DRIVING EFFICIENCY



Drum Motor Catalogue

Edition 2

Integrated Conveyor Drives

www.axisdrummotor.com

This Catalogue

All reasonable care has been taken to ensure the accuracy of the information contained herein. All specifications, pictures, descriptions and dimensions are nominal and may change without notice. Design and sizes are subject to change without notice. The brand and logo of Axis are registered trademarks of Southquip Industrial.

Warranty

Any warranty period is as agreed at time of sale. All Axis equipment must be used for the appropriate application as at time of purchase. Loads must not exceed stated ratings. In the event of failure to adhere to the recommendations we will not take any responsibility for any damage caused by misuse. Under no circumstance will Southquip be liable for any loss, damage, expense, injury or consequential damage sustained as a result of non-suitability of any product for its intended use.

Terms and Conditions

The supply of goods and services is subject to our standard terms and conditions of sale which are available upon request. Southquip reserves the right to state payment terms.

Key of Icons Used



Automation: Drum motor is suitable for integration with control systems in advanced automation applications



General Handling: Drum motor type is suitable for general belt conveying applications in many industries



Fruit and Vegetable Industry: Drum motor type is commonly used for belt conveying in the fruit and vegetable industries for packing, labeling, sorting etc



Airports and Logistics Industry: Drum motor type is suitable for the high duty requirements of baggage handling and logistics sorting applications.



Poultry Industry: Drum motor type is suitable for the high hygiene requirements of the poultry breeding and processing industry.



Dairy Products Industry: Drum motor type is suitable for use in the dairy production industry with full stainless hygienic design.



Red Meat Industry: Drum motor type is suitable for use in the beef, sheep and swine processing industries with high resistance to washdown cleaning.



Seafood Industry: Drum motor type is suitable for use in the fin fish and shellfish processing industries with high corrosion resistance.



Super Market Industry: Drum motor type is suitable for the lightduty, low noise requirements of supermarket checkout counters



Mining Industry: Drum motor type is suitable for conveying heavy loads in applications in the mining industry

axis®

DRIVING EFFICIENCY

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Discover the Axis Range

In the modern production environment, reliability, efficiency and reduced maintenance costs, are key to remaining competitive and profitable. To keep work flows and systems at optimum productivity, nothing is more critical than the conveyor drive. They drive production through value adding stages, reduce manual handling and improve profitability.

The Axis range of Drum Motors and Motorised Pulleys are designed for simple integration into conveyor systems, for greater flexibility, faster construction and installation. Axis Drum Motors are a single, compact component which replaces previously complex and bulky drive systems. With high ingress protection ratings, they are unaffected by outside influence such as dust and water. This reduces maintenance requirements and prolongs the life of the drive. Axis Drum Motors create safer, cleaner and more efficient working environments, critical to many industries.

Discover our Company

Axis is a registered brand of the Southquip Industrial Group. Southquip is an independently owned and operated firm which has been supplying integrated conveying solutions since 1999. We supply drum motors and pallet handling rollers and also manufacture various components for materials handling systems. We pride ourselves on quality and continually strive to improve our products and assembly methods. Our efficient customer service and technical support ensures your conveying challenges are easily solved.


axis®
DRIVING EFFICIENCY

Axis Solutions



Axis AX Series
Light Duty Drum Motors



Axis TM Series
High Duty Drum Motors



Axis RL Series
Pallet Handling Rollers

Axis AX Series Motorised Drums
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Axis TM Series Motorised Drums
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Axis AX Series Motorised Drums

The Axis AX Series Drum Motors type are specifically designed for driving conveyor belts in light duty conveyor systems and supermarket checkouts.

Their compact, space saving design is very easy to integrate into conveyor construction. The mounting dimensions of this AX series match common industry brands making retrofits or replacement hassle free. The AX series is available in a wide range of motor sizes and belt speeds to ensure you receive the most efficient and economic drum motor solution for your application.

Axis AX Series Advantages & Applications

Advantages

1. **Low Cost**: One component replaces previously complex conveyor drive systems.
2. **Low Maintenance:** Does not require greasing or lubrication.
3. **Efficient:** Reduced drive components improves energy efficiency.
4. **Low Noise:** Enclosed drive components reduces workplace noise.
5. **Simple Design:** Simple mounting with universal dimensions for fast conveyor manufacture.
6. **Flexible Design:** Standard or custom drum face widths with stainless or aluminium construction.
7. **Local Assembly:** Assembled in New Zealand.



Applications

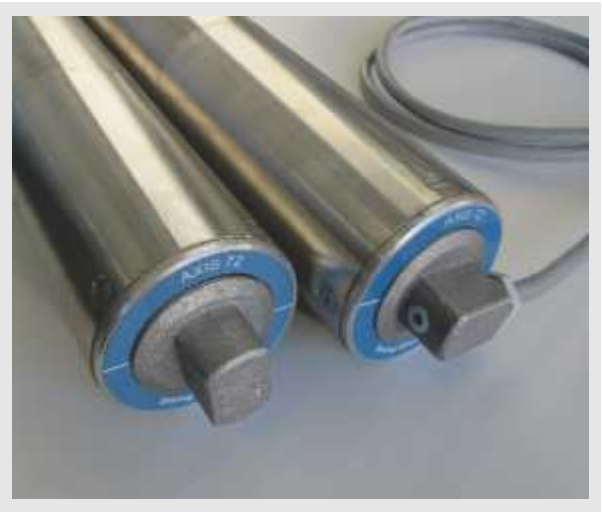
- Supermarket Checkouts
- Airport Scanning Machines
- Fruit and Vegetable Processing
- General Process Machines
- General Conveying
- Mobile Conveyors



Axis AX72 Motorised Drum

General Features

- Diameter Ø72mm
- Standard lengths from 250mm
- Asynchronous three-phase or single-phase motors
- Input power from 0.06kw to 0.09kw
- Insulation class F
- Zinc coated crowned steel or stainless steel 304 drum shell
- Permanently lubricated with synthetic grease
- Thermal protection



Axis AX72 Dimensions

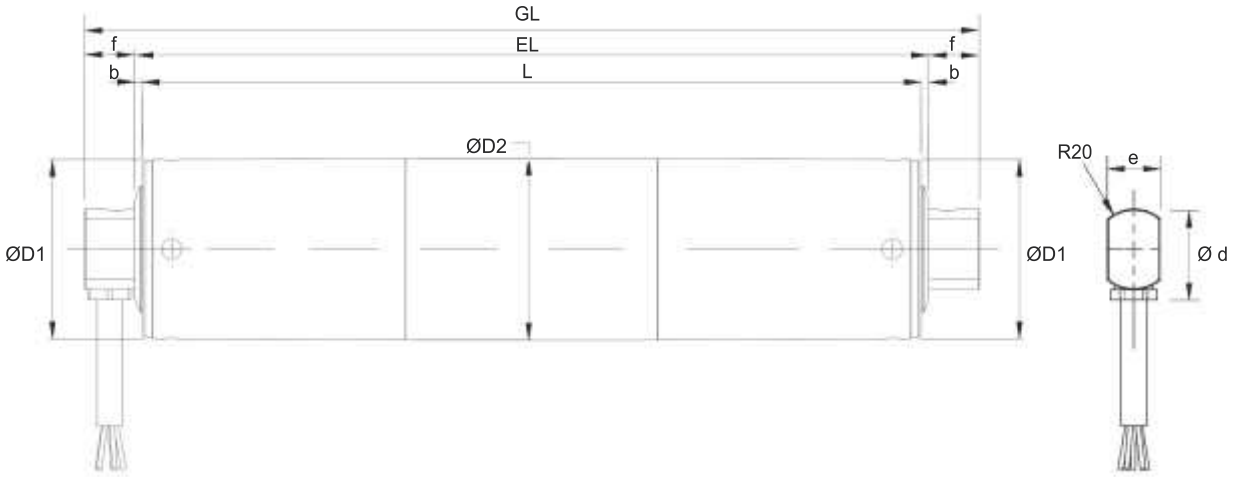


Figure 1.1

dimensions in mm

DRUM MOTOR								STANDARD IP65	
Size	Material	Type	ØD1	ØD2	Ø d	e	f	b	EL
72	Steel	AX72	71	72	31	21	20	3	L + 6
	Stainless steel		72	73					
GUIDE DRUM									
72	Steel	UT72	71	72	31	21	20	3	L + 6
	Stainless steel		72	73					

* With 1.2m cable

Indicative Applications

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Axis AX72 Motorised Drum

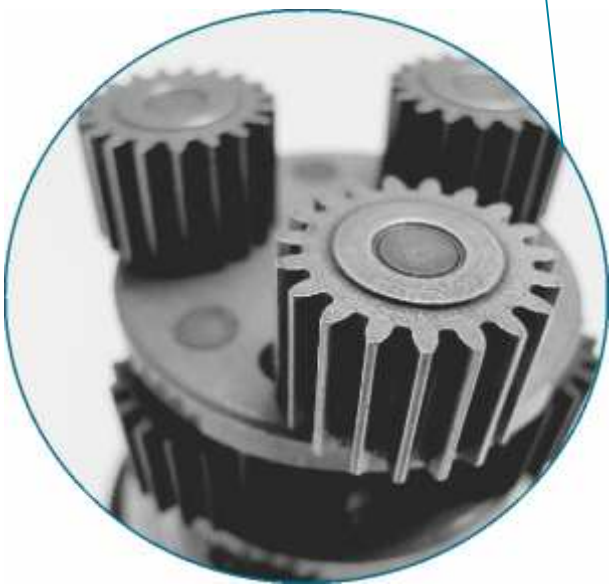
Axis AX72 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT (50Hz)	DRUM LENGTH	WEIGHT
		v	n2	F	T2		L min.	L=400mm
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
AX72	0,06 2-pole	0,30	80	52	2,30	3x230/400V 0,31/0,18 1x230V 0,27	250	4,8
		0,42	111	36	1,60			
		0,60	160	26	1,20			
		0,67	178	23	1,00			
		0,78	206	20	0,90			
AX72	0,09 2-pole	0,048	12	703	31,3	3x230/400V 0,45/0,26 1x230V 0,42	300	4,8
		0,067	17	510	22,7			
		0,083	22	410	18,2			
		0,10	26	343	15,2			
		0,11	29	304	13,5			
		0,13	34	269	12,0			
		0,14	37	243	10,8			
		0,16	42	215	9,50			
		0,175	46	192	8,60			
		0,20	53	170	7,60			
		0,30	79	123	5,50			
		0,42	111	85	3,80			
		0,60	159	61	2,70			
		0,67	177	55	2,40			
		0,78	206	48	2,10			

- Enquire for alternative performance data and speeds
- Indication of weight ready for operating
- Additional weight: approx. 0,3 kg for 100mm add. length

"Maintenance Free" feature

Long life, maintenance free gear system





Axis AX84 Motorised Drum

General Features

- Diameter Ø84mm
- Standard lengths from 269mm
- Asynchronous three-phase or single-phase motors
- 0.06kw or 0.12kw input power
- Insulation class F
- IP66 ingress protection
- Aluminum or stainless construction
- Crowned drum surface
- Permanently lubricated with synthetic oil



Axis AX84 Dimensions

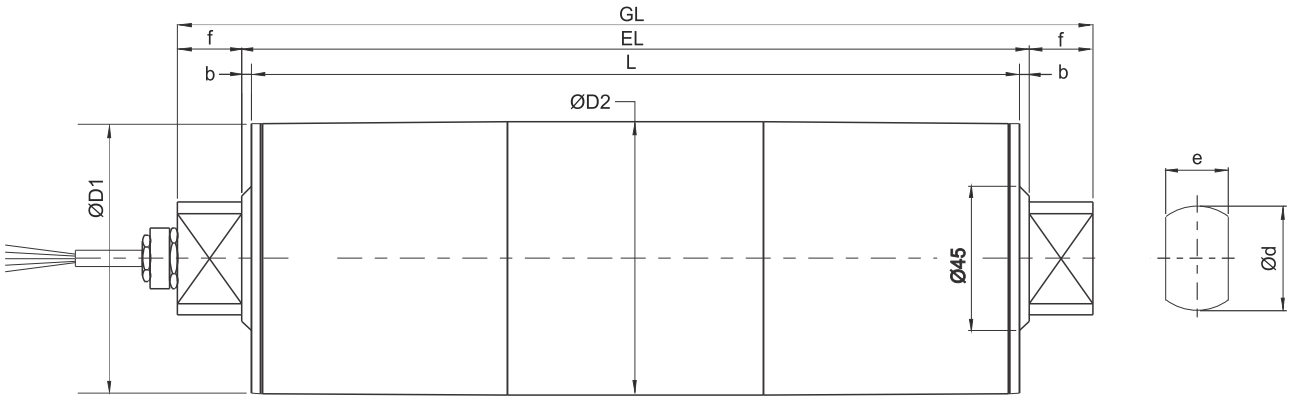


Figure 2.1

dimensions in mm

DRUM MOTOR								STANDARD IP65	
Size	Material	Type	ØD1	ØD2	Ø d	e	f	b	EL
84	Aluminium	AX84	84	85	35	21	20	3	L + 6
	Stainless steel		86	87					
GUIDE DRUM									
84	Aluminium	UT84	84	85	35	21	20	3	L + 6
	Stainless steel		86	87					

* With 1.2m cable

Indicative Applications

Axis AX84 Motorised Drum

Axis AX84 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT (50Hz)	DRUM LENGTH	WEIGHT
		v	n2	F	T2		L min.	L=400mm
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
AX84	0,06 4-pole	0,08	80	750	31,9	3x230/400V 0,5/0,3 1x230V 0,50	269	4,8
		0,10	111	600	25,5			
		0,11	160	546	23,2			
AX84	0,12 4-pole	0,15	33	800	33,6	3x230/400V 0,50/0,30	300	4,8
		0,16	35	750	31,5			
		0,19	42	632	26,9			
		0,24	53	500	21,3			
		0,39	87	307	13,1			
		0,46	103	261	11,1			
		0,49	110	245	10,4			
		0,59	132	203	8,60			
		0,77	172	156	6,60			

- Enquire for alternative performance data and speeds
- Indication of weight incl oil ready for operating
- Additional weight: approx. 0,4 kg for 100mm add. length

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Axis AX112 Motorised Drum

General Features

- Diameter Ø112 mm
- Standard lengths from 256mm
- Asynchronous three-phase or single phase motors
- 0.06kw to 0.37kw input power
- Insulation class F
- IP66 ingress protection
- Crowned drum surface
- Aluminum or stainless steel construction.
- Lubricated for life with synthetic oil



Axis AX112 Dimensions

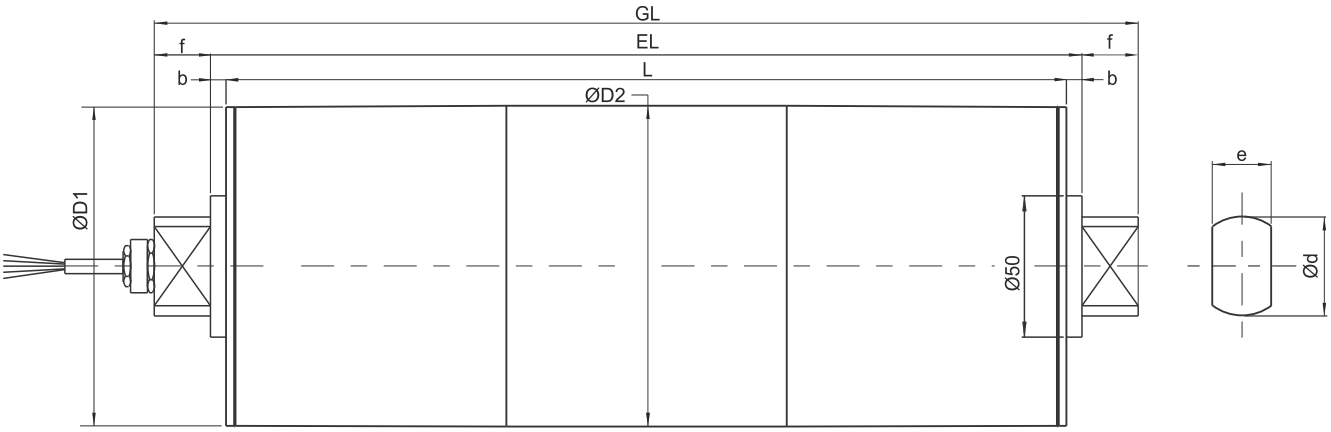


Figure 3.1

dimensions in mm

DRUM MOTOR									STANDARD
Size	Material	Type	ØD1	ØD2	Ø d	e	f	b	EL
112	Aluminium	AX112	112.5	113.5	35	21	20	5.5	L + 11
	Stainless steel		112.5	113.5					
GUIDE DRUM									
112	Aluminium	UT112	112.5	113.5	35	21	20	5.5	L + 11
	Stainless steel		112.5	113.5					

* With 1.2m cable

Indicative Applications

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Axis AX112 Motorised Drum

Axis AX112 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT (50Hz)	DRUM LENGTH	WEIGHT
		v	n2	F	T2		L min.	L=450mm
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
AX112	0,06 4-pole	0,03	5	2222	125	3x230/400V 0,70/0,25 1x230V 0,42	256	8.4
		0,04	6	1500	85,0			
		0,06	10	1000	56,0			
		0,08	13	750	42,5			
		0,12	20	500	28,0			
		0,15	25	400	22,5			
		0,20	33	300	17,0			
		0,26	43	231	13,0			
		0,31	52	194	11,0			
		0,36	60	157	9,50			
		0,50	84	120	7,00			
		0,69	116	87	5,00			
AX112	0,12 4-pole	0,08	13	1500	84,0	3x230/400V 0,95/0,51 1x230V 0,64	256	9.2
		0,12	20	1000	56,0			
		0,15	25	800	45,0			
		0,20	33	600	34,0			
		0,26	43	462	26,0			
		0,31	52	387	22,0			
		0,36	60	333	19,0			
		0,50	84	240	13,5			
		0,69	116	174	10,0			
		0,81	136	148	8,50			
AX112	0,18 4-pole	0,12	20	1500	84,0	3x230/400V 1,20/0,76 1x230V 2,30	276	9.4
		0,15	25	1200	68,0			
		0,20	33	900	51,0			
		0,26	43	692	39,0			
		0,31	52	581	33,0			
		0,36	60	500	28,5			
		0,50	84	360	20,5			
		0,69	116	261	14,5			
		0,81	136	222	12,5			
		0,91	153	198	11,0			
		1,05	177	171	9,50			
AX112	0,25 4-pole	0,20	33	1250	70,5	3x230/400V 1,50/0,98 1x230V 1,43	276	10,2
		0,26	43	962	54,5			
		0,31	52	806	45,5			
		0,36	60	694	39,0			
		0,50	84	500	28,5			
		0,69	116	362	20,5			
		0,81	136	309	17,5			
		0,91	153	275	15,5			
		1,05	177	238	13,5			
AX112	0,37 4-pole	0,26	43	1423	80,0	3x230/400V 1,90/1,03 1x230V 1,80	294	10,6
		0,31	52	1194	67,5			
		0,36	60	1028	58,0			
		0,50	84	740	42,0			
		0,69	116	536	30,5			
		0,81	136	457	26,0			
		0,91	153	407	23,0			
		1,05	177	352	20,0			

- Enquire for alternative performance data and speeds
- Indication of weight incl oil ready for operating, varies depending on construction.
- Additional weight: approx. 0,5 kg for 100mm add. length

Axis AX135 Motorised Drum

General Features

- Diameter Ø135mm
- Standard length from 300mm
- Asynchronous three-phase or single-phase motors
- 0.12kw to 0.55kw input power
- Insulation class F
- Crowned drum surface
- Aluminium or stainless steel construction
- Permanently lubricated with synthetic oil



Axis AX135 Dimensions

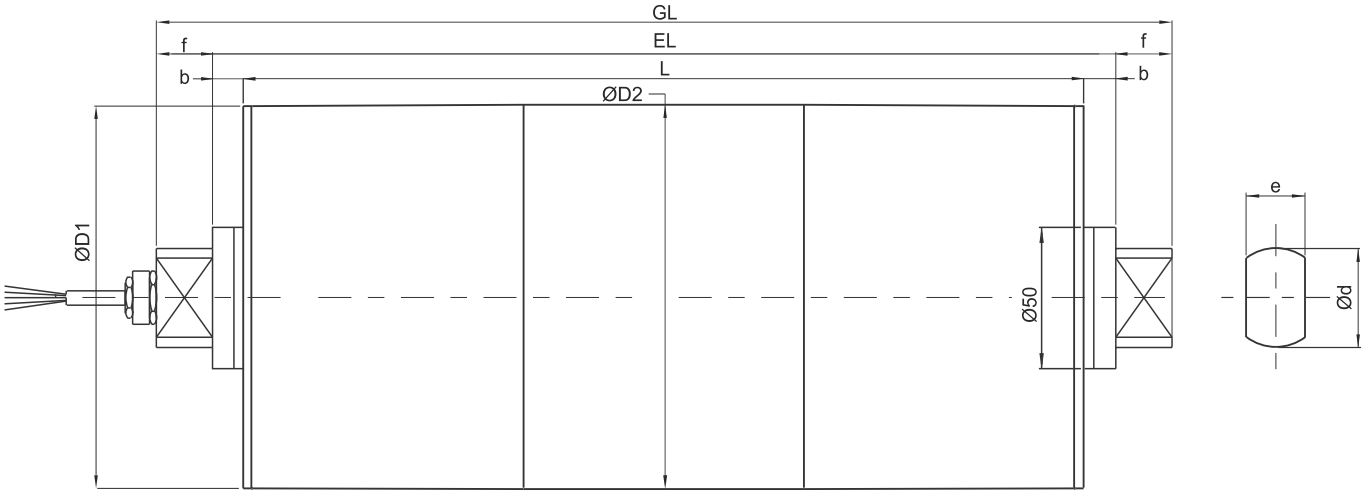


Figure 4.1

dimensions in mm

DRUM MOTOR								STANDARD	
Size	Material	Type	ØD1	ØD2	Ø d	e	f	b	EL
135	Aluminium	AX135	132.5	133.5	35	21	20	15	L + 30
	Stainless steel		131.5	132.5					
GUIDE DRUM									
135	Aluminium	UT135	132.5	133.5	35	21	20	15	L + 30
	Stainless steel		131.5	132.5					

* With 1.2m cable

Indicative Applications

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Axis AX135 Motorised Drum

Axis AX135 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT (50Hz)	DRUM LENGTH	WEIGHT
		v	n2	F	T2		L min.	L=600mm
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
AX135	0,12 4-pole	0,10	14	1200	81,0	3x230/400V 0,95/0,70 1x230V 0,92	300	11.5
		0,14	19	857	58,0			
		0,18	25	657	45,0			
AX135	0,18 4-pole	0,18	25	1000	67,5	3x230/400V 1,20/0,94 1x230V 2,30	300	11.7
		0,24	33	750	50,5			
		0,31	43	581	39,0			
AX135	0,25 4-pole	0,18	25	1389	94,0	3x230/400V 1,50/1,17 1x230V 1,70	300	12,1
		0,24	33	1042	70,0			
		0,31	43	806	54,5			
		0,36	50	694	47,0			
		0,41	57	610	41,0			
AX135	0,37 4-pole	0,24	33	1542	104	3x230/400V 1,90/1,24 1x230V 2,30	350	12,3
		0,31	43	1134	80,5			
		0,36	50	902	61,0			
		0,41	57	694	47,0			
		0,50	70	617	42,0			
		0,80	113	463	31,0			
		0,93	131	398	27,0			
		1,07	151	345	23,5			
		1,25	176	295	20,0			
AX135	0,55 4-pole	0,31	43	1774	120	3x230/400V 2,80/1,80	350	12.6
		0,41	57	1341	90,5			
		0,60	70	917	62,0			
		0,80	113	688	46,5			
		0,93	131	591	40,0			
		1,07	151	514	34,5			
		1,25	176	440	29,5			

- Enquire for alternative performance data and speeds
- Indication of weight incl oil ready for operating, varies depending on construction.
- Additional weight: approx. 0,6 kg for 100mm add. length

Axis AX Series Output Cable Options

1. Axial/Straight

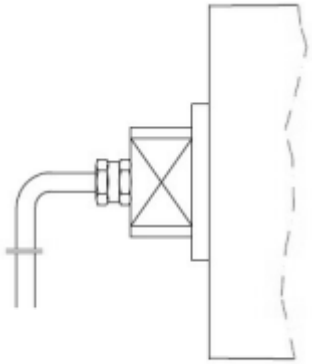


Figure 5.1

2. 90 Degree Elbow

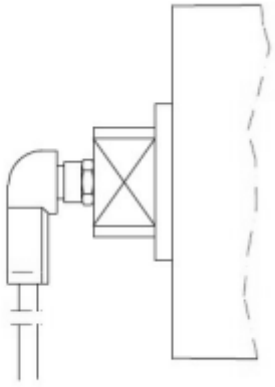


Figure 5.2

3. Radial

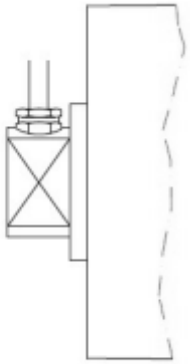


Figure 5.3

DRIVING EFFICIENCY



Axis TM Series Motorised Drums

Axis TM Series conveyor drum motors are used to drive conveyor belts for the transport of goods and products of many kinds. These drum motors can also be used in transport systems without belts. The quality construction, long term reliability and efficiency of this series has been proven in many industry sectors.

The Axis TM Series are available in industry standard diameters from 60mm to 415mm offering installation flexibility, while ensuring correct power requirements can be specified. The Axis TM Series is a complete range for all general conveying and bulk handling applications.

Axis TM Advantages & Applications

Advantages

1. **Low Maintenance:** The enclosed drive system is oil lubricated and protected from liquids and dust.
2. **Efficiency:** Precision ground helical gears and reduced drive components maximises energy efficiency.
3. **Low Noise:** Quiet running with oil immersed drive components.
4. **Simple Design:** Flat shafts make installation easy when used with standard two part clamping bearings or profiled parts.
5. **Flexible Dimensions:** Custom shell lengths and shaft dimensions available.
6. **Reliability:** Quality construction and components ensure long lifetime.
7. **Options and Accessories:** Options in electrical voltage, mechanical specifications as well as drum shell coatings and sprockets ensures optimum suitability..



Applications

- Airport Security
- Airport Baggage Handling
- Fruit and Vegetable Processing
- Meat and Poultry Processing
- Seafood Production
- Recycling
- Bulk Handling
- Mobile Conveyors



Axis TM60 Motorised Drum

General Features

- Diameter Ø60mm
- Planetary steel gear unit
- Standard lengths from 355mm
- Asynchronous three-phase or single-phase motors
- 0.030kw to 0.08kw input power
- Insulation Class F (DIN EN 60034-1)
- IP65 or IP66 Ingress Protection
- Mild steel or stainless steel construction
- Crowned drum surface
- Permanently lubricated with synthetic oil
- Grooves and special coatings available



Axis TM60 Dimensions

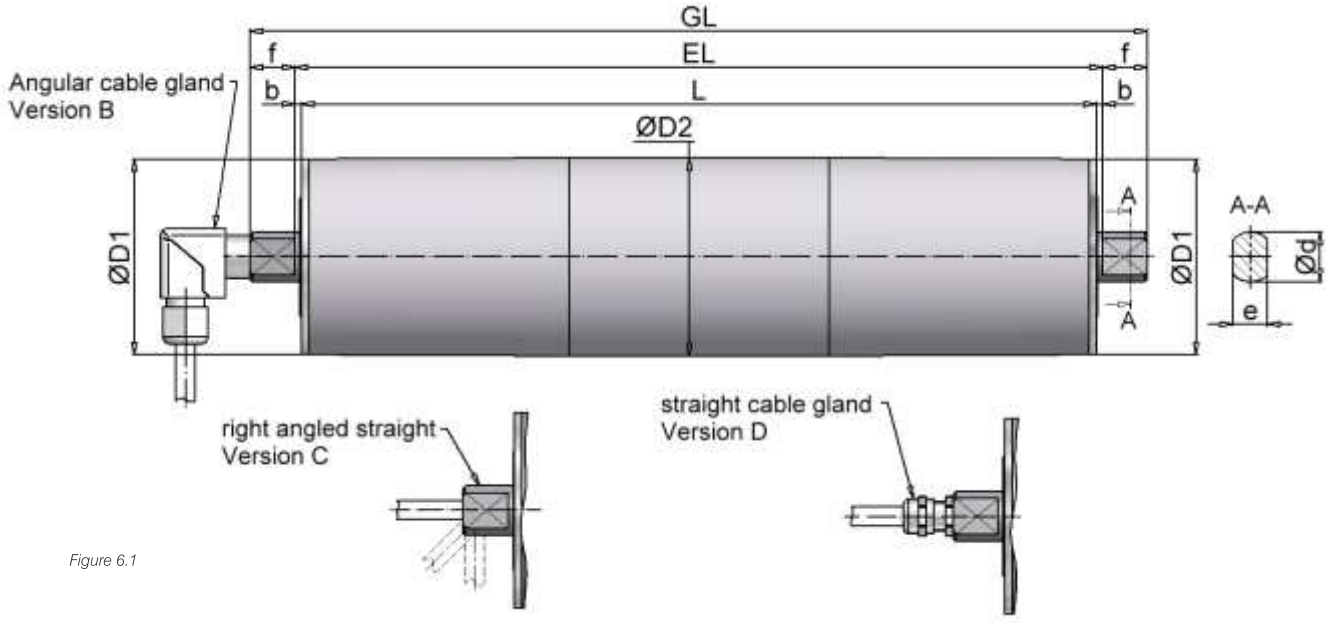


Figure 6.1

dimensions in mm

DRUM MOTOR								STANDARD IP65		OPTIONAL IP66	
Size	Material	Type	ØD1	ØD2**	Ø d	e	f	b	EL	b	EL
60	Steel	TM60.1	61.5	62.5	20	14	18	2,5	L + 5	2,5	L + 5
	Stainless steel		63.5	64.5							
GUIDE DRUM											
60	Steel	UT60.1	61.5	62.5	20	14	18	2,5	L + 5	2,5	L + 5
	Stainless steel		63.5	64.5							

* With 1m cable
** Diameter with cylindrical drum design Ø 81mm

Axis TM60 Motorised Drum

Axis TM60 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=450mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM60.1	0,03 4-pole	0,09	26	345	11	0,19	355 at IP65 365 at IP66	6
		0,11	34	265	8			
		0,14	41	219	7			
		0,15	45	204	6			
		0,18	54	168	5			
		0,22	65	139	4			
		0,59	178	51	2			
		0,76	232	39	1			
		0,92	280	32	1			
TM60.1	0,08 2-pole	0,18	54	447	14	0,24	355 at IP65 365 at IP66	6
		0,23	71	343	11			
		0,28	85	284	9			
		0,30	92	264	8			
		0,37	111	218	7			
		0,44	134	180	6			
		1,21	366	66	2			
		1,57	477	51	2			
		1,90	576	42	1			

- Alternative performance data and speeds on request
- Indication of weight incl. oil filling (ready for operating)
- Additional weight: approx. 0,5 kg for 100mm add. length

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Aluminium bearing covers
- Mild steel shafts with rust protection paint
- Steel planetary gear unit
- IP65 Ingress Protection rating
- Straight cable gland with 1m cable

Options

- Angular cable gland (with 1m cable)
- Angular cable gland stainless steel (with 1m cable)
- Right angled-straight cable gland (with 1m cable)
- Sprocket / toothed belt disc
- Cylindrical drum shell, coated, zinc plated
- Stainless steel design
- Custom windings for special voltages
- Thermal protection
- IP66 Ingress Protection rating
- Suitable for frequency converter use
- Accessories for use with plastic modular conveyor belts
- Vertical mounting (should be stated in the order)
- Food-safe lubricant
- Drum motor as cartridge
- Single-phase motors on request
- UL & CSA Certification

Alternative custom designs also available - please enquire.

Axis TM60 Clamping Bearing

See page 24 for EL20/14 Clamping Bearing



Indicative Applications

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Axis TM82 Motorised Drum

General Features

- Diameter Ø82mm
- High duty helical steel gear unit
- Standard lengths from 200mm
- Asynchronous three-phase or single-phase motors
- 0.018kw to 0.12kw input power
- Insulation Class F (DIN EN 60034-1)
- IP66 Ingress Protection
- Mild steel or stainless steel construction
- Crowned drum surface
- Lubricated with synthetic oil
- Special coatings and sprockets available



Axis TM82 Dimensions

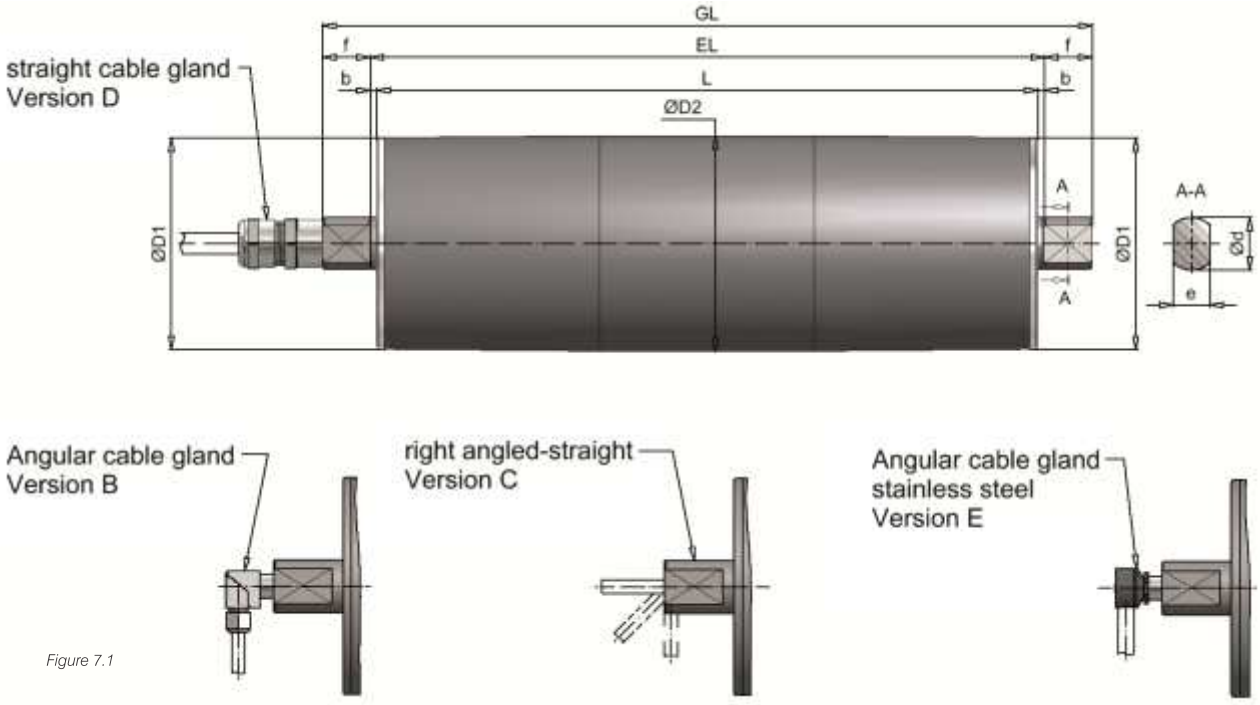


Figure 7.1

dimensions in mm

DRUM MOTOR									STANDARD IP66		
Size	Type	Ø D1**	Ø D2**	a	Ø N	Ø d	e	f	f1	b	EL
82	TM 82.1	80	81,5			20	14	18		2,5	L + 5
GUIDE DRUM											
82	UT 82.1	80	81,5			20	14	18		2,5	L + 5

* With 1m cable
** Diameter with cylindrical drum design Ø 81mm

Axis TM82 Motorised Drum

Axis TM82 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=400mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM82.1	0,018 8-pole	0,03	8	537	22	0,18	250	4,5
		0,05	11	375	15			
		0,06	14	305	12			
		0,09	20	209	9			
		0,12	29	146	6			
		0,15	36	119	5			
TM82.1	0,04 4-pole	0,08	19	482	20	0,23	200	3,5
		0,10	22	419	17			
		0,14	32	292	12			
		0,17	39	238	10			
		0,25	58	163	7			
		0,35	83	114	5			
		0,43	101	93	4			
TM82.1	0,07 2-pole	0,18	43	384	16	0,20	200	3,5
		0,21	49	334	14			
		0,30	70	233	9			
		0,37	87	190	8			
		0,54	126	130	5			
		0,77	181	91	4			
		0,95	222	74	3			
TM82.1	0,07 4-pole	0,08	20	827	34	0,37	250	4,5
		0,10	23	718	29			
		0,14	33	501	20			
		0,17	40	408	17			
		0,25	59	279	11			
		0,36	84	195	8			
		0,44	103	159	6			
TM82.1	0,12 2-pole	0,19	43	647	26	0,31	250	4,5
		0,21	50	562	23			
		0,31	72	392	16			
		0,38	88	319	13			
		0,55	129	218	9			
		0,79	185	152	6			
		0,97	227	124	5			

- Alternative performance data and speeds on request
- Indication of weight incl. oil filling (ready for operating)
- Additional weight: approx. 0,8 kg for 100mm add. length



Indicative Applications

Axis TM82 Design & Options

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Aluminium bearing covers
- Mild steel shafts with rust protection paint
- Helical gear unit with steel toothing (quiet)
- IP66 Ingress Protection rating
- Straight cable gland with 1m cable

Options

- Internal brake
- Angular cable gland (with 1m cable)
- Angular cable gland stainless steel (with 1m cable)
- Right angled-straight cable gland (with 1m cable)
- Mechanical backstop
- Sprocket / toothed belt disc
- Sensor bearing unit (rotary encoder)
- Cylindrical drum shell, coated, zinc plated
- Stainless steel design
- Custom windings for special voltages
- Thermal overload protection
- IP67 Ingress Protection rating
- Suitable for frequency converter use
- Accessories for use with plastic modular conveyor belts
- Grooved rubber lagging.
- Vertical mounting (should be stated in the order)
- Food-safe lubricant
- Drum motor as cartridge
- Single-phase motors on request
- UL & CSA Certification

Alternative custom designs also available - please enquire.

Axis TM82 Clamping Bearing

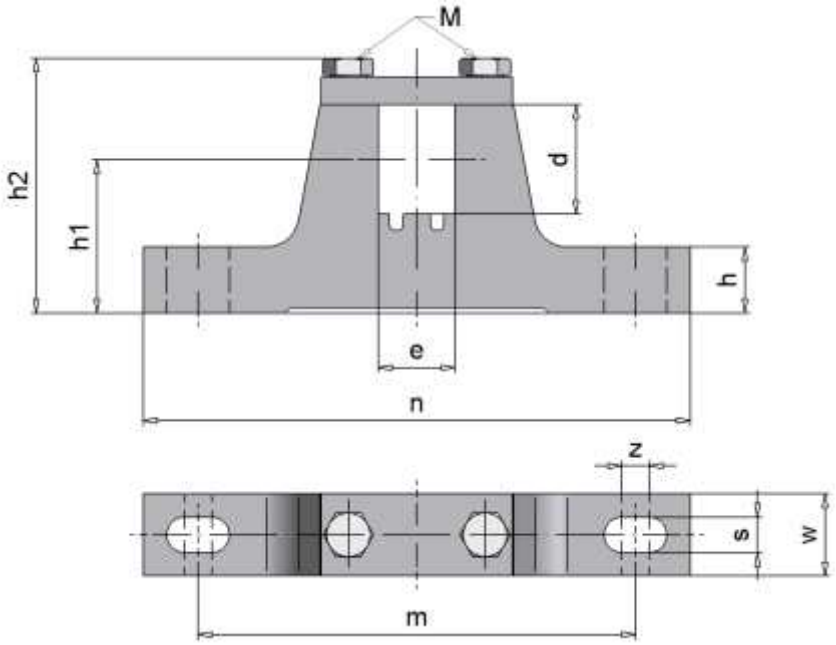


Figure 7.2

Dimensions in mm

DRUM TYPE	CLAMPING BEARING	d	e	h	h1	h2	m	n	s	w	z	M	MATERIAL	ca. kg
TM82	EL20/14	20	14	12	28	47	80	100	6,5	15	5	M5	Steel	0,25

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Axis TM113 Motorised Drum

General Features

- Diameter Ø113mm
- High duty helical steel gear unit
- Standard lengths from 260mm
- Asynchronous three-phase or single-phase motors
- 0.075kw to 0.55kw input power
- Insulation Class F (DIN EN 60034-1)
- IP66 Ingress Protection
- Mild steel or stainless steel construction
- Crowned drum surface
- Lubricated with synthetic oil
- Special coatings and sprocket options available



Axis TM113 Dimensions

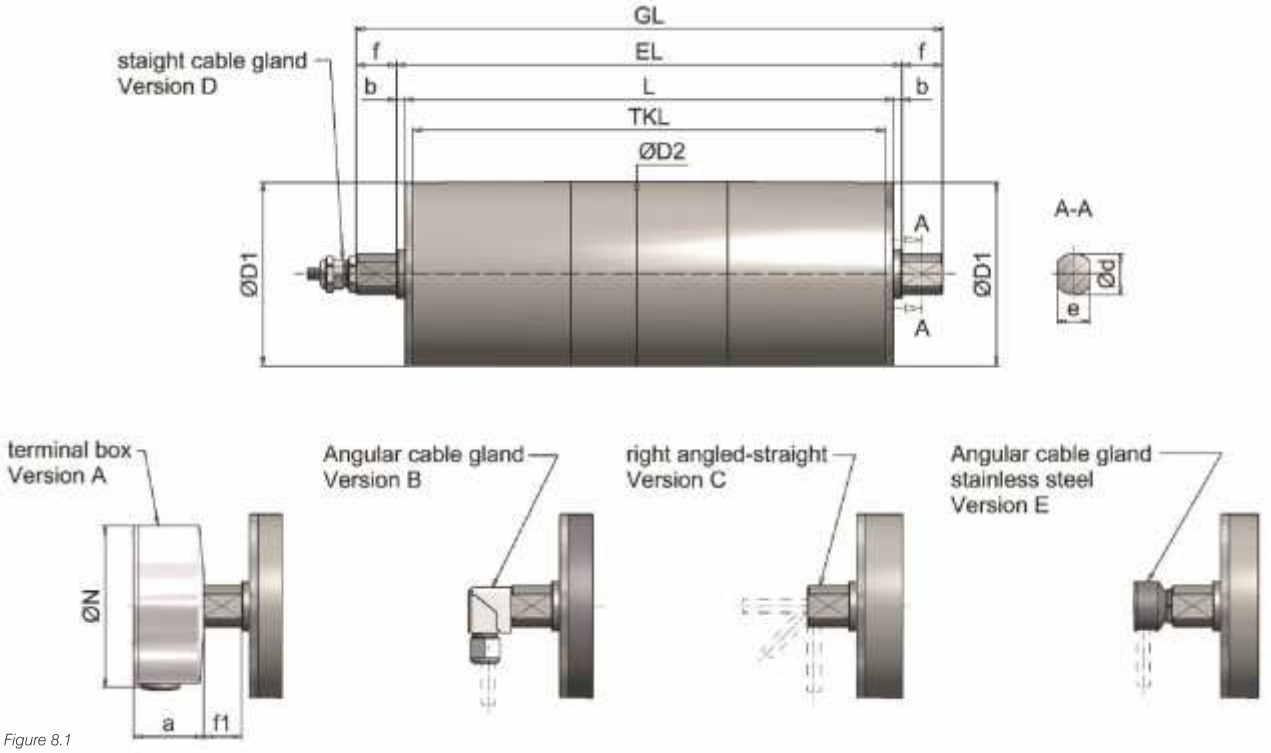


Figure 8.1

dimensions in mm

DRUM MOTOR										STANDARD IP66	
Size	Type	Ø D1	Ø D2**	a	Ø N	Ø d	e	f	f1	b	EL
113	TM113.1	112,5	113,5	43	100	25	20	25	23	5	L + 10

GUIDE DRUM											
113	UT113.1	112,5	113,5			25	20	25		5	L + 10

* With 1m cable
** Diameter with cylindrical drum design 113

Axis TM113 Motorised Drum

Axis TM113 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=400mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM113	0,075 8-pole	0,09	16	795	45	0,45	260	12,5
		0,12	19	650	37			
		0,14	23	541	31			
		0,16	28	456	26			
		0,19	33	388	22			
		0,23	38	333	19			
		0,26	44	286	16			
		0,28	47	271	15			
		0,34	57	221	13			
		0,41	68	184	10			
		0,48	81	155	9			
		0,57	95	132	8			
		0,66	111	113	6			
		0,77	129	98	6			
TM113	0,12 6-pole	0,14	23	876	50	0,57	260	12,5
		0,17	28	716	41			
		0,20	34	596	34			
		0,24	40	503	29			
		0,28	47	428	24			
		0,33	55	367	21			
		0,38	64	316	18			
		0,40	68	299	17			
		0,49	83	244	14			
		0,59	99	203	12			
		0,70	118	171	10			
		0,82	138	146	8			
		0,96	162	125	7			
		1,11	188	108	6			
TM113	0,18 4-pole	0,21	36	845	48	0,68	260	12,5
		0,26	44	690	39			
		0,31	53	575	33			
		0,37	63	485	27			
		0,44	73	413	23			
		0,51	86	354	20			
		0,59	99	304	17			
		0,63	105	288	16			
		0,76	129	235	13			
		0,92	155	196	11			
		1,09	183	165	9			
		1,28	215	141	8			
		1,49	251	121	7			
		1,73	292	104	6			

Axis TM113 Motorised Drum

Axis TM113 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=400mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM113	0,25 4-pole	0,21	36	1173	67	0,94	260	12,5
		0,26	44	959	54			
		0,31	53	798	45			
		0,37	63	673	38			
		0,44	73	573	33			
		0,51	86	491	28			
		0,59	99	423	24			
		0,63	105	400	23			
		0,76	129	327	19			
		0,92	155	272	15			
		1,09	183	229	13			
		1,28	215	195	11			
		1,49	251	167	10			
		1,73	292	144	8			
TM113	0,30 4-pole	0,21	36	1408	80	1,10	280	13,6
		0,26	44	1151	65			
		0,31	53	958	54			
		0,37	63	808	46			
		0,44	73	688	39			
		0,51	86	589	33			
		0,59	99	507	29			
		0,63	105	480	27			
		0,76	129	392	22			
		0,92	155	326	19			
		1,09	183	275	16			
		1,28	215	234	13			
		1,49	251	201	11			
		1,73	292	173	10			
TM113	0,37 2-pole	0,43	72	868	49	0,95	260	12,5
		0,52	88	710	40			
		0,63	105	591	34			
		0,74	125	498	28			
		0,87	147	424	24			
		1,02	171	363	21			
		1,18	199	313	18			
		1,25	210	296	17			
		1,53	257	242	14			
		1,84	309	201	11			
		2,18	367	170	10			
		2,56	431	145	8			
		2,99	503	124	7			
		3,47	584	107	6			

Axis TM113 Design & Options

Axis TM113 Performance Data

TM113	0,55 2-pole	0,42	71	1300	74	1,26	280	13,6
		0,52	87	1062	60			
		0,62	105	884	50			
		0,74	124	746	42			
		0,87	146	635	36			
		1,01	170	544	31			
		1,17	198	469	27			
		1,24	209	443	25			
		1,52	256	362	21			
		1,82	307	301	17			
		2,16	364	254	14			
		2,54	428	216	12			
		2,97	499	185	11			
		3,44	579	160	9			

- Alternative performance data and speeds on request
- Indication of weight incl. oil filling (ready for operating)
- Additional weight: approx. 1,0 kg for 100mm add. length
- With brake, mounting L minimum dimension increases 65mm

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Aluminium bearing covers
- Mild steel shafts with rust protection paint
- Helical gear unit with steel toothing (quiet)
- Straight cable gland with 1m cable

Options

- Internal brake
- Terminal box connection
- Angular cable gland (with 1m cable)
- Angular cable gland stainless steel (with 1m cable)
- Right angled-straight cable gland (with 1m cable)
- Mechanical backstop
- Sprocket / toothed belt disc
- Sensor bearing unit (rotary encoder)
- Cylindrical drum shell, coated, zinc plated
- Stainless steel design
- Custom windings for special voltages
- Thermal overload protection
- IP67 Ingress Protection rating
- Suitable for frequency converter use
- For modular plastic conveyor belts and grooved rubber lagging
- Vertical mounting (should be stated in the order)
- Food-safe lubricant
- Drum motor as cartridge
- Single phase motors on request
- UL and CSA certifcation

Alternative custom designs also available please enquire.



Indicative Applications

Axis TM113 Design & Options

Axis TM113 Clamping Bearing

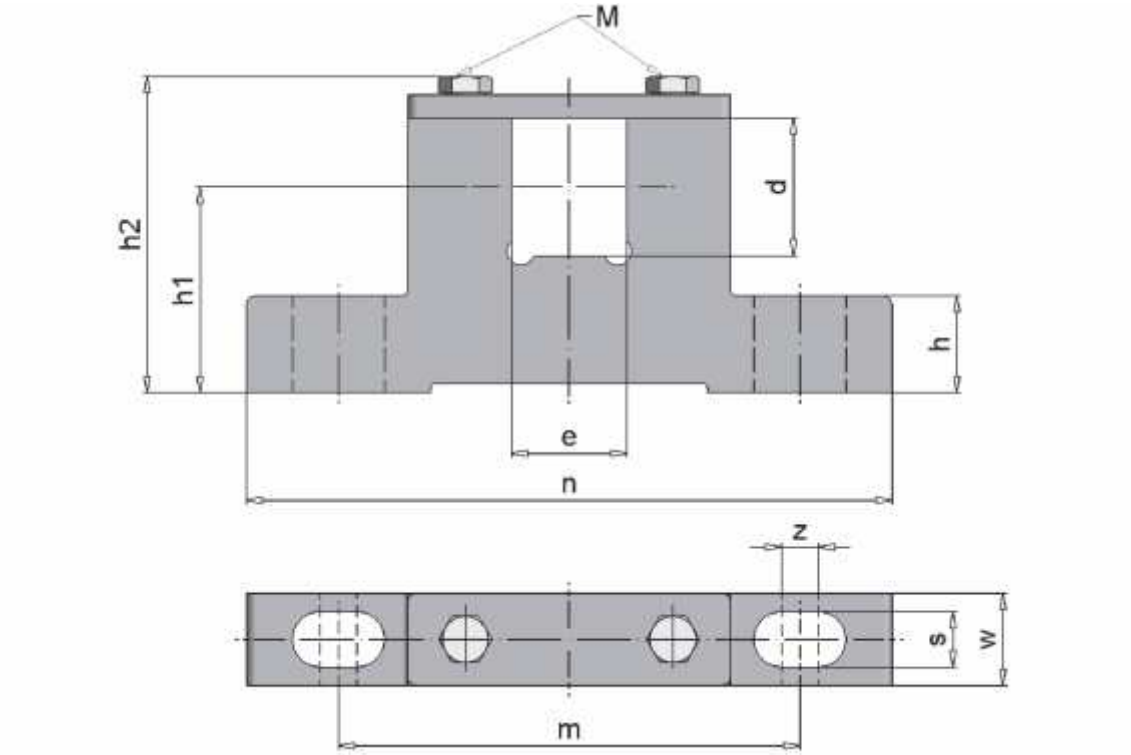


Figure 8.2

dimensions in mm

DRUM TYPE	CLAMPING BEARING	d	e	h	h1	h2	m	n	s	w	z	M	MATERIAL	Kg
TM113	EL25/20	25	20	21	44,5	66	100	140	12	20	8	M6	Steel	0,7

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Axis TM138 Motorised Drum

General Features

- Diameter Ø138mm
- High duty helical steel gear unit
- Standard lengths from 300mm
- Asynchronous three-phase motor
- 0.09Kw to 1.0Kw input power
- Insulation Class F (DIN EN 60034-1)
- Mild or stainless steel construction
- Crowned drum surface
- Lubricated with synthetic oil
- Special coatings and sprocket options available



Axis TM138 Dimensions

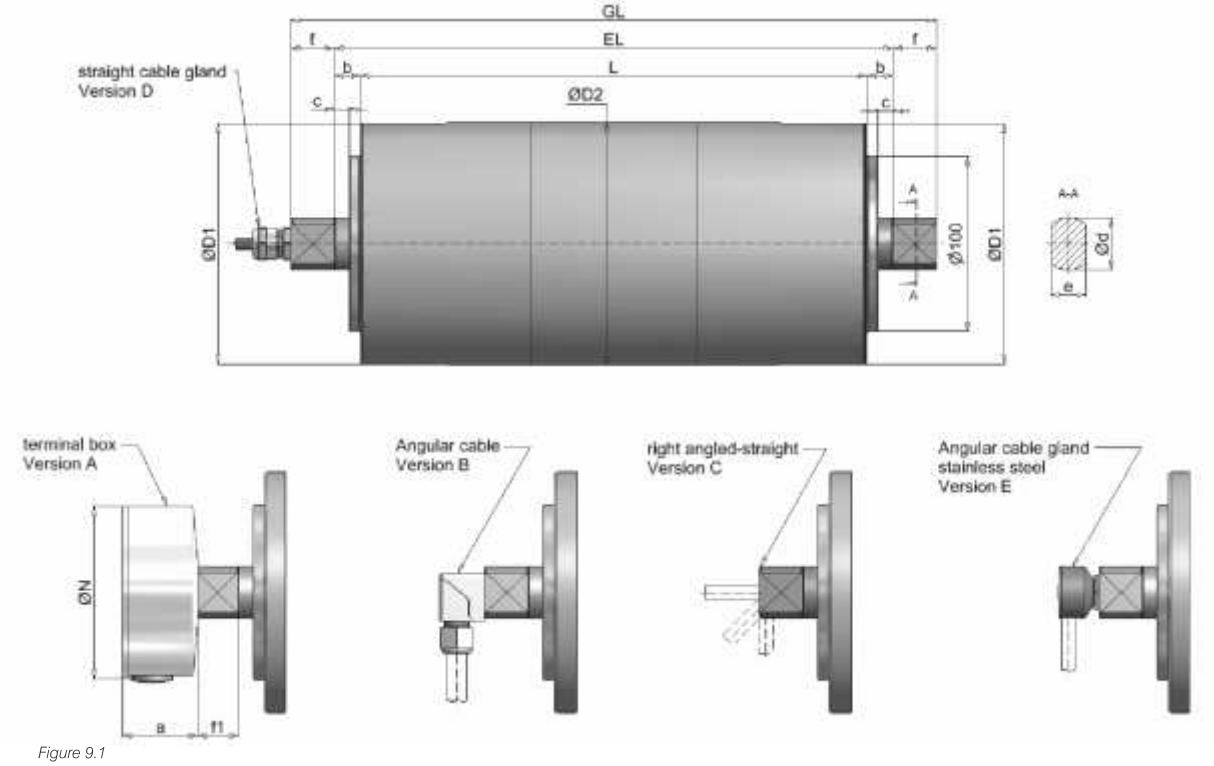


Figure 9.1

dimensions in mm

DRUM MOTOR											STANDARD IP66	
size	Type	ØD1	ØD2	a	ØN	c	Ød	e	f	f1	b	EL
138	TM 138.1	137,5	139	43	100	8,5	30	20	25	23	15	L + 30
GUIDE DRUM												
138	UT 138.1	137,5	139			8,5	30	20	25		15	

* with 1m cable
** diameter with cylindrical drum design 137mm

Axis TM138 Motorised Drum

Axis TM138 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=400mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM138	0,09 12-pole	0,04	6	2218	153	0,82	300	15
		0,05	7	1797	124			
		0,06	8	1478	102			
		0,07	9	1362	94			
		0,08	10	1198	83			
		0,11	15	826	57			
		0,08	11	1093	75			
		0,1	14	908	63			
		0,12	17	728	50			
		0,16	23	550	38			
		0,15	21	591	41			
		0,19	26	479	33			
		0,25	34	363	25			
		0,31	43	291	20			
		0,41	57	220	15			
TM138	0,18 8-pole	0,07	9	2739	189	0,80	300	15
		0,08	11	2219	153			
		0,1	14	1826	126			
		0,11	15	1683	116			
		0,12	17	1480	102			
		0,13	18	1350	93			
		0,16	22	1122	77			
		0,18	24	1020	70			
		0,2	28	900	62			
		0,25	34	731	50			
		0,26	37	680	47			
		0,3	42	592	41			
		0,4	56	449	31			
		0,5	69	360	25			
		0,66	92	272	19			
TM138	0,25 6-pole	0,09	12	2782	192	0,85	300	15
		0,11	15	2254	156			
		0,13	19	1855	128			
		0,15	20	1709	118			
		0,17	23	1503	104			
		0,18	25	1371	95			
		0,22	30	1139	79			
		0,24	33	1036	71			
		0,27	38	914	63			
		0,34	47	742	51			
		0,36	50	691	48			
		0,42	58	601	41			
		0,55	76	456	31			
		0,68	95	366	25			
		0,91	125	276	19			

Axis TM138 Motorised Drum

Axis TM138 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=400mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM138	0,25 4-pole	0,14	19	1848	128	0,80	300	15
		0,17	23	1497	103			
		0,2	28	1232	85			
		0,22	30	1135	78			
		0,25	35	998	69			
		0,27	38	911	63			
		0,33	46	757	52			
		0,35	50	688	47			
		0,41	57	607	42			
		0,51	70	493	34			
		0,55	75	459	32			
		0,63	87	399	28			
		0,83	114	303	21			
		1,03	143	243	17			
		1,36	189	183	13			
TM138	0,37 4-pole	0,14	19	2735	189	1,10	300	15
		0,17	23	2216	153			
		0,2	28	1823	126			
		0,22	30	1680	116			
		0,25	35	1477	102			
		0,27	38	1348	93			
		0,33	46	1120	77			
		0,36	50	1018	70			
		0,41	57	898	62			
		0,51	70	729	50			
		0,55	75	679	47			
		0,63	87	591	41			
		0,83	114	448	31			
		1,03	143	359	25			
		1,36	189	271	19			
TM138	0,55 4-pole	0,2	28	2740	189	1,60	300	15
		0,22	30	2525	174			
		0,25	34	2220	153			
		0,27	38	2025	140			
		0,33	45	1683	116			
		0,36	50	1530	106			
		0,41	56	1350	93			
		0,5	69	1096	76			
		0,54	75	1020	70			
		0,62	86	888	61			
		0,82	113	673	46			
		1,02	141	540	37			
		1,35	187	408	28			

Axis TM138 Motorised Drum

Axis TM138 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH	WEIGHT
		v	n2	F	T2		L min.	L=400mm
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM138	0,75 4-pole	0,32	44	2338	161	2,20	300	15
		0,35	49	2125	147			
		0,4	55	1875	129			
		0,49	68	1522	105			
		0,53	73	1417	98			
		0,61	84	1233	85			
		0,8	111	935	65			
		1	138	750	52			
		1,32	183	566	39			
TM138	0,75 2-pole	0,27	37	2802	193	1,90	300	15
		0,33	46	2270	157			
		0,4	56	1868	129			
		0,44	60	1721	119			
		0,5	69	1513	104			
		0,54	75	1381	95			
		0,65	90	1148	79			
		0,72	99	1043	72			
		0,81	113	920	64			
		1	139	747	52			
		1,08	149	696	48			
		1,24	171	605	42			
		1,63	226	459	32			
		2,04	282	368	25			
		2,7	373	278	19			
TM138	0,90 2-pole	0,33	46	2695	186	1,95	300	15
		0,41	56	2218	153			
		0,44	61	2044	141			
		0,5	69	1797	124			
		0,55	76	1639	113			
		0,66	91	1362	94			
		0,73	101	1239	85			
		0,82	114	1093	75			
		1,01	140	887	61			
		1,09	151	826	57			
		1,25	173	719	50			
		1,65	229	545	38			
		2,06	285	437	30			
		2,73	377	330	23			
TM138	1,00 4-pole	0,32	45	2795	193	2,6	360	15
		0,35	49	2541	175			
		0,4	56	2241	155			
		0,49	68	1820	126			
		0,53	74	1694	117			
		0,61	85	1474	102			
		0,81	111	1118	77			
		1	139	897	62			
		1,33	184	677	47			

- alternative performance data and speeds on request
- indication of weight incl. oil filling (ready for operating)
- additional weight: approx. 2kg for 100mm add. length
- with brake mounting L min. dimension raises up 100mm

Axis TM138 Design & Options

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Aluminium bearing covers
- Mild steel shafts with rust protection paint
- Helical gear unit with steel toothing (quiet)
- IP66 Ingress Protection
- Straight cable gland with 1m cable

Options

- Internal brake
- Terminal box connection
- Angular cable gland (with 1m cable)
- Right angled-straight cable gland (with 1m cable)
- Mechanical backstop
- Sprocket / toothed belt disc
- Sensor bearing unit (rotary encoder)
- Cylindrical drum shell, coated, zinc plated
- Stainless steel design
- Custom windings for special voltages
- Thermal overload protection
- IP67 Ingress Protection rating
- Suitable for frequency converter use
- For modular plastic conveyor belts and grooved rubber lagging
- Terminal box design in stainless steel
- Vertical mounting (should be stated in the order)
- Food-safe lubricant
- Single-phase motors on request
- UL & CSA certification

Alternative custom designs also available - please enquire.

Axis TM138 Clamping Bearing

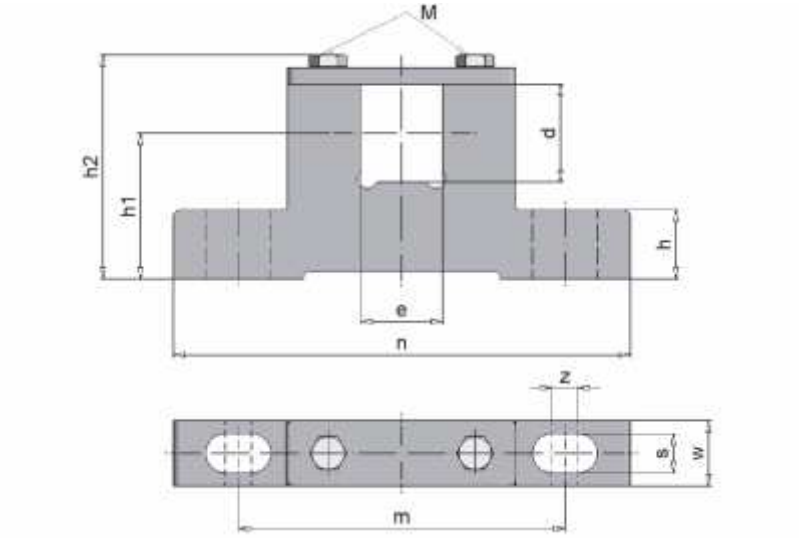


Figure 9.2

dimensions in mm

DRUM TYPE	CLAMPING BEARING	d	e	h	h1	h2	m	n	s	w	z	M	Material	KG
TM138.1	EL30/20	30	20	21	44,5	68,5	100	140	12	24	8	M6	Steel	0,7



Indicative Applications

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Axis TM165 Motorised Drum

General Features

- Diameter Ø165mm
- High duty helical steel gear unit
- Standard length from 400mm to 1350mm
- Asynchronous three-phase motor
- 0.37kw to 3.0kw input power
- Insulation Class F
- Mild steel or stainless steel construction
- Crowned drum surface
- Lubricated with synthetic oil
- Straight, angular cable gland or terminal box connection
- Special options available



Axis TM165 Dimensions

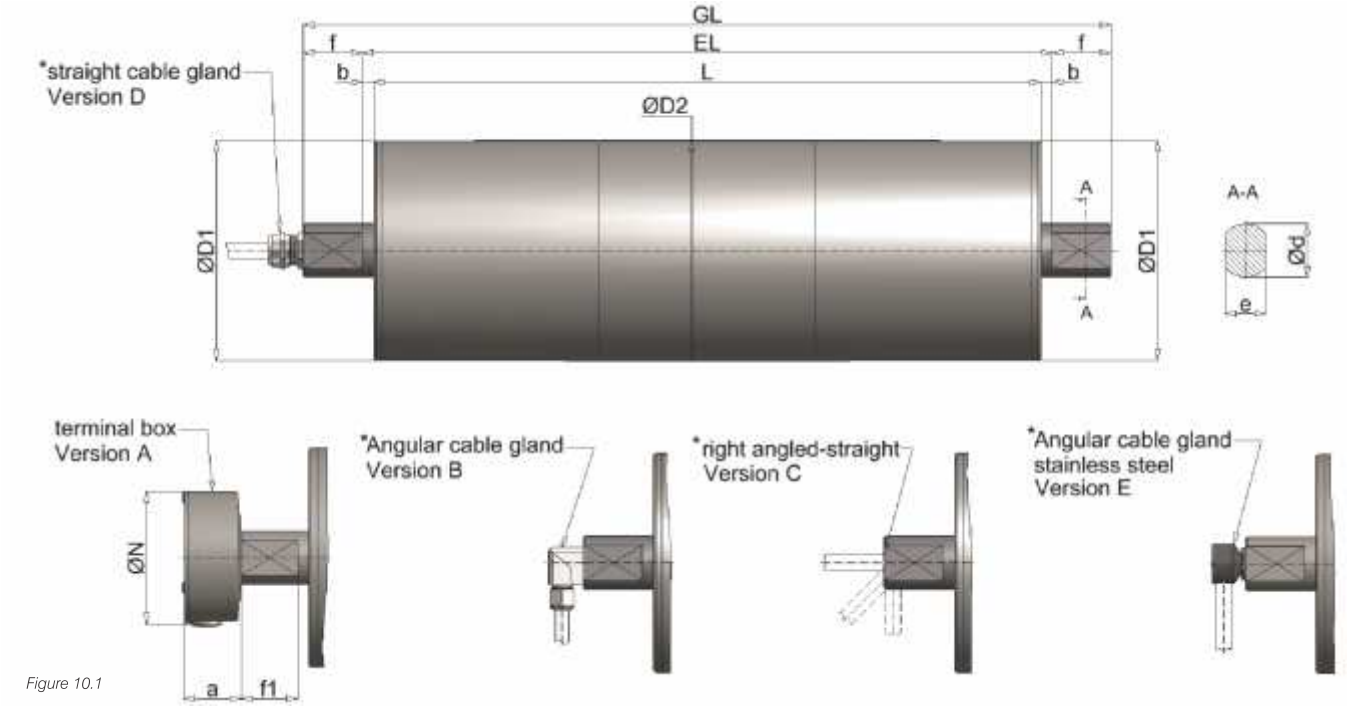


Figure 10.1

Dimensions in mm

DRUM MOTOR										STANDARD IP66	
Size	Type	Ø D1	Ø D2**	a	Ø N	Ø d	e	f	f1	b	EL
165	TM 165.1	164	165	43	100	40	30	44	42	8,5	L + 17
GUIDE DRUM											
165	UT 165.1	164	165			40	30	44		8,5	L + 17

* With 1m cable
** Diameter with cylindrical drum design

Axis TM165 Motorised Drum

Axis TM165 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH	WEIGHT
		v	n2	F	T2		L min.	L=500mm
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM165.1	0,37 8-pole	0,19	22	1911	158	1,50	400	44,0
		0,24	27	1573	130			
		0,28	33	1315	108			
		0,33	39	1111	92			
		0,39	45	946	78			
		0,46	53	810	67			
		0,54	63	682	56			
		0,66	76	562	46			
		0,79	91	470	39			
		0,93	108	397	33			
		1,09	127	338	28			
		1,28	148	289	24			
TM165.1	0,75 6-pole	0,25	29	2947	243	2,20	400	44,0
		0,31	36	2427	200			
		0,37	43	2028	167			
		0,44	51	1714	141			
		0,51	59	1460	120			
		0,60	69	1249	103			
		0,71	82	1053	87			
		0,87	100	867	71			
		1,04	120	724	60			
		1,23	142	612	51			
		1,44	167	521	43			
		1,68	195	446	37			
TM165.1	1,10 4-pole	0,39	45	2841	234	3,00	400	44,0
		0,47	54	2339	193			
		0,56	65	1955	161			
		0,67	77	1652	136			
		0,78	91	1407	116			
		0,91	106	1204	99			
		1,08	126	1014	84			
		1,32	152	835	69			
		1,58	182	698	58			
		1,86	216	590	49			
		2,19	253	502	41			
		2,56	296	430	35			
TM165.1	1,50 4-pole	0,56	65	2656	219	3,60	425	47,0
		0,67	77	2245	185			
		0,78	91	1911	158			
		0,92	106	1636	135			
		1,09	126	1378	114			
		1,32	153	1135	94			
		1,58	183	949	78			
		1,87	217	802	66			
		2,20	254	683	56			
		2,57	297	584	48			

Axis TM165 Motorised Drum

Axis TM165 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=500mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM165.1	2,20 2-pole	0,78	91	2805	231	4,30	425	47,0
		0,95	110	2310	191			
		1,14	132	1931	159			
		1,35	156	1632	135			
		1,58	183	1389	115			
		1,85	214	1189	98			
		2,20	254	1002	83			
		2,67	309	825	68			
		3,19	369	690	57			
		3,78	437	583	48			
		4,43	513	496	41			
		5,18	600	425	35			
TM165.1	3,00 2-pole	1,13	132	2656	219	6,80	492	48,0
		1,34	156	2245	185			
		1,57	183	1911	158			
		1,83	214	1636	135			
		2,18	254	1378	114			
		2,64	309	1135	94			
		3,16	369	949	78			
		3,74	437	802	66			
		4,39	513	683	56			
		5,13	600	584	48			

- alternative performance data and speeds on request
- indication of weight incl. oil filling (ready for operating)
- additional weight: approx. 3kg for 100mm add. length
- with brake mounting L min. dimension raises up 110mm

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Aluminium bearing covers
- Mild steel shafts with rust protection paint
- Helical gear unit with steel toothing (quiet)
- IP66 Ingress Protection rating
- Straight cable gland with 1m cable

Options

- Internal brake
- Terminal box connection
- Angular cable gland (with 1m cable)
- Angular cable gland stainless steel (with 1m cable)
- Right angled-straight cable gland (with 1m cable)
- Mechanical backstop
- Sprocket / toothed belt disc
- Sensor bearing unit (rotary encoder)
- Cylindrical drum shell, coated, zinc plated (customised)
- Stainless steel design
- Custom windings for special voltages
- Thermal overload protection
- IP67 Ingress Protection rating
- Suitable for frequency converter use
- For modular plastic conveyor belts and grooved rubber lagging
- Terminal box design in stainless steel
- Vertical mounting (should be stated in the order)
- Food-safe lubricant
- Single-phase motors on request

Alternative custom designs also available - please enquire

Axis TM165 Motorised Drum

Axis TM165 Clamping Bearing

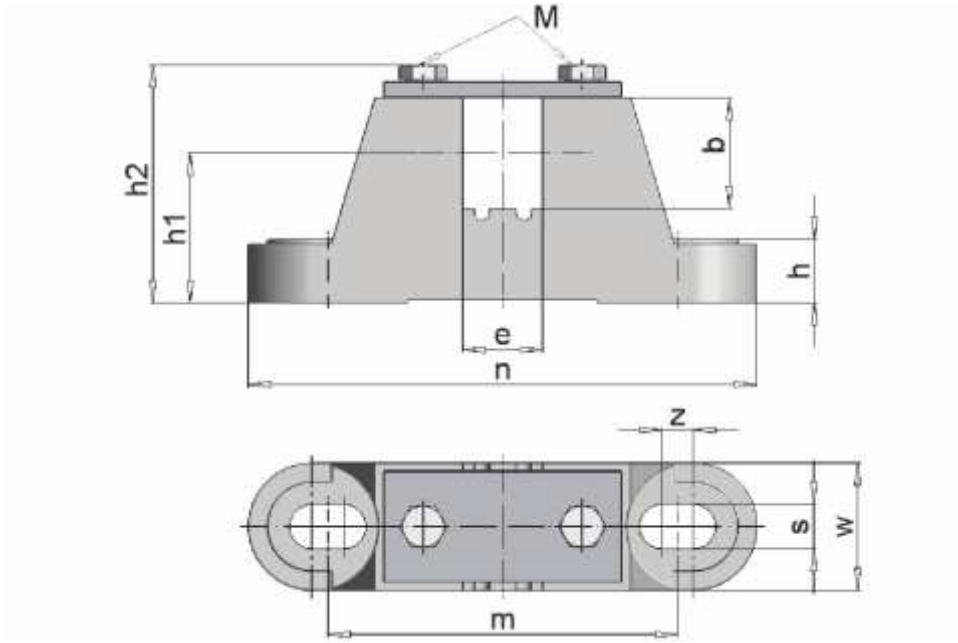
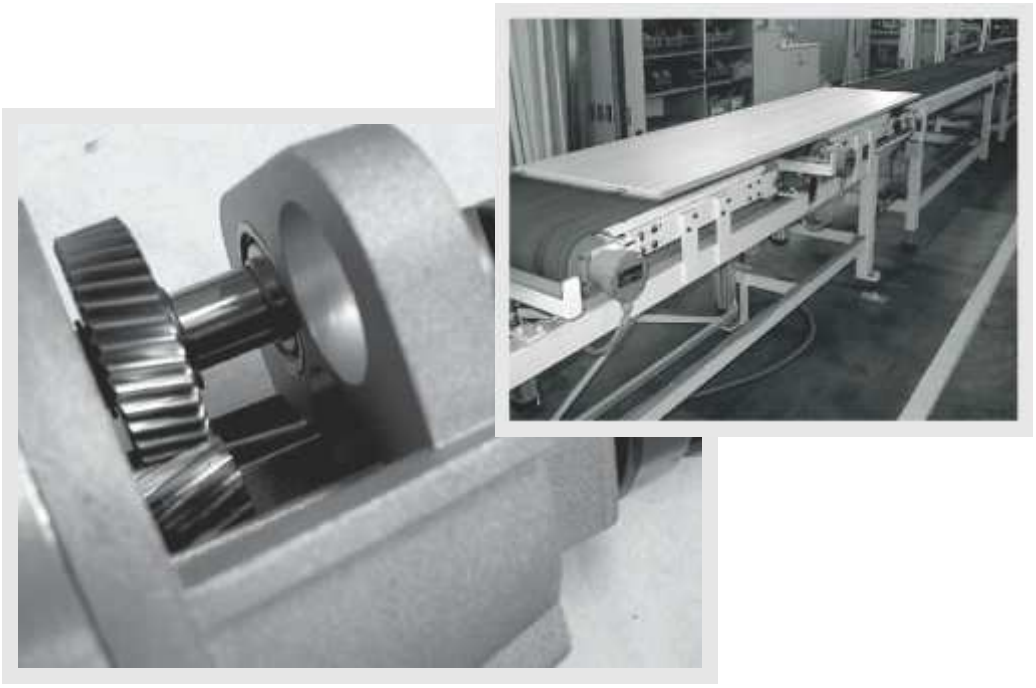


Figure 10.2

dimensions in mm

DRUM TYPE	CLAMPING BEARING	d	e	h	h1	h2	m	n	s	w	z	M	MATERIAL	ca. kg
TM/UT165.1	EL40/30 A	40	30	20	47	78,5	110	160	14	40	10	M8	Cast Iron	1,5



Indicative Applications

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Axis TM216 Motorised Drum

General Features

- Diameter Ø216mm
- High duty helical steel gear unit
- Standard length from 400mm
- Asynchronous three-phase motor
- 0.37kw to 3.0kw input power
- Insulation Class F (DIN EN60034-1)
- Mild steel or stainless steel construction
- Crowned drum surface
- Lubricated with synthetic oil
- Straight, angular gland or terminal box connection
- Special friction coatings and customisation available



Axis TM216 Dimensions

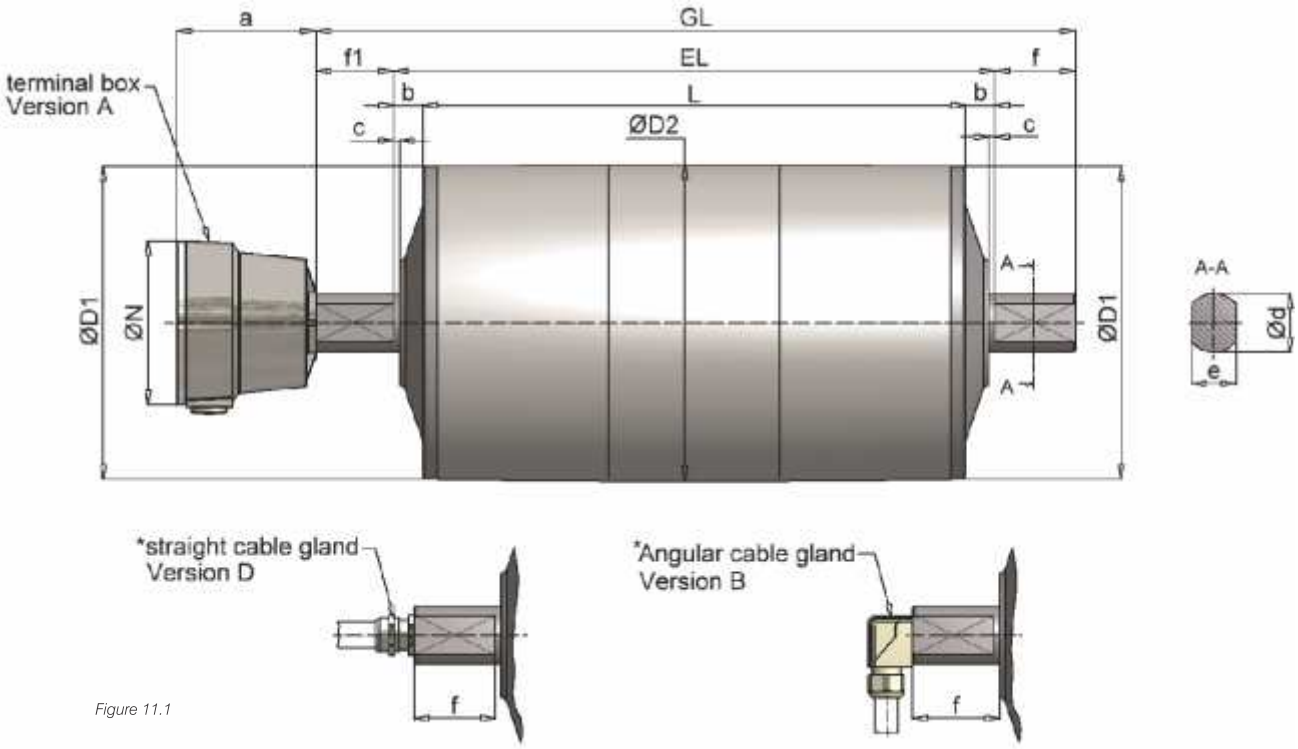


Figure 11.1

dimensions in mm

DRUM MOTOR											STANDARD IP65		OPTIONAL IP66		OPTIONAL IP67	
Size	Type	ØD1*	ØD2**	a	ØN	c	Ød	e	f	f1	b	EL	b	EL	b	EL
216	TM 216.0	213,5	216	95	112	3	40	30	45	45			20	L + 40	*on request*	
216	TM 216.1	213,5	216			3	40	30	55	55	20	L + 40	20	L + 40	37	L + 74
GUIDE DRUM																
216	UT 216.0	213,5	216			3	40	30	45				20	L + 40	*on request*	
216	UT 216.1	213,5	216			3	40	30	55		20	L + 40	20	L + 40	37	L + 74

* With 1m cable
** Diameter with cylindrical drum design

Axis TM216 Motorised Drum

Axis TM216 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=500mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM216.0	0,37 8-pole	0,25	22	1460	158	1,50	400	50
		0,31	27	1202	130			
		0,37	33	1005	108			
		0,44	39	849	92			
		0,51	45	723	78			
		0,60	53	619	67			
		0,71	63	521	56			
		0,86	76	429	46			
		1,03	91	359	39			
		1,22	108	303	33			
		1,43	127	258	28			
		1,67	148	221	24			
TM216.0	0,75 6-pole	0,33	29	2251	243	2,20	400	50
		0,40	36	1854	200			
		0,48	43	1549	167			
		0,57	51	1309	141			
		0,67	59	1115	120			
		0,79	69	954	103			
		0,93	82	804	87			
		1,13	100	662	71			
		1,36	120	553	60			
		1,60	142	468	51			
		1,88	167	398	43			
		2,20	195	341	37			
TM216.1	1,50 4-pole	0,33	29	4604	497	3,20	420	57,0
		0,37	33	4016	434			
		0,48	42	3134	338			
		0,60	53	2504	270			
		0,86	76	1749	189			
		1,17	104	1279	138			55,0
		1,34	119	1116	120			
		1,72	152	871	94			
		2,16	191	696	75			
TM216.1	2,20 4-pole	0,47	42	4679	505	4,80	420	59,0
		0,59	52	3738	404			
		0,84	75	2610	282			
		1,15	102	1909	206			
		1,32	117	1665	180			
		1,69	150	1300	140			57,0
		2,12	187	1038	112			
TM216.1	3,00 4-pole	0,85	75	3547	383	6,60	450	59,0
		1,16	102	2594	280			
		1,33	117	2263	244			57,0
		1,70	150	1766	191			
		2,13	188	1411	152			

- alternative performance data and speeds on request
- indication of weight incl. oil filling (ready for operating)
- additional weight: approx. 5kg for 100mm add. length
- with brake mounting L min. dimension raises up 100mm

Axis TM216 Design & Options

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Cast iron bearing covers
- Mild steel shafts with rust protection paint
- Helical gear unit with steel toothing (quiet)
- IP65 Ingress Protection rating
- Terminal box

Options

- Internal brake
- Angular cable gland (with 1m cable)
- Straight cable gland with 1m cable
- Mechanical backstop
- Sprocket / toothed belt disc
- Sensor bearing unit (rotary encoder)
- Cylindrical drum shell, coated, zinc plated (customised)
- Stainless steel design
- Custom windings for special voltages
- Thermal overload protection
- IP67 Ingress Protection rating
- Suitable for frequency converter use
- Terminal box design in stainless steel
- Vertical mounting
- Food-safe lubricant

Alternative custom designs also available - please enquire.

Axis TM216 Clamping Bearing

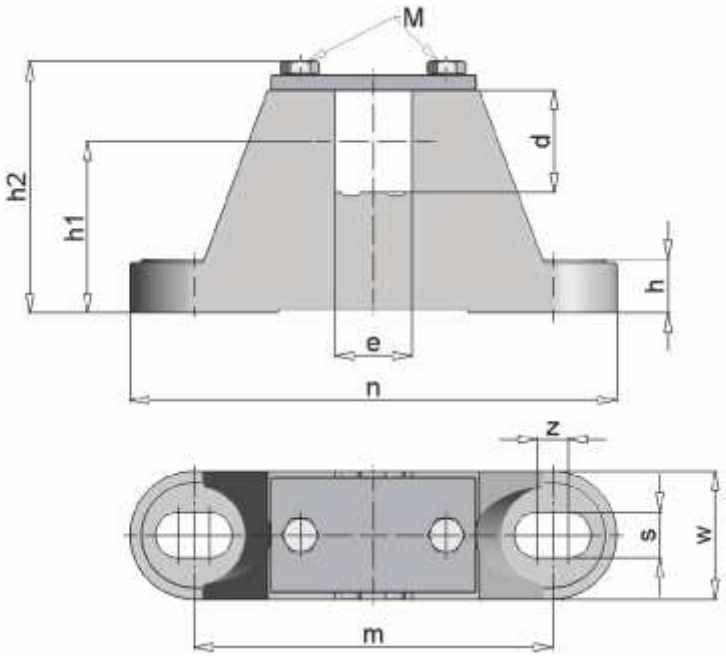


Figure 11.2

dimensions in mm

DRUM TYPE	CLAMPING BEARING	d	e	h	h1	h2	m	n	s	w	z	M	MATERIAL	ca. kg
TM/UT 216.0	EL40/30 A	40	30	20	47	76	110	160	14	40	10	M8	Cast iron	1,5
TM/UT 216.1	EL40/30 B	40	30	21	67	102,5	140	190	18	50	12	M8		2,8



Indicative Applications

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Axis TM321 Motorised Drum

General Features

- Diameter Ø321mm
- High duty helical steel gear unit
- Standard lengths from 520mm
- Asynchronous three-phase motors
- 1.5kw to 7.5kw input power
- Insulation Class F (DIN EN 60034-1)
- Mild steel or stainless steel construction
- Crowned drum surface
- Angular, straight cable gland or terminal box connection
- Lubricated with synthetic oil
- Special friction coatings and shell customisation available

Axis TM321 Dimensions

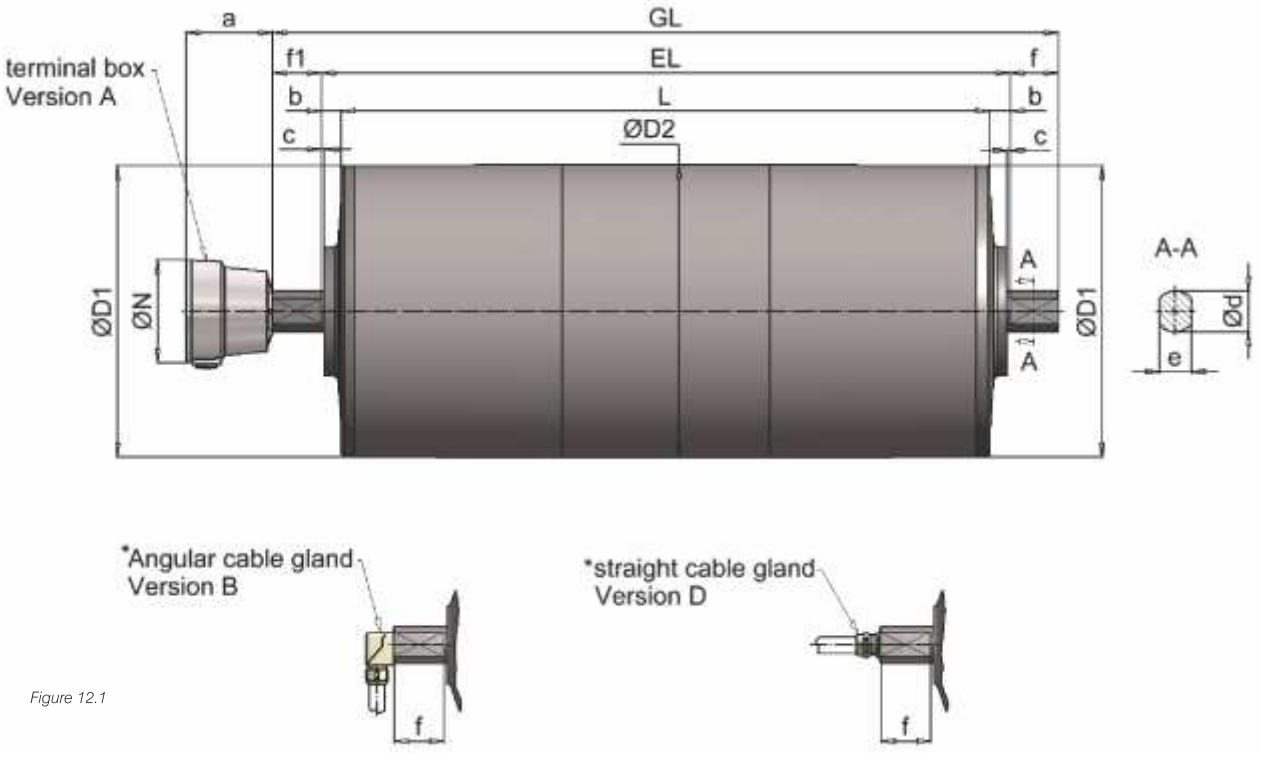


Figure 12.1

dimensions in mm

DRUM MOTOR											STANDARD IP66		OPTIONAL IP67	
Size	Type	ØD1	ØD2**	a	Ø N	c	Ø d	e	f	f1	b	EL	b	EL
321	TM 321.0	318	321	95	112	3	40	30	55	55	20	L + 40	45	L + 90
321	TM 321.1	318	321			3	45	35	53	53	22	L + 44	43	L + 86
GUIDE DRUM														
321	UT 321.0	318	321			3	40	30	55		20	L + 40	45	L + 90
321	UT 321.1	318	321			3	35	35	53		22	L + 44	43	L + 86

* With 1m cable
** Diamter with cylindrical drum design

Axis TM321 Motorised Drum

Axis TM321 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH	WEIGHT
		v	n2	F	T2		L min.	L=600mm
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM321.0	1,50 4-pole	0,48	29	3098	497	3,20	520	95
		0,56	33	2702	434			
		0,71	42	2109	338			
		0,89	53	1685	270			
		1,11	66	1356	218			
		1,27	76	1177	189			
		1,74	104	861	138			
		2,00	119	751	120			
		2,34	139	641	103			
TM321.1	2,20 4-pole	0,39	23	5622	902	4,80	550	120
		0,48	28	4593	737			
TM321.0		0,70	42	3148	505			100
		0,87	52	2516	404			
		1,09	65	2025	325			
		1,25	75	1756	282			
		1,71	102	1285	206			
		1,96	117	1121	180			
		2,30	137	957	154			
TM321.1	3,00 4-pole	0,60	36	4986	800	6,60	550	125
		0,74	44	4070	653			
TM321.0		0,84	50	3564	572			105
		1,09	65	2751	442			
		1,26	75	2387	383			
		1,72	102	1746	280			
		1,97	117	1523	244			
TM321.1	4,00 4-pole	0,73	44	5465	877	9,00	550	130
		1,08	64	3694	593			
TM321.0		1,33	79	3019	484			110
		1,66	99	2411	387			
		2,03	121	1968	316			
TM321.1	5,50 4-pole	1,04	62	5282	848	11,50	680	140
		1,28	76	4312	692			
		1,65	98	3324	533			
		2,04	121	2697	433			
		2,68	159	2054	330			
		3,28	195	1677	269			
TM321.1	7,50 4-pole	1,65	98	4532	727	15,50	680	150
		2,04	121	3678	590			
		2,68	159	2801	450			
		3.28	195	2287	367			

- Alternative performance data and speeds on request
- Indication of weight incl. oil filling (ready for operating)
- Additional weight: approx. 6 kg for 100mm add. length
- With brake mounting L min. dimension raises up 130mm



Indicative Applications

Axis TM321 Design & Options

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Cast iron bearing covers
- Mild Steel shafts with rust protection paint
- Helical gear unit with steel toothing (quiet)
- IP66 Ingress Protection rating
- Terminal box
- Colour RAL 2004

Options

- Internal brake
- Angular cable gland (with 1m cable)
- Straight cable gland (with 1m cable)
- Mechanical backstop
- Sprocket / toothed belt disc
- Cylindrical drum shell, rubber coated, zinc plated (customised)
- Stainless steel design
- Custom windings for special voltages
- Thermal overload protection
- IP66/67 Ingress Protection rating
- Suitable for frequency converter use
- Terminal box design in stainless steel
- Vertical mounting
- Food-safe lubricant

Alternative custom designs also available - please enquire

Axis TM321 Clamping Bearing

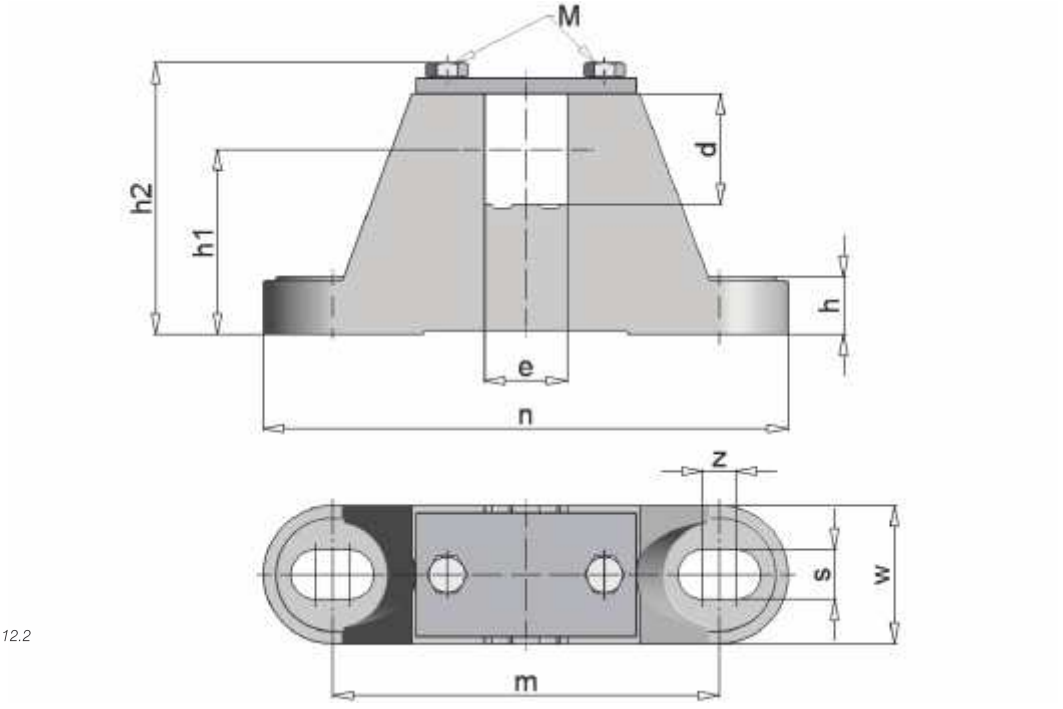


Figure 12.2

dimensions in mm

DRUM TYPE	CLAMPING BEARING	d	e	h	h1	h2	m	n	s	w	z	M	MATERIAL	Kg
TM/UT 321.0	EL40/30 B	40	30	21	67	102,5	140	190	18	50	12	M8	Cast Iron	2,8
TM/UT 321.1	EL45/35	45	35	21	67	105	140	190	18	50	12	M8		2,8

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Axis TM415 Motorised Drum

General Features

- Diameter Ø415mm
- High duty helical steel gear unit
- Standard length from 540mm
- Asynchronous three-phase motor
- 3.0kw to 15kw input power
- Insulation Class F (DIN EN 60034-1)
- Mild steel or stainless steel construction
- Crowned drum surface
- Lubricated with synthetic oil
- Terminal box connection
- Special friction coating and shell customisation options



Axis TM415 Dimensions

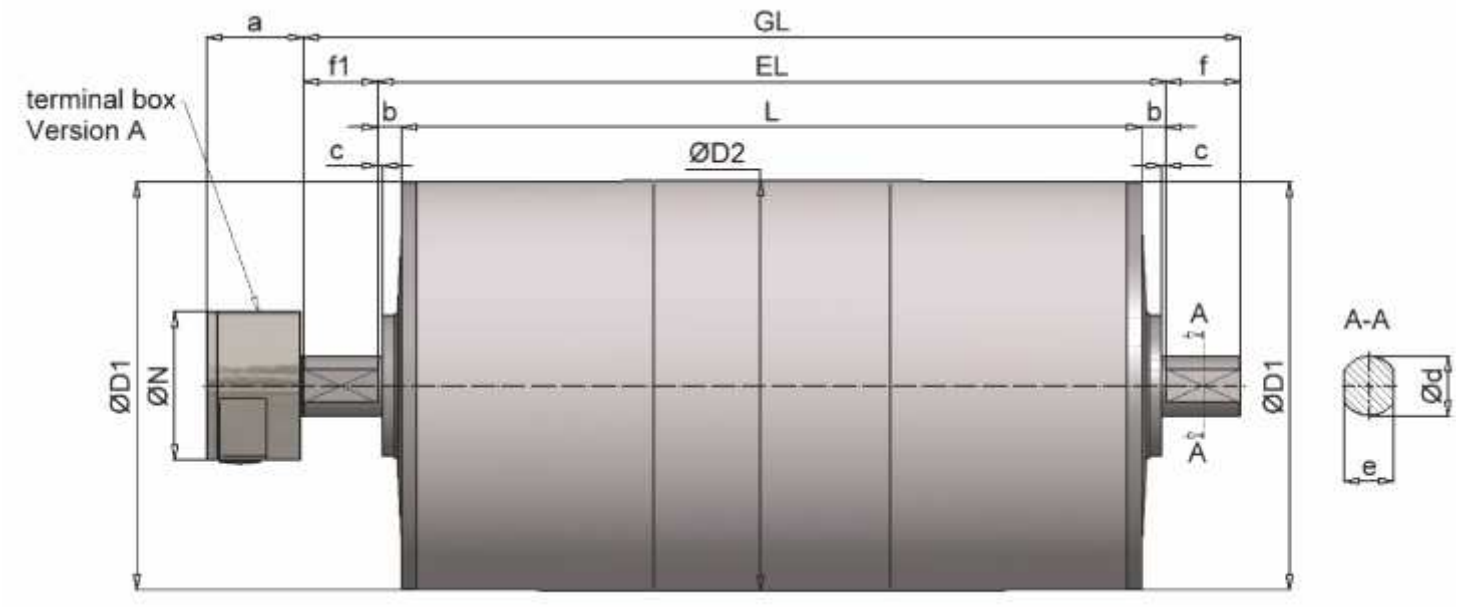


Figure 13.1

Dimensions in mm

DRUM MOTOR											STANDARD IP66		OPTIONAL IP67	
Size	Type	Ø D1	Ø D2*	a	Ø N	c	Ø d	e	f	f1	b	EL	b	EL
415	TM 415.0	413	415	95	112	3	45	35	53	53	22	L + 44	32	L + 64
415	TM 415.1	413	415	100	150	5	60	50	75	75	25	L + 50	35	L + 70
GUIDE DRUM														
415	UT 415.0	413	415			3	45	35	53		22	L + 44	32	L + 64
415	UT 415.1	413	415			5	60	50	75		25	L + 50	35	L + 70

* Diameter with cylindrical drum design

Axis TM415 Motorised Drum

Axis TM415 Performance Data

TYPE	POWER	BELT SPEED	ROTATION SPEED	BELT PULL	TORQUE	POWER INPUT AT 400V / 50Hz	DRUM LENGTH L min.	WEIGHT L=750mm
		v	n2	F	T2			
	[kW]	[m/s]	[1/min]	[N]	[Nm]	[A]	[mm]	[kg]
TM415.0	3,00 4-pole	0,78	36	3857	800	3,20	550	160
		0,95	44	3148	653			
		1,32	61	2276	472			
		1,61	74	1858	386			
TM415.1	4,00 4-pole	0,60	28	6678	1386	9,00	750	275
		0,84	39	4746	985			
TM415.0		0,95	44	4227	877		550	170
		1,31	60	3056	634			
		1,60	74	2495	518			
		2,08	96	1923	399			
TM415.1	5,50 4-pole	0,87	40	6344	1316	11,50	750	290
		1,04	48	5267	1093			
		1,29	59	4266	885			
		1,56	72	3530	733			
		1,72	79	3201	664			
		2,17	100	2534	526			
TM415.1	7,50 4-pole	1,04	48	7182	1490	15,50	750	300
		1,29	59	5818	1207			
		1,56	72	4814	999			
		1,72	79	4365	906			
		2,17	100	3456	717			
TM415.1	10,00 4-pole	1,28	59	7811	1621	21,00	750	320
		1,55	71	6464	1341			
		1,71	79	5861	1216			
		2,16	99	4640	963			
TM415.1	15,00 4-pole	1,71	79	8792	1824	29,50	750	360
		2,16	99	6959	1444			

- alternative performance data and speeds on request
- indication of weight incl. oil filling (ready for operating)
- additional weight: approx. 10,0kg for 100mm add. length
- with brake mounting L min. dimension raises up 200mm





Axis TM415 Design & Options

Standard Configuration

- Crowned shell, mild steel with rust protection paint
- Bearing covers made of cast iron
- Mild steel shafts with rust protection paint
- Helical gear unit with steel toothing (quiet)
- IP66 protection rating
- Terminal box
- Colour RAL 2004

Options

- Internal brake
- Mechanical backstop
- Sprocket / toothed belt disc
- Cylindrical drum shell, rubber coated, zinc plated (customised)
- Stainless steel design
- Custom windings for special voltages
- Thermal overload protection
- IP67 Ingress Protection rating
- Suitable for frequency converter use
- Terminal box design in stainless steel
- Vertical mounting
- Food-safe lubricant

Alternative custom designs also available - please enquire

Axis TM415 Clamping Bearing

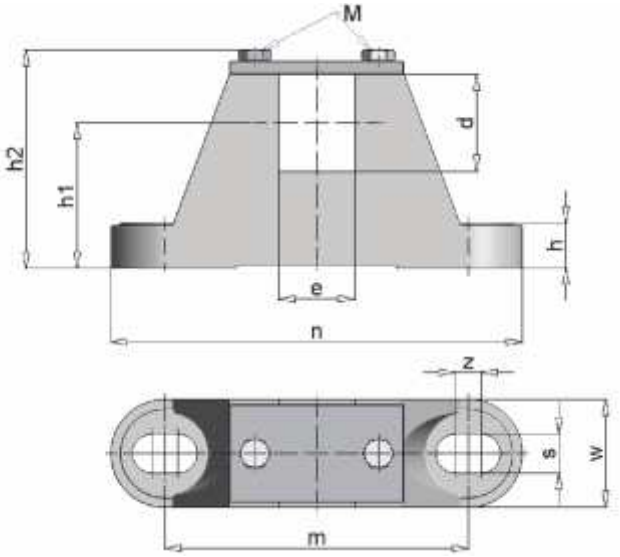


Figure 13.2

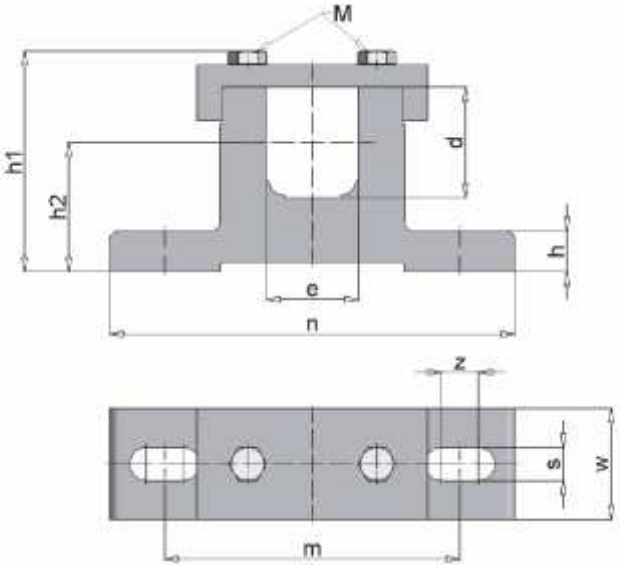


Figure 13.3

dimensions in mm

DRUM TYPE	CLAMPING BEARING	d	e	h	h1	h2	m	n	s	w	z	M	MATERIAL	ca. kg
TM/UT 415.0	EL45/35	45	35	21	67	105	140	190	18	50	12	M8	Cast Iron	2,8
TM/UT 415.1	EL60/50	60	50	22	70	119,5	160	220	18	60	20	M12	Steel	5

Indicative Applications

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Axis TM Series Drum Shell Options

Rubber Coated Drum Motors with Vee Groove

Drum motors can be supplied with custom rubber lagging and machined vee grooves. This enables drum motors to be used to drive conveyor belts with guide tracking profiles. With this feature, good central running of the conveyor belt can be achieved. The vee groove dimensions, rubber type and shore hardness can be varied to suit each application. With this design, belt guidance should also be done by the slider or roller conveyor bed and not by the lagging profile exclusively.



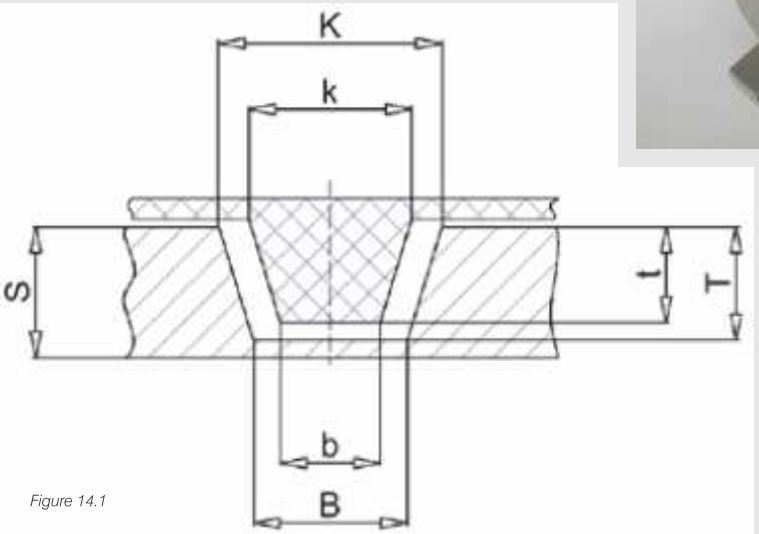


Figure 14.1

Vee Groove Dimensions

V -NUT / V -	$S_{MIN.}$ [mm]	$S_{MAX.}$ [mm]	GROOVE			VEE GUIDE		
			K [mm]	B [mm]	T [mm]	k [mm]	b [mm]	t [mm]
K6	6	8	10	8	5	6	4	4
K8	6	8	12	8	6	8	5	5
K10	8	10	14	10	7	10	6	6
K13	10	1	17	11	9	13	7.5	8
K15	10	12	19	13	9	15	9.5	8
K17	12	14	21	13	12	17	9.5	11

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Axis TM Series Drum Shell Options

Belt Discs and Sprockets for Plastic Modular Belts

Axis drum motors can be supplied with profiled lagging or with sprockets to drive plastic modular or positively driven belts. Profiles are available to suit belting products from many leading manufacturers such as Habasit, Intralox and Siegling.





Axis TM Series Electrical Information

Operation Voltage

Motors are supplied for the standard voltages 230V & 400V at 50hz, and can be operated with no reduction in nominal power with variations in the nominal voltage in accordance with DIN EN 60034 (IEC60034). Motors for systems with different voltages and frequencies are available on request. When ordering we must be advised of the starting method (Direct-on-line, star/delta or with a frequency inverter) As standard the motors have a terminal board with 6 terminals and one ground terminal in the terminal box. The stator winding can be connected for star or delta operation by repositioning the connecting bridges. For star/delta starting the operation voltage must be specified and the operating circuit must be connected correctly.

Operating Voltage 400V delta: Motor winding for 400/690V

Operating Voltage 230V delta: Motor winding for 230/400V

In many cases star/delta starting is not possible, due to a loaded conveyor belt which require higher breakaway torque during starting. Using the star/delta starting method can only provide one third of the breakaway torque achieved with direct starting.

Connection

Check whether the voltage and connections of the supplied equipment comply with the available voltage at the place of installation. If the above does not match, the connections can be changed on the terminal block if fitted.

All conveyor drum motors must be fitted with a ground terminal (VDE 0530).

Motor Protection Options

Drum motors are available with winding thermostats (internal WT's) that open or close the stator windings. and disconnect the motor on overload or with abnormal temperature rise via a relay.

This does not protect against a locked rotor. In this case motor protection switches (external) with bi-metal contacts, which open within admissible current input are available.

Axis TM Series Lubrication

Oil Types

All conveyor drum motors are oil filled before delivery. Standard factory filling is gear oil SAE 100 with the technical specification: Viscosity cST/40°C or Engler/50°, freezing point is -20° . The oil is for operating temperatures covering -20°C to +50°C. If other oil types are used, it is essential to ensure that the oil contains no additives which may damage the motor insulation. Furthermore, oil types containing graphite, molybdenum disulphide or other electrical conduction components may NOT be used as this will cause damage to the motor. NSF/H1-oil (food proof) is also available on request.

Oil Change

After the first 200 – 300 operating hours an oil change is recommended. After the first oil change, it is only necessary to change the oil after every 10,000 operating hours. The drain plugs are located in the drum flange adjacent to the terminal box. In order to drain the oil, remove both screw plugs, and rotate the drum until the plug nearest the circumference of the drum faces downward. This allows the oil to drain out.

ATTENTION: It is important that the marking “top” on the connection shaft or output site is positioned upright and horizontal or not more than 30° from the horizontal lubrication line; otherwise there will be no cooling and lubrication.

Axis TM Series Drum Motor Mounting

Using Support Bearings

The shafts trunnions must be securely fastened by means of the tab washers. It must be observed that as from Ø82mm the marking “up” or “open” may only point upwards or maximal 30° to the left or right otherwise the cooling and lubrication of the motors is no longer guaranteed.
The inclination of the motor may also not be increased during operation.
The bolts for securing the support bearings are to be chosen so that the weight of the drum motor and the expected belt tension can be adequately taken. The support bearings must lie on the framework over the full surface to avoid tensioning and twisting of the shaft trunnions.

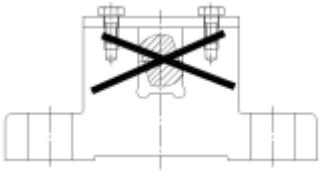


Figure 14.2

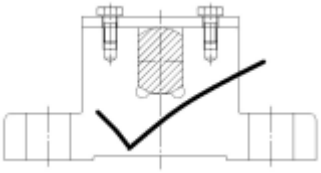


Figure 14.3

Without Support Bearings

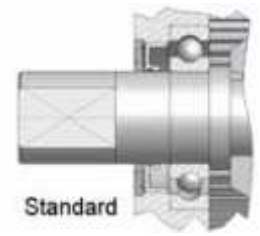
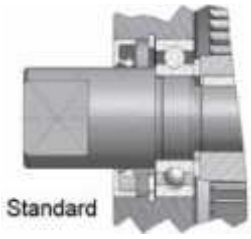
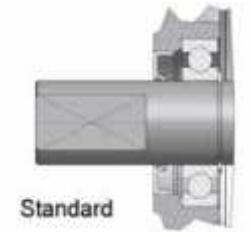
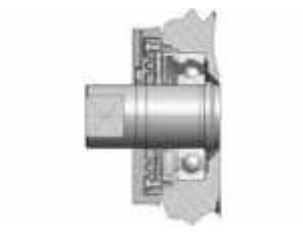
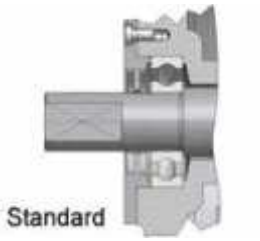
- In applications where the drum motor mounting is integrated into the conveyor frame without support bearings it must be made sure that the trunnions are mounted with minimal play and no pre-tensioning.

Where no support bearings are used, the following must be observed:

- The individual trunnion mountings must cover at least 80% of the trunnion.
- The drum motors must be installed without axial play.
- The maximum tolerance between the shaft trunnions and the mounting may only be maximum ±0.2mm.

For reversals or high switching frequency, the drum motor must be installed without play.

Axis TM Series Sealing IP65-67

TYPE	IP 65	IP 66	IP 67
TM82 / TM111 / TM138 / TM165 / TM216.0			*on request*
TM135 / TM160			*on request*
TM216.1			
TM321 / TM415			

Axis Ingress Protection Notes

Ingress Protection (IP) ratings are developed by the European Committee for Electro Technical Standardization (CENELEC) (NEMA IEC 60529 Degrees of Protection Provided by Enclosures - IP Code), specifying the environmental protection the enclosure provides.

IP First number - Protection against solid objects
IP Second number - Protection against liquids

IP65 - Totally protected against dust, protected against low pressure jets of water from all directions - limited ingress.
IP66 - Totally protected against dust, protected against temporary flooding of water - limited ingress permitted.
IP67 - Totally protected against dust, protected against the effect of immersion between 15 cm and 1 m

Axis TM Series Drum Motor Selection

Our technical staff are able to assist with drive selection ensuring your drive is specified to meet the demands of the application and ensure a long life solution. Special consideration needs to be given to the following.

Drum Motor Selection Considerations

Conveyor Type:	Roller Bed	☐	Slider Bed	☐	Bulk Handling	☐
Conveyor Length in meters:						
Target Belt Speed: [m/sec]						
Weight of Items in kg per M of belt:						
Belt Width:						
Belt Weight in Kg per M2:						
Belt Friction Factor for Slider Bed: (0.2-0.6)						
Conveyor Angle: (degrees)						
Duty on accumulation*: (0-2) *(Coefficeint of friction between belt and transported materials. Not relevant if there is no product accumulation on the belt)						
Operating Duty: (Hours per day)	<3hrs	☐			<8hrs	☐
	<12hrs	☐			>16hrs	☐
Conveyor Loading Conditions:	Uniformily Loaded Belt	☐				
	Irregularly Loaded Belt	☐				
	Point or Shock Loading	☐				

Please scan and fill in the relevant details. Return this to us via fax or email and we will make a recommendation on your required drum motor specifications. Should you need assistance feel free to call and discuss any of these points with our technical team.

Fax: +64 3 218 4164
Email: sales@southquip.co.nz

Axis Drum Motor Enquiry Form

To:
Southquip Industrial
9 Wood Street
Invercargill
New Zealand
Phone: +64 3 218 4168
Fax: +64 3 218 4164
Email: sales@southquip.co.nz
Web: www.axismotorroller.com

Customer Details:

Company: _____
Contact Name: _____
Phone: _____
Fax: _____
Email: _____
Street: _____
City: _____
Country: _____

Drum Motor Design

Drum Motor Model:					
Drum Shell:	Crowned	☐	Cylindric	☐	
Drum Face Width mm: (Dimension L)					
Drum Motor Construction:	Mild Steel / Alloy	☐	Stainless	☐	
Power: [kw]					
Belt Speed: [m/sec]					

Electrical Information

Protection Class:	IP65	☐	IP66	☐	IP67	☐
Iso Class: F						
Voltage:						
No. of Phases:	Three Phase	☐	Single Phase	☐		
Frequency: [hz]						
Frequency Inverter VSD operation:	Yes	☐	No	☐		
	VSD Output Voltage:					
	Expected Frequency Range: [hz]		-			

Mounting Dimensions

Shaft Mounting Dimensions:				
Direction of Spanner Mounting:	Horizontal	☐	Verticle	☐
Spanner Length mm: (Mounting Length Dimension EL)				
Version Of Connection:	Terminal Box Version A* *TM Series Only	☐	Angular Cable Gland Version B	☐
	Right Angled Straight Version C	☐	Straight Cable Gland Version D	☐
	Angular Cable Gland SS Version E	☐	Other	☐

TM Series Options

Electromagnetic Brake:	Yes	☐	No	☐
Mechanical Backstop:	Yes	☐	No	☐
Free Direction of Rotation	Clockwise	☐	Anti-Clockwise	☐
Reverse Operation	Yes	☐	No	☐
Rubber Coating	Yes	☐	No	☐

Relevant Notes:

Frequency Inverter VFD

IC5

Features

- EMC filter - class A (built-in option)
- Selectable V/f, sensorless vector control
- Motor parameter auto-tuning
- 150% torque at 0.5Hz
- 0.1 - 400Hz frequency output
- 1 - 15kHz carrier frequency
- 0 - 10Vdc analog input
- IP20 enclosure
- Selectable manual/automatic torque boost
- Built in potentiometer
- Selectable PNP/NPN input signal
- Fault history: last 5 faults
- Enhanced process PID control
- Up-Down & 3 wire operation
- Modbus RTU communication (optional)
- 8 programable I/O
- Parameter copy unit
- Monitoring & commissioning PC based software tool (Drive View)



IG5A

Features

- Selectable V/f, sensorless vector control
- Motor parameter auto-tuning
- Powerful torque at overall speed range
- 0.1 - 400Hz frequency output
- -15% - +10% input voltage margin
- Fault history: last 5 faults
- 0 - 10Vdc analog input
- IP20 enclosure
- Selectable manual/automatic torque boost
- Selectable PNP/NPN input signal
- 2nd motor control and parameter setting
- Built-in dynamic braking transistor as standard
- Enhanced process PID control
- Built-in RS485 (LS Bus /Modbus RTU) communication
- Cooling fan on/off and easy change
- Remote control using external keypad
- Upgraded functions
  - Sleep and wake-up (Energy Savings)
  - KEP (Kinetic energy buffering) protection
  - Low leakage PWM algorism
- Monitoring and commissioning PC based software tool (Drive View)



IMPORTANT NOTE: Screened cable should be used when the drum motor is supplied with an encoder, brake or connected to a frequency inverter



DRIVING EFFICIENCY

Axis RL Series Motorised Pulleys

Axis RL series motorised pulleys create flexible and modular roller conveyor systems for the movement of pallets or heavy bulk items. Axis RL series rollers can be configured in a conveyor system spaced with several gravity rollers, eliminating the need to have all rollers driven to effectively move the load. They reduce system maintenance by using a life lubricated steel gearbox. All bearings and other motor components are protected from dust and elements of an industrial workplace. The advantages of simplified electrical systems and reduced mechanical components allows the Axis RL series to overcome many different pallet conveying and automation challenges.

Axis RL Series Advantages & Applications

Advantages

1. **Low Maintenance:** Enclosed motor and gearbox is protected from outside influence.
2. **Low Noise:** Internal drive components reduces operational noise
3. **Simple Design:** Machined shafts flats make installation simple when used with standard adjustable mounting brackets.
4. **Flexible Dimensions:** Standard roller lengths available up to 1500mm wide
5. **Flexible Design:** No need for driving sprockets or chains simplifies system integration.
6. **Efficiency:** Low power consumption.
7. **Safety:** The RL series are free of pinch points which eliminates additional guarding requirements.



Applications

- Bagging Machines
- Pallet Wrapping Turntables
- Pallet Strapping Machines
- Production Machine Exits
- Large Item Production Lines
- Linear Transfers
- Shuttles and Transfer Bridges



Axis RL89 Motorised Pulley

General features

- Diameter Ø89mm
- Low noise enclosed planetary gearbox
- All steel gear system
- Roller lengths from 500mm to 1500mm
- Three phase motor
- 110 watt input power
- Insulation Class F
- Galvanised or stainless steel shell
- Life lubricated with synthetic grease
- Straight cable gland with 3m flying cable



Axis RL89 Benefits

Economy

The Axis RL89 requires fewer additional components when compared to a traditional pallet conveying system. When specifying the Axis RL89, consideration must be given to the following advantages:

- **Reduced Maintenance:** The gearing of the Axis RL89 is life lubricated and does not require maintenance.
- **Reduced Components:** No external motor and reducer, chain, sprockets and tensioner.
- **Simplified Conveyor Structure:** Elimination of protection covers enables reduced side frame height.
- **Faster Assembly:** Reduced components allows quicker project commissioning.
- **Faster Installation:** Conveyors can be shipped fully assembled for easy site installation.
- **Gravity Rollers Construction:** As only the Axis RL89 provides motorisation, the support rollers do not require additional welded sprockets.

Modularity

- The Axis RL89 has the same diameter as gravity rollers commonly found in the handling market. This allows simple retrofitting to existing systems without modifications.
- The enclosed drive system allows handling systems to be utilised aggressive environments. The Axis RL89 requires no grease application and is impervious to dust and particles etc. The Axis RL89 is particularly suitable for use in food safe areas.
- The modular construction of a conveyor system using the Axis RL89 allows fast interchangeability of rollers and should a single motor become damaged it can be removed without stopping production or creating costly down-time.

Safety

The enclosed drive of the Axis RL89 eliminates danger to personal working in the general proximity as no pinch points are created in its operation. This means protective covers and guarding may not be required.

Greased components of a traditional pallet conveying system present contamination issues not present when the Axis RL89 is utilised. The shell can be supplied in galvanized drawn steel, or stainless steel for food safe areas.

Axis RL89 Applications

- Logistics
- Bagging and Product Batching
- Airport Freight
- Production Lines



Aggressive environment application



Production application with turntable

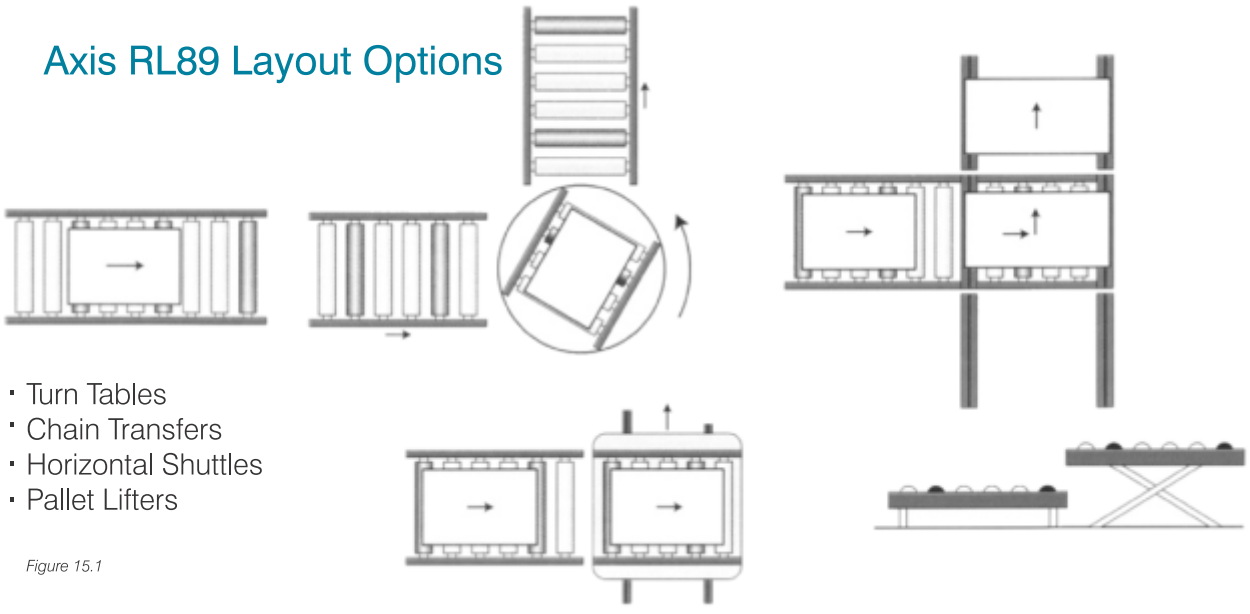


Food production facility where pallets need to be moved without forklift use, preventing possible contamination .



Logistics applications with shuttle transfers

Axis RL89 Layout Options



- Turn Tables
- Chain Transfers
- Horizontal Shuttles
- Pallet Lifters

Figure 15.1

Axis RL89 Motorised Pulley

Axis RL89 Dimensions

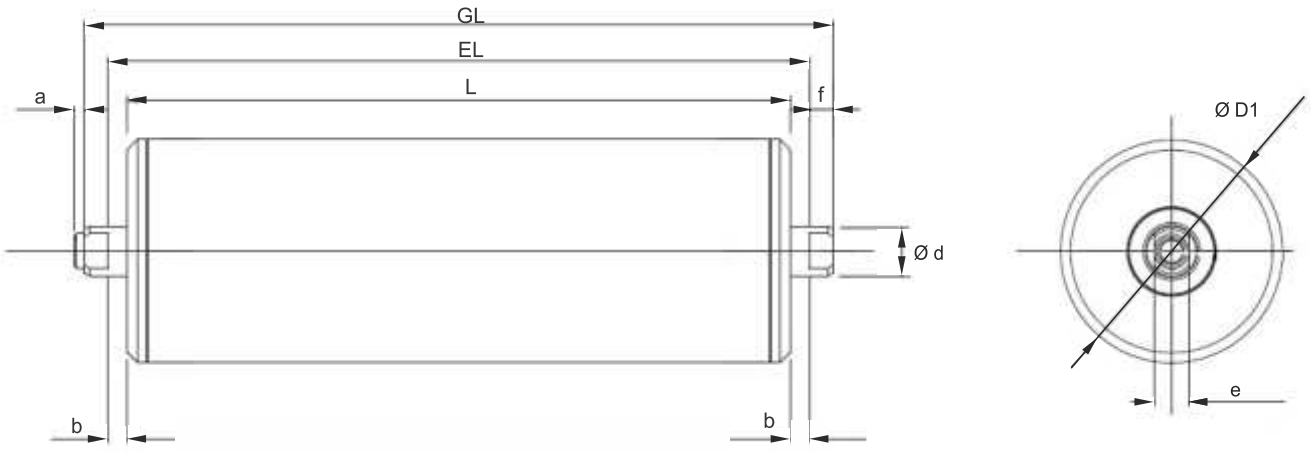


Figure 15.2

Dimensions in mm

MOTORISED ROLLER								
Size	Type	Ø D1	a	Ø d	e	f	b	EL
89	RL89	89	4	20	14	10	11	L + 22
GRAVITY ROLLER								
89	UT89	89		20			1	

Dimensions can vary according to the application and bearings used

Axis RL89 Performance Data

TYPE	POWER	SPEED	TORQUE	STARTING TORQUE	NOMINAL TENSION	STARTING TENSION	POWER INPUT 400V (50Hz)	DRUM LENGTH L min.	WEIGHT L=1200mm
	[kW]	[m/s]	[N]	[N]	[Nm]	[Nm]	[A]	[mm]	[kg]
RL89	0,11 2-pole	0,06	31,8	72,5	714	1629	3x230/400V 0,45/0,26	600	14,3
		0,086	22,4	51,0	503	1146			
		0,095	19,9	45,3	447	1018			
		0,12	15,8	35,9	354	807			
		0,135	14,0	31,9	314	716			
		0,15	12,4	28,2	278	634			
		0,17	11,2	25,5	251	573			
		0,19	9,90	22,5	222	505			
		0,22	8,80	20,1	198	453			
		0,25	7,80	17,8	175	400			
		0,36	5,60	12,8	128	288			

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Axis RL89 Motorised Pulley

Weight of Conveyed Pallets

RATIO	SPEED	TANGENTIAL FORCE	MAXIMUM WEIGHT
[i]	[m/min]	[daN]	[kg]
53	14.6	16	600
60	12.9	19	750
67	11.4	22	850
76	10.1	25	900
84	9.1	27	1000
95	8.1	31	1200
108	7.1	35	1350
135	5.7	44	1500
152	5.0	49	1700
216	3.6	70	2000

Maximum Loading

LENGTH	STATIC LOAD
[MM]	[kg]
700	370
800	320
900	280
1000	260
1100	225
1200	210
1300	190
1400	275
1500	160

Axis RL89 Motor Information

MOTOR	SPECIFICATION
Three Phase	-
Absorbed Power	110W
Speed	2500 tr / min
Nominal Torque	0,19Nm
Thermal Protection	Yes

Axis UT89 Gravity Roller

The Axis UT89 gravity roller is designed for use with the RL89 motorised pulley for handling applications. They are suitable for use in heavy duty applications with high static load ratings. Standard lengths are available up to 1500mm wide.



General features

- Heavy duty galvanised steel or stainless steel shell
- Swaged or pressed precision bearing options
- 20mm mild or stainless steel shaft
- M12 x 30 tapped or shaft flat mounting options

Axis RL89 TRC Motorised Pulley with Sprocket

The Axis RL89 TRC Motorised Pulley with a welded pinion sprocket allows driving multiple rollers of a roller conveyor section. This could be utilised where traction is an issue or for integration into an existing pallet conveyor system.

General Features

- Welded drive sprocket 14T 5/8" pitch duplex.
- Zinc plated sprocket with precision ball bearing
- Motor specifications see (RL89 on Page 60)

Axis RL89 TRC Dimensions

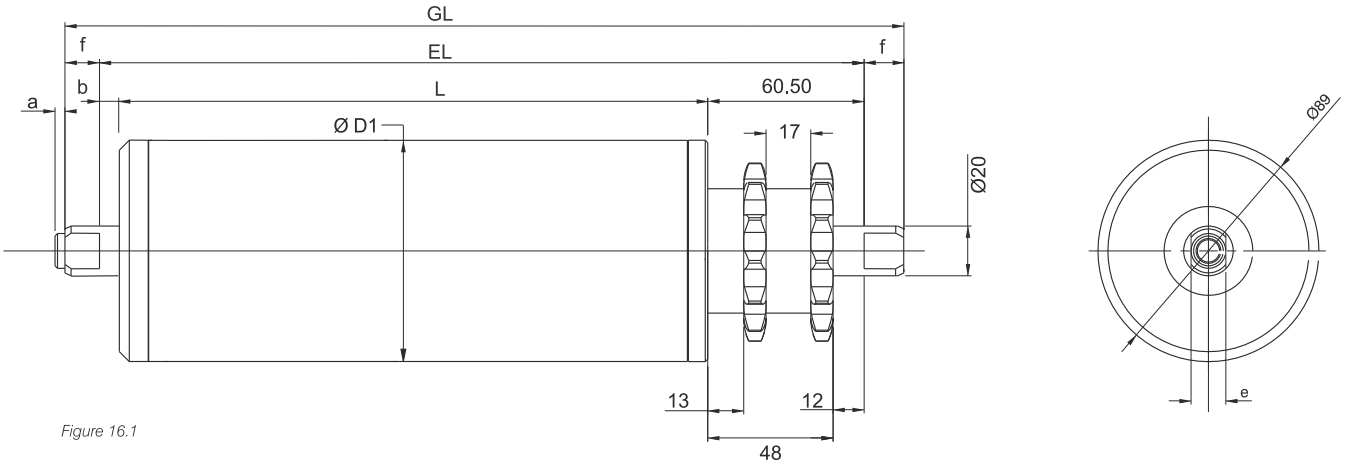


Figure 16.1

Dimensions in mm

MOTORISED ROLLER								
Size	Type	Ø D1	a	Ød	e	f	b	EL
89	RL89TRC	89	4	20	14	10	11	L + 22
GRAVITY ROLLER								
89	UT89TRC	89		20			1	

Dimensions can vary according to the application and sprockets used

Indicative Applications

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Axis RL89 Enquiry Form

To:
Southquip Industrial
9 Wood street
Invercargill
New Zealand
Phone: +64 3 218 4168
Fax: +64 3 218 4164
Email: sales@southquip.co.nz
Web: www.southquip.co.nz

Customer Details:

Company: _____
Handled By: _____
Phone: _____
Fax: _____
Street: _____
City: _____
Country: _____

Pallet Roller Design

Pallet Roller Model:	RL89	☐	RL89 TRC	☐
Pallet Roller Construction:	Mild Steel/ Galvanised	☐	Stainless Steel	☐
Conveying Speed: [m/sec]				

Electrical Information

Protection Class:	IP65				
Iso Class:	F				
Voltage:	230/400	Other	☐	_____	
No. of Phases:	Three Phase				
Frequency: [hz]	50				
Frequency Inverter VSD operation:		Yes	☐	No	☐
	VSD Output Voltage: [hz]				
	Expected Frequency Range: [hz]			-	

Mounting Dimensions

Shaft Dimensions:	14 x 20
Version Of Connection:	Straight Cable Gland

Options

Electromagnetic Brake:	Yes	☐	No	☐
Rubber Coating	Yes	☐	No	☐

Application Considerations

Conveyor Length M:							
Pallet Length:							
Pallet Width:							
Maximum Pallet Weight:							
No. of Pallets per Hour:							
Operating Duty: (Hours per day)	<3hrs	☐		<8hrs	☐		
	<12hrs	☐		>16hrs	☐		
Number of Cycles (Start/stops) per min:	<1	☐	<2	☐	<5	☐	<20 ☐

Notes:

Axis Service and Support

Priority Support



The Axis drum motor is a critical part of your production. We understand its importance to your efficiency and profitability. This is why we offer priority service when you require it most. Replacement units and parts can be produced with our expedite assembly serivce with minimum delay.

Drum Motor Refurbishment



Axis provide servicing support and refurbishment of all types and makes of drum motors. Contact our service department to have your drum motor inspected and serviced by our inhouse technicians.

Drum Lagging



We can offer lagging of your drum shells with a wide variety of rubber and coating options via hot vulcanising or cold bonding. A variety of pattern, hardness and thickness are available. We can also apply FDA approved food safe coatings.

.

axis®
DRIVING EFFICIENCY







Contact Information

Sales and Enquiries
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AU Phone +61 3 8375 8140
Fax +64 3 218 4164
Web: www.axisdrummotor.com
Email: sales@southquip.co.nz

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Invercargill
New Zealand 9810

View our range online