

be in motion

DSD DSC DSP DS DA DST ETA_η-Drive DSD-IPG BPx

Motors

10 20 30 40 50 60 70 80 90 100 110 120



DSD 28–100
Dynamic Motors

DSC 45–100
Compact Motors

DSP 45–100
For high speed performance

DS 45–200
DA 100–280
General Purpose

DST2 135–400
High Torque Motors

ETA_n-Drive
Integrated
helical-bevel gearbox

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8

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Our automation solutions for your machines

Our interest is always in the successful operation of the overall system, and, naturally, its optimization through our products and services. For this, we rely on Baumüller research. We develop modern solutions for automation and drive technology there. Our solutions are implemented successfully in every branch of mechanical engineering, from special machines to mass-produced ones. We design and supply complete automation systems, from control desks to the machine controller and software solutions to the electrical drive system.

Supporting our customers from commissioning of the system and over the course of the lifetime of the product is part of our company philosophy. As part of our comprehensive service spectrum, engineering, support and service play a decisive role.

Technical competency, innovation, flexibility and total customer orientation are the characteristics of our company philosophy. This is also reflected in our motto:

be in motion.

Information, projects and documentation are updated on a daily basis and can be found at:

www.baumueller.com



DSD 45-56-IPG
Integrated
planetary gearing

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BPx
Planetary Gearing

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ProMaster
Engineering Framework

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b maXX
Servo Controller

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Range of motors

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1 2 3 4 5

6

7 8 9 10 11 12 13 14 15 16 17 18 19

The six installation sizes for the DSD-range of Baumüller offer a suitable solution for almost every application in the automation.

DSD – Dynamic Motors

The servo motors for highly dynamic applications with the highest requirements of acceleration capacity and the best start-stop qualities, such as for:

- ⊙ Packaging machines
- ⊙ Textile machines
- ⊙ Plastics machines
- ⊙ Handling machines
- ⊙ Special machines
- ⊙ Small robots

DSD2-028-100 – Dynamic motors

- ◎ Maximum dynamic response due to excellent torque/inertial mass ratio
- ◎ Excellent smooth running characteristics
- ◎ High overload capability
- ◎ Smooth housing surface – not easily soiled
- ◎ Sleek, uniform housing design
- ◎ Almost no cogging effect
- ◎ Permanent magnet synchronous servo motors
- ◎ Main connection via turnable connector or terminal box
- ◎ IP65 degree of protection, regardless of cooling method
- ◎ Encoders: resolver, SinCos encoder (optional)
- ◎ All types optionally with brake



The DSD series is available in an uncooled, air-cooled and a water-cooled version.



DSD2-028-100 – Technical data

		DSD2-28	DSD2-36	DSD2-045	DSD2-056	DSD2-071	DSD2-100
P_N	[kW]	0.3-0.6	0.4-0.9	0.73-2.4	1.3-7.8	3-25	1.9-42
n_N	[min ⁻¹]	4500-6000	4000-6000	3000-6000	2000-6000	2000-6000	1200-6000
J	[kgcm ²]	0.13-0.2	0.18-0.42	1.0-1.9	3.6-6.6	11.7-18.9	52-105
M_0	[Nm]	0.7-1.2	1.2-2.8	2.7-5.8	7-20	17-73	42-210
M_{0max}	[Nm]	2.0-3.9	2.8-8.4	12-28	25-57	53-105	105-280

		DSD2-28	DSD2-36	DSD2-045	DSD2-056	DSD2-071	DSD2-100
P_N	[hp]	0.4-0.8	0.5-1.2	1.0-3.2	1.7-10.5	4.0-33.5	2.5-56.3
n_N	[min ⁻¹]	4500-6000	4000-6000	3000-6000	2000-6000	2000-6000	1200-6000
J	[lb in ²]	0.04-0.07	0.06-0.14	0.34-0.65	1.2-2.2	4.0-6.5	17.8-35.9
M_0	[lbf ft]	0.5-0.9	0.9-2.1	2.0-4.3	5.2-14.8	12.5-53.8	30.9-154.9
M_{0max}	[lbf ft]	1.5-2.9	2.1-6.2	8.9-20.7	18.4-42.0	39.1-77.4	77.4-206.5

Subject to change. The values specified are maximum values.
For details, please refer to the relevant technical documentation.



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

DSC – Compact Servo Motors

With its new DSC servo motors, Baumüller is making the torque motor servo-ready. This series focuses on improved performance by increasing torque densities. This also drastically reduces the volume of the device. In spite of the increased torque typical speed ranges of up to 4000 rpm is still provided by these motors. The new DSCs are up to 30% more compact than conventional servo motors. The DSC 45-100 series features a smooth housing surface contamination build-up. These motors are particularly easy to mount and offer a high environmental protection classification.

DSC 45-100 – Compact motors

- ⊙ Compact design with high power density
- ⊙ IP65 degree of protection, regardless of cooling method
- ⊙ Main connection and encoder connection via rotatable connectors
- ⊙ Excellent smooth running characteristics
- ⊙ Smooth housing surface – not easily soiled
- ⊙ Sleek, uniform housing design
- ⊙ Permanent magnet synchronous servo motors
- ⊙ High overload capability
- ⊙ Almost no cogging effect
- ⊙ Encoders: resolver, SinCos (optional)
- ⊙ All types optionally with brake



The DSC series is available in an uncooled, air-cooled and a water-cooled version.

Capacity			
Torque			
Acceleration			

DSC 45-100 – Technical data

		DSC 45	DSC 56	DSC 71	DSC 100
P_N	[kW]	0.5–1.3	0.6–5.3	1.2–12	2.3–18
n_N	[min ⁻¹]	2000–4000	1000–4000	1000–4000	1000–3000
J	[kgcm ²]	1.4–3.2	4.4–10.6	12.6–31.1	45.8–101.2
M_0	[Nm]	2.7–6.2	6.2–21	12–58	23.5–105
M_{0max}	[Nm]	8.5–25.5	16–48	28–84	42–126

		DSC 45	DSC 56	DSC 71	DSC 100
P_N	[hp]	0.7–1.7	0.8–7.1	1.6–18.8	3.1–24.1
n_N	[min ⁻¹]	2000–4000	1000–4000	1000–4000	1000–3000
J	[lb in ²]	0.48–1.1	1.5–3.6	4.3–10.6	15.6–34.6
M_0	[lbf ft]	2.0–4.6	4.6–15.5	8.9–42.8	17.3–77.4
M_{0max}	[lbf ft]	8.3–18.8	11.8–35.4	20.7–62.0	31.0–92.9

Subject to change. The values specified are maximum values.
For details, please refer to the technical documentation.



1000 2000 3000 4000 5000

6000

45 56 71 100

The DSP 45-100 Motors are high-speed servo motors with a nominal rotary speed of up to 6000 min⁻¹. They are particularly suited for dynamic application in handling axes and processing machines.

DSP – „Pace“ Servo Motors

For applications requiring high rotary speeds, DSP motors complete the existing DSC range, covering nominal rotary speeds of up to 6000 min⁻¹. The outfit is identical to that of the compact DSC synchronous motor and to the DSD range of dynamic servo motors. Thanks to their excellent acceleration and overload capacities, DSP motors are particularly suitable for application in handling axes, processing machines and in servo pump drives.

DSP1-045-100 – For high speed performance

- ⊙ Compact design with a nominal rotary speed of up to 6000 min⁻¹
- ⊙ IP65 degree of protection, regardless of cooling method
- ⊙ Main connection and encoder connection via rotatable connectors
- ⊙ Excellent smooth running characteristics
- ⊙ Smooth housing surface – not easily soiled
- ⊙ Sleek, uniform housing design
- ⊙ Permanent magnet synchronous servo motors
- ⊙ High overload capability
- ⊙ Almost no cogging effect
- ⊙ Encoders: resolver, SinCos (optional)
- ⊙ All types optionally with brake



The DSC series will be available in an uncooled, air-cooled and a water-cooled version soon.

Capacity

Torque

Acceleration

DSP1-045-100 Technical data

		DSP1-045	DSP1-056	DSP1-071	DSP1-100
n_N	[min ⁻¹]	6000	4000-6000	4000-6000	3000-6000
J	[kgcm ²]	1.4-3.2	4.4-10.6	12.6-31.1	45.8-129
M_0	[Nm]	2.2-5.1	5.1-17.1	9.3-46.6	18.3-114
M_{0max}	[Nm]	7.4-22.5	14.1-42.4	23.5-70.5	35.1-137

		DSP1-045	DSP1-056	DSP1-071	DSP1-100
n_N	[min ⁻¹]	6000	4000-6000	4000-6000	3000-6000
J	[lb in ²]	0.48-1.1	1.5-3.6	4.3-10.6	15.6-39
M_0	[lbf ft]	1.7-3.8	3.8-12.6	6.6-34.4	13.5-84.1
M_{0max}	[lbf ft]	5.5-16.6	10.4-31.3	17.3-52.0	25.9-101.0

Subject to change. The values specified are maximum values.
For details, please refer to the technical documentation.



45

Baumüller offers an extremely wide range of synchronous and asynchronous motors with shaft heights from 45 mm to 280 mm and many different cooling methods.

DS/DA – Motors

The servo motor for all applications with strict energy efficiency requirements, for example:

- ⊙ Printing machines
- ⊙ Packaging machines
- ⊙ Textile machines
- ⊙ Plastics machines
- ⊙ Handling machines
- ⊙ Special machines
- ⊙ General mechanical engineering

DS 45-100 – General Purpose (Synchronous)

- ⊙ High torque accuracy
- ⊙ High speed
- ⊙ Compact design
- ⊙ No wear and maintenance free
- ⊙ Permanent field servo motors
- ⊙ IP64/65 non-ventilated, IP54 surface-ventilated (DS 56-100)
- ⊙ Encoders: resolver, SinCos-encoder (optional)
- ⊙ All types optionally with brake



The DS-range is also available with air-cooling option.



Capacity



Torque



Acceleration



DS 45-100 – Technical Data

		DS 45	DS 56	DS 71	DS 100
P_N	[kW]	0.25-1.3	0.38-5.8	1.5-11.8	1.5-23.6
n_N	[min ⁻¹]	3000-6000	2000-6000	2000-6000	1200-6000
J	[kgcm ²]	1.5-3.4	3.0-15.7	14.6-50.2	36.5-175
M_0	[Nm]	0.8-3.2	1.9-13.2	7.0-31.0	12.5-84.0
M_{0max}	[Nm]	3.4-15	5.6-30	23-72	35-159

		DS 45	DS 56	DS 71	DS 100
P_N	[hp]	0.34-1.7	0.51-7.8	2.0-15.8	2.0-31.6
n_N	[min ⁻¹]	3000-6000	2000-6000	2000-6000	1200-4000
J	[lb in ²]	0.51-1.2	1.0-5.4	5.0-17.1	12.5-59.8
M_0	[lbf ft]	0.6-2.4	1.4-9.7	5.2-22.9	9.2-62.0
M_{0max}	[lbf ft]	2.5-11	4.1-22.1	17.0-53.1	25.8-117.2

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.

DS 100-200 – General Purpose (Synchronous)

- ⊙ Excellent smooth running characteristics
- ⊙ High torque accuracy
- ⊙ Extremely flexible due to modular design
- ⊙ Compact and robust design
- ⊙ High level of efficiency
- ⊙ Permanent field servo motors
- ⊙ Unventilated IP54, ventilated IP23, IP54
- ⊙ Water-cooled IP54
- ⊙ Encoders: resolver, SinCos-encoder (optional)
- ⊙ All types optionally with brake



DS motors are available as air- and water-cooled model.



DS 100-200 – Technical Data

		DS 100	DS 132	DS 160	DS 200
P_N	[kW]	3.5-42	10-92	30-150	57-290
n_N	[min ⁻¹]	1000-3000	1000-3000	1000-3000	500-2700
J	[kgm ²]	0.010-0.022	0.045-0.084	0.15-0.25	0.44-0.79
M_0	[Nm]	21-145	42-358	350-659	619-1300
M_{0max}	[Nm]	110-320	275-680	685-1180	1100-2120

		DS 100	DS 132	DS 160	DS 200
P_N	[hp]	4.7-56	13-123	40-201	77-389
n_N	[min ⁻¹]	1000-3000	1000-3000	1000-3000	500-2700
J	[lb ft ²]	0.24-0.52	1.1-2.0	3.6-6.0	10.5-18.8
M_0	[lbf ft]	16-107	31-264	258-486	457-959
M_{0max}	[lbf ft]	81-236	203-502	505-870	811-1564

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.

DA 100-280 – General Purpose (Asynchronous)

- ⊙ Excellent smooth running characteristics
- ⊙ Model as asynchronous cage rotor
- ⊙ Extremely flexible due to modular design
- ⊙ Large field weakening range
- ⊙ High level of efficiency
- ⊙ Compact and robust design
- ⊙ High torque accuracy
- ⊙ Unventilated IP54, ventilated IP23, IP54
- ⊙ Water-cooled IP54
- ⊙ Encoders: resolver 2-pole, SinCos-encoder (optional)
- ⊙ All types optionally with brake



The DA main drives
are available as air- and
water-cooled model.

Capacity

Torque

Acceleration

DA 100-280 – Technical Data

		DA 100	DA 132	DA 160	DA 180	DA 225	DA 280
P_N	[kW]	3.5-25	10-50	10-120	16-200	27-265	82-400
n_N	[min ⁻¹]	1000-3000	1000-3000	400-3000	400-3000	400-3000	750-2600
J	[kgm ²]	0.02-0.03	0.07-0.12	0.24-0.35	0.51-0.68	1.31-2.06	3.3-5.10
M_0	[Nm]	25-86	73-215	175-573	277-955	388-1862	937-3262
M_{0max}	[Nm]	66-138	192-350	464-917	764-1528	1290-2979	2100-5200

		DA 100	DA 132	DA 160	DA 180	DA 225	DA 280
P_N	[hp]	4.7-34	13-67	13-161	21-268	36-355	110-536
n_N	[min ⁻¹]	1000-3000	1000-3000	400-3000	400-3000	400-3000	750-2600
J	[lbf ft ²]	0.40-0.81	1.76-2.84	5.81-8.20	12.2-16.0	31.2-48.9	78.3-121
M_0	[lbf ft]	18-64	54-159	129-423	204-704	286-1373	691-2406
M_{0max}	[lbf ft]	49-102	142-258	342-676	564-1127	952-2197	1549-3835

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.



28,000 29,000 30,000 31,000

32,000

32,100 32,200 32,300 32,400 32,500

Baumüller offers the DST-range up to 32,000 Nm torque and herewith provides the maximum dynamic in the direct drive technology.

DST – High Torque Motors

The high-torque synchronous motors for application with maximum torque requirements, such as for:

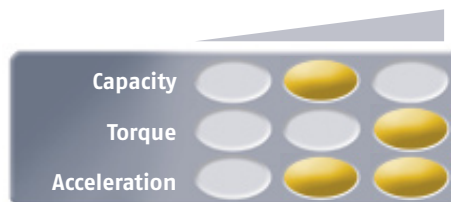
- ⊙ Plastics machines
- ⊙ Wire-drawing machines
- ⊙ Rotary tables or swivel axis
- ⊙ Stretching units
- ⊙ Printing machines
- ⊙ Machine tools
- ⊙ Press technology
- ⊙ Woodworking machines
- ⊙ Winders
- ⊙ Special machines

DST2-135-400 – 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)
- ◎ Thrust bearing (optional)



DST high-torque motors are available in water-cooled versions.

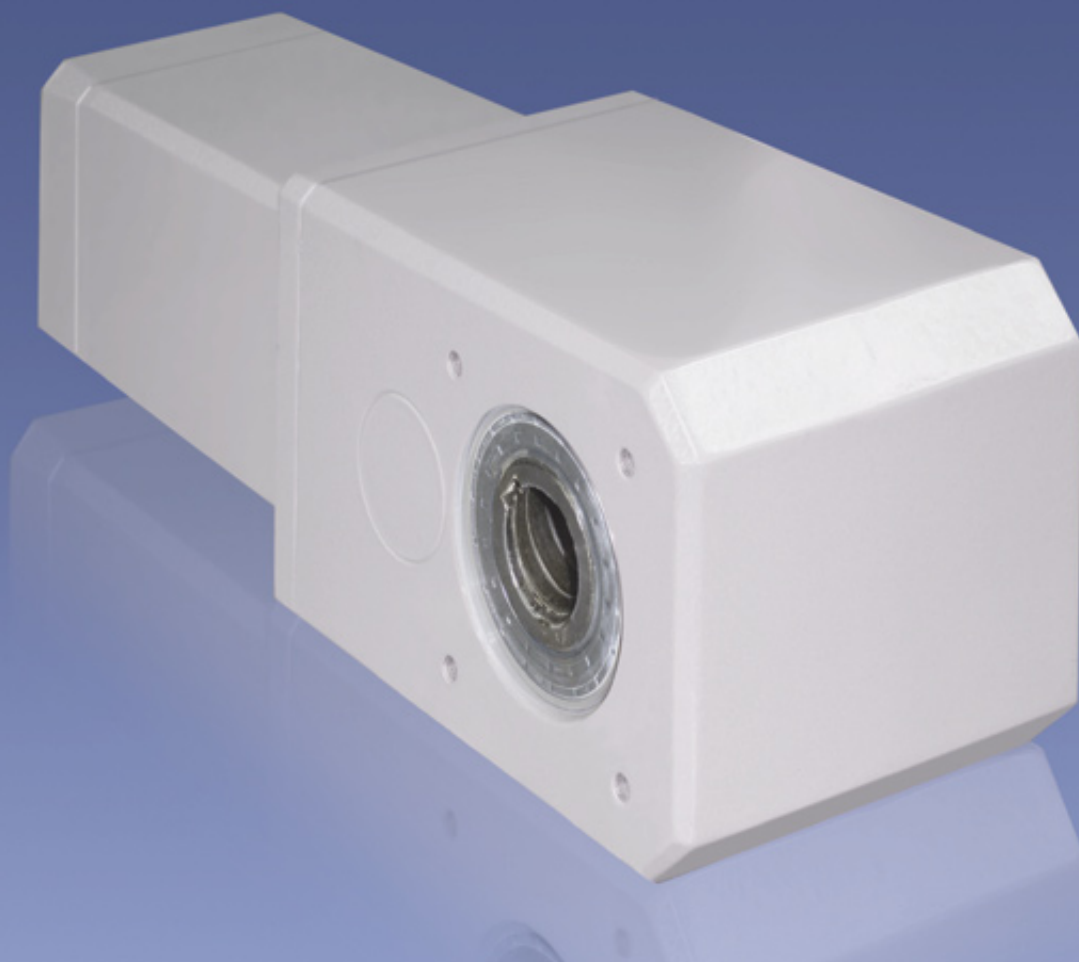


DST2-135-400 – Technical data

		DST2-135	DST2-200	DST2-260	DST2-315	DST2-400
P_N	[kW]	2.7-60	5.5-126	20-225	16-280	94-320
n_N	[min ⁻¹]	175 - 1500	150 - 1000	150 - 600	100 - 500	100 - 300
M_N	[Nm]	140 - 580	310 - 2030	1160 - 4760	1200 - 8600	9000 - 19300
M_{0max}	[Nm]	325 - 1110	790 - 4450	2410 - 9800	3330 - 18400	15400 - 32900

		DST2-135	DST2-200	DST2-260	DST2-315	DST2-400
P_N	[hp]	3.6-80	7.4-169	27-302	21-375	126-429
n_N	[min ⁻¹]	175 - 1500	150 - 1000	150 - 600	100 - 500	100 - 300
M_N	[lbf ft]	103 - 427	229 - 1497	856 - 3513	885 - 6343	6642 - 14243
M_{0max}	[lbf ft]	240 - 819	620 - 3496	1779 - 7232	2456 - 13571	11365 - 24280

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.



1 2 3 4

4

5 6 7

Minimum installed volume and high system efficiency characterise this geared motor which has been specifically developed for the food and drinks industry. With four different gear ratios and three motor variants, Baumüller offers a broad range for drive systems.

ETA_η-Drive – Your drive for aseptic applications

The drive system is based on a standard servomotor from the Baumüller DSC range, from which a motor-gearbox combination has been derived. At the same time the motor has been optimized electrically and mechanically: The integrated connection technology permits a compact system design and a special bearing concept the integration of the two-stage bevel helical gearbox. In combination with the integrated synchronous motor, this exhibits efficiency levels of up to 90 percent. The geared motor was designed as a shaft-mounted unit and as a result of its surface finish is also suitable for aseptic applications, for example in the food, drinks and pharmaceuticals industries.

ETA_η-Drive – Synchronous geared motors

- ⊙ Integrated connection technology
- ⊙ Efficiency-optimised gearbox
- ⊙ Compact construction with high power density
- ⊙ Permanent magnet excited synchronous motors
- ⊙ Encoderless operation (depends on converter)
- ⊙ Smooth, easy to clean surfaces
- ⊙ Fully enclosed design
- ⊙ Optional hollow stainless steel output shaft
- ⊙ Optional encoder
- ⊙ Brake on request
- ⊙ Completely maintenance-free
- ⊙ Protection class IP66



An uncooled version
of the ETA_η-Drive is available.



ETA_η-Drive – Technical Data

		DSC 056... 10				DSC 056... 20				DSC 056... 30			
		1000				2000				3000			
n₁	[min⁻¹]												
Transmission ratio		6	11	20	37	6	11	20	37	6	11	20	37
n₂	[min⁻¹]	164	90	49	27	329	180	99	54	493	270	148	81
P_N	[kW]	0.6 – 1.5				1.2 – 2.5				1.6 – 2.9			
M₂	[Nm]	36 – 400				34 – 400				32 – 337			

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.



1 2 3 4 5 6 7

8

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

The geared motor from Baumüller, the DSD-IPG, is distinguished by its high torque and excellent dynamic response qualities. Offering transmission ratios of $i=4$ and $i=8$, the DSD-IPG is a compact and dynamic motor that meets the highest torque requirements.

DSD-IPG – Three-Phase Synchronous Gear Motors

Thanks to the integrated planetary gearing, the DSD-IPG, available in frame sizes 45 and 56, is ideal for high-torque applications that require a high dynamic response.

The DSD has an overload capacity that is up to 40% greater than in comparable servo motors of the DS series. With these qualities, the DSD-IPG is the perfect candidate for handling, robotics and packaging applications.

In spite of the transmission ratios of $i=4$ and $i=8$, the motor fully retains its dynamic characteristics. The extremely compact DSD-IPG paves the way for optimal space utilization. Several axes can, for example, be placed side by side in a space-saving manner. Depending on the application, Sincos encoders or brakes can be combined with the gearing.

DSD 45-56-IPG – Gear Motors

The concept offers:

- ⊙ High output torque
- ⊙ High dynamic response
- ⊙ Low moment of inertia
- ⊙ Compact frame size
- ⊙ Sleek, uniform housing
- ⊙ Smooth housing surface – not easily soiled
- ⊙ Optimized transmission stepping
- ⊙ High protection type IP65
- ⊙ Encoder system: standard resolver (other encoder type on request)
- ⊙ All types optionally with brake



The DSD-IPG is available as air-cooled model.

Features of the integrated planetary gearing include:

- ⊙ Low circumferential backlash (<3')
- ⊙ High stability
- ⊙ High efficiency (98%)
- ⊙ Transmission ratios $i=4$ und $i=8$
- ⊙ Low noise level (< 65 dBA)
- ⊙ Any required mounting position
- ⊙ Lifetime lubrication



Capacity

Torque

Acceleration

DSD 45-56-IPG – Technical Data Motor/Gear

		DSD 45-IPG4	DSD 45-IPG8	DSD 56-IPG4	DSD 56-IPG8
n_{N2}	[min ⁻¹]	750-1125	375-562	500	250
M_{02}	[Nm]	9.8-20.4	19.6-40.8	21.6-45.1	43.1-90.2
M_{02max}	[Nm]	43.1-98	86.2-108	90.2-203.8	180.3-245

		DSD 45-IPG4	DSD 45-IPG8	DSD 56-IPG4	DSD 56-IPG8
n_{N2}	[min ⁻¹]	750-1125	375-562	500	250
M_{02}	[lbf ft]	7.2-15.0	14.5-30.1	15.9-33.2	31.8-66.5
M_{02max}	[lbf ft]	31.8-72.3	63.6-79.7	66.5-150.3	133.0-180.7

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.



1 2

2

10 20 30 40 50 60 70 80 90 100 110 120

3 4 5 6 7 8 9 10 11 12 13 14

Baumüller's two series of planetary gearing offer precision and economy for compact, cost-effective drive solutions at the highest technical level.

BPx – Baumüller Planetary Gearing Range

In connection with our standard DS/DSD/DSC servo drives, the BPx planetary gear range is optimally suitable for applications that require maximum standards of torque and dynamics. In combination with a high number of transmission ratio gradings, almost any possible combination of motor and gear allow an optimal adaptation of customized application.

Two versions with different configuration options are available

- ◎ The BPN series is the gearbox solution for high-technology applications and reflects a perfect combination of innovation, efficiency, and cost effectiveness.
- ◎ The BPE series is used in applications where extremely low torsional backlash is not required.

BPN Precision series

BPN is a precision gearbox for connection to standard flanged ends and shaft ends of the Baumüller DS, DSD, and DSC motor series. The gearbox series is available in standard, angle or flange versions.

BP	X	FS	type code BPN:			
			FS	Frame Size		
			X	N	= Precision	
				NA	= Precision Angle	
				NF	= Precision Flange	
			BP	Baumüller Planetary		



BPN



BPNA



BPNF

130 140

Capacity		
Torque		
Acceleration		

BPN – Technical Data



		BPN 35	BPN 45	BPN 56	BPN 71	BPN 95
M _{N2}	[Nm]	27-77	60-150	125-300	305-1000	630-1800
n _{input max}	[min ⁻¹]	14000	10000	8500	6500	6000
i		3 - 100	3 - 100	3 - 100	3 - 100	3 - 100

		BPN 35	BPN 45	BPN 56	BPN 71	BPN 95
M _{N2}	[lbf ft]	20-57	44-111	92-221	225-738	465-1328
n _{input max}	[min ⁻¹]	14000	10000	8500	6500	6000
i		3 - 100	3 - 100	3 - 100	3 - 100	3 - 100

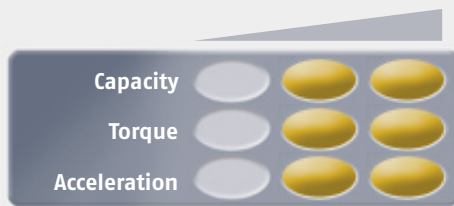
Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.

BPNA – Technical Data



		BPNA 35	BPNA 45	BPNA 56	BPNA 71
M_{N2}	[Nm]	22-77	40-150	75-300	305-800
$n_{input\ max}$	$[min^{-1}]$	16000	16000	14000	9500
i		4 - 100	4 - 100	4 - 100	16 - 100

		BPNA 35	BPNA 45	BPNA 56	BPNA 71
M_{N2}	[lbf ft]	16-57	29-111	55-221	225-590
$n_{input\ max}$	$[min^{-1}]$	16000	16000	14000	9500
i		4 - 100	4 - 100	4 - 100	16 - 100



BPNF – Technical Data



		BPNF 32	BPNF 45	BPNF 56	BPNF 71	BPNF 100
M_{N2}	[Nm]	27-77	60-150	125-300	305-1000	630-1800
$n_{input\ max}$	$[min^{-1}]$	14000	10000	8500	6500	6000
i		4 - 100	4 - 100	4 - 100	4 - 100	4 - 100

		BPNF 32	BPNF 45	BPNF 56	BPNF 71	BPNF 100
M_{N2}	[lbf ft]	20-57	44-111	92-221	225-738	465-1328
$n_{input\ max}$	$[min^{-1}]$	14000	10000	8500	6500	6000
i		4 - 100	4 - 100	4 - 100	4 - 100	4 - 100

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.

BPE Economy series

The Economy version (standard, angled, or flanged) is available for simple applications with less stringent torque and speed requirements.

BP	X	FS	type code BPE:	
			FS	Frame Size
			X	E = Economy
				EA = Economy Angle
				EF = Economy Flange
			BP	Baumüller Planetary



BPE



BPEA



BPEF

Capacity			
Torque			
Acceleration			

BPE – Technical Data



	BPE 20	BPE 30	BPE 30/35	BPE 40	BPE 40/45	BPE 60	BPE 60/56	BPE 80
M_{N2} [Nm]	5-20	15-44	15-44	38-130	38-130	95-260	95-260	400-800
$n_{input\ max}$ [min ⁻¹]	18000	13000	13000	7000	7000	6500	6500	6500
i	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 64

	BPE 20	BPE 30	BPE 30/35	BPE 40	BPE 40/45	BPE 60	BPE 60/56	BPE 80
M_{N2} [lbf ft]	4-15	11-32	11-32	28-96	28-96	70-192	70-192	295-590
$n_{input\ max}$ [min ⁻¹]	18000	13000	13000	7000	7000	6500	6500	6500
i	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 64

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.

BPEA – Technical Data



		BPEA 20	BPEA 30	BPEA 30/35	BPEA 40	BPEA 40/45	BPEA 60/56	BPEA 60
M_{N2}	[Nm]	4-20	14-44	14-44	38-130	38-130	80-260	80-260
$n_{input\ max}$	$[min^{-1}]$	18000	13000	13000	7000	7000	6500	6500
i		3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512

		BPEA 20	BPEA 30	BPEA 30/35	BPEA 40	BPEA 40/45	BPEA 60/56	BPEA 60
M_{N2}	[lbf ft]	3-15	10-32	10-32	28-96	28-96	59-192	59-192
$n_{input\ max}$	$[min^{-1}]$	18000	13000	13000	7000	7000	6500	6500
i		3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512	3 - 512



BPEF – Technical Data



		BPEF 32	BPEF 45	BPEF 56
M_{N2}	[Nm]	15-44	38-130	95-260
$n_{input\ max}$	$[min^{-1}]$	13000	7000	6500
i		3 - 64	3 - 64	3 - 64

		BPEF 32	BPEF 45	BPEF 56
M_{N2}	[lbf ft]	11-32	28-96	70-192
$n_{input\ max}$	$[min^{-1}]$	13000	7000	6500
i		3 - 64	3 - 64	3 - 64

Subject to alterations. The stated data are maximum values.
For details please have a look in the technical documentations.



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Automation solutions by Baumüller

Cooperation with development partners, who contribute to the entire solution in a system-oriented way, is a precondition if you want to concentrate on your own competencies in the field of machine building. If your automation partner supports you during the realization of your system concept, you receive the development, project management and the optimal adaptation of a drive solution from one source.

From the plastics to the packaging industry, from the textile to the printing industry, Baumüller is an innovative system partner of the capital goods industry. We provide solutions for automation, electrical and drive engineering throughout the entire life cycle of a plant.

It goes without saying that in addition to our complete package consisting of engineering, installation, commissioning and services, we offer customer service with perfect coverage – namely anywhere in the world and at any time.

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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.

ProMaster – An integrated engineering Framework

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.

Thanks to ProMaster you can concentrate on your core competence – your machine.

Operating and visualizing with the bmaxx HMI

The bmaxx HMI model range is designed for special automation requirements. The web-based visualization with the HMIs equipped with a 3.5 inch to 15 inch display meets all the requirements of control panels and visualization. The user-friendly and intelligently designed control and visualization tool ProViz which is integrated in the Baumüller Engineering Framework, Pro Master, allows the machine to be adapted to every production process.



b maXX drivePLC – Drive-Integrated Control System

The b maXX drivePLC makes the drive intelligent. The control system intelligence direct on the drive offers the facility of gaining very rapid access to the set value and actual value of the drive regulator. This allows the function of the drive to be expanded by complex motion control, technological and control functions. This guarantees rapid and economical applications.

The b maXX drivePLC is fully integrated in the Engineering Framework ProMaster. Here you have access to all applications for the creation of the machine/plant topology, the field bus and I/O configurators as well as applications such as the IEC 61131-3 programming environment PROPROGwt III, the cam disk editor ProCAM and others. A b maXX local drivePLC is available for applications on the local axis.



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 PLCo2-Safe has extended the standard motion control range by a two-channel safety control system that fulfils the requirements of IEC61508 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.





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Baumüller has been setting a new standard with the converters and controllers of the b maXX series. This drive generation was developed to meet current and future worldwide requirements for automation technology. b maXX constitutes the basis for five different product series when it comes to both simple and complex automation solutions.

⁵⁰⁰⁰ b maXX – 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 35 kW in a rack system. With power supplied and regenerative systems, b maXX 5000 can be used 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.



⁴⁰⁰⁰ **b maXX – 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 smoothly into the automation solution b maXX. Functional safety relay integrated into the drive available as an option. The peak load and rated load devices (b maXX 4600, b maXX 4700) supplement the proven bmaXX series and are available in five frame sizes. Whether you need maximum output for continuous operation or only for short durations, the b maXX series offers a customized drive solution for every application.



³³⁰⁰ **b maXX – 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 the DSD 28–100 servomotors and the pancake and linear motor series from Baumüller. Functional safety features integrated into the drive are available, as is a manual control device.



²⁰⁰⁰ **b maXX – Compact mini servo controller**

b maXX 2000 rounds off the converter and controller generation b maXX at the lower end of the power range. The mini servo controller b maXX 2400 (< 60V) is specifically designed for operation with the DSD 28–36 servomotors and the pancake and linear motor series from Baumüller.



¹⁰⁰⁰ **b maXX – 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. An integrated EMV filter and various protection and overload monitoring functions ensure a troublefree operation. An extensive control and data management system ensures a continuously and exact overview of the current drive status.

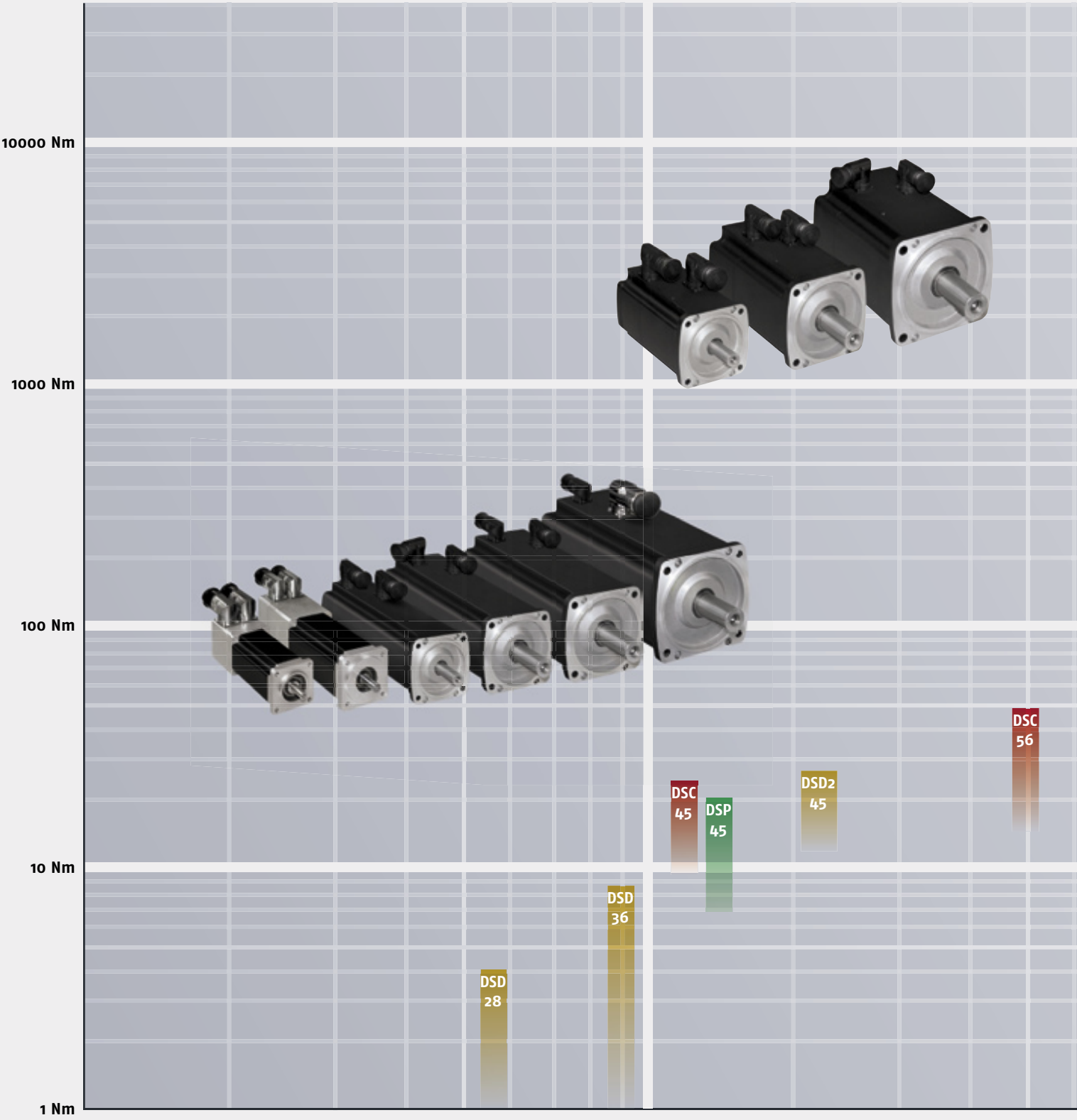


DSDI/DSMI Motors with integrated control and power electronics

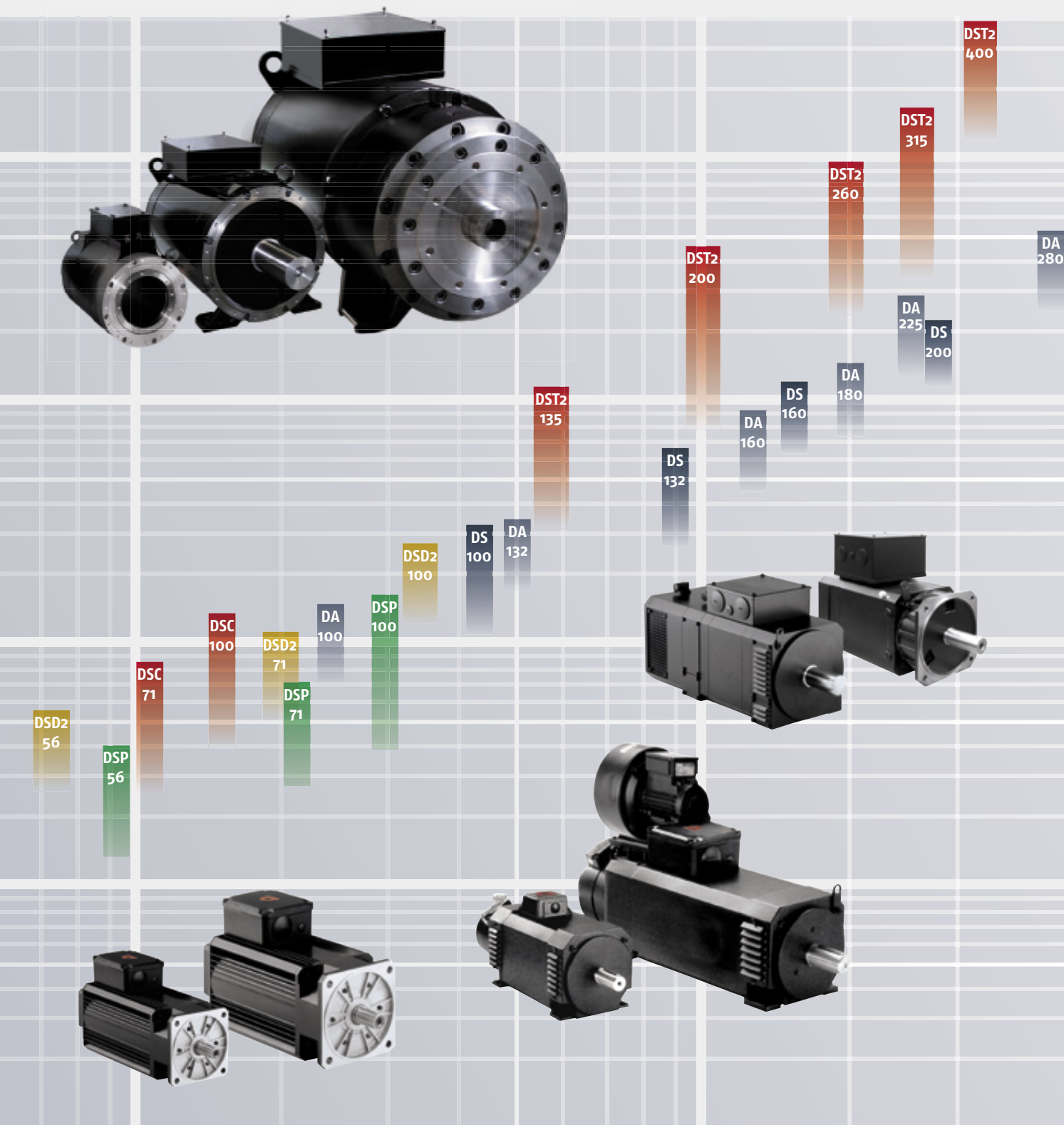
The model ranges DSDI and DSMI are servo motors with integrated control and power electronics. These servo drive meet the requirements of modern, decentralized drive architectures in automation. The DSDI is a highly dynamic motor and the DSMI is a high torque servo drive.
Power range 170–385 W (0.23–0.52 hp), speeds up to 4000 rpm, protection rating up to IP65



Range of motors



The stated data are maximum values.



10 kW
13.41 hp

100 kW
134.10 hp

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