



AC brushless Servomotors DSM5.7x



DSM5 size 7 Brushless Servomotors are AC PM Synchronous servomotors. They have been designed using latest generation of magnets and construction techniques to provide very high performance, low cogging and torque ripple. They can be supplied with resolver or Incremental / absolute encoder.

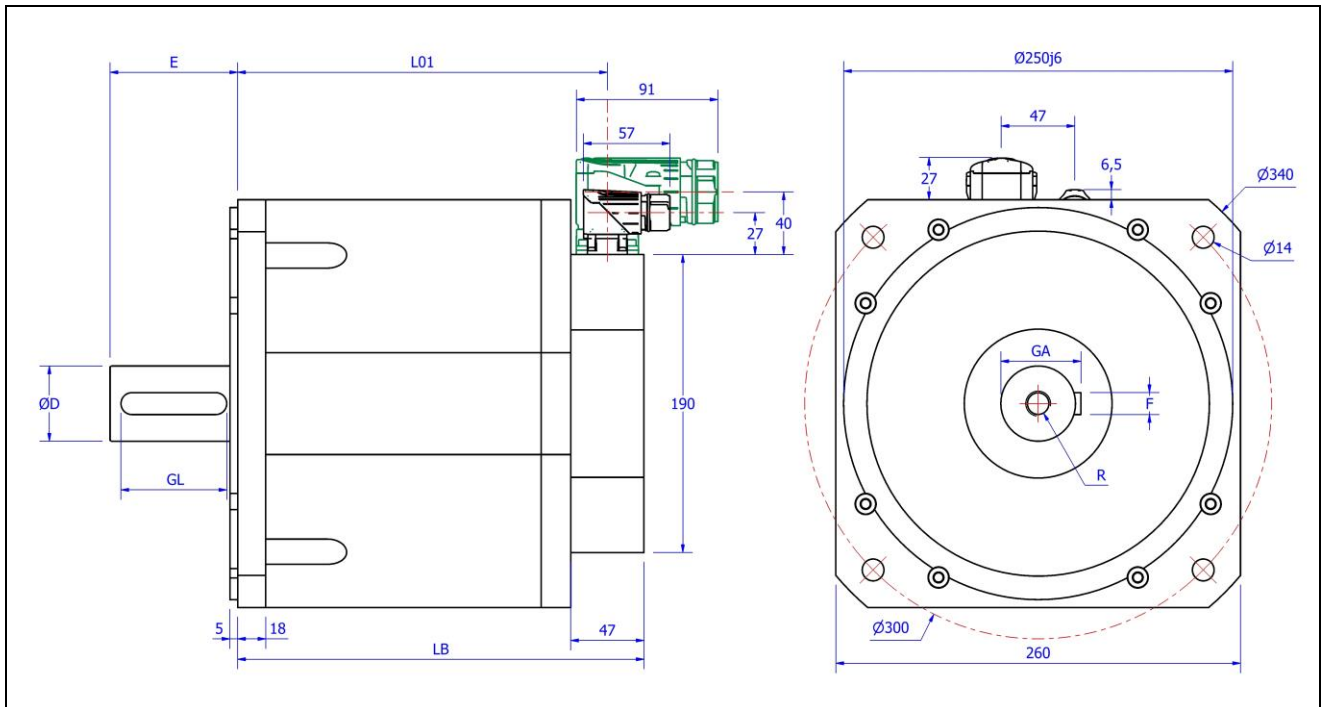
Their main characteristics are:

- Frame size 260mm
- Rare earth magnets for high performance
- 8 pole construction for high torque density
- Low cogging and torque ripple
- Sinusoidal back EMF
- Integrated PTC thermal protection
- Rotatable connectors
- Compact design
- High IP rating
- Smooth finish

Technical Data

Tab. 1

Description Winding Code	Symbol	Motor	DSM5.71		DSM5.72		DSM5.73	
		UM	1	2	1	2	1	2
Stall Torque	M_0	Nm	76		145		230	
Maximum Torque	M_{pk}	Nm	210	203	408	399	618	632
Stall Current	I_0	A	37	25	70	41	104	65
Peak current	I_{pk}	A	111	75	210	123	312	195
Maximum mechanical revs	N_{mec}	min ⁻¹	4000		4000		4000	
Maximum revs @ 230Vac	N_{MAX}	min ⁻¹	1500	1000	1500	900	1400	900
Maximum revs @ 400Vac	N_{MAX}	min ⁻¹	2600	1800	2600	1500	2500	1500
Voltage constant	K_E	V/krpm	126	183	126	216	135	216
Torque constant	K_T	Nm/A	2,1	3	2,1	3,6	2,2	3,6
Rotor Inertia	J_R	kg cm ²	484		941		1398	
Resist. @ 20°C	R_{U-V}	Ohm	0,14	0,28	0,05	0,12	0,03	0,08
Induct. @ 1 kHz	L_{U-V}	mH	1,5	3,1	0,8	2,2	0,6	1,5
Mass	m	kg	50		81		112	



Dimensions in mm

Tab. 2

Feedback device	EQI1130, TTL 2048ppr, Resolver, SEL52, SinCos, EKS36		
Dimension	LB	L01	L03
DSM5.71	261	214	47
DSM5.72	341	294	
DSM5.73	421	374	
DSM5.71 Brake	314	267	
DSM5.72 Brake	394	347	
DSM5.73 Brake	474	427	

Dimensions in mm

Tab. 3

Dimension	Shaft
D	48k6
E	82
GL	70
GA	51.5
F	14
R	M16 x 25

Values in this catalogue are true for the following conditions:

- Max Temperature ambient 40° C
- Min temperature ambient 0 °C
- Max Altitude 1000 m (above sea level)
- Insulation class F (materials F & H)
- RMS values
- Insulation system conforms to UL
- IP65 enclosure protection with seal
- Motor Installation B5 – V5
- Cooling IC0041
- Typical tolerance value ±10%
- Continuous ratings apply with a rise of ΔT=100K on the windings when fitted on an aluminium plate with dimensions 457 x 457 x 15mm

Sangalli reserves the right to amend the specification of this product without prior notification.

Part number composition

1	2	3	4	5	6	7	8	9	10	11	12
D	S	M	5	4	2	2	0	9	5	x	x

Pos. Description

1-3 Product

DSM = PM synchronous motor, self-cooled
 DSF = PM synchronous motor, forced air-cooled
 DSW = PM synchronous motor, water-cooled

4 Motor Type

Series 5

5 Motor Size

Size Seven

6 Motor Length

1 = Mo 76Nm
 2 = Mo 145Nm
 3 = Mo 230Nm

7 Voltage

1 = Winding code 1
 2 = Winding code 2

8 Holding Brake

0 = Without Brake
 1 = Holding Brake Mb = 120 Nm - 37W - 24VDC PM - Jb = 79 kgcm² - mb = 10 kg

9 Feedback

0 = Sensor-less
 1 = Heidenhain encoder EQI1130 EnDat multi-turn
 4 = Encoder 2048ppr TTL LD + hall sensors
 6 = Encoder 4096ppr TTL LD + hall sensors
 7 = Encoder 1Vpp + position sin-cos
 9 = Resolver size 15 2p 7V 10KHz
 G = Sick encoder SEL52 Hiperface multi-turn
 W = Sick encoder EKS36 Hiperface DSL single-turn no SIL 17bit
 Y = Sick encoder EKM36 Hiperface DSL multi-turn no SIL 17bit
 Z = Sick encoder SKM36 Hiperface 128ppr multi-turn

10 Connection type

9 = M40 connector 90° rotatable power, feedback M23

11-12 Special Version

26 = Smooth Shaft
 66 = IP65 Shaft Protection
 90 = Thermal Protection PT1000

SANGALLI SERVOMOTORI



SANGALLI SERVOMOTORI S.r.l.

Via Federico Rossi, 5
20900 MONZA (MB).

Tell. : 00-39-039-2020322/747

Fax : 00-39-039-2020656

info@sangalliservomotori.it

www.sangalliservomotori.it

- DSM5 Brushless Servomotors
- DSG synchronous PM generators
- Rare earth SC DC servomotors
- DSW water-cooled
- Low-cost solutions
- Planetary gears
- Customised solutions
- Torque motors
- Frameless spindle motors



ISD : E220486

