

# SAX 500

## DC SERVOMOTORS

### SAX 500

*Complete line of DC Servomotors for use with Minispeed, and Masterspeed Servo Amplifiers that range from 2.8 to 8 Nm (400 to 1142.9 oz.-in.)*

*Typical applications are: Robotics, X-Y Tables, Medical Equipment, Textile Equipment, Conveyors, Graphic Machinery, Packaging Machinery, Positioners, Converting Machinery, Feeders.*

#### STANDARD FEATURES

- ✓ Ferrite permanent magnets
- ✓ Extremely favorable cost to performance ratio
- ✓ Sizes from small to large
- ✓ Extremely suitable for personalization
- ✓ Simple installation and use
- ✓ Full torque in a wide range of speeds
- ✓ High overload capacity
- ✓ Environmental working temperature: 5÷40 °C
- ✓ Tachogenerator (10V / 1000Rpm) included as standard equipment
- ✓ Encoder Predisposition Ø 6 x 10 mm
- ✓ Protection class IP54

#### OPTIONS

- ✓ Encoder
- ✓ Brake
- ✓ Special Tachogenerator DT20 (20V/1000 Rpm)
- ✓ Special Flange listings available upon request (see catalogue)

#### TORQUE RANGE

SERIES	SAX 500 (4 POLES)											
	SIZE	S				M				L		
<b>M<sub>0</sub></b> Stall Torque (Nm)	2.8	2.8	2.8	3.0	5.0	5.0	5.5	5.5	7.5	8.0	8.0	8.0
<b>N<sub>n</sub></b> Nominal Speed (Rpm)	3500	3000	2000	2000	3500	3000	3000	1200	3000	3000	2000	1500
<b>BEMF</b> (Vdc)	110	120	95	170	115	135	165	120	107	165	140	120
<b>In0</b> (A <sub>dc</sub> ) Stall Current (Δt=100°C)	8.6	7	5.9	3.3	16	11	10	5.5	21	15	12	10
<b>COUPLE WITH DRIVES</b> Minispeed or Masterspeed	140	140	140	200	140	200	200	140	140	200	200	140
<b>J</b> Rotor Inertia kgm <sup>2</sup>	0.002				0.003				0.0051			
<b>J<sub>B</sub></b> Brake Inertia kgm <sup>2</sup>	0.000061											
<b>Tacho Generator</b> (Standard)	DT10 (10V / 1000 Rpm - 4 Poles)											
<b>Brake</b> (optional)	8 Nm - 24 Vdc (+5 / -10%) - 1.1A											



#### DESCRIPTION

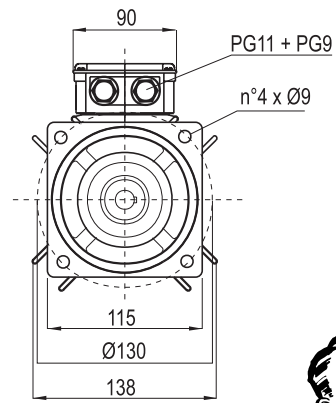
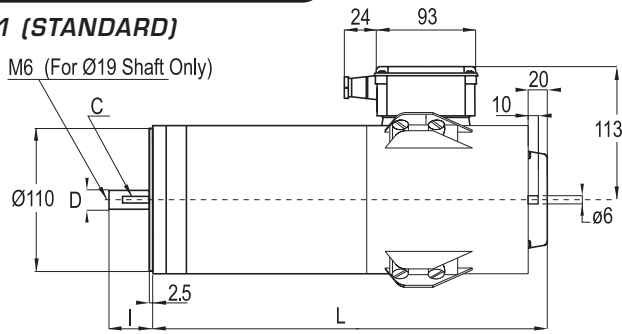
*The SSAX 500 DC servomotors with permanent magnets are traditional, easy-to-use, motors that are extremely trustworthy and efficient.*

*They have a favorable cost to performance ratio and are perfectly designed for use with the Minispeed and Masterspeed Servo Amplifiers and range from 2.8 to 8 Nm (400 to 1142.9 oz.-in.) These servomotors (thanks to their permanent magnets) give high level performance and are extremely reliable.*

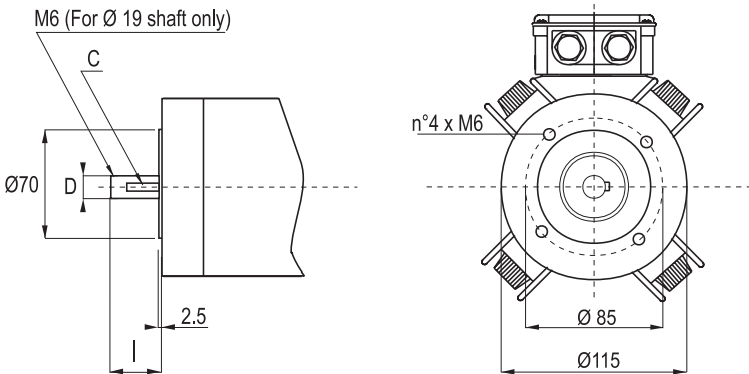
*The maximum environmental temperature to which the Nominal performance refers is +40°C.*

**MECHANICAL DIMENSIONS**

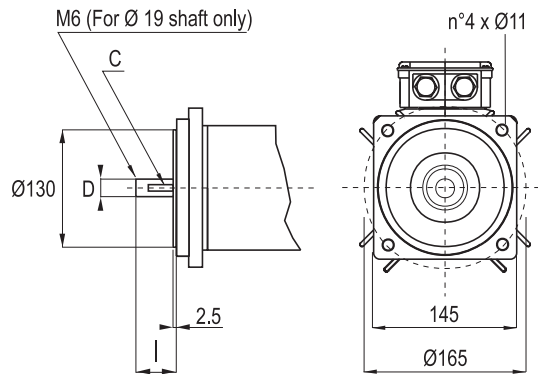
**B5 M71 (STANDARD)**



**B14 M71 (OPTIONAL)**



**B5 M80 (OPTIONAL)**



All dimensions are in mm To obtain the dimensions in INCHES, divide mm by 25.4 Ex: 40 mm=1.57 Inches / 25.4

TYPE	D mm	I mm	C mm	L** mm	WT* kg / (Lbs) Motor+Tacho
<b>SAX 500S</b>	14	30	5x5x25	311	8 / (17.7)
	19	40	6x6x30	311	8 / (17.7)
<b>SAX 500M</b>	19	40	6x6x30	383	12 / (26.5)
<b>SAX 500L</b>	19	40	6x6x30	455	17 / (37.6)

\*\* Version with brake: L+40mm

\*Version with brake: WT+1Kg (2.2 Lbs)

**ORDERING CODE**

Example:

**SAX - 500 - S - 3.5 / 110 - 18 - 01 - M - 00**

**NAME:** Line of Dc Servomotors

**SERIES:** 500

**SIZE:** S, M, or L

**NOMINAL SPEED:** (KRPM) Ex: 3.5=3500 Rpm (See table on Reverse)

**BEMF VOLTAGE:** Ex: 110=110 Vdc (See table on Reverse)

**FLANGES & SHAFTS:**

- 18 = B5M71 Ø19 (standard)
- 02 = B5M71 Ø14 (standard)
- 19 = B14M71 Ø19 (optional)
- 06 = B14M71 Ø14 (optional)
- 05 = B5M80 Ø19 (optional)
- 24 = B5M80 Ø14 (optional)

**CUSTOM MADE:**  
00 = Standard

**ELECTRICAL CONNECTIONS:**  
M = Terminal Box (standard)

**OPTIONS:**

- 01 = Tacho DT10 (standard)
- 04 = Brake No Tacho
- 06 = Brake + Tacho DT10
- 09 = Only Motor (W/O Tacho)
- 20 = Tacho DT20 (optional)