



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 Fcsm
- Integrated thermal protection
- Compact design, low weight
- High efficiency
- Low cogging

Technical data

Tab. 2

Description Motor 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	M_{max}	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	m_s	Kg	11	11
Mass Rotor	m_r	Kg	5,3	5,3
Cooling water flow	Ql	lt/min	5	5
Required cooling capacity	P_{cool}	Kw	1,6	2,2

Values of this catalogue are referred to the following conditions:

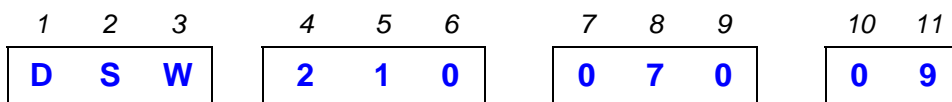
- Max Temperature ambient 40° C
- Min temperature ambient 0 °C
- Max Altitude 1000 m sl
- F insulation class, materials F e H
- RMS value
- Degree of Protection IP00
- Water Cooling
- Typical value, tolerance ±10%
- 100K Temperature increase on winding
- Integrated thermal protection

The following accessories are available on request:

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

Value of this catalogue can be changed without notice

Code composition frameless servomotors



Tab. 3

Pos.	Description
1-2	<p>Product DS= PM synchronous motor SPM version DI= PM synchronous motor IPM version DA= Asynchronous motor</p>
3	<p>Cooling type M= Self cooling F= Fan cooling W= Water cooling</p>
4-5-6	<p>External stator diametr</p>
7-8-9	<p>Active magnetic lenght</p>
10-11	<p>Special Custom Code 04= Japan version, 200 Vac 05= European Version, 400Vac</p>

Standard connection frameless servomotor

Tab. 4

Power connection		
<i>Function</i>	<i>Motor Cable Colour</i>	<i>Note</i>
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		
<i>Function</i>	<i>Cable Colour</i>	<i>R at 25°C</i>
KTY+	Red	600 Ω ±5%
KTY-	Black	
PTC130 trix	Blue-Blue	<250 Ω
PTC150 trix	Black-Black	

Tab.6

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

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