

## Wet Brake

#### Planetary Gearbox

#### Hub Bearing

This "Axial Flux Motor" with PMSM structure has 9 sizes. Peak Power range is 62-1336 kW and can use on triple stack.





Moto	or, Axial Flu	x PMSM			Continuous	;		Peak			Electrical		Mechanical		
М	Nominal	External	Total	Torque	Speed	Power	Torque	Speed	Power	Stator	Rotor	Input	Ref.	Bearing	Oil
	Dia.	Width	Weight	-			-			Coils	Magnets	Cable	Dia.	Size	ΔT=20°C
#	Inches	mm	kg	Nm	RPM	kW	Nm	RPM	kW	#	#	mm2	DIN 5480	####	Lit/min
1	Ø08" ST		24	96		31	192		62			3x10			3
2	Ø10" ST	160	38	150	3000	48	300	6000	97	12	10	3x25	030-040	6208	4
3	Ø12" ST		55	216		70	432		139			3x35			6
4	Ø16" XS		121	384		99	768		198			3x50			9
5	ø20" XS	200	190	600	2400	155	1200	4800	309	18	16	3x70	040-050	6210	14
6	Ø24" XS		273	864		223	1728		445			3x95			20
7	Ø32" XS		607	1536		297	3072		594			3x120			27
8	Ø40" XS	250	949	2400	1800	464	4800	3600	928	24	22	3x185	050-080	6216	42
9	Ø48" XS		1366	3456		668	6912		1336			3x300			60

540 Volts AC, 2 Stators & 1 Rotor. Peak Power only for 30s, Continuous Torque & Power are 50% of Peaks.
Torques & RPMs between Continuous & Peak can be used Continuously when Power is less than 40% of Peak Power.

Motor is Stage 1. Hub min hardness is 60RC.



# Wet Brake

#### Planetary Gearbox

#### Hub Bearing

	Drive	e, FOC, 0-	500 Volts					
	D	Peak Power	Input Voltage	Overal Length	Overal Width	Overal Height	Input Cable	Total Weight
	#	kW	V DC	mm	mm	mm	mm2	kg
	1	62					4x10	
	2	97 139	540±5%	350	250	140	4x25 4x35	13
_	3							
	4 5	198 309	540±5%	400	300	160	4x50 4x70	20
	6	445	3401370	400	300	100	4x95	20
	7	594					4x120	
	8	928	540±5%	450	350	180	4x185	29
	9	1336					4x300	

Peak Power only for 30s, Continuous Power is 50% of Peak. Brake efficiency is 80%.

This "FOC Drive" with IGBT switching has 9 sizes.

Peak Power range is 62-1336 kW.





### Axial Motor



# FOC Drive

### Wet Brake

#### Planetary Gearbox

#### Hub Bearing

Gearbox C	Combi Ratio					
Stage 1	Stage	2		Stage	3	
			Ratio7	Ratio8	Ratio9	
			4.00	3.25	2.50	-
	Ratio4	4.67	112.00	91.00	70.00	28.00
Ratio1	Ratio5	3.75	90.00	73.13	56.25	22.50
6.00	Ratio6	2.69	64.62	52.50	40.38	16.15
			24.00	19.50	15.00	6.00
	Ratio4	4.67	98.67	80.17	61.67	24.67
Ratio2	Ratio5	3.75	79.29	64.42	49.55	19.82
5.29	Ratio6	2.69	56.92	46.25	35.58	14.23
			21.14	17.18	13.21	5.29
	Ratio4	4.67	56.00	45.50	35.00	14.00
Ratio3	Ratio5	3.75	45.00	36.56	28.13	11.25
3.00	Ratio6	2.69	32.31	26.25	20.19	8.08
			12.00	9.75	7.50	3.00
	Ratio4	4.67	18.67	15.17	11.67	4.67
-	Ratio5	3.75	15.00	12.19	9.38	3.75
	Ratio6	2.69	10.77	8.75	6.73	2.69
			4.00	3.25	2.50	1.00



This "Planetary Gearbox" has 9 ratios for each motor size with capability of triple stages. Peak Power range is 62-3x1336 kW.

Gea	irbox. Stage	2				Shaft-	Hub			Ratio	1	Ratio	2	Ratio	3
G #	Nominal Dia. Inches	Peak Torque Nm	Internal Dia. mm	Gear Width mm	Total Width mm	Ref. DIN Input	Dia. 5480 Output	Gearbox Weight kg	Gears Module mm	Teeth Number	Gearbox Ratio	Teeth Number	Gearbox Ratio	Teeth Number	Gearbox Ratio
1 2 3	62 97 139	192 300 432	Ø0205 Ø0253 Ø0304	20	90	030-040		12		18:36:090	6.00	21:34:090	5.29	45: 22: 090	3.00
4 5 6	198 309 445	768 1200 1728	Ø0402 Ø0503 Ø0605	20	110	040-050	050-080	54 85 123	4.0	18:36:090	6.00	21:34:090	5.29	45:22:090	3.00
7 8 9	594 928 1 336	3072 4800 6912	Ø0808 Ø1011 Ø1215	20	150	050-080	080-120	300 470 678	8.0	18:36:090	6.00	21:34:090	5.29	45:22:090	3.00

Example: G42 = 198 kW, Ratio 5.29

Planet numbers: 3

Gear	rbox. Stage	: 3				Shaft- Hub		Ratio	4	Ratio 5		Ratio 6			
G	Nominal Dia.	Peak Torque	Internal Dia.	Gear Width	Total Width		5480	Gearbox Weight	Gears Module	Teeth Number	Gearbox Ratio	Teeth Number	Gearbox Ratio	Teeth Number	Gearbox Ratio
#	Inches	Nm	mm	mm	mm	Input	Output	kg	mm	#	#	#	#	#	#
1	62	192	Ø0205					17							
2	97	300	Ø0253	40	130	040-050	050-080	25	2.0	24:32:088	4.67	32:28:088	3.75	52:18:088	2.69
3	139	432	Ø0304					37							
4	198	768	Ø0402					84							
5	309	1200	Ø0503	40	170	050-080	080-120	132	4.0	24:32:088	4.67	32:28:088	3.75	52:18:088	2.69
6	445	1728	Ø0605					191							
7	594	3072	Ø0808					480							
8	928	4800	Ø1011	40	240	080-120	120-180	751	8.0	24:32:088	4.67	32:28:088	3.75	52:18:088	2.69
9	1336	6912	Ø1215					1085							

Example: G73 G76 = 594 kW, Ratio 3.00x2.69=8.07

Planet numbers: 4

Gear	rbox. Stage					Shaft-				Ratio	7	Ratio	8	Ratio	9
G #	Nominal Dia. Inches	Peak Torque Nm	Internal Dia. mm	Gear Width mm	Total Width mm	Ref. DIN Input		Gearbox Weight kg	Gears Module mm	Teeth Number #	Gearbox Ratio	Teeth Number	Gearbox Ratio	Teeth Number	Gearbox Ratio #
1 2 3	62 97 139	192 300 432	Ø0205 Ø0253 Ø0304	80	210	050-080	080-120	27		30:30:090	4.00	40:25:090	3.25	60:15:090	2.50
4 5 6	198 309 445	768 1200 1728	Ø0402 Ø0503 Ø0605	80	280	080-120	120-180	314	4.0	30:30:090	4.00	40:25:090	3.25	60:15:090	2.50
7 8 9	594 928 1336	3072 4800 6912	Ø0808 Ø1011 Ø1215	80	380	120-180	180-240	760 1190 1718	8.0	30:30:090	4.00	40:25:090	3.25	60:15:090	2.50

Example: G21 G24 G29 = 97 kW, Ratio 6.00x4.67x2.50=70.05

Planet numbers: 5

Carrier is double sided.

Hubs & Gears min Hardness is 60RC. Triple Motors is available for all Stages.

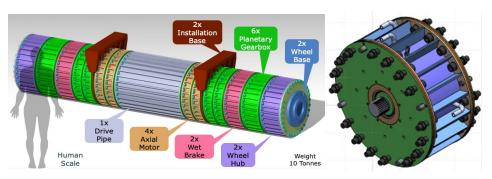
General Notes: All the Bearings are 618##. Ring Gear on G2&G3 G5&G6 G8&G9 connected to Casing with a Rim.



Wet Brake

Planetary Gearbox

Hub Bearing This "Hydraulic Wet Brake" multi pad structure has 9 sizes in 4 stages. Peak Braking Torque range is 1-215 kNm.



Brake, St	age 1					
B #	Shaft-Hub Ref. Dia. DIN 5480	Total Width mm	Total Weight kg	Pad Numbers #	Hydraulic Piston mm	Brake Torque kNm
11 21 31	030-040	170	22 34 48	02	04xø032	1.0 1.2 1.5
41 51 61	040-050	200	101 158 228	03	04xø060	10 13 15
71 81 91	050-080	220	445 696 1002	04	06xø100	114 143 172
81		220	696	04	06xø100	143

Brake. St						
#	Shaft-Hub Ref. Dia. DIN 5480	Total Width mm	Total Weight kg	Pad Numbers #	Hydraulic Piston mm	Brake Torque kNm
13 23 33	050-080	220	28 43 63	05	06xø32	4 5 6
43 53 63	080-120	250	126 198 285	07	08xø40	21 27 32
73 83 93	120-180	280	567 885 1275	08	10xø50	95 119 143
Install Aft	er Gearbox	Stage3.				

B #	Shaft-Hub Ref. Dia. DIN 5480	Total Width mm	Total Weight kg	Pad Numbers #	Hydraulic Piston mm	Brake Torque kNm
12 22 32	040-050	200	25 40 57	04	05xø32	3 3 4
42 52 62	050-080	220	111 174 250	05	06xø40	11 14 17
72 82 92	080-120	250	506 790 1138	06	08xø50	57 71 86

Brake. S B #	Shaft-Hub Ref. Dia. DIN 5480	Total Width mm	Total Weight kg	Pad Numbers #	Hydraulic Piston mm	Brake Torque kNm
14 24 34	080-120	250	32 49 71	07	07xø32	6 7 9
44 54 64	120-180	280	142 221 319	09	10xø40	34 43 51
74 84 94	180-240	300	607 949 1366	10	12xø50	143 179 215

Brake, G	eneral Spec		
Peak	Nominal	Pad	Pad
Power	Dia.	Ext Dia	Int Dia
kW	Inches	mm	mm
62	Ø08" ST	185	130
97	Ø10" ST	228	152
139	Ø12" ST	274	182
198	Ø16" XS	362	241
309	Ø20" XS	453	302
445	Ø24" XS	545	363
594	Ø32" XS	727	485
928	Ø40" XS	910	607
1336	Ø48" XS	1094	729

All the Bearings are 618## Rubber Seal: DIN 3760 Hub min. Hardness is 60RC.

www.javaneh.ir

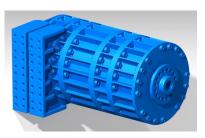


## Wet Brake

#### Planetary Gearbox

#### Hub Bearing

This "Hub Bearing" double bearing structure has 9 sizes in 4 stages. Peak Load range is 2x9-2x320 kN for 1 Bilion Rev.





Hub. Stac				Hub. Stage 1										
т #	Peak Power kW	Nominal Dia. Inches	Shaft-Hub Ref. Dia. DIN 5480	Hub Bearings 313##	Load 1 BRev kN	Total Width mm	Total Weight kg							
11 21 31	62 97 139	Ø08" ST Ø10" ST Ø12" ST	030-040	31308	9	150	19 30 43							
41 51 61	198 309 445	Ø16" XS Ø20" XS Ø24" XS	040-050	31312	18	170	86 134 194							
71 81 91	594 928 1336	Ø32" XS Ø40" XS Ø48" XS	050-080	31320	62	200	405 632 911							
Install aft	er motor o	or Brake St	age1.											

Hub. Stage 3									
# H	Peak Power kW	Nominal Dia. Inches	Shaft Ref. Dia. DIN 5480		Load 1 BRev kN	Total Width mm	Total Weight kg		
13 23 33	62 97 139	Ø08" ST Ø10" ST Ø12" ST	050-080	31320	62	200	25 40 57		
43 53 63	198 309 445	Ø16" XS Ø20" XS Ø24" XS	080-120	31328	74	250	126 198 285		
73 83	594 928	Ø32" XS Ø40" XS	120-180	31340	140	300	607 949		

Hub. Stac	ie 2						
Н	Peak Power		Ref. Dia.	Hub Bearing	Load 1 BRev	Total Width	Total Weight
#	kW	Inches	DIN 5480	313##	kN	mm	kg
12	62	Ø08" ST					22
22	97	Ø10" ST	040-050	31312	18	170	34
32	139	Ø12" ST					48
42	198	Ø16" XS					101
52	309	Ø20" XS	050-080	31320	62	200	158
62	445	Ø24" XS					228
72	594	Ø32" XS					506
82	928	Ø40" XS	080-120	31328	74	250	790
92	1336	Ø48" XS					1138
Install after Gearbox Stage2 or Brake Stage2.							

Hub. Stage 4								
н	Peak Power		Ref. Dia.	Hub Bearing	Load 1 BRev	Total Width	Total Weight	
#	kW	Inches	DIN 5480	####	kN	mm	kg	
14 24 34	62 97 139	Ø08" ST Ø10" ST Ø12" ST	080-120	31328	74	250	32 49 71	
44 54 64	198 309 445	Ø16" XS Ø20" XS Ø24" XS	120-180	31340	140	300	152 237 341	
74 84 94	594 928 1336	Ø32" XS Ø40" XS Ø48" XS	180-240	31360	320	350	708 1107 1594	

Install after Gearbox Stage4 or Brake Stage4.

General Notes: Rubber Seal: DIN 3760

Hub min. Hardness is 60RC.