



AC TORQUE SERVOMOTORS - DAF.9



Size 9 brushless servomotors **DAF.9 - size NINE** are AC induction motors. They have been designed using latest generation materials to provide a low cost solution with very high performance and low torque ripple. Typically employed where high torque at low speed and a constant power wide operating range are required. Hollow shaft allows direct coupling with recirculating ball screws for DIRECT DRIVE applications with high stiffness and dynamic

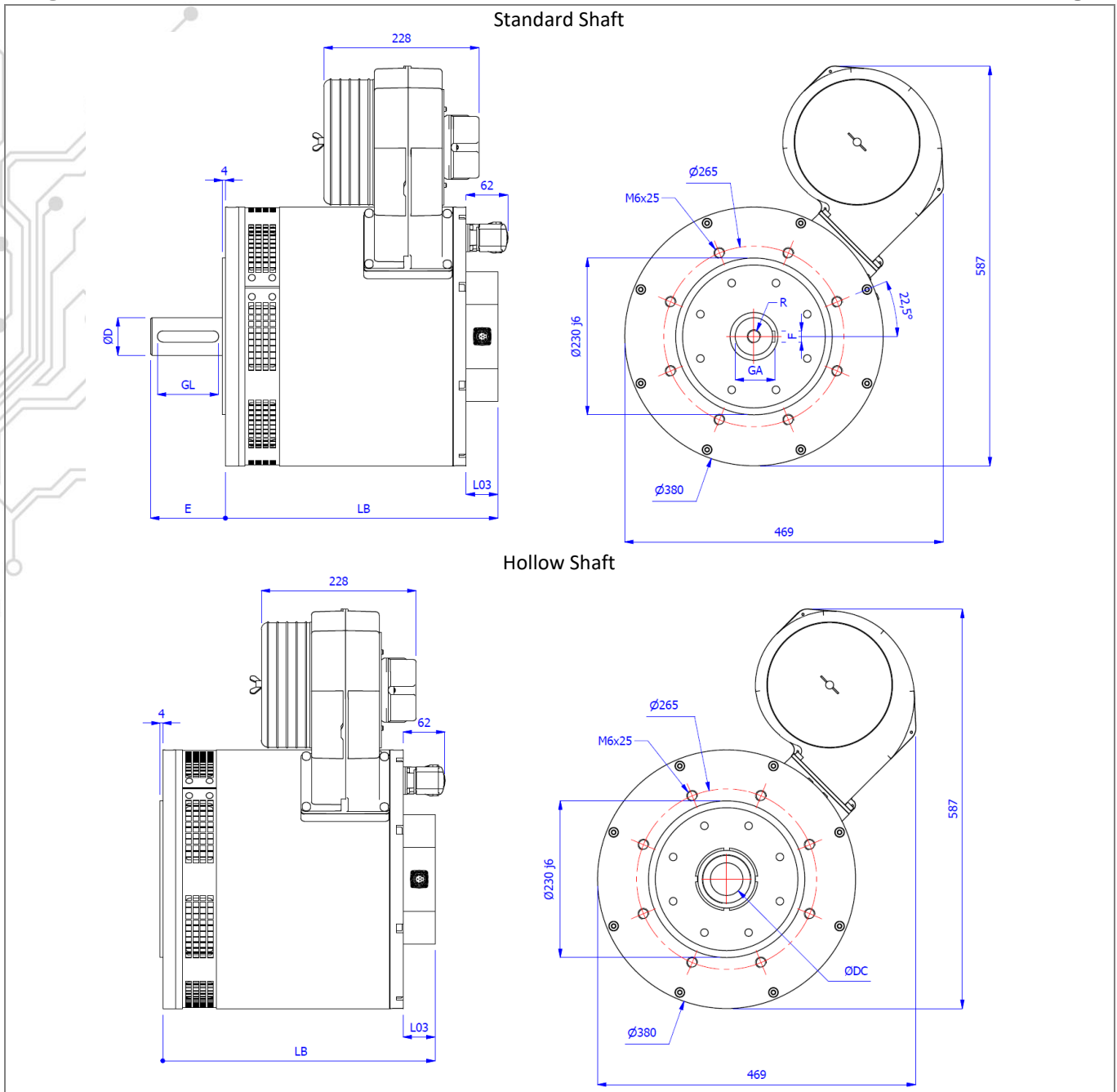
Their main characteristics are:

- 8 poles construction
- Integrated PTC/PT1000 thermal protection
- Rotable design
- Compact design
- Smooth finish
- Very low noise pollution

Tab. 1

Technical Data

Description Winding code	Symbol	Motor	DAF							
		Units	91.1		91.2		92.1		92.2	
Rated Torque	M_n	Nm	250				430			
Rated Voltage	U_n	V_{rms}	380							
Rated Current	I_n	A_{rms}	19		26		33		44	
Rated Speed	N_n	min^{-1}	310		457		344		471	
Rated Frequency	F_n	Hz	23,3		33,3		25		33,3	
Rated Power	P_n	kW	8,2		12		15,5		21	
No load Current	I_0	A_{rms}	5,7		7,5		11,5		16	
Maximum Torque	M_{max}	Nm	550		1050		550		1050	
Maximum Current	I_{max}	A_{rms}	60	80	80	120	60	80	80	120
Maximum mechanical Speed	N_{mec}	min^{-1}	3.000		2.500		3.000		2.500	
Maximum speed at 400 V_{rms}	N_{max}	min^{-1}	900	1000	900	1000	900	1000	900	1000
Rotor Inertia	J_r	$kg\ cm^2$	2.740		5.340		2.740		5.340	
Weight	m	kg	114		187		114		187	



Dimensions in mm

Tab. 2

Tab.3

FEEDBACK	Resolver		Encoder TTL	
DIMENSIONS	LB	L03	LB	L03
DAF.91	291	47	300	56
DAF.92	401		410	
DAF.91 FRENO	352	108	361	117
DAF.92 FRENO	462		471	

TG9	Shaft		
D	55k6	-	-
DC	-	48H7	60H7
E	110	-	-
GL	90	-	-
GA	59	-	-
F	16	-	-
R	M20x30	-	-

Information Bold data refers to standard version dimensions.

Values in this catalogue are true for the following conditions:

- Max ambient temperature 40° C
- Min ambient temperature 0 °C
- Max Altitude 1000 m (above sea level)
- Insulation class F (materials F & H)
- RMS values
- Insulation system in compliance with UL
- IP23 enclosure protection
- Motor Installation B5 – V5
- Forced cooling
- Typical tolerance value ±10%
- Maximum temperature rise 100K
- Aluminum flange test dimensions 457x457x15

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

NOMENCLATURE BREAKDOWN

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

POS.	DESCRIPTION
3	<p>Cooling system</p> <p>M= natural ventilation F= forced ventilation by radial coupled fan G2E146-DW07-10 (140 W) P= forced ventilation by remote fan MAP 200 (180 W) W= water cooled</p>
4	<p>Motor size</p> <p>Size Nine</p>
5	<p>Motor length</p> <p>1= M_{max} 550Nm 2= M_{max} 1050Nm</p>
6	<p>Voltage</p> <p>1= winding code 1 2= winding code 2</p>
7	<p>Holding brake</p> <p>0= no brake 2= spring brake 24V_{DC} ± 6%, M_{br}=46Nm P_{br}=40W m=4,5kg J_{br}=27,2kg cm</p>
8	<p>Feedback</p> <p>0= Sensorless 9= Resolver size 21 7V 10kHz 4= Encoder DBS60 2048 TTL</p>
9	<p>Connection type</p> <p>9= Connector M40 when motor current > 20A, feedback M23, rotatable 90°</p>
10-11	<p>Special version</p> <p>26 = Smooth shaft 70 = Hollow shaft D=48 H7 E4 = Hollow shaft D=60 H7 90 = PT1000 Thermal protection XX = Special Shaft and Flange (on request)</p>

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