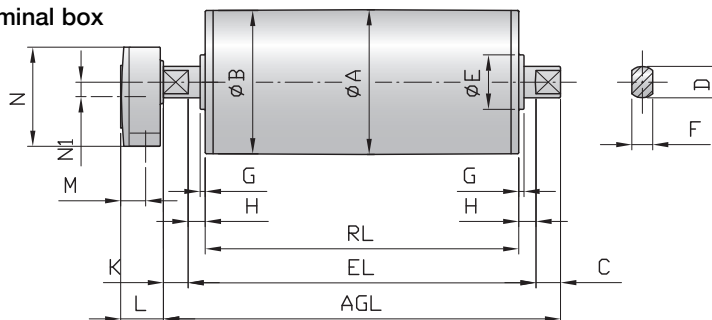
X = Optional extras

o = Available as option with certain limitations. Please refer to Technical precautions pages 81-92!

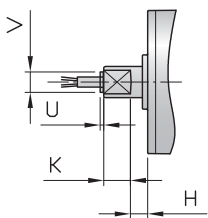
Std. = Fitted as standard

Motorized Pulley 165E, Ø 165 mm

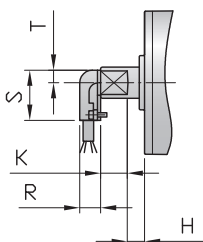
Motorized pulley with Terminal box



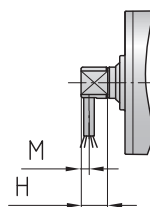
Straight connector



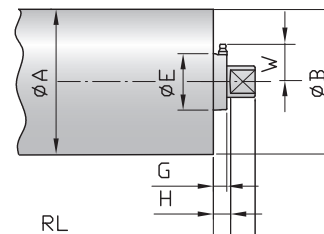
Elbow connector



Front shaft with cable slot



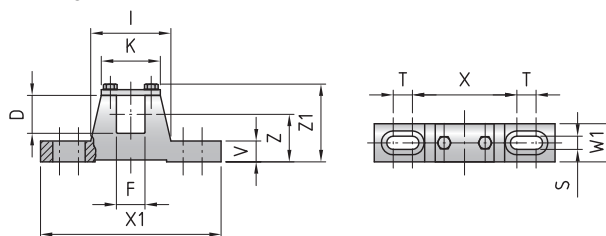
Idler pulley SS version



Standard measurements

Type / Option	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	
165E (UT165E) / Terminal box		165	163.5	43.5	40	80	30	10	21.5	41.5	48	41	24	95	14						
SS version (regreasable seals)						64.5		13.5	21.5							4	27				
Straight connector									21.5	43.5						4	27				
Elbow connector									21.5	43.5								20	48	12	
Front shaft with cable slot										43.5			8-11								

Mounting brackets KL40



Motorized Pulley	Material	Dimensions												Weight kg
		D mm	F mm	I mm	K mm	S mm	T mm	V mm	W1 mm	X mm	X1 mm	Z mm	Z1 mm	
165E	Steel	40	30	84	62	14	20	22	40	110	190	50	83	2.1



Motorized pulley 165E – Ø 165 mm

50 Hz

Power kW/HP	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																			Type of Bracket
	No. of Poles	Gear stages					Dimension RL in mm																			
							350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	per 50 mm up to 1800			
0.11/ 0.15	12	3	0.05	170	2070	9330	29	30.5	32	33	34	35	36.5	38	39	40	41.5	43	44	46	47	Available on request	KL40			
			0.06	141	1700																					
			0.08	113	1375																					
			0.10	86	1045																					
0.37 0.50	6	3	0.13	239	2905	9330	30	31.5	33	34	35	36	37.5	39	40	41	42.5	44	45	47	48					
			0.16	193	2345																					
	4	3	0.20	157	1910	9330	26	28	29.5	31	32	33	34	35.5	37	38	39	40.5	42	43	45			46		
			0.25	127	1545																					
			0.32	97	1175																					
		0.40	77	930																						
		2	0.50	60	735																					
			0.63	49	595																					
0.80	38		455																							
1.00	29	360																								
0.75/ 1.00	6	3	0.16	341	4140	9330	33	34.5	36	37	38	39	40.5	42	43	44	45.5	47	48	50	51					
			0.20	302	3665																					
	4	3	0.25	248	3005	9330	31	32.5	34	35	36	37	38.5	40	41	42	43.5	45	46	48	49					
			0.32	189	2295																					
			0.40	162	1815																					
		2	0.50	119	1435																					
			0.63	96	1160																					
			0.80	72	885																					
1.00	57	700																								
1.10/ 1.50	4	3	0.25	332	4030	9330	34	35.5	37	38	39	40	41.5	43	44	45	46.5	48	49	51	52					
			0.32	272	3305																					
	2	3	0.40	226	2745	9330	33	34.5	36	37	38	39	40.5	42	43	44	45.5	47	48	50	51					
			0.50	183	2220																					
			0.63	139	1690																					
			0.80	110	1340																					
		2	1.00	87	1060	8700	34	35.5	37	38	39	40	41.5	43	44	45	46.5	48	49	51	52					
			1.25	70	855																					
			1.60	54	650																					
			2.00	42	515																					
2.50	34	420	6950																							
1.50/ 2.00	3	0.50	237	2880	9330	34	35.5	37	38	39	40	41.5	43	44	45	46.5	48	49	51	52						
		0.63	195	2360																						
		0.80	154	1870																						
		1.00	122	1480																						
	2	1.25	98	1195	8700	34	35.5	37	38	39	40	41.5	43	44	45	46.5	48	49	51	52						
		1.60	75	910																						
		2.00	59	720																						
		2.50	48	585																						
3.15	39	485	6950																							

Motor	Max. Radial Load T1+T2 N	Weight in kg for STANDARD width																			Type of Bracket
		Dimension RL in mm																			
		350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	per 50 mm up to 1800			
Idler Pulley UT165E	9330	12.5	14.0	15.5	17.0	18.5	20.0	21.5	23.0	24.5	26.0	27.5	29.0	30.5	32.0	33.5	35.0	Available on request	KL40		

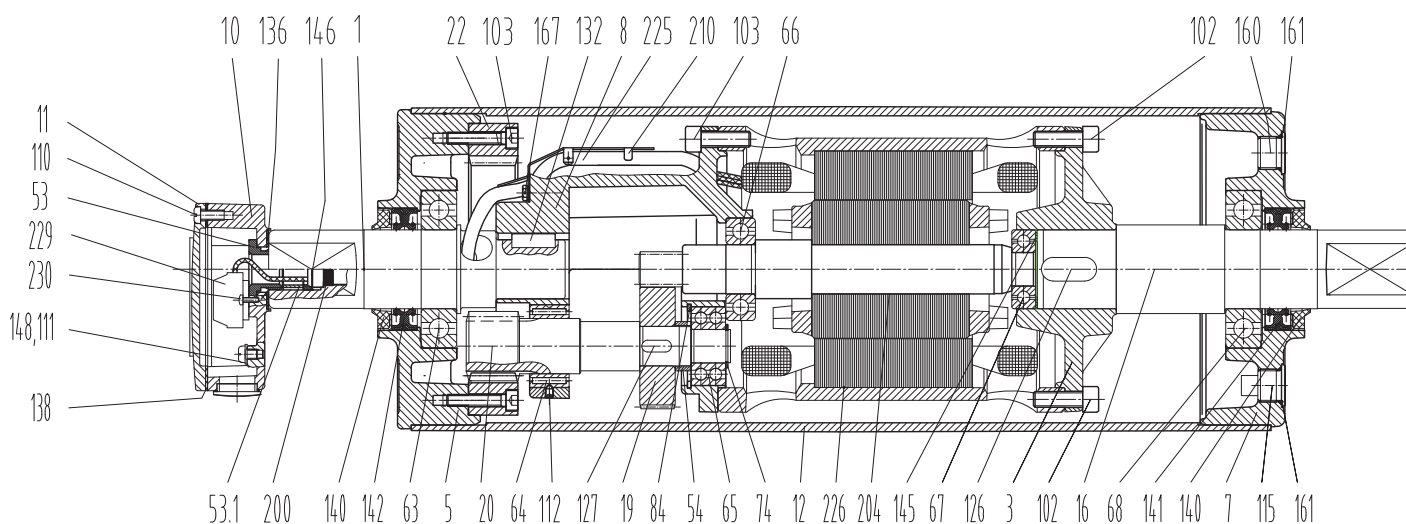


Motorized Pulley 165E

Spare Parts List and sectional drawings

Pos.	Description	Pos.	Description	Pos.	Description
1	Front shaft	31	Labyrinth seal cover	102	Screw
3	Rear flange	53	Cable seal nipple (cable option)	103	Screw
5	Bearing housing complete with geared rim	53.1	Nipple (terminal box)	110	Screw
7	Bearing housing complete	55	Spacer bushing	111	Screw
8	Gearbox	56	Spacer bushing	112	Socket set screw
10	Terminal box – bottom part	63	Ball bearing	113	Screw
11	Terminal box cover	64	Needle bearing	114	Socket set screw
12	Shell	65-70	Ball bearing	115	Oil plug with magnet
16	Rear shaft	73	Locking ring	126	Key
19	Input wheel	74	Locking ring	127	Key
20	Output pinion	81	Locking ring	131	Key
22	Geared rim	84	Locking ring	132	Key
23	Intermediate pinion shaft	85	Locking ring	136	O-ring/Rubber seal
24	Intermediate wheel	86	Locking ring	138	Rubber seal
		93	Elbow or straight connector	139	Grease nipple

165E standard option: 2 stage gearbox with terminal box

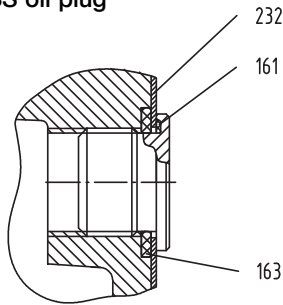


Motorized Pulley 165E

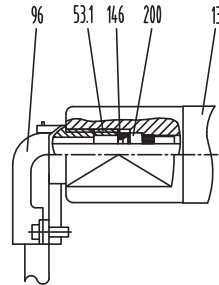
Spare Parts List and sectional drawings

Pos.	Description	Pos.	Description	Pos.	Description
140	Deflection seal	150.1	Friction disc	206	Insulated sleeve for wire protection
141	Double lip seal	156	Rectifier (not shown)	208	Bearing housing with labyrinth groove
142	Double lip seal	160	Oil plug	210	Fixing guard
143	O-ring	161	O-ring	225	Cable
145	Distance washer	163	O-ring	226	Stator complete
146	Washer	167	Screw	229	WAGO clamp terminals
148	Washer	200	Rubber seal	230	Fixing bolts
150	Electromagnetic brake	204	Rotor complete with pinion	240	Distance ring

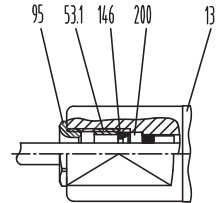
SS oil plug



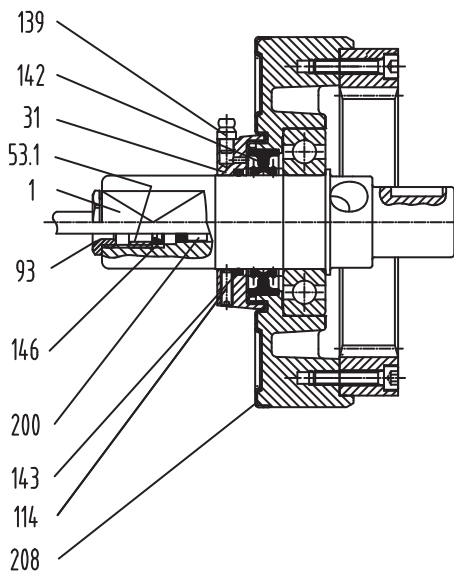
Cable version with elbow connector



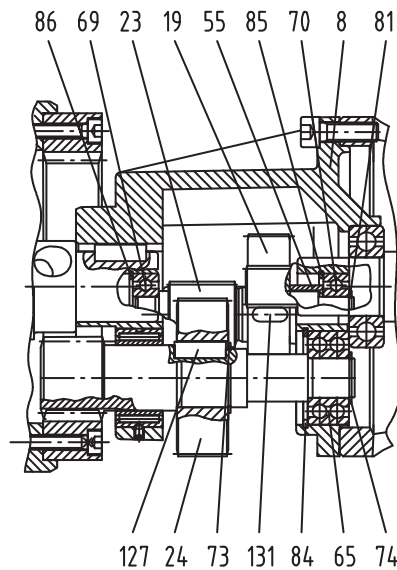
Cable version with straight connector



Stainless steel version TS7N
Cable option with straight connector



3-stage gearbox



Electromagnetic brake

