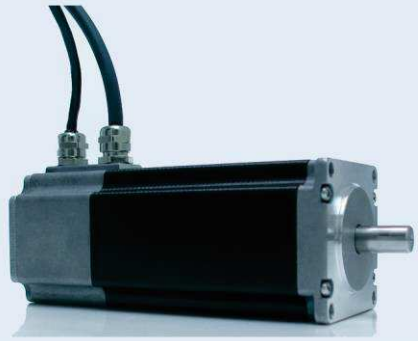
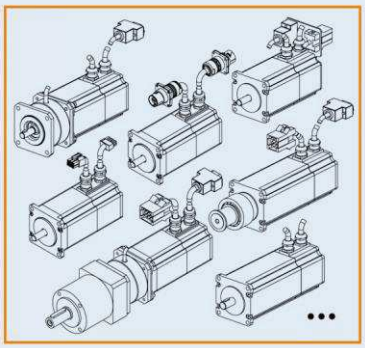
JAT JENAER ANTRIEBSTECHNIK

ECOSTEP® Servo Motors Series 23S

For highly dynamic applications in a speed range up to 3000 rpm





Compact and powerful

Very high maximum torque in relation to the motor size, max. 4 Nm

Direct drive

Saving of a gearbox is possible

Very high dynamic by genuine servo operation

Various mechanical options

Optimal adaptation to your application from quantity 1

Economical

Very good price/performance ratio in the operating point compared to AC servo motors

Flange:

56 mm (NEMA 23)*

DC link voltage:

24 ... 60 V_{DC}

Encoder:

Incremental encoder
Standard 8000 to 160 000 inc/rev,
up to 256 000 inc/rev possible

Absolute value encoder
17 bit/rev and 12 bit revolutions
up to 19 Bit/rev possible

Protocol: BiSS-B, BiSS-C

SinCos encoder with 1000 periods/rev

Choice of mechanical options:

Holding brake

Gear

Shaft with key

Long shaft

Bearing flange with solid shaft

Bearing flange with hollow shaft with locking ring

Different connector configurations

Different cable lengths

Protection class IP65

Appropriate servo amplifers:

ECOVARIO® 114(D)

ECOMODUL

ECOeasy

*) 23S63: Flange 60 mm

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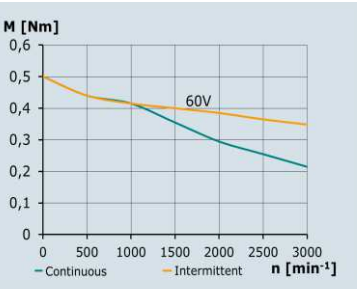
ECOSTEP® Servo Motors Series 23S

→ Technical data

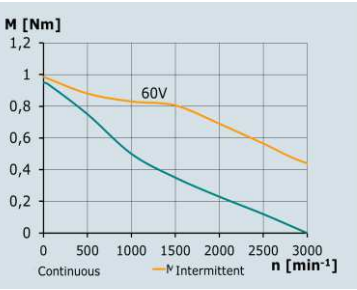
		23S16-0560	23S21-0560	23S31-0650	23S41-0650	23S63-0650
Rated Values						
Peak torque*	Nm	0,5	0,99	2,13	3,44	4
Stall torque*	Nm	0,5	0,95	1,88	2,5	3,65
Rated torque*	Nm	0,36	0,5	0,69	1,47	2,73
Rated speed	min^{-1}	1500	1000	1000	500	500
Maximum speed	min^{-1}	3000	3000	3000	2000	2000
Peak current (per phase)*	A_{RMS}	5,7	5,5	8,5	8,5	7,5
Stall current (per phase)*	A_{RMS}	5,7	5,5	7,0	6,8	7,1
Rated current (per phase)*	A_{RMS}	4,9	3,3	3,0	4,1	5,1
Rated power	W	57	52	72	77	143
at DC link voltage	V_{DC}	60	60	60	60	60
*) Mounting flange Ø 130 mm / thickness 7,5 mm						
Technical Data Motor						
Torque constant (rated)	Nm/A	0,073	0,15	0,23	0,36	0,54
Voltage constant (EMK, 25 °C)	$V/1000min^{-1}$	5,16	10,41	15,9	21,6	32,9
Winding resistance (at 25 °C)	Ω	0,3	0,6	0,58	0,6	0,65
Winding inductivity (at 25 °C, 1 kHz)	mH	0,3	0,56	0,64	1,19	1,19
Number of motor phases		2	2	2	2	2
Number of pole pairs		50	50	50	50	50
Motor inertia without brake	$kgm^2 \cdot 10^{-3}$	0,014	0,026	0,046	0,069	0,15
Max. DC link voltage	V_{DC}	60	60	90	90	90
Mass	kg	0,9	1,1	1,4	2,1	2,4
Motor length (L)	mm	73	87	109	144	145
Shaft diameter (D)	mm	8	8	8	10	10
Insulation class		B, 130°				
Ambient temperature	°C	-20 ... +40				
Protection class		IP40, option: IP65 (shaft gland IP40)				
Max. axial load	N	80	80	80	80	80
Max. radial load	N	100	100	100	100	100
Max. axial load during assembly	N	150	150	150	150	150

Encoder options see next page.

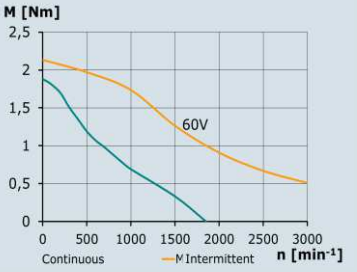
Characteristics 23S16



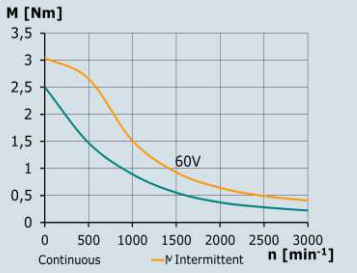
Characteristics 23S21



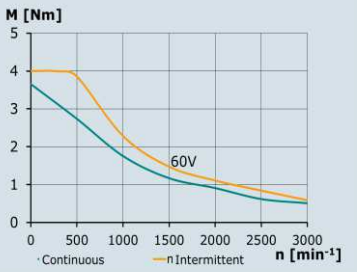
Characteristics 23S31



Characteristics 23S41



Characteristics 23S63



All characteristics with servo amplifier ECOVARIO® 114D.