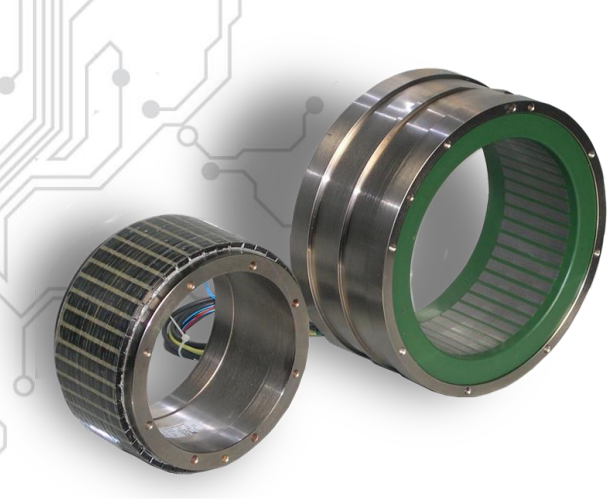
SANGALLI SERVOMOTORI

AC BRUSHLESS TORQUE SERVOMOTOR



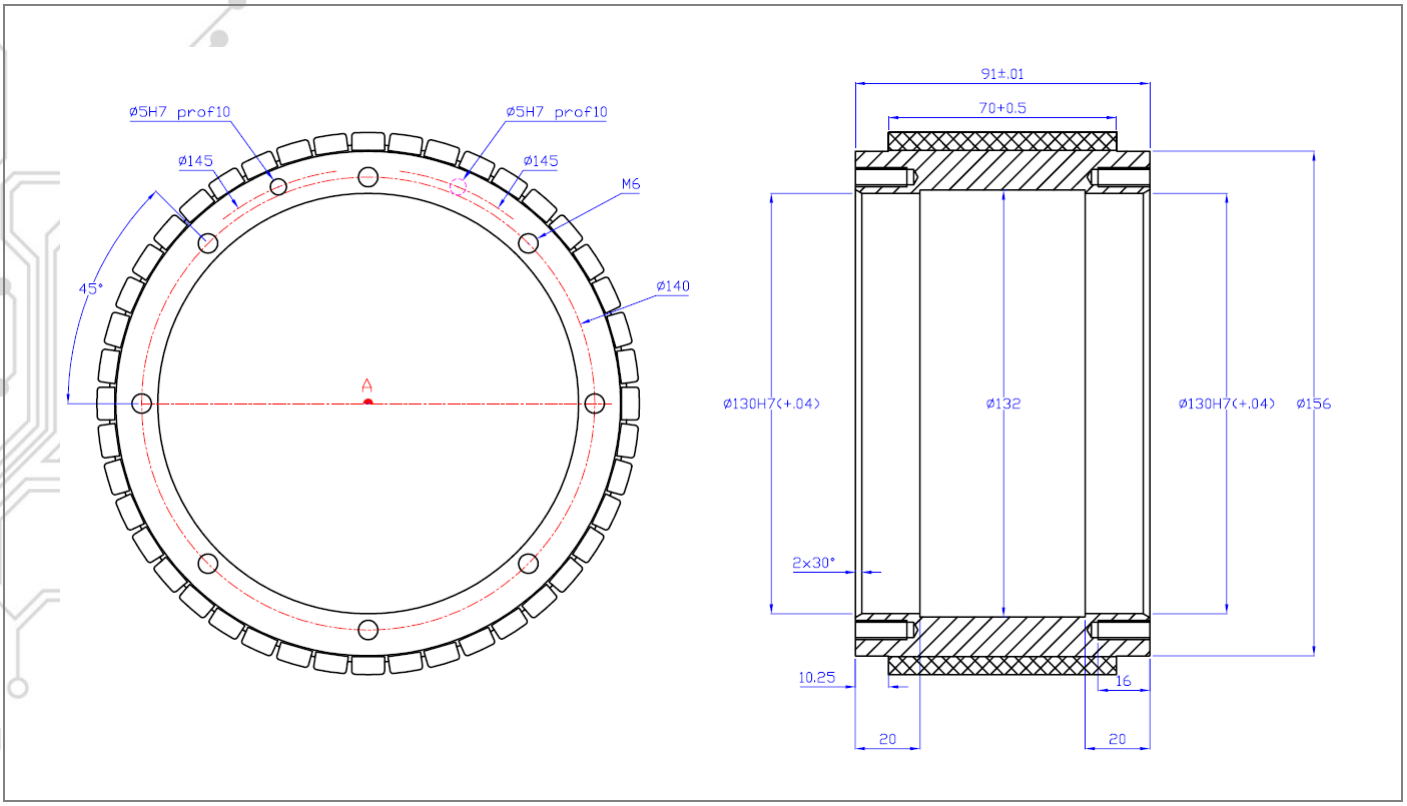
New series of **DSW TORQUE SERVOMOTOR** is particularly suitable for Direct Drive applications. As we know with this solution it is possible to achieve impossible results with traditional solutions as, very high efficiency, less noise, mechanical simplification, increased rigidity and higher performances.
They are produced with the best materials aligned with market standards with a price/quality ratio particularly attractive.

- **44** Poles construction
- Sinusoidal Fcem
- Integrated thermal protection
- Compact design, low weight
- High efficiency
- Low cogging

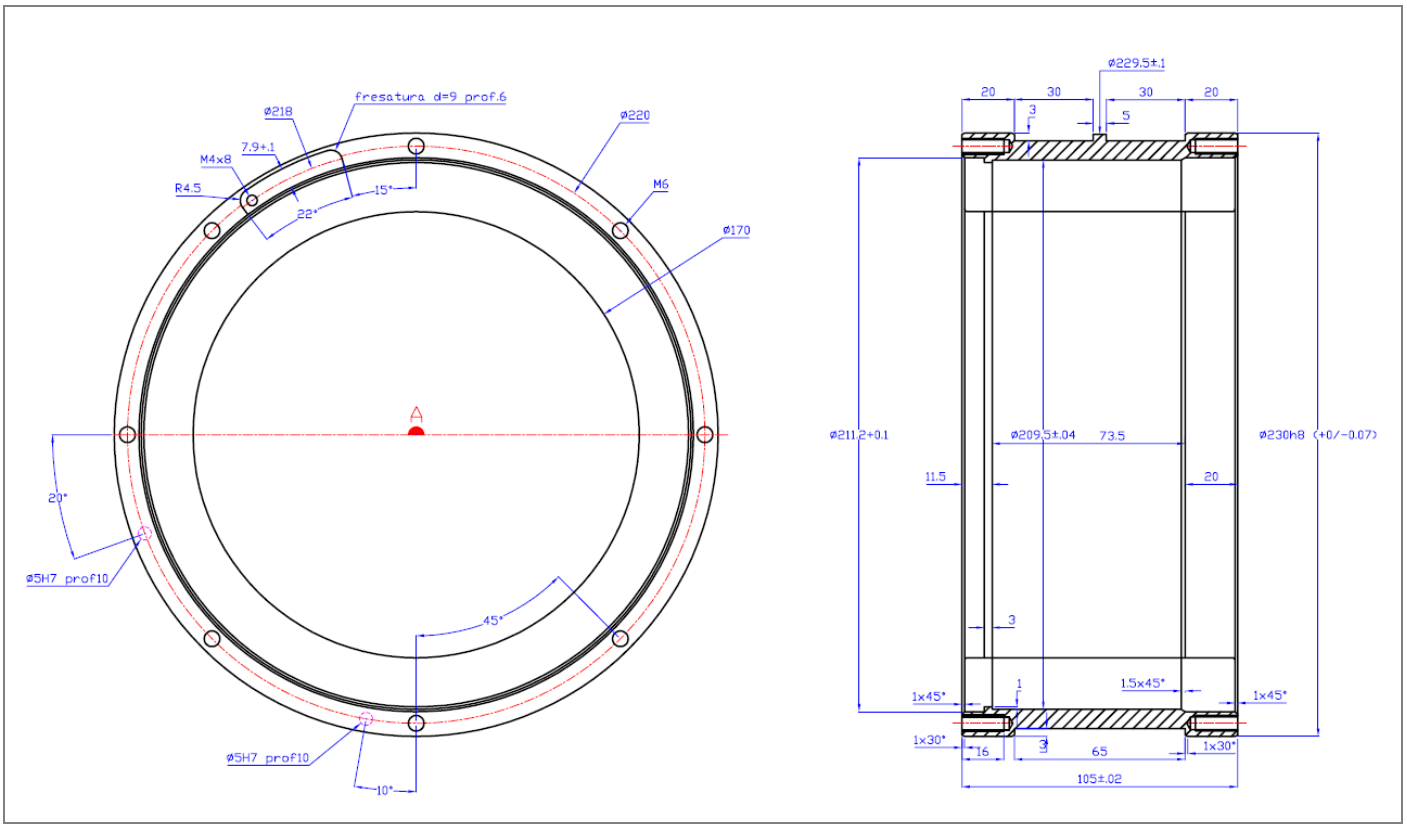
Technical data *Tab. 2*

Description / *Winding Code*	*Symbol*	*Type* / *MU*	**Frameless Torque Servomotor**	
			DSW-210-070-04	**DSW-210-070-05**
Stall Torque	M_0	Nm	**124**	**170**
Voltage	U_n	Vrms	200	400
Stall Current	I_0	A	20,8	16
Nominal Current	I_N	Arms	20,8	13
Nominal Torque	M_N	Nm	105	142
Nominal Power	P_N	W	1,1	1,4
Nominal Speed	N_N	min^{-1}	100	100
Maximal Speed	N_{MAX}	min^{-1}	250	270
Peak Current	I_{MAX}	A	50	26
Peak Torque	Mmax	Nm	260	260
Voltage constant	K_E	V/Krpm	360	640
Torque constant	K_T	Nm/A	5,96	10,6
Rotor Inertia	J_R	Kg cm^2	240	240
Resist. @ 20°C	R_{U-V}	ohm	1,83	5,75
Induct. @ 1 KHz	L_{U-V}	mH	5,8	19
Mass stator	ms	Kg	11	11
Mass Rotor	mr	Kg	5,3	5,3
Cooling water flow	Ql	lt/min	5	5
Required cooling capacity	Pcool	Kw	1,6	2,2

Rotor Drawing *Pic. 2*



Stator Drawing *Pic. 3*



Values of this catalogue are referred to the following conditions:

- Max Temperature ambient 40° C
- Min temperature ambient 0 °C
- Max Altitude 1000 m sl
- F insulation class, materials F e H
- RMS value
- Degree of Protection IP00
- Water Cooling
- Typical value, tolerance ±10%
- 100K Temperature increase on winding
- Integrated thermal protection

The following accessories are available on request:

- Feedback high resolution
- Connectors Cable motor-drive
- Special winding
- Application & new design

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
D	**S**	**W**	**2**	**1**	**0**	**0**	**7**	**0**	**0**	**9**

POS. DESCRIPTION

1-2 **Product**
DS= PM synchronous motor SPM version
DI= PM synchronous motor IPM version
DA= Asynchronous motor

3 **Cooling type**
M= Self cooling
F= Fan cooling
W= Water cooling

4-5-6 **External stator diametr**

7-8-9 **Active magnetic lenght**

10-11 **Special Custom Code**
04= Japan version, 200 Vac
05= European Version, 400Vac

STANDARD CONNECTION FRAMELESS SERVOMOTOR

Tab. 4

Power connection		
Function	***Motor Cable Colour***	***Note***
U1	Black	**The motor rotation is clockwise, looking at the opposite side of cables**
V1	Red	
W1	Blue	
Grounding	Yellow/Green	

Tab.5

Thermal Protection Connection European version		
Function	***Cable Colour***	***R at 25°C***
KTY+	Red	600 Ω ±5%
KTY-	Black	
PTC130 trix	Blue-Blue	<250 Ω
PTC150 trix	Black-Black	

Tab.6

Thermal Protection Connection Japan version		
Function	***Cable Colour***	***R at 25°C***
103-GT2 NTC	Blue-Blue	10 KΩ ±3%

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