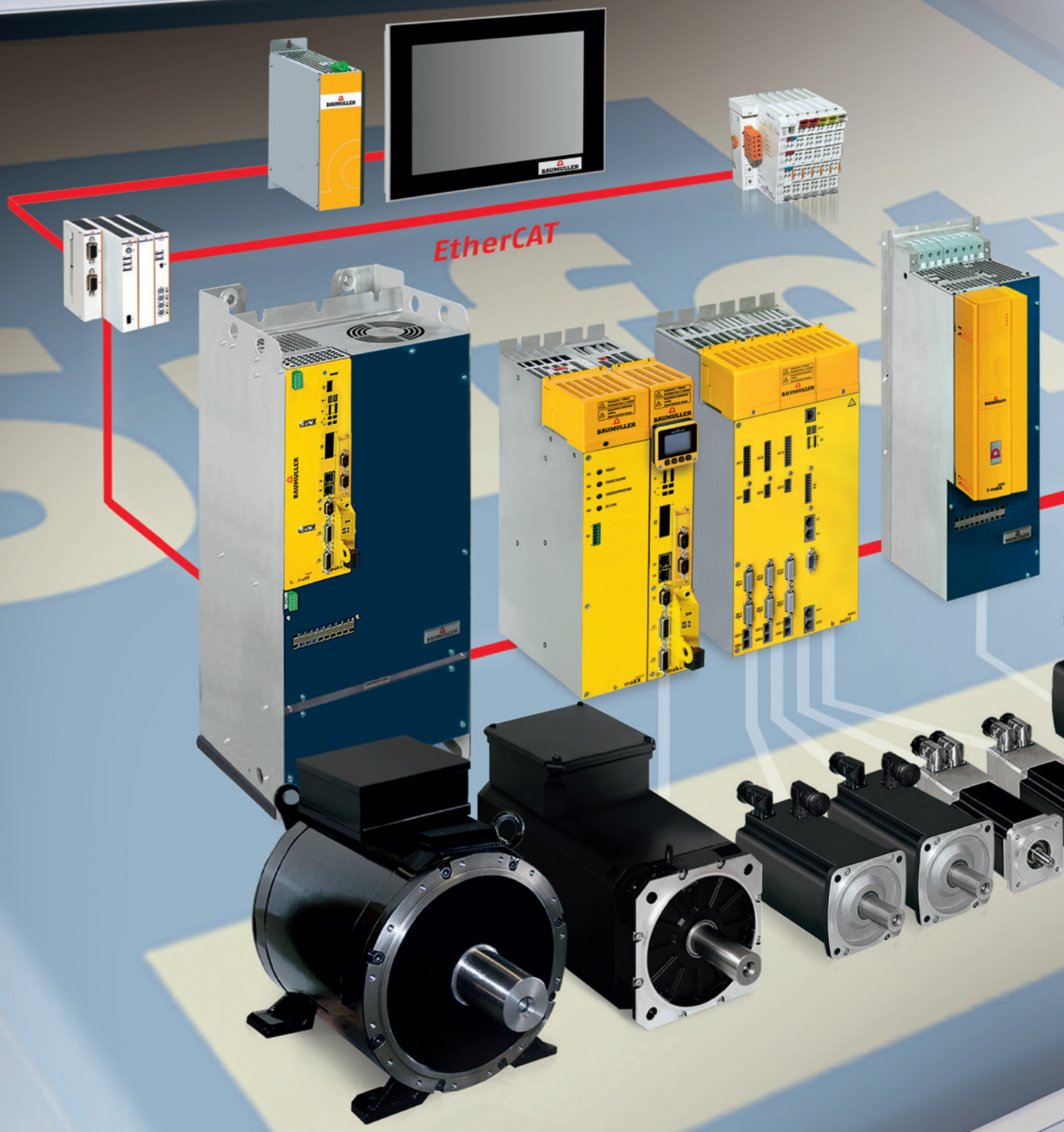


Direct Drives

be in motion

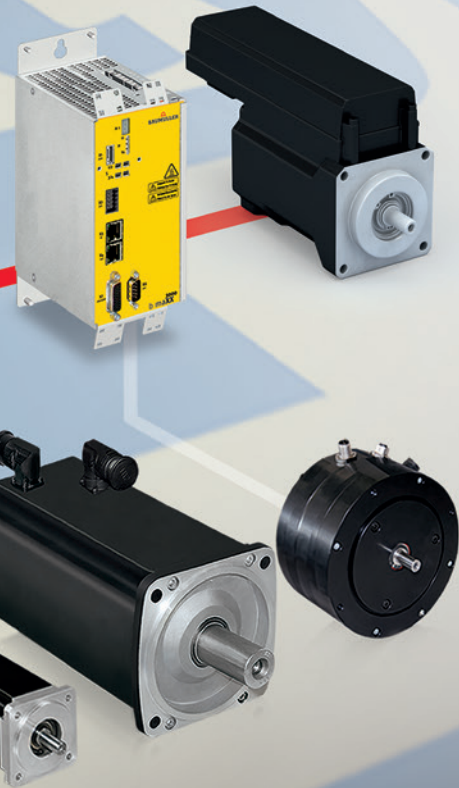


Added value for our customers

Our goal is to enable more flexibility in your machine design and ensuring your machine users the necessary productivity and efficiency in production, thereby giving your machines a competitive edge.

That is why the focus of our development is not just the entire system of a machine, but also the added value that we make available to our customers with the modularization of machines, the scalability of components and flexible technology blocks.

www.baumueller.com



4	Your Partner for Direct Drive Technology
6	Direct drive technology
8	DST motors for extruders
9	DST motors for injection molding machines
11	DST motors for printing machines
12	DST2-135-560 – The powerful high-torque motors
26	ProMaster Engineering Framework
28	Motors
30	Servo controllers

Baumüller – Your Partner for Direct Drive Technology



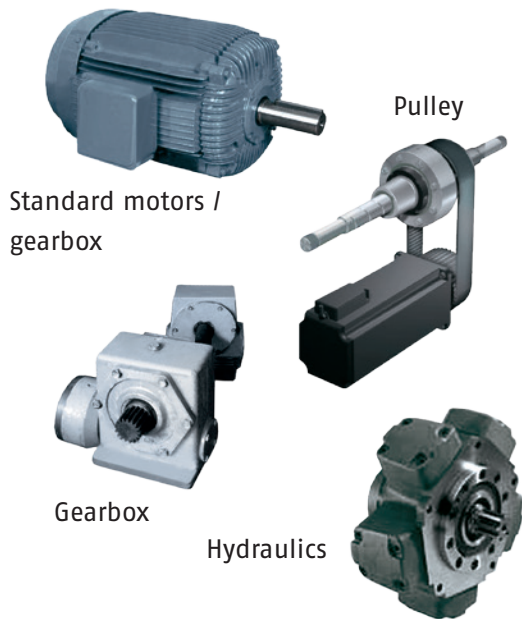
With a torque of up to 32,000 Nm, the DST range from Baumüller meets the highest demands in direct-drive technology. The high-torque servo motor is therefore ideally suited for applications such as:

- ◎ Plastics machines
- ◎ Rotary tables or swivel axis
- ◎ Printing machines
- ◎ Press technology
- ◎ Winders
- ◎ Wire-drawing machines
- ◎ Stretching units
- ◎ Machine tools
- ◎ Woodworking machines
- ◎ Special machines
- ◎ Ship propulsion

Baumüller is a pioneer in the field of direct drive technology and has been a major player on this market since 1991. With over 40 subsidiaries worldwide, Baumüller is always close by, no matter where your machine is to be installed.

Make the most of the flexibility and innovation that our experts at Baumüller offer for customizing system concepts to meet your requirements. These offerings include the suitable water-cooled servo drives, thrust bearings, and appropriate shaft options – everything from one single source.

Conventional solution



Direct drive technology



Time for change

Today's industry places high demands on innovative system solutions. The aim is to achieve not only increased productivity and machine availability, but improved energy efficiency and reduced operating costs as well. These demands can never be met with high-maintenance gearboxes, standard

induction motors, and hydraulic systems – all of which are extremely inefficient. Investing in direct drive technology instead of these conventional wasteful design approaches could greatly benefit your organization's bottom line. Take a look of the advantages direct drive technology has to offer and convince yourself!

Direct drive technology



Direct drive technology compared to the combined motor/gearbox

	Combined motor/gearbox	Direct drives solution
Cost and energy efficiency:	<ul style="list-style-type: none">⦿ Friction losses caused by wear-based mechanical components⦿ Fan motors often used for climate control⦿ High costs due to maintenance intervals	<ul style="list-style-type: none">⦿ Increased overall efficiency by reducing friction losses in the system⦿ Minimizing time and cost-expensive maintenance intervals by eliminating technically complicated pulley and toothed gears

Significant reduction of energy costs and CO₂ emissions

Running noise:	<ul style="list-style-type: none">⦿ Increased noise pollution caused by the gearbox⦿ Fan motors often result in additional energy demand	<ul style="list-style-type: none">⦿ Motor operates with almost no noise, no gearbox⦿ Integrated water cooling
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No additional measures required to suppress noise

Space requirement:	<ul style="list-style-type: none">⦿ Combined motor and gearbox require a lot of installation space	<ul style="list-style-type: none">⦿ Assembly kit solution enables a high level of integration⦿ Compact design, relatively little installation space required
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Reduction in machinery footprint

Service, maintenance, assembly:	<ul style="list-style-type: none">⦿ Regular maintenance intervals when using gearbox and constant oil controls⦿ Limited service life of gearbox⦿ Utilization of numerous components complicates the assembly; resulting in higher logistic expenses	<ul style="list-style-type: none">⦿ Almost no maintenance costs⦿ Long service life of motors⦿ Virtually an oil-free system⦿ Simple assembly and logistics because less components are required; this results in greater MTBF
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Reduction in service and maintenance costs as well as decreased machine downtime



Direct drives technology compared to the hydraulic system

Hydraulic systems

Direct drives solution

Cost and energy efficiency:

- ⊙ Lower overall efficiency of the hydraulic system because the high system losses heat generation, thus increasing overall machine temperature
- ⊙ Fan motors often result in additional energy demand

- ⊙ System losses are negligible as no additional medium, such as hydraulic oil, is required
- ⊙ Concurrent machine functions possible, resulting in shorter cycle times

Reduction in energy costs and increase in productivity

Running noise:

- ⊙ Operating noise of valves
- ⊙ Tendency to vibrate due to pressure surges and the related noise emission

- ⊙ Elimination of valves
- ⊙ No noise emission caused by vibration tendencies, as the pressure build-up no longer occurs

No additional measures required to suppress noise

Space requirement:

- ⊙ Hydraulic systems require a large installation space

- ⊙ Tighter mounting spaces are achievable
- ⊙ No additional space requirement is necessary for hydraulic systems

Reduction in machinery footprint

Service, maintenance, assembly:

- ⊙ Filtering of hydraulic liquid is critical
- ⊙ Temperature-dependent viscosity of hydraulic oils
- ⊙ Danger of leakage, resulting in house-keeping and environmental concerns
- ⊙ Utilization of numerous components complicates the assembly; this results in higher logistic expenses

- ⊙ Reduction in maintenance costs due to the omission of hydraulic fluid
- ⊙ Almost oil-free system, eliminating cost-intensive disposal
- ⊙ Simple assembly and logistics because less components are required; this results in less interference

Reduction in service and maintenance costs as well as decreased machine downtime

DST motors for extruders

Many market leaders rely on high-torque motors with an integrated thrust bearing from Baumüller as the drive for their extruder screw. This integrated drive approach provides many advantages for the mechanical engineer with regard to extrusion technology requirements.



Reduction of operating and energy costs

- ⊙ No gearbox losses
- ⊙ Gearbox maintenance no longer necessary
- ⊙ Close adding of drives possible

Your advantage

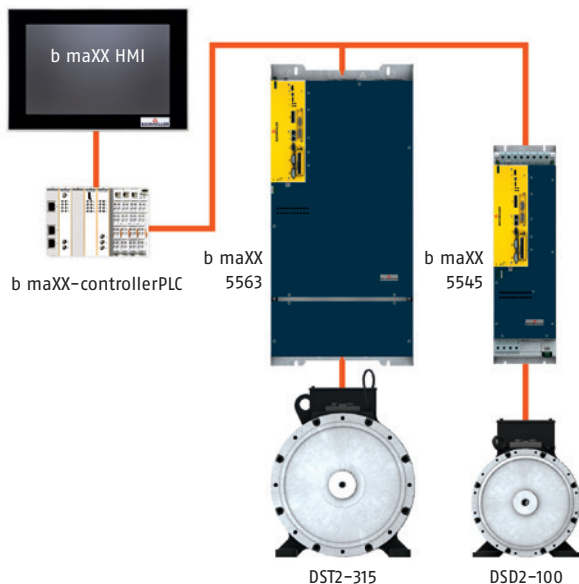
Increased cost-efficiency due to improvement in overall economic and ecological benefits.

Improved power density

Less installation space required due to high integrated design approach

Your advantage

Machines can be located closer together, meaning less encroachment on production space.



Calculation of energy efficiency and cost reduction

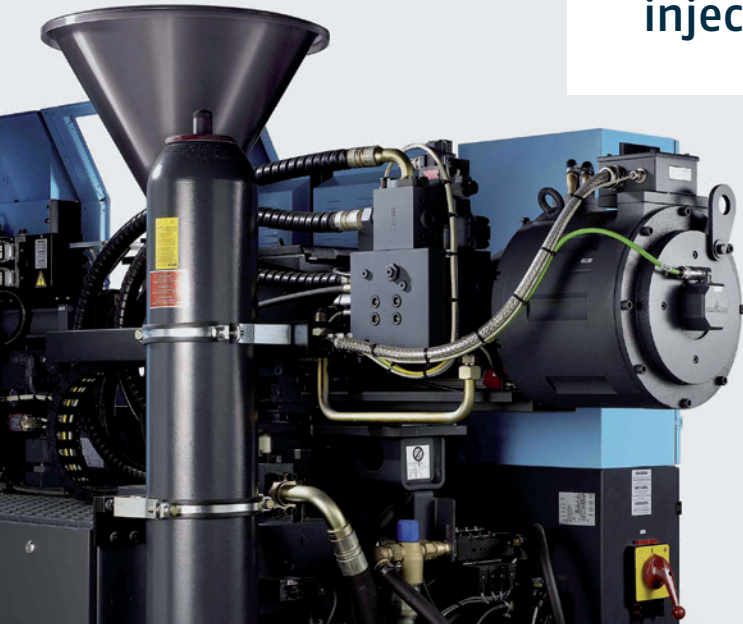
The omission of the gearbox increases the system efficiency by approx. 10%.

Calculated with a shaft power of the machine of 100 kW at 7,200 operating hours per year and energy costs of € 0.08 per kWh results in an energy cost reduction of approx. € 6,600 annually.

Your advantage

Cost reduction of approx. € 6,600 per year

DST motors for injection molding machines



Many leading manufacturers of injection molding machines are increasingly replacing their hydraulics with direct drive solutions from Baumüller. Baumüller draw from our extensive experience in your market segment and develop, together with you, systems with very high energy efficiency and productivity.

Increased productivity and reduced energy costs

- ⊙ No system losses due to hydraulic fluids that are converted into wasted heat
- ⊙ No heating of the system, meaning there is no need to use a fan motor for temperature control
- ⊙ Concurrent functions possible, resulting in shorter cycle times
- ⊙ Increase in process capability by replacing hydraulic systems with direct drive solutions

Your advantage

Lower energy costs, reduced material usage, and improved productivity lead to an increase in cost efficiency and opening of new areas of application.

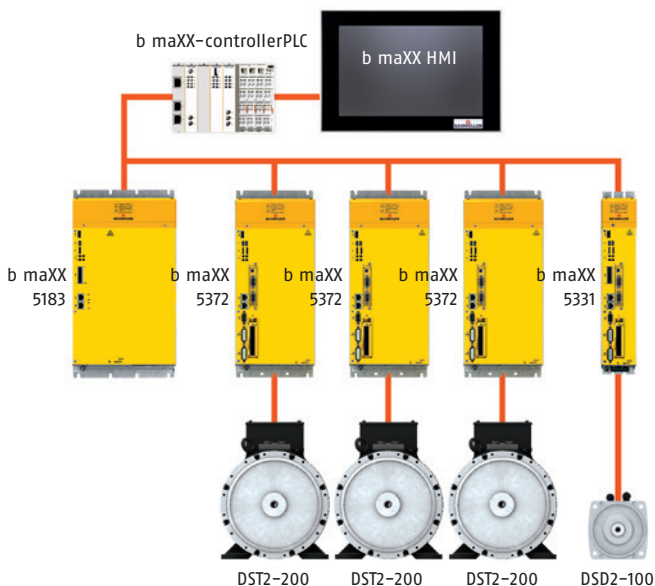
Calculation of energy efficiency and cost reduction

The increased overall efficiency can result in an energy saving of up to 50% of operating energy.

Calculated at an injection rate of 400 kg per hour, 7,200 operating hours per year and an original energy consumption of 1 kWh per kg, as well as energy costs of € 0.08 per kWh, this results in a saving of € 46,000 annually.*

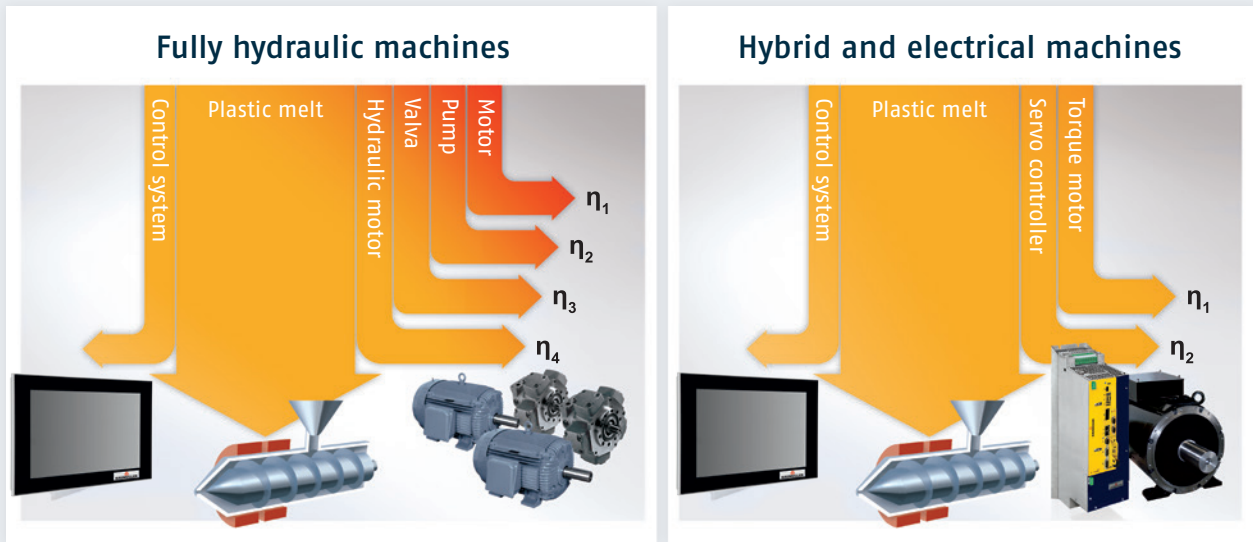
Your advantage

Cost reduction of approx. € 46,000 per year



* Calculation based on an assumed energy saving of 20%.

Comparison of energy flow in injection moulding



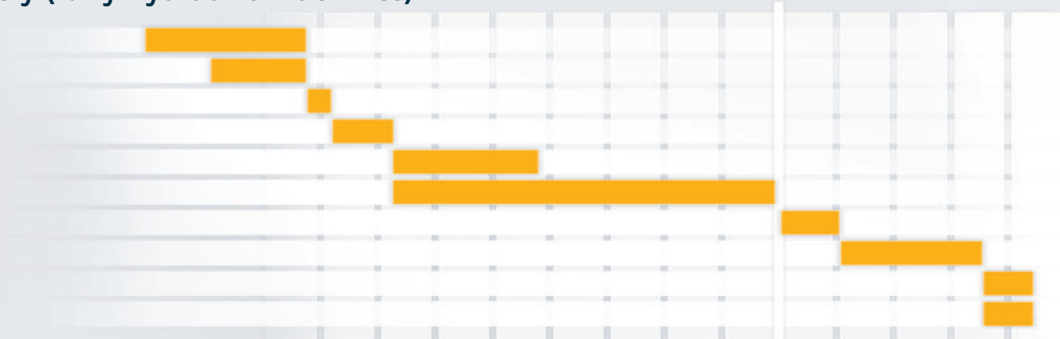
Reduction of cycle times

Due to limited performance capability of the hydraulic system, unlocking can not begin until dosing is complete.

Concurrent functions result in a significantly shorter cycle time of 30% (calculated on the example of manufacturing a drinking cup).

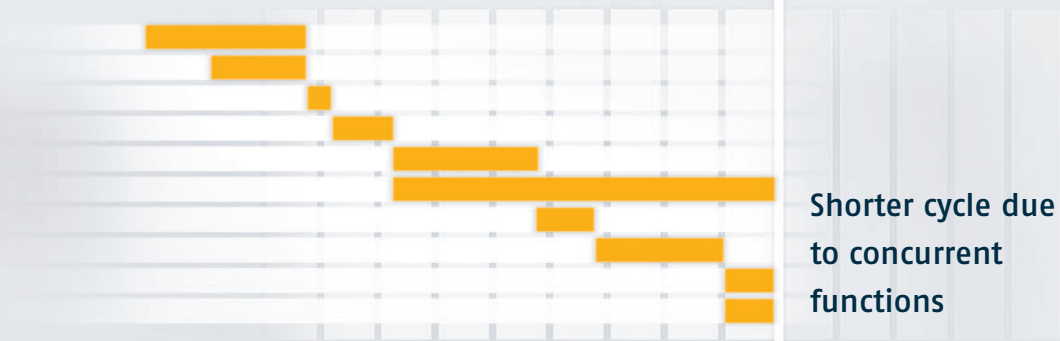
Cycle previously (fully hydraulic machines)

- Close tool
- Lock tool
- Nozzle system
- Inject
- Cool
- Dosing
- Unlock tool
- Open tool
- Tool is open
- Pause



Cycle afterwards (hybrid and electrical machines)

- Close tool
- Lock tool
- Nozzle system
- Inject
- Cool
- Dosing
- Unlock tool
- Open tool
- Tool is open
- Pause



Shorter cycle due to concurrent functions



DST motors for printing machines

Baumüller was the first system manufacturer in the printing machine sector to perform pioneering work with direct drive technology. In the past, it was more common to drive synchronized rotating cylinders using positive coupling via hard gearing. Increasingly more manufacturers are now relying on direct drive technology with electronic synchronization from Baumüller and are profiting from the advantages.

Increased precision

Improved control and positioning precision as well as load stiffness because gearbox and gear connections are no longer required.

Your advantage

The increased precision improves product quality, which in turn reduces waste. This means you become significantly more competitive.

Increase cost-efficiency

Paralleling setup processes results in a shorter setup time; achieving a constant high-torque results in increased performance capability

Your advantage

Shorter setup times and increased performance capability improve the productivity of the machine, which in turn increases the cost efficiency of the system.

Calculation of energy efficiency and cost reduction

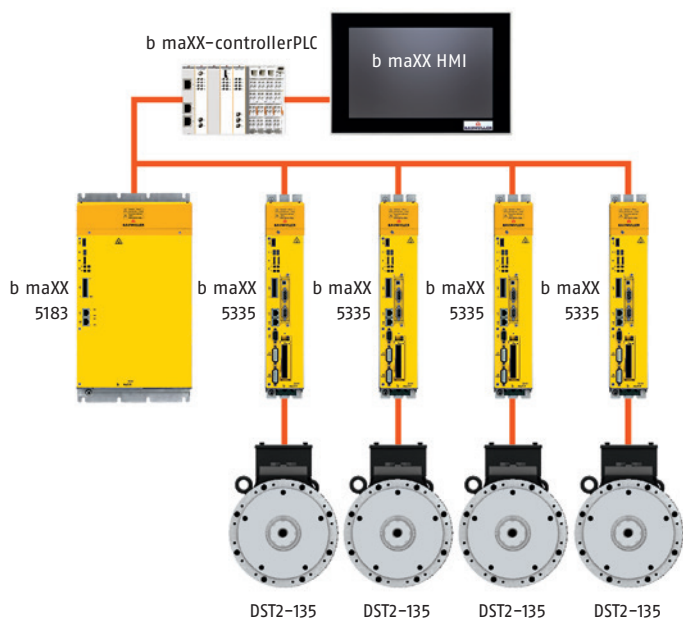
Using direct drives increases system efficiency by about 10 percent points*.

Calculated with a shaft performance of the machine of 100 kW at 8,000 operating hours per year and energy costs of € 0.08 per kWh, this results in an energy cost reduction of approx. € 7,900 annually.

Your advantage

Cost reduction of approx. € 7,900 per year

* Calculation based on an assumed efficiency increase from 85% to 95%.

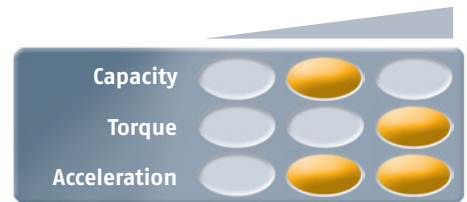


DST2 135-560 – The powerful high-torque motors

- ⊙ Very good smooth running characteristics
- ⊙ Energy-efficiency is maintained through wide speed/load range
- ⊙ Suitable for sophisticated direct drive technology
- ⊙ High torque at low velocities
- ⊙ Low-noise
- ⊙ Water cooling in a stainless steel design
- ⊙ Compact and robust design
- ⊙ Smooth housing surface – easy to keep clean
- ⊙ Permanent field high-torque motors
- ⊙ IP54 type of protection
- ⊙ Encoder: Resolver, SinCos encoder (option)
- ⊙ Other encoders on request



Water-cooled variants of the DST high-torque motors are available.



Technical data – DST2 135-560

Type	P _N		n _N [min ⁻¹]	M ₀		M _{0MAX}	
	[kW]	[hp]		[Nm]	[lbf ft]	[Nm]	[lbf ft]
DST2-135	2,7-60	3,6-80	175-1500	140-580	103-427	325-1110	240-819
DST2-200	5,5-126	7,4-169	150-1000	310-2030	229-1497	790-4450	583-3282
DST2-260	20-225	27-302	150-750	1160-4760	856-3510	2410-9800	1778-7228
DST2-315	16-280	21-375	100-600	1200-8600	885-6343	3330-18400	2456-13571
DST2-400	92-530	125-720	100-300	8800-18600	6638-14235	14800-31600	10916-23307
DST2-560*	bis 1200	bis 1609	bis 300	bis 45000	bis 33190	bis 80000	bis 59000

The values quoted are maximum values.
For details, refer to the technical documentation.

* In preparation, preliminary data
Subject to modifications

Your advantages at a glance

Property	Product advantage	Customer benefits
High standstill torque	Improved restart characteristics <ul style="list-style-type: none"> ⊙ Improved efficiency ⊙ Cold start 	Reduced waste <ul style="list-style-type: none"> ⊙ Increased productivity while also reducing material costs
Constantly high torque	Wider speed setting range <ul style="list-style-type: none"> ⊙ No gradation of the motor or gearbox ⊙ No drive combinations 	Service concept <ul style="list-style-type: none"> ⊙ Various materials producible ⊙ One drive set for multiple machines ⊙ Cost reduction in procurement, logistics and storage
Overload capability	Improved dynamics <ul style="list-style-type: none"> ⊙ High load variation ⊙ Very good acceleration characteristics 	Optimizing machines and processes <ul style="list-style-type: none"> ⊙ Increased machine output ⊙ Improved productivity ⊙ Increased cost-efficiency
Water cooling	Effective loss reduction <ul style="list-style-type: none"> ⊙ Reduced surface heat ⊙ Reduced heat flow ⊙ Reduced noise due to water jacket 	Process optimization and sustainability <ul style="list-style-type: none"> ⊙ Reduced temperature dependency at the drive end during the process ⊙ No additional measures necessary for noise insulation
Efficiency	Reduced loss <ul style="list-style-type: none"> ⊙ No gearbox losses ⊙ No pressure loss hydraulics 	Efficiency <ul style="list-style-type: none"> ⊙ Improved overall efficiency of the machine ⊙ Reduced operating costs
Backlash-free	Process optimization <ul style="list-style-type: none"> ⊙ Very good stiffness control ⊙ Smooth running characteristics ⊙ Very high precision 	Improved process quality <ul style="list-style-type: none"> ⊙ Improved product quality ⊙ Reduced waste ⊙ Improved efficiency
Maintenance-free (motor bearings)	Easy-to-maintain technology <ul style="list-style-type: none"> ⊙ Hydraulic and gearbox maintenance no longer necessary ⊙ Omission of mechanical transmission elements 	Cost reduction <ul style="list-style-type: none"> ⊙ Faster commissioning ⊙ Increased machine availability ⊙ Reduced maintenance expenses ⊙ Reduced service life costs
Power density / space requirements	Installation space <ul style="list-style-type: none"> ⊙ High level of integration in the machine ⊙ Reduced volume of the device ⊙ Reduced masses 	Reduced assembly space <ul style="list-style-type: none"> ⊙ Increased quantities ⊙ Cost advantage for machine user
Design	Optimal integration into the machine <ul style="list-style-type: none"> ⊙ Defined shaft options ⊙ Optional thrust bearing 	Optimized machine design <ul style="list-style-type: none"> ⊙ Reduced R&D and assembly costs ⊙ Integration of the motor in an optimal machine design

DST2-135..54 W (IP 54 water-cooled)

Mains voltage 3 AC 400 V for converters with unregulated supply

Motortype	n _N ¹⁾ [min ⁻¹]	P _N		M _N		I _N [A]	U _N [V]	I _{0,max} [A]	n _{max} ^{1) 2)} [min ⁻¹]
		[kW]	[hp]	[NM]	[lbf ft]				
DST2-135K054W-017-5	175	2.7	3.6	145	107	6.8	365	19	390
DST2-135M054W-017-5		4.9	6.6	265	195	12	365	28	380
DST2-135L054W-017-5		6.4	8.6	350	258	16	365	36	370
DST2-135B054W-017-5		7.8	10	430	317	19	365	44	360
DST2-135X054W-017-5		9.3	12	505	372	23	365	52	360
DST2-135Y054W-017-5		11	15	580	428	26	365	61	360
DST2-135K054W-035-5	350	5.3	7.1	145	107	11	365	31	640
DST2-135M054W-035-5		9.5	13	260	192	20	365	46	630
DST2-135L054W-035-5		12	16	340	251	27	365	60	630
DST2-135B054W-035-5		15	20	420	310	32	365	75	620
DST2-135X054W-035-5		18	24	490	361	38	365	89	620
DST2-135Y054W-035-5		21	28	565	417	43	365	102	610
DST2-135K054W-055-5	550	8.2	11	145	107	17	365	48	1000
DST2-135M054W-055-5		15	20	260	192	31	365	72	1000
DST2-135L054W-055-5		20	27	340	251	40	365	95	980
DST2-135B054W-055-5		24	32	420	310	48	365	116	970
DST2-135X054W-055-5		28	37	495	365	56	365	138	950
DST2-135Y054W-055-5		33	44	565	417	64	365	160	960
DST2-135K054W-075-5	750	11	15	140	103	23	365	63	1300
DST2-135M054W-075-5		20	27	250	184	40	365	92	1250
DST2-135L054W-075-5		26	35	330	243	53	365	124	1250
DST2-135B054W-075-5		32	43	405	299	65	365	155	1250
DST2-135X054W-075-5		37	50	475	350	76	365	185	1250
DST2-135Y054W-075-5		43	58	545	402	87	365	215	1250
DST2-135K054W-100-5	1000	15	20	140	103	29	365	81	1650
DST2-135M054W-100-5		26	35	245	181	52	365	122	1700
DST2-135L054W-100-5		34	46	325	240	69	365	165	1700
DST2-135B054W-100-5		42	56	395	291	82	365	200	1650
DST2-135X054W-100-5		49	66	465	343	98	365	245	1700
DST2-135Y054W-100-5 ³⁾		57	76	540	398	105	365	270	1600
DST2-135K054W-150-5 ³⁾	1500	22	29	140	103	43	365	120	2000
DST2-135M054W-150-5 ³⁾		37	50	235	173	69	365	170	2000
DST2-135L054W-150-5 ³⁾		49	66	315	232	90	365	225	2000
DST2-135B054W-150-5 ³⁾		60	80	380	280	107	365	270	2000

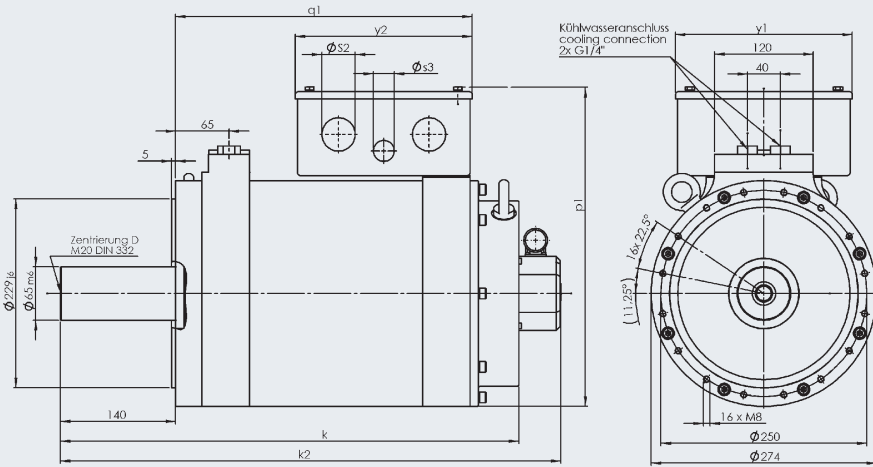
1) The maximum permissible operating speed for thrust bearing motors is 1000 min⁻¹, from 300 min⁻¹ it is obligatory to use an oil cooler.

2) The maximum permissible operating speed for hollow shaft motors is 1000 min⁻¹.

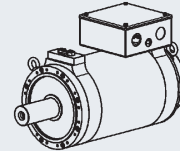
3) The motor type is only available with solid shaft.

Motortype	M _{0,max}		J _{vollwelle}		J _{hohlwelle}		m _{vollwelle}		m _{hohlwelle}		m _{Drucklager}	
	[Nm]	[lbf ft]	[kgm ²]	[lb ft ²]	[kgm ²]	[lb ft ²]	[kg]	[lb]	[kg]	[lb]	[kg]	[lb]
DST2-135K0..	325	240	0,09	2,1	0,13	3,1	97	214	82	181	126	278
DST2-135M0..	485	358	0,12	2,8	0,15	3,6	115	254	93	205	144	317
DST2-135L0..	645	476	0,15	3,6	0,17	4,0	132	291	105	231	161	355
DST2-135B0..	800	590	0,19	4,5	0,18	4,3	151	333	119	262	180	397
DST2-135X0..	950	701	0,22	5,2	0,20	4,7	168	370	130	287	197	434
DST2-135Y0..	1110	819	0,25	5,9	0,22	5,2	186	410	141	311	214	472

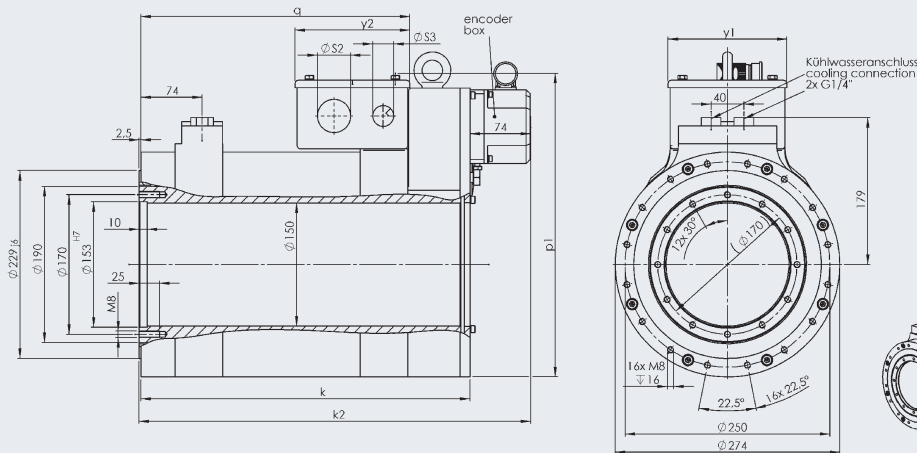
DST2-135 – Solid-shaft version, IM B14 design



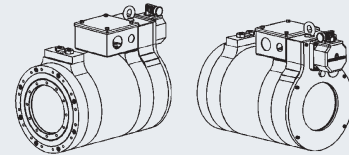
Motor type	k	k2	q1
DST2-135K0	432	482	235
DST2-135M0	474	524	277
DST2-135L0	516	566	319
DST2-135B0	558	608	361
DST2-135X0	600	650	403
DST2-135Y0	642	692	445



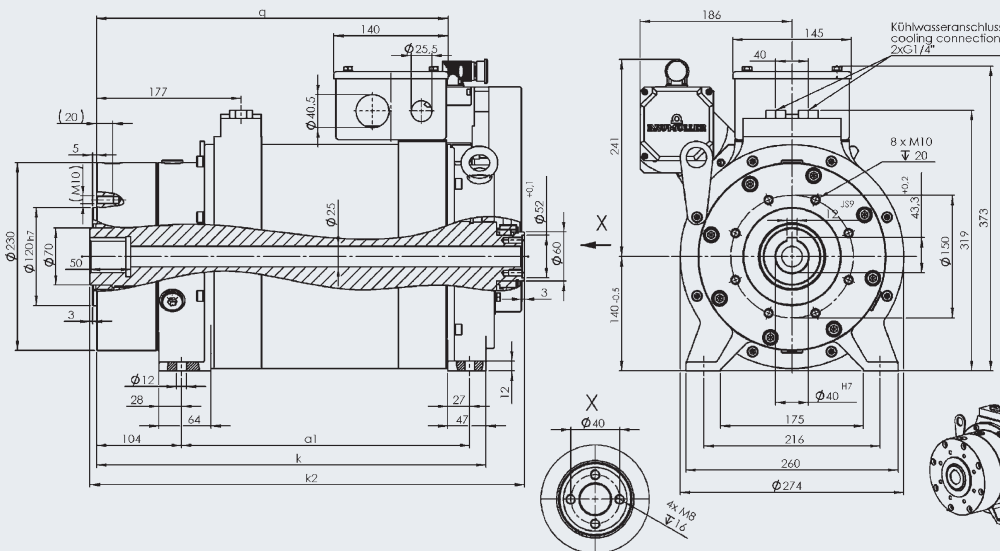
DST2-135 – Hollow-shaft version, IM B14 design



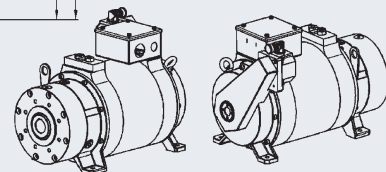
Motor type	k	k2	q1
DST2-135K0	318	394	244
DST2-135M0	360	436	286
DST2-135L0	402	478	328
DST2-135B0	444	520	370
DST2-135X0	486	562	412
DST2-135Y0	528	604	454



DST2-135 – Thrust-bearing version, IM B34 design



Motor type	k	k2	q	a1
DST2-135K0	393	448	347	269
DST2-135M0	435	490	389	311
DST2-135L0	477	532	431	353
DST2-135B0	519	574	473	395
DST2-135X0	561	616	515	437
DST2-135Y0	603	658	557	479



DST2-200..54 W (IP 54 water-cooled)

Mains voltage 3 AC 400 V for converters with unregulated supply

Motortype	n _N ¹⁾ [min ⁻¹]	P _N		M _N		I _N [A]	U _N [V]	I _{0,max} [A]	n _{max} ^{1) 2)} [min ⁻¹]
		[kW]	[hp]	[NM]	[lbf ft]				
DST2-200K054W-015-5	150	5,5	7,4	350	258	13	365	42,3	290
DST2-200KM54W-015-5		8,4	11	535	395	20	365	62	290
DST2-200M054W-015-5		11	15	720	531	26	365	83	290
DST2-200ML54W-015-5		14	19	905	667	33	365	102	280
DST2-200L054W-015-5		17	23	1070	789	38	365	117	270
DST2-200B054W-015-5		23	31	1470	1084	52	365	160	280
DST2-200X054W-015-5		29	39	1830	1350	65	365	200	280
DST2-200XY54W-015-5		32	43	2030	1497	72	365	225	280
DST2-200K054W-030-5	300	11	15	355	262	26	365	80	560
DST2-200KM54W-030-5		17	23	540	398	39	365	121	570
DST2-200M054W-030-5		23	31	725	535	51	365	160	560
DST2-200ML54W-030-5		29	39	910	671	63	365	195	550
DST2-200L054W-030-5		35	47	1100	811	76	360	240	560
DST2-200B054W-030-5		46	62	1480	1092	102	360	320	560
DST2-200X054W-030-5		58	78	1840	1357	123	365	385	540
DST2-200XY54W-030-5		64	86	2030	1497	137	365	425	540
DST2-200K054W-045-5	450	16	21	345	254	36	365	113	800
DST2-200KM54W-045-5		25	33	530	391	53	365	170	790
DST2-200M054W-045-5		34	46	715	527	71	365	225	790
DST2-200ML54W-045-5		43	58	900	664	90	365	285	800
DST2-200L054W-045-5		51	68	1090	804	108	365	340	800
DST2-200B054W-045-5		69	92	1460	1077	144	365	450	790
DST2-200X054W-045-5		86	115	1830	1350	180	365	570	800
DST2-200XY54W-045-5		95	127	2010	1482	195	365	615	790
DST2-200K054W-060-5	600	21	28	340	251	48	365	155	1050
DST2-200KM54W-060-5		33	44	525	387	71	365	225	1050
DST2-200M054W-060-5		44	59	705	520	92	365	295	1000
DST2-200ML54W-060-5		56	75	895	660	118	365	375	1050
DST2-200L054W-060-5		68	91	1080	797	142	365	450	1050
DST2-200B054W-060-5		91	122	1440	1062	185	365	590	1000
DST2-200X054W-060-5		114	153	1810	1335	230	365	735	1000
DST2-200XY54W-060-5		126	169	2000	1475	255	365	810	1000
DST2-200K054W-075-5	750	26	35	335	247	58	365	185	1300
DST2-200KM54W-075-5		41	55	515	380	88	365	285	1300
DST2-200M054W-075-5		54	72	695	513	113	365	365	1250
DST2-200ML54W-075-5		69	92	875	645	141	365	450	1250
DST2-200L054W-075-5		83	111	1060	782	170	365	550	1250
DST2-200B054W-075-5	112	150	1430	1055	230	365	735	1250	
DST2-200K054W-100-5	1000	32	43	310	229	68	365	225	1350
DST2-200KM54W-100-5		50	67	480	354	100	365	335	1350
DST2-200M054W-100-5		69	92	655	483	136	365	450	1350
DST2-200ML54W-100-5		88	118	840	620	175	365	570	1350
DST2-200L054W-100-5		105	141	1000	738	205	365	670	1350

1) The maximum permissible operating speed for thrust bearing motors is 1000 min⁻¹, from 300 min⁻¹ it is obligatory to use an oil cooler.

2) The maximum permissible operating speed for hollow shaft motors is 1000 min⁻¹.

Motortype	M _{0,max}		J _{Vollwelle}		J _{Hohlwelle}		m _{Vollwelle}		m _{Hohlwelle}		m _{Drucklager}	
	[Nm]	[lbf ft]	[kgm ²]	[lb ft ²]	[kgm ²]	[lb ft ²]	[kg]	[lb]	[kg]	[lb]	[kg]	[lb]
DST2-200K0..	790	583	0,28	6,6	0,35	8,3	195	430	169	373	280	617
DST2-200KM..	1200	885	0,38	9,0	0,45	10,7	220	485	195	430	310	683
DST2-200M0..	1600	1180	0,49	11,6	0,55	13,1	257	567	221	487	341	752
DST2-200ML..	2010	1482	0,59	14,0	0,65	15,4	280	617	248	547	371	818
DST2-200L0..	2420	1785	0,70	16,6	0,75	17,8	316	697	274	604	401	884
DST2-200B0..	3230	2382	0,91	21,6	0,95	22,5	377	831	325	717	460	1014
DST2-200X0..	4050	2987	1,12	26,6	1,15	27,3	430	948	376	829	520	1146
DST2-200XY..	4450	3282	1,22	29,0	1,25	29,7	468	1032	403	888	551	1215

DST2-260..54 W (IP 54 water-cooled)

Mains voltage 3 AC 400 V for converters with unregulated supply

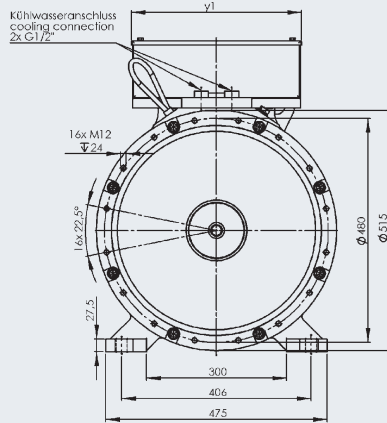
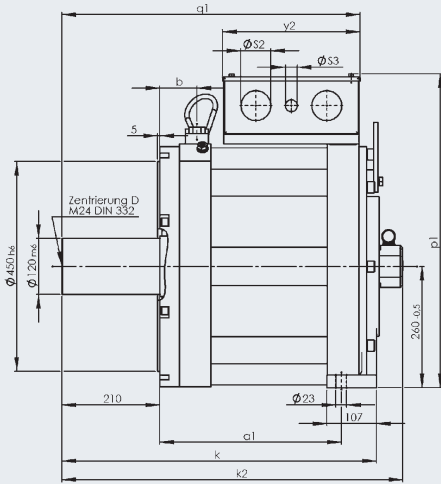
Motortype	n _N ¹⁾ [min ⁻¹]	P _N		M _N		I _N [A]	U _N [V]	I _{0,max} [A]	n _{max} ^{1) 2)} [min ⁻¹]
		[kW]	[hp]	[NM]	[lbf ft]				
DST2-260K054W-015-5	150	20	27	1280	944	45,5	365	103	270
DST2-260KM54W-015-5		27	36	1720	1268	59	365	155	270
DST2-260M054W-015-5		34	46	2160	1593	74	365	195	270
DST2-260ML54W-015-5		41	55	2590	1910	88	365	200	260
DST2-260L054W-015-5		48	64	3030	2235	102	365	270	260
DST2-260LB54W-015-5		56	75	3540	2611	117	365	280	270
DST2-260B054W-015-5		61	82	3910	2883	131	365	350	260
DST2-260X054W-015-5		75	101	4760	3510	160	365	420	260
DST2-260K054W-030-5	300	39	52	1240	914	83	365	195	520
DST2-260KM54W-030-5		52	70	1660	1224	109	365	300	510
DST2-260M054W-030-5		65	87	2080	1534	135	365	370	510
DST2-260ML54W-030-5		79	106	2510	1851	160	365	375	500
DST2-260L054W-030-5		92	123	2940	2168	190	365	515	500
DST2-260LB54W-030-5		109	146	3460	2552	215	365	540	510
DST2-260B054W-030-5		119	160	3800	2802	240	365	665	500
DST2-260X054W-030-5		146	196	4650	3429	295	365	810	500
DST2-260K054W-045-5	450	57	76	1200	885	120	365	285	770
DST2-260KM54W-045-5		76	102	1620	1195	155	365	440	760
DST2-260M054W-045-5		96	129	2030	1497	195	365	545	750
DST2-260ML54W-045-5		116	156	2460	1814	235	365	565	760
DST2-260L054W-045-5		136	182	2890	2131	275	365	775	760
DST2-260LB54W-045-5		160	215	3390	2500	315	365	795	760
DST2-260B054W-045-5		175	235	3710	2736	350	365	980	750
DST2-260X054W-045-5		210	282	4490	3311	415	365	1165	730
DST2-260K054W-060-5	600	73	98	1160	855	155	365	375	1000
DST2-260KM54W-060-5		99	133	1570	1158	205	365	580	1000
DST2-260M054W-060-5		124	166	1980	1460	250	365	715	980
DST2-260ML54W-060-5		149	200	2380	1755	295	365	720	970
DST2-260L054W-060-5		175	235	2780	2050	345	365	980	960
DST2-260LB54W-060-5		210	282	3340	2463	410	365	1050	1000
DST2-260B054W-060-5		225	302	3570	2633	435	365	1245	950
DST2-260K054W-075-5		750	88	118	1130	833	190	365	475
DST2-260KM54W-075-5	121		162	1550	1143	255	365	745	1050
DST2-260M054W-075-5	148		198	1880	1387	305	365	930	1050
DST2-260ML54W-075-5	178		239	2270	1674	360	365	935	1050
DST2-260L054W-075-5	210		282	2640	1947	410	365	1245	1050

1) The maximum permissible operating speed for thrust bearing motors is 600 min⁻¹, from 300 min⁻¹ it is obligatory to use an oil cooler.

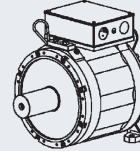
2) The maximum permissible operating speed for hollow shaft motors is 600 min⁻¹.

Motortype	M _{0,max}		J _{Vollwelle}		J _{Hohlwelle}		m _{Vollwelle}		m _{Hohlwelle}		m _{Drucklager}	
	[Nm]	[lbf ft]	[kgm ²]	[lb ft ²]	[kgm ²]	[lb ft ²]	[kg]	[lb]	[kg]	[lb]	[kg]	[lb]
DST2-260K0..	2410	1778	1,3	30,8	1,4	33,2	377	831	352	776	558	1230
DST2-260KM..	3500	2581	1,7	40,3	1,8	42,7	435	959	405	893	616	1358
DST2-260M0..	4390	3238	2,1	49,8	2,2	52,2	493	1087	457	1008	673	1484
DST2-260ML..	4890	3607	2,5	59,3	2,6	61,7	549	1210	508	1120	729	1607
DST2-260L0..	6200	4573	2,9	68,8	3,0	71,2	605	1334	559	1232	785	1731
DST2-260LB..	6900	5089	3,3	78,3	3,4	80,7	673	1484	623	1373	853	1881
DST2-260B0..	8000	5900	3,6	85,4	3,8	90,2	741	1634	686	1512	920	2028
DST2-260X0..	9800	7228	4,4	104,4	4,5	106,8	858	1892	791	1744	1035	2282

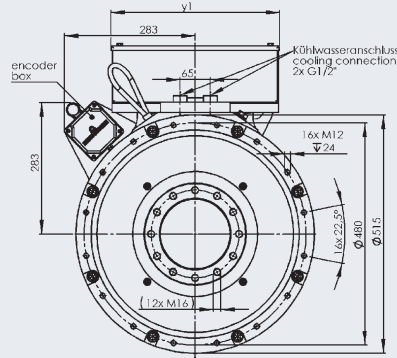
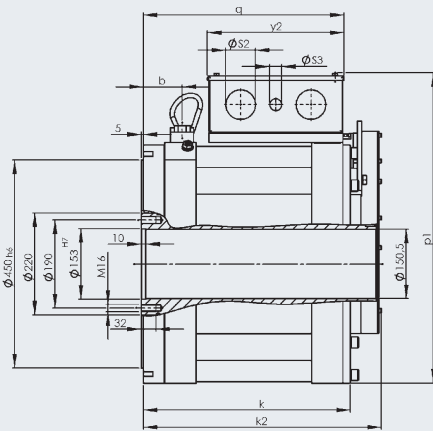
DST2-260 – Solid-shaft version, IM B14 design



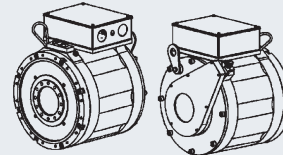
Motor type	k	k2	q1	a1	b
DST2-260K0	575	631	540	289	80
DST2-260KM	625	681	590	339	80
DST2-260M0	675	731	640	389	80
DST2-260ML	725	781	690	439	80
DST2-260L0	775	831	740	489	80
DST2-260LB	870	926	835	584	102
DST2-260B0	920	976	885	634	102
DST2-260X0	1020	1076	985	734	102



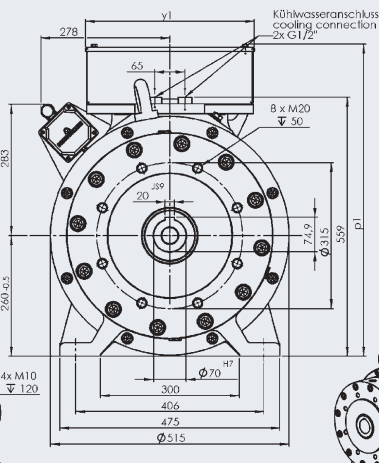
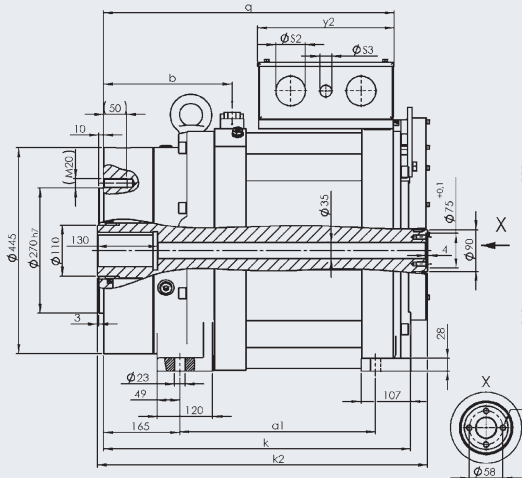
DST2-260 – Hollow-shaft version, IM B14 design



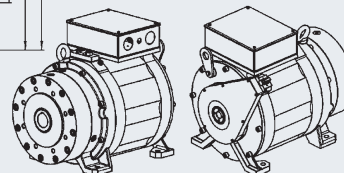
Motor type	k	k2	q	a
DST2-260K0	347	415	334	84
DST2-260KM	397	465	384	84
DST2-260M0	447	515	434	84
DST2-260ML	497	565	484	84
DST2-260L0	547	615	534	84
DST2-260LB	642	665	629	106
DST2-260B0	692	715	679	106
DST2-260X0	792	860	779	106



DST2-260 – Thrust-bearing version, IM B34 design



Motor type	k	k2	q	a1	b
DST2-260 K0	563	613	528	322	278
DST2-260 KM	613	663	578	372	278
DST2-260 M0	663	713	628	422	278
DST2-260 ML	713	763	678	472	278
DST2-260 L0	763	813	728	522	278
DST2-260 LB	858	908	823	617	300
DST2-260 B0	908	958	873	667	300
DST2-260 X0	1008	1058	973	767	300



DST2-315..54 W (IP 54 water-cooled)

Mains voltage 3 AC 400 V for converters with unregulated supply

Motor type	$n_N^{1)}$ [min ⁻¹]	P_N [kW]	[hp]	M_N [NM]	[lbf ft]	I_N [A]	U_N [V]	$I_{0,max}$ [A]	$n_{max}^{1) 2)}$ [min ⁻¹]
DST2-315K054W-010-5	100	16	21	1520	1121	35	365	112	180
DST2-315KM54W-010-5		22	30	2060	1519	49	365	150	180
DST2-315M054W-010-5		27	36	2620	1932	61	365	190	190
DST2-315ML54W-010-5		33	44	3170	2338	74	365	230	190
DST2-315L054W-010-5		39	52	3710	2736	86	365	265	190
DST2-315LB54W-010-5		44	59	4240	3127	98	365	300	180
DST2-315B054W-010-5		50	67	4790	3533	111	365	340	190
DST2-315X054W-010-5		61	82	5900	4352	134	365	415	180
DST2-315XY54W-010-5		67	90	6400	4720	147	365	455	190
DST2-315Y054W-010-5		73	98	7000	5163	160	365	495	190
DST2-315Z054W-010-5	85	114	8100	5974	190	365	580	190	
DST2-315ZA54W-010-5	90	121	8600	6343	195	365	605	190	
DST2-315K054W-020-5	200	31	42	1490	1099	69	365	220	360
DST2-315KM54W-020-5		43	58	2030	1497	93	365	295	370
DST2-315M054W-020-5		54	72	2570	1896	117	365	370	370
DST2-315ML54W-020-5		65	87	3110	2294	141	365	445	370
DST2-315L054W-020-5		76	102	3650	2692	165	365	520	370
DST2-315LB54W-020-5		88	118	4180	3083	185	365	595	370
DST2-315B054W-020-5		99	133	4740	3496	215	365	675	370
DST2-315X054W-020-5		121	162	5800	4278	255	365	810	360
DST2-315XY54W-020-5		132	177	6300	4647	280	365	885	360
DST2-315Y054W-020-5		144	193	6900	5089	305	365	975	370
DST2-315Z054W-020-5	166	223	7900	5827	355	365	1125	370	
DST2-315ZA54W-020-5	176	236	8400	6196	370	365	1170	360	
DST2-315K054W-030-5	300	45	60	1420	1047	99	365	325	540
DST2-315KM54W-030-5		61	82	1940	1431	131	365	435	540
DST2-315M054W-030-5		77	103	2460	1814	165	365	550	550
DST2-315ML54W-030-5		94	126	2990	2205	200	365	660	550
DST2-315L054W-030-5		110	148	3500	2581	230	365	765	550
DST2-315LB54W-030-5		126	169	4020	2965	270	365	885	550
DST2-315B054W-030-5		142	190	4510	3326	295	365	975	540
DST2-315X054W-030-5		176	235	5600	4130	370	365	1220	550
DST2-315XY54W-030-5		191	257	6100	4499	405	365	1330	550
DST2-315Y054W-030-5		210	282	6600	4868	445	360	1465	560
DST2-315Z054W-030-5	240	322	7600	5605	495	365	1630	540	
DST2-315ZA54W-030-5	255	342	8100	5974	525	365	1730	540	
DST2-315K054W-040-5	400	55	74	1310	966	121	365	420	700
DST2-315KM54W-040-5		76	102	1810	1335	160	365	560	700
DST2-315M054W-040-5		97	130	2310	1704	205	365	710	710
DST2-315ML54W-040-5		116	156	2780	2050	240	365	835	690
DST2-315L054W-040-5		137	184	3270	2412	280	365	975	690
DST2-315LB54W-040-5		158	212	3770	2781	325	365	1125	700
DST2-315B054W-040-5		179	240	4270	3149	365	365	1275	700
DST2-315X054W-040-5		220	295	5200	3835	445	365	1545	700
DST2-315XY54W-040-5		235	315	5700	4204	470	365	1630	680
DST2-315Y054W-040-5		260	349	6200	4573	535	365	1840	700

1) The maximum permissible operating speed for thrust bearing motors is 500 min⁻¹, from 300 min⁻¹ it is obligatory to use an oil cooler.

2) The maximum permissible operating speed for hollow shaft motors is 500 min⁻¹.

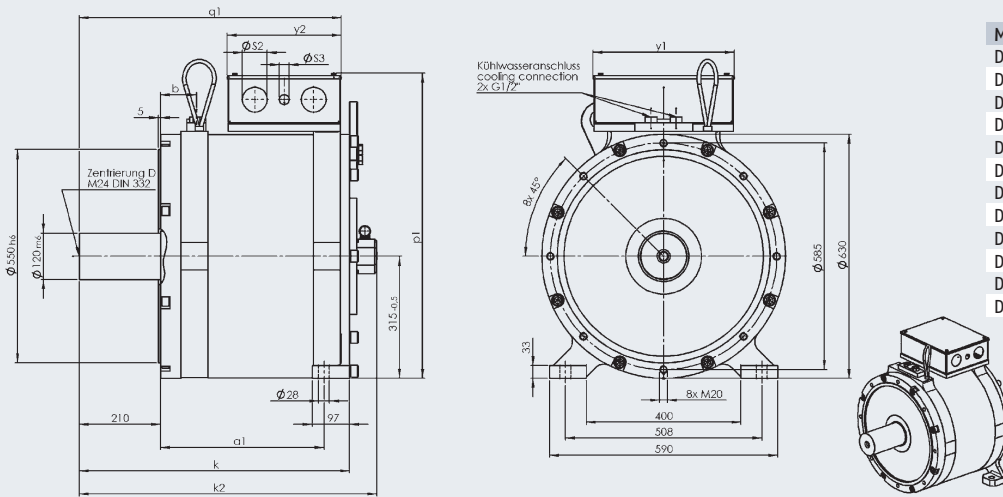
Motor type	$n_N^{1)}$ [min ⁻¹]	P_N		M_N		I_N [A]	U_N [V]	$I_{0,max}$ [A]	$n_{max}^{1) 2)}$ [min ⁻¹]
		[kW]	[hp]	[NM]	[lbf ft]				
DST2-315K054W-050-5	500	63	84	1200	885	139	365	520	800
DST2-315KM54W-050-5		87	117	1660	1224	185	365	695	800
DST2-315M054W-050-5		112	150	2130	1571	235	365	885	800
DST2-315ML54W-050-5		136	182	2590	1910	280	365	1045	800
DST2-315L054W-050-5		160	215	3050	2250	325	365	1220	800
DST2-315LB54W-050-5		184	247	3510	2589	375	365	1395	800
DST2-315B054W-050-5		205	275	3960	2921	415	365	1545	800
DST2-315X054W-050-5		255	342	4830	3562	495	365	1840	800
DST2-315XY54W-050-5		280	375	5400	3983	565	365	2105	800
DST2-315K054W-060-5	600	66	88	1050	774	146	365	595	800
DST2-315KM54W-060-5		94	126	1490	1099	200	365	810	800
DST2-315M054W-060-5		120	161	1910	1409	250	365	1005	800
DST2-315ML54W-060-5		147	197	2350	1733	300	365	1220	800
DST2-315L054W-060-5		173	232	2750	2028	345	365	1395	800
DST2-315LB54W-060-5		200	268	3190	2353	400	365	1630	800
DST2-315B054W-060-5		225	301	3550	2618	425	365	1730	800
DST2-315X054W-060-5		285	382	4510	3326	520	365	2105	800

1) The maximum permissible operating speed for thrust bearing motors is 500 min⁻¹, from 300 min⁻¹ it is obligatory to use an oil cooler.

2) The maximum permissible operating speed for hollow shaft motors is 500 min⁻¹.

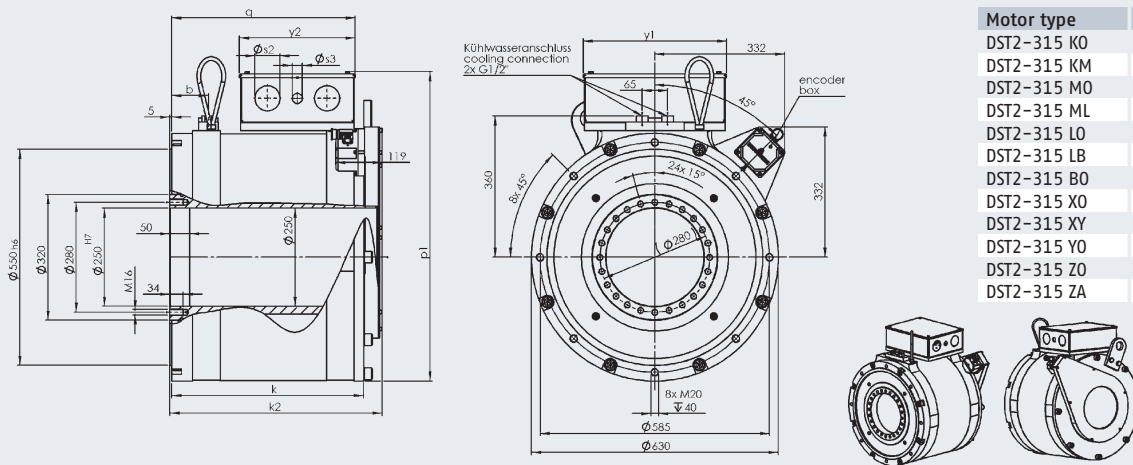
Motortype	$M_{0,max}$		$J_{Vollwelle}$		$J_{Hohlwelle}$		$m_{Vollwelle}$		$m_{Hohlwelle}$		$m_{Drucklager}$	
	[Nm]	[lbf ft]	[kgm ²]	[lb ft ²]	[kgm ²]	[lb ft ²]	[kg]	[lb]	[kg]	[lb]	[kg]	[lb]
DST2-315K0..	3330	2456	2,4	57,0	2,3	54,6	448	988	438	966	718	1583
DST2-315KM..	4490	3312	3,1	73,6	2,9	68,8	495	1091	483	1065	774	1706
DST2-315M0..	5600	4130	3,8	90,2	3,6	85,4	550	1213	532	1173	830	1830
DST2-315ML..	6800	5015	4,4	104	4,3	102	610	1345	589	1299	886	1953
DST2-315L0..	8000	5900	5,0	119	5,2	123	665	1466	639	1409	942	2077
DST2-315LB..	9100	6712	5,7	135	6,1	145	729	1607	690	1521	998	2200
DST2-315B0..	10300	7597	6,4	152	7,3	173	821	1810	779	1717	1088	2399
DST2-315X0..	12600	9293	7,7	183	8,6	204	930	2050	882	1944	1163	2564
DST2-315XY..	13700	10105	8,4	199	9,3	221	985	2172	926	2041	1238	2729
DST2-315Y0..	14900	10990	9,0	214	9,9	235	1045	2304	981	2163	1311	2890
DST2-315Z0..	17200	12686	10,3	244	11,3	268	1150	2535	1085	2392	1395	3075
DST2-315ZA..	18400	13571	11,0	261	11,9	282	1213	2674	1133	2498	1479	3261

DST2-315 – Solid-shaft version, IM B14 design



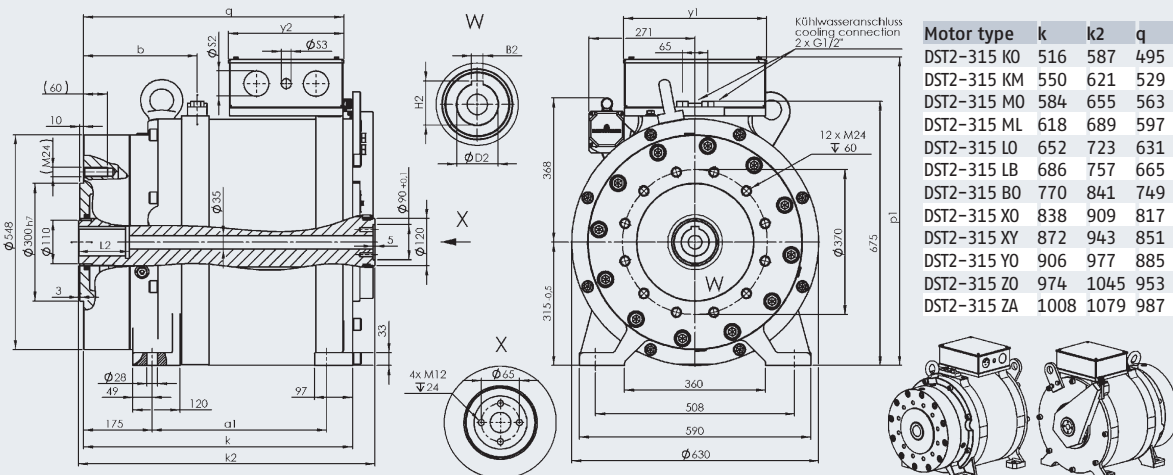
Motor type	k	k2	q1	a1
DST2-315K0	529	599	508	253
DST2-315KM	563	633	542	287
DST2-315M0	597	667	576	321
DST2-315ML	631	701	610	355
DST2-315L0	665	735	644	389
DST2-315LB	699	769	678	423
DST2-315B0	783	853	762	507
DST2-315X0	851	921	830	575
DST2-315XY	885	955	864	609
DST2-315Y0	919	989	898	643
DST2-315Z0	987	1057	966	711
DST2-315ZA	1021	1091	1000	745

DST2-315 – Hollow-shaft version, IM B14 design



Motor type	k	k2	q	a
DST2-315 K0	319	372	295	93
DST2-315 KM	353	406	329	93
DST2-315 M0	387	440	363	93
DST2-315 ML	421	474	397	93
DST2-315 L0	455	508	431	93
DST2-315 LB	489	542	465	93
DST2-315 B0	573	626	549	118
DST2-315 X0	641	694	617	118
DST2-315 XY	675	728	651	118
DST2-315 Y0	709	762	685	118
DST2-315 Z0	777	830	753	118
DST2-315 ZA	811	864	787	118

DST2-315 – Thrust-bearing version, IM B34 design



Motor type	k	k2	q	a1	b	ØD2	L2	H2	B2
DST2-315 K0	516	587	495	275	290	70 H7	130	74.9	20 JS9
DST2-315 KM	550	621	529	309	290	70 H7	130	74.9	20 JS9
DST2-315 M0	584	655	563	343	290	70 H7	130	74.9	20 JS9
DST2-315 ML	618	689	597	377	290	70 H7	130	74.9	20 JS9
DST2-315 L0	652	723	631	411	290	70 H7	130	74.9	20 JS9
DST2-315 LB	686	757	665	445	290	70 H7	130	74.9	20 JS9
DST2-315 B0	770	841	749	529	315	85 H7	170	90.4	25 JS9
DST2-315 X0	838	909	817	597	315	85 H7	170	90.4	25 JS9
DST2-315 XY	872	943	851	631	315	85 H7	170	90.4	25 JS9
DST2-315 Y0	906	977	885	665	315	85 H7	170	90.4	25 JS9
DST2-315 Z0	974	1045	953	733	315	85 H7	170	90.4	25 JS9
DST2-315 ZA	1008	1079	987	767	315	85 H7	170	90.4	25 JS9

DST2-400..54 W (IP 54 water-cooled)

Mains voltage 3 AC 400 V for converters with unregulated supply

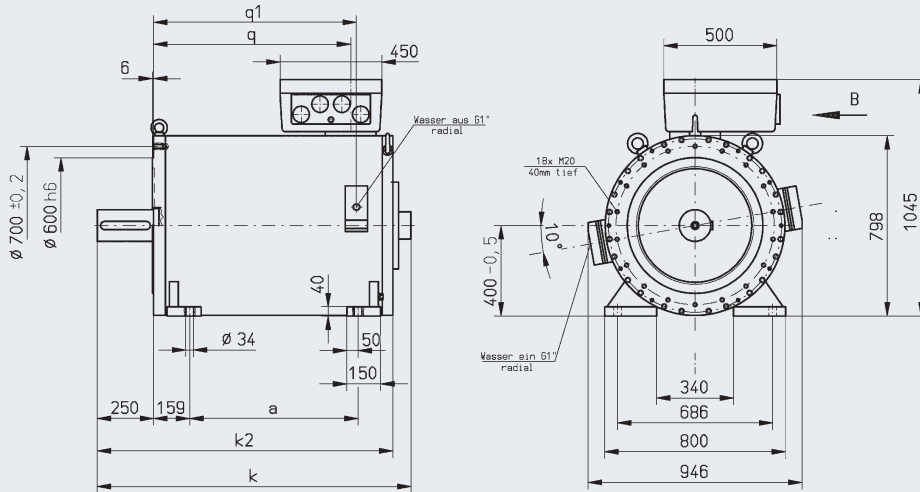
Motortype	n _N [min ⁻¹]	P _N		M _N		I _N [A]	U _N [V]	I _{0,max} [A]	n _{max} ^{1) 2)} [min ⁻¹]
		[kW]	[hp]	[NM]	[lbf ft]				
DST2-400K054W-010-5	100	92	123	8800	6491	210	365	385	180
DST2-400KM54W-010-5		104	139	9900	7302	235	365	430	180
DST2-400M054W-010-5		115	154	10900	8039	260	365	475	180
DST2-400L054W-010-5		136	182	13000	9588	305	365	565	170
DST2-400B054W-010-5		160	215	15300	11285	355	365	665	180
DST2-400XY54W-010-5		195	261	18600	13719	435	365	815	180
DST2-400K054W-015-5	150	139	186	8800	6491	310	365	580	270
DST2-400KM54W-015-5		156	209	9900	7302	345	365	645	270
DST2-400M054W-015-5		171	229	10900	8039	375	365	710	270
DST2-400L054W-015-5		205	275	13000	9588	445	365	850	260
DST2-400B054W-015-5		240	321	15300	11285	525	365	1005	270
DST2-400XY54W-015-5		290	389	18500	13645	635	365	1230	270
DST2-400K054W-020-5	200	182	244	8700	6417	395	365	760	300
DST2-400KM54W-020-5		205	275	9700	7154	440	365	850	300
DST2-400M054W-020-5		225	302	10800	7966	495	365	960	300
DST2-400L054W-020-5		270	362	13000	9588	595	365	1165	300
DST2-400B054W-020-5		310	416	14800	10916	660	365	1305	300
DST2-400XY54W-020-5		380	510	18200	13424	825	365	1650	360
DST2-400K054W-025-5	250	225	302	8500	6269	485	365	960	450
DST2-400KM54W-025-5		250	335	9500	7007	530	365	1055	440
DST2-400M054W-025-5		275	369	10400	7671	580	365	1165	440
DST2-400L054W-025-5		330	442	12600	9293	705	365	1430	450
DST2-400B054W-025-5		385	516	14700	10842	835	365	1715	460
DST2-400XY054W-025-5		460	617	17500	12907	970	365	2030	440
DST2-400K054W-030-5	300	260	349	8300	6122	565	365	1165	500
DST2-400KM54W-030-5		290	389	9300	6859	630	365	1305	500
DST2-400M054W-030-5		325	436	10300	7597	705	365	1480	500
DST2-400L054W-030-5		380	510	12100	8924	805	365	1715	500
DST2-400B054W-030-5		440	590	14100	10400	940	365	2030	500
DST2-400XY54W-030-5		530	711	16800	12391	1130	365	2495	500

1) The maximum permissible operating speed for thrust bearing motors is 500 min⁻¹, from 300 min⁻¹ it is obligatory to use an oil cooler.

2) The maximum permissible operating speed for hollow shaft motors is 500 min⁻¹.

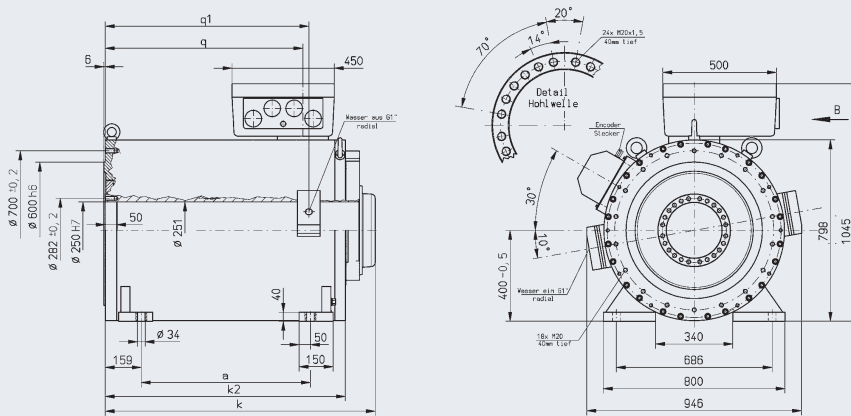
Motortype	M _{0,max}		J _{Vollwelle}		J _{Hohlwelle}		m _{Vollwelle}		m _{Hohlwelle}		m _{Drucklager}	
	[Nm]	[lbf ft]	[kgm ²]	[lb ft ²]	[kgm ²]	[lb ft ²]	[kg]	[lb]	[kg]	[lb]	[kg]	[lb]
DST2-400K0..	14800	10916	20	477	21	489	2135	4707	1760	3880	2230	4916
DST2-400KM..	16600	12834	23	536	23	550	2295	5060	1900	4189	2490	5490
DST2-400M0..	18500	14309	25	596	26	612	2455	5412	2045	4508	2650	5842
DST2-400L0..	22200	17111	30	714	31	733	2775	6118	2325	5126	2970	6548
DST2-400B0..	26000	19988	35	833	36	857	3095	6823	2605	5743	3290	7253
DST2-400XY..	31600	24266	43	1011	44	1042	3575	7882	3030	6680	3770	8311

DST2-400 – Solid-shaft version, IM B14 design



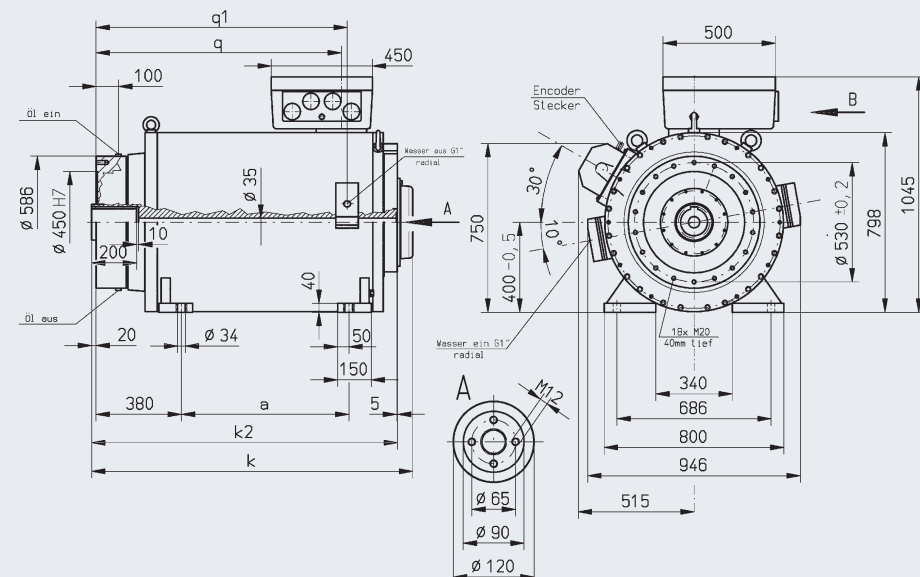
Motor type	k	k2	q	q1	a
DST2-400 K0	1088	1008	571	597	445
DST2-400 KM	1138	1058	621	647	495
DST2-400 M0	1188	1108	671	697	545
DST2-400 L0	1288	1208	771	797	645
DST2-400 B0	1388	1308	871	897	745
DST2-400 XY	1538	1458	1021	1047	895

DST2-400 – Hollow-shaft version, IM B14 design



Motor type	k	k2	q	q1	a
DST2-400 K0	890	758	571	597	445
DST2-400 KM	940	808	621	647	495
DST2-400 M0	990	858	671	697	545
DST2-400 L0	1090	958	771	797	645
DST2-400 B0	1190	1058	871	897	745
DST2-400 XY	1340	1208	1021	1047	895

DST2-400 – Thrust-bearing version, IM B34 design

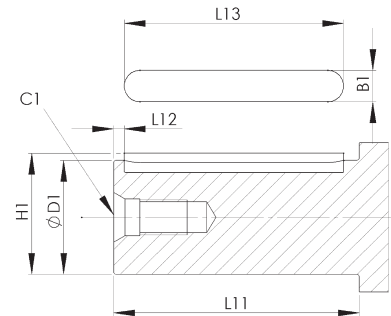


Motor type	k	k2	q	q1	a
DST2-400 K0	1130	1062	792	818	445
DST2-400 KM	1180	1112	842	868	495
DST2-400 M0	1230	1162	892	918	545
DST2-400 L0	1330	1262	992	1018	645
DST2-400 B0	1430	1362	1092	1118	745
DST2-400 XY	1580	1512	1242	1268	895

DST2 shaft options

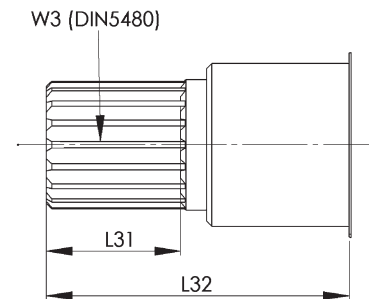
Shaft with key (DIN 748-E)

Solid-shaft version	∅D1	L11	L12	L13	B1	H1	C1
DST2-135	65 m6	140	6	125	18	69	DIN 332 D M20
DST2-200	90 m6	170	10	140	25	95	DIN 332 D M24
DST2-260	120 m6	210	10	180	32	127	DIN 332 D M24
DST2-315	120 m6	210	10	180	32	127	DIN 332 D M24
DST2-400	140 m6	250	10	220	36	148	DIN 332 D M24



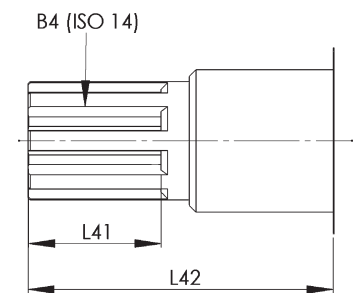
Shaft with male spline (DIN 5480)

Solid-shaft version	W3	L31	L32
DST2-135	W48 x 2x22x8e	48	97
DST2-200	W70 x 3x22x8e	72	117
DST2-260	W80 x 3x25x8e	80	132
DST2-315	W110x3x35x8e	144	210
DST2-400	W130x3x42x8e	150	200



Shaft with male spline (ISO 14)

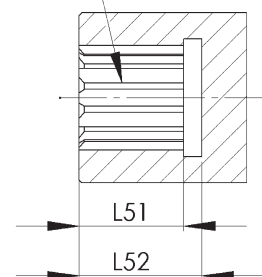
Solid-shaft version	B4	L41	L42
DST2-135	B8 x 42 x 48	48	102
DST2-200	B8 x 62 x 72	72	117
DST2-260	B10x72 x 82	80	146
DST2-315	B10x102x112	144	210
DST2-400	B10x112x125	150	200



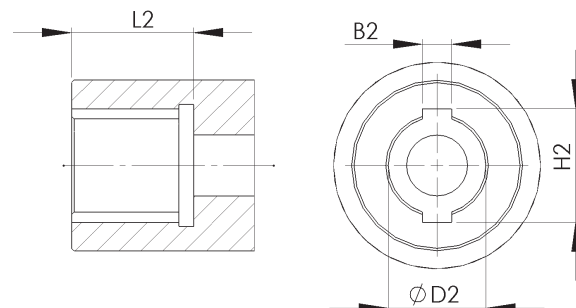
Shaft with female spline for solid-shaft and thrust-bearing motors (DIN 5480)

Solid-shaft version	N5	L51	L52
DST2-135K0 - Y0	N40 x 3x12x9H	40	47
DST2-200K0 - B0	N55 x 3x17x9H	45	53
DST2-200X0 - XY	N65 x 3x20x9H	50	60
DST2-260K0 - B0	N75 x 3x24x9H	57	67
DST2-260X0	N85 x 3x27x9H	75	89
DST2-315K0 - LB	N85 x 3x27x9H	75	89
DST2-315B0 - ZA	N100x3x32x9H	92	110
DST2-400K0 - M0	N100x3x32x9H	100	110
DST2-400L0 - XY	N130x3x42x9H	120	130

N5 (DIN 5480)

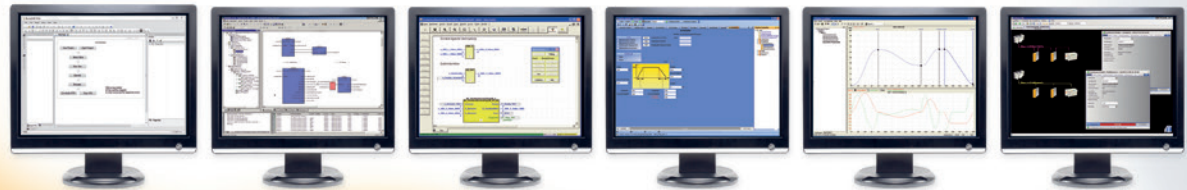


Thrust-bearing version	∅D2	L2	H2	B2
DST2-135	40H7	50	46.6	12
DST2-200	60H7	60	68.8	18
DST2-260	70H7	130	79.8	20
DST2-315K0 - LB	70H7	130	79.8	20
DST2-315B0 - ZA	85H7	170	95.8	25
DST2-400K0 - M0	95H7	200	105.8	25
DST2-400L0 - XY	120H7	200	134.8	32



The max. transmittable torque with one or two keys is 1,25 x static torque [Mo]!

ProMaster Engineering Framework



Configuration management
XML

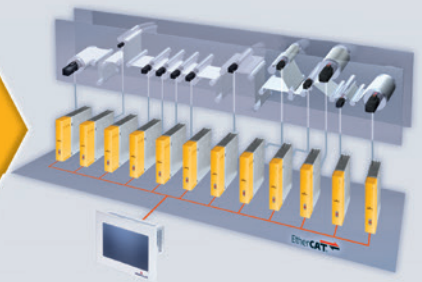
Tools

Reuse

Knowledge



Added Value



The more intuitive the engineering, the more efficient will be the automation solution. ProMaster allows you to introduce new machine concepts to the marketplace more quickly and you systematically increase the added value of your machine.

Consistent machine configuration, parametrization, programming and diagnosis are the fundamental aspects for a machine-oriented application. The implementation of the independent standards such as Motion Control functionalities in accordance

with PLCopen or EtherCAT field bus are used. Your knowledge is managed in the form of parameters and functions in data-sets and libraries — over the entire machine life cycle.



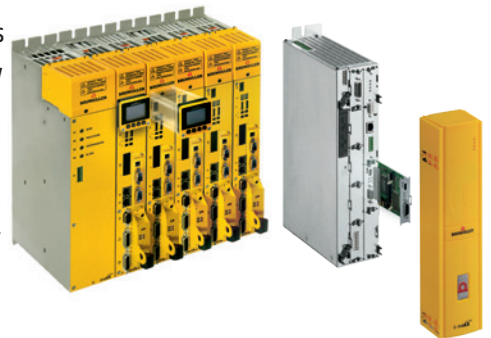
Operating and visualizing with the b maXX HMI

With the b maXX HMI series, Baumüller offers a space-saving HMI with touch panel in the sizes 4.3 up to 15.6 inches. The b maXX HMI is available in the product lines Standard and Performance thereby offering optimal scalability. The HMIs are equipped for future applications also relating to developments in relation to Industry 4.0. The visualization on the HMI can be standard or web-based. The user-friendly and well-structured operating and visualization tool enables efficient engineering and the modification of the machine, as required by the production process, on the HMI.



Drive-Integrated control system

The intelligent control b maXX-drivePLC, which is completely integrated in the Engineering Framework ProMaster, allows a very fast access to the setpoints and actual values of the drive controller. With this, the drive function can now be extended by complex motion control-, technology- and control functions. Furthermore, with the use of the softdrivePLC, Baumüller has integrated SPS functions directly in the controller and thus additional control hardware for specific applications is no longer necessary. In this way, a decentralized control architecture for the programming in accordance to IEC 61131 was created. Control jobs, as for example simple calculations of digital inputs as well as extremely sophisticated control algorithms, can now be easily implemented via the parameterization tool ProDrive.



b maXX Controller PLC – modular and safe

The b maXX Controller PLC consistently implements the concept of scalability and modularity for flexible individual adapting by the mechanical engineer. Thus the b maXX PLC02-Safe has extended the standard motion control range by a two-channel safety control system that fulfils the requirements of IEC 61508 to SIL3 and EN 13849 to PL e. This is the first certificated EtherCAT Motion Control PLC with integrated safety function.

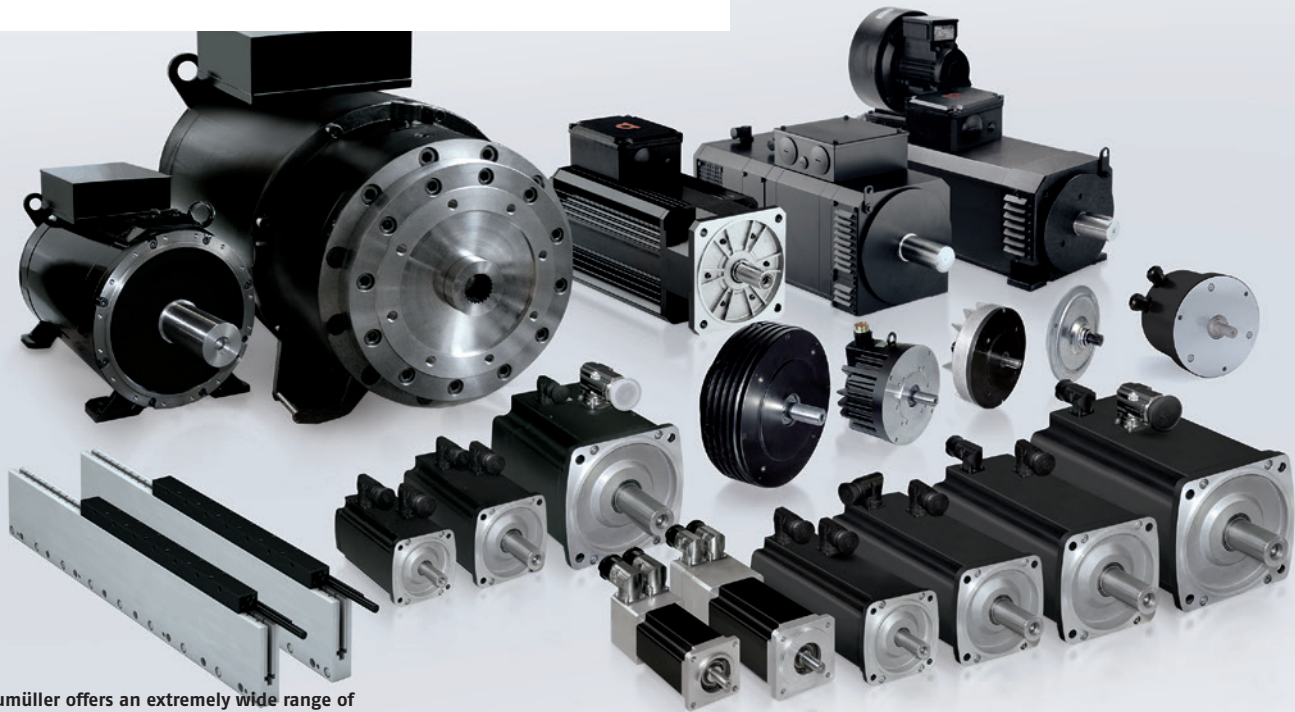


b maXX-PCC – PC based PLC

The calculation performance of an industrial PC in combination with a powerful PLC supplements the range of control systems with a reliable and innovative platform. It is equipped with components of the highest level of performance and is based on open standards in the fields of automation and IT. Multi-core processor architecture provides decisive advantages for automation solutions: various different functions can be distributed and the calculation performance can be allocated to the various tasks. It therefore not only fulfils the high real-time requirements of calculation-intensive applications in a control system, it also takes on additional tasks such as visualization or IT linking on a platform. Both box and panel versions are available.



Motors



Baumüller offers an extremely wide range of synchronous and asynchronous motors with shaft heights from 28 mm to 400 mm and many different cooling methods.



DS/DA – General purpose servo motors

The servo motor for all applications with strict energy efficiency requirements.

Type DS: Sizes 45, 56, 71, 100, 132, 160, 200,

power range 0.25–295 kW (0.33–396 hp), speeds up to 6000 min⁻¹,

type of protection: unventilated IP54, ventilated IP23/IP54, water-cooled IP54.

Type DA: Sizes 100, 132, 160, 180, 225, 280,

power range 3.5–400 kW (4.7–536 hp), speeds up to 3000 min⁻¹,

type of protection: ventilated IP23/IP54, water-cooled IP54.



DSC – Compact servo motors

The DSC 45-100 is a series of high-torque servo motors that are up to 30% more compact than conventional servo designs.

Sizes 45, 56, 71, 100, power range 0.5–18 kW (0.67–24 hp),

speeds up to 4000 min⁻¹, up to IP65 type of protection



DSP – For high speed performance

For applications requiring high rotary speeds, DSP motors complete the existing DSC range. Sizes 45, 56, 71, 100, power range 1.2–32 kW (1.6–43 hp), speeds up to 6000 min⁻¹, up to IP65 type of protection

DSD – Dynamic servo motors

The servo motors for highly dynamic applications with the highest requirements of acceleration capacity and the best start-stop qualities. Sizes 28, 36, 45, 56, 71, 100, power range 0.28–42 kW (0.38–56 hp), speeds up to 6000 min⁻¹, up to IP65 type of protection

DST – Powerful high torque motors

The high-torque motor DST2 for application with maximum torque requirements. Sizes 135, 200, 260, 315, 400, power range 2.7–320 kW (3.6–429 hp), speeds up to 1500 min⁻¹, torque up to 32,900 Nm, IP54 type of protection, water-cooled

GDM & DSM – Disc motors

Baumüller offers a wide range of disc rotors for use in a large number of different applications where installation space is at a premium. GDM DC disc motors: Power range 16–3000 W (0.02–4 hp) DSM brushless disc motors: Power range 180–6300 W (0.24–8.4 hp)

DSE – Embedded AC synchronous motors

The DSE synchronous motors are available either as a housing version or as a built-in motor. With its buried magnets and a rotational speed range up to 9000 rpm, the motor convinces with a particularly high power density.

BPx – Planetary gear series

The BPx planetary gear series in combination with our standard DSP/DSD/DSC servo motors are ideally suited for applications with high demands on torque and dynamic.

LSC – Iron-less linear motors

The LSC iron-less linear motors from Baumüller achieve maximum current and force rise. This makes them ideal for highly dynamic applications with maximum stiffness relative to disturbing forces.

DSDI/DSMI – Motors with integrated control/power electronics

The model ranges DSDI and DSMI are servo motors with integrated control and power electronics that meet the requirements of modern, decentralized drive architectures in automation. The DSDI is a highly dynamic motor and the DSMI is a high torque servo drive. Power range 170–385 W (0.23–0.52 hp), speeds up to 6000 min⁻¹, type of protection up to IP65



Servo controllers



b maXX 5000 – Unachieved dynamics and compactness

News from the pioneer of direct drive technology: We present to you the new alignable drive system b maXX 5000 as supplement of our successful b maXX 4000 range. The new range offers a performance spectrum of 1 kW to 100 kW in a rack system and up to 315 kW as a mono output. With power supplied and regenerative systems, b maXX 5000 can be use worldwide as an energy efficient drive system. With its Connect Drive System, which enables you to commission our drives efficiently and economically, it displays the perfect expansion of our existing product range.

By simply plugging in the SAF module the user can quickly and flexibly respond to new security requirements. The b maXX 5000 ideally met with the scalable security functionality of the modules the guidelines of EN ISO 13849 up to SIL 3.

b maXX 4000 – Modular, scalable, open

Baumüller's approved automation and drive solution b maXX can be adapted to the corresponding demands with respect to performance and equipment through its modularity and flexibility. b maXX 4000 offers a power spectrum from 1.1 kW up to 315 kW with different cooling concepts, such as air and water cooling or cold plate variants. With the series b maXX 4100 a regenerative system is at your disposal, which inserts itself into the automation solution b maXX. Functional safety relay integrated into the drive available as an option.



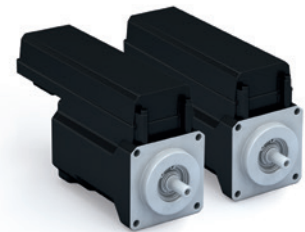
b maXX 3000 – Versatile mini servo controller

The servo inverter b maXX 3300 is a high-quality servo controller with integrated position control for power ratings up to 5 kW. b maXX 3300 excels through its compact, space-saving design. The field-oriented control provides for excellent performance. Higher-level speed and position control ensure dynamic and exact positioning. The servo controller is specifically designed for operation with servomotors of the DSC, DSP and DSD series and the pancake and linear motor series from Baumüller. Functional safety features integrated into the drive are available, as is a manual control device.



b maXX 2500 – Compact mini servo controller

With its new b maXX 2500 decentralised drive solution, Baumüller combines the series b maXX 3300 converters with the robust servomotors of the DSD2, DSC and DSP1 series.



b maXX 2400 – Compact mini servo controller

b maXX 2400 rounds off the converter and controller generation b maXX at the lower end of the power range. The mini servo controller b maXX 2400 (< 60 V) is specifically designed for operation with the DSD 28–36 servomotors and the pancake and linear motor series from Baumüller.



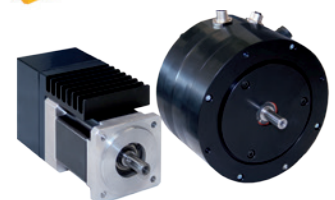
b maXX 1000 – Highly efficient frequency converter

For a vector control of standard electric motors Baumüller added an high-efficient and easy to operate frequency converter into the program: The b maXX 1000 is available in three sizes with capacity ranges from 0.2 to 11 kW.



DSDI/DSMI – Motors with integrated control/power electronics

The model ranges DSDI and DSMI are servo motors with integrated control and power electronics that meet the requirements of modern, decentralized drive architectures in automation. The DSDI is a highly dynamic motor and the DSMI is a high torque servo drive. Power range 170–385 W (0.23–0.52 hp), speeds up to 6000 min⁻¹, type of protection up to IP65





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Baumüller Reparaturwerk GmbH & Co. KG, Andernacher Straße 19, 90411 Nürnberg, Phone: +49 (0) 911 9552 – 0, Fax: +49 (0) 911 9552 – 999

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