

## Low Voltage Synchronous Servo Motors Series SM



The low-voltage synchronous servomotors from the SM series are brushless, rotary current motors with permanent magnets in the rotor and three-phase windings for special servo applications. The neodymium magnet material and the low inertial moment contribute significantly to making these motors highly dynamic and allow them to have a very low cogging. The robust and compact motor with high power density is available in three performance classes 60, 100 and 200 watts.

Motors are available in two flange sizes with idling torques from 0.2 to 0.68 Nm and peak torques of up to 1.8 Nm.

Motor and sensor cables in standard 1.5 m/3 m/5 m/10 m lengths can also be obtained.

### Standard configuration:

Shaft with keyway, IP65 protection, 2-pin optical incremental encoder (2500 ppr)

### Optional:

Holding brake

### Technical Data

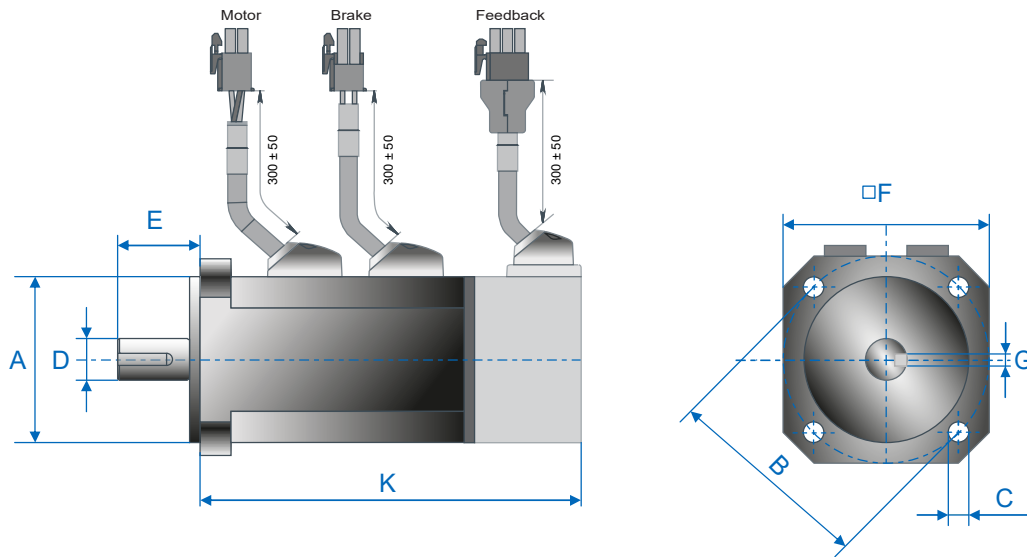
Motor	Motor - Data												Brake - Data			Drive DC 062
	Motor standstill torque	Rated torque	Peak torque	Rated rotation speed	Rated power	Standstill current	Rated current	Peak current	Torque constant	Rotor inertial torque	Flange size	Motor weight	Holding torque	Inertial torque of the holding brake	Holding brake weight	Rated supply voltage 24-48 V DC
	$M_0$ (Nm)	$M_n$ (Nm)	$M_{max}$ (Nm)	$n_n$ (min <sup>-1</sup> )	$P_n$ (kW)	$I_0$ (A)	$I_r$ (A)	$I_{max}$ (A)	$K_t$ (Nm/A)	$J$ (kgcm <sup>2</sup> )	$L$ (mm)	$m$ (kg)	$M_{br}$ (Nm)	$J_{br}$ (kgcm <sup>2</sup> )	$m_{br}$ (kg)	

### Series SM

SM0401	0.2	0.19	0.46	3000	0.06	5.7	5.4	13.5	0.035	0.0232	40	0.4	0.35	0.048	0.25	X
SM0402	0.34	0.32	0.91	3000	0.1	5.6	5.2	15.6	0.061	0.0422	40	0.55	0.35	0.048	0.25	X
SM0601	0.68	0.64	1.8	3000	0.2	5.2	4.9	15	0.133	0.094	60	1.1	2	0.046	0.5	X

## Servo Motors

### Mechanical Dimensions SM



#### Mechanical Dimensions

Motor type	A	B	C	D	E	F	G	K (without brake)	K (with brake)
<b>SM Series</b>									
SM0401	30h7	46	4.2	8h6	25	40	3h9	92	129
SM0402	30h7	46	4.2	8h6	25	40	3h9	109	147
SM0601	50h7	70	5.5	14h6	30	60	5h9	98	138

## Order Code

**SM 060 2 E E2 - K CD - N N V**

■ <b>Series:</b> SM Servo Motor	■ <b>Version:</b> V with shaft seal included
■ <b>Flanges size:</b> 40 40 mm 60 60 mm	■ <b>Temperature sensor:</b> N no sensor
■ <b>Rotor length:</b> 1 2	■ <b>Brake:</b> N without brake B 24 V DC Brake
■ <b>Windings type:</b> E 80 V DC F 60 V DC H 36 V DC	■ <b>Connectors:</b> CD 300 mm (12") shielded cable with non-sealed Connectors - for windings up to 6.5 Ampere
■ <b>Feedback:</b> E2 2500 ppr optical encoder with separate commutation signals	■ <b>Shaft:</b> K Standard keyway