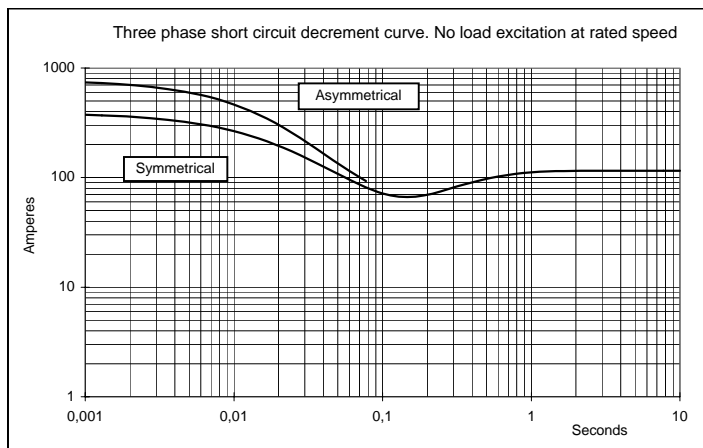
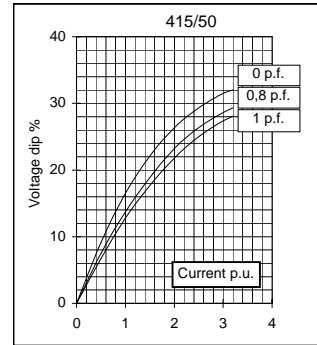
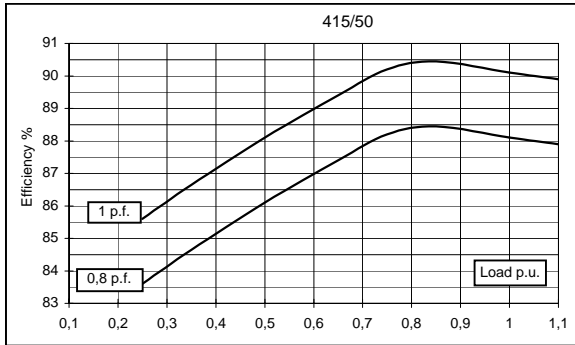
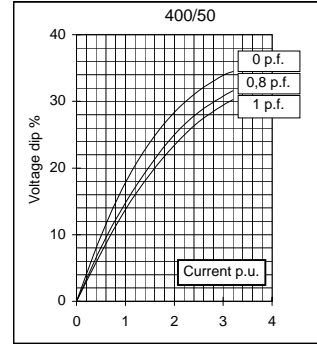
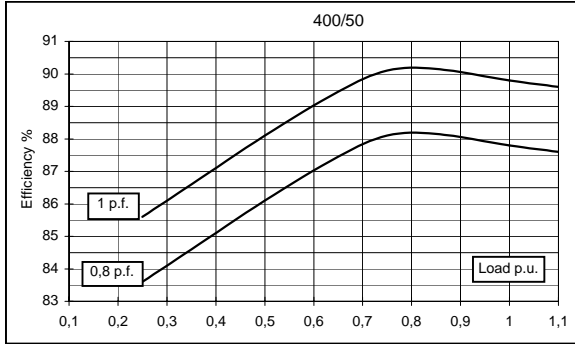
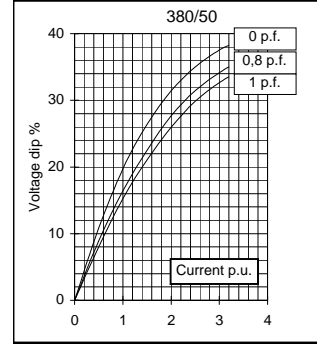
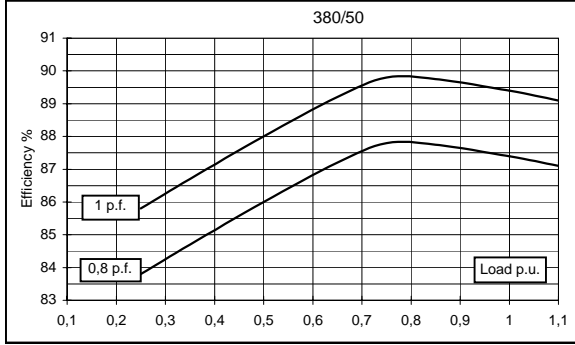
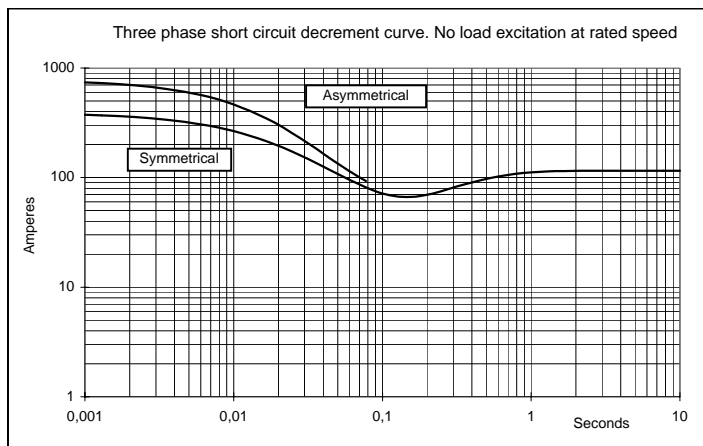
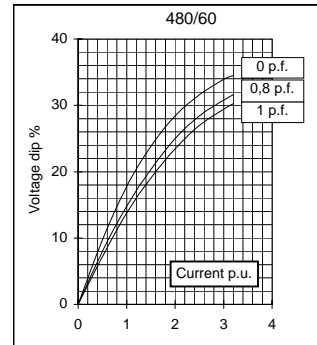
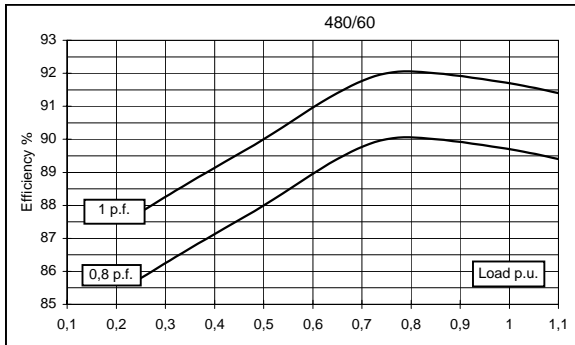
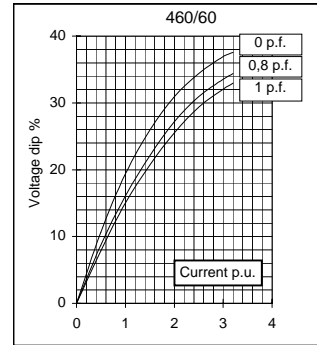
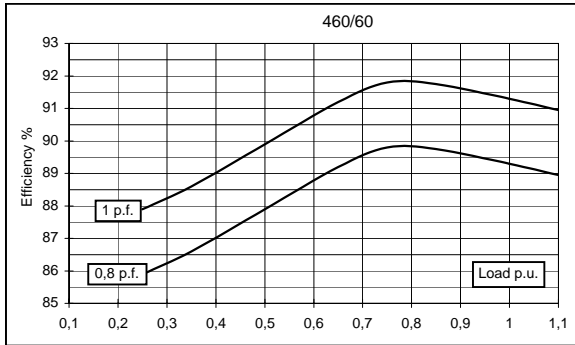
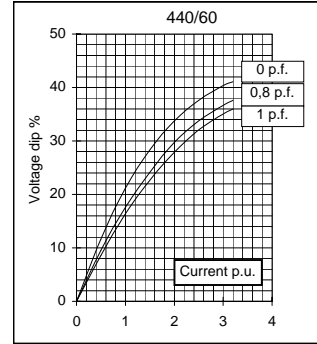
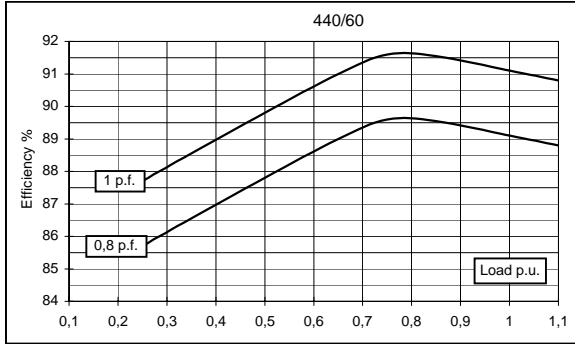
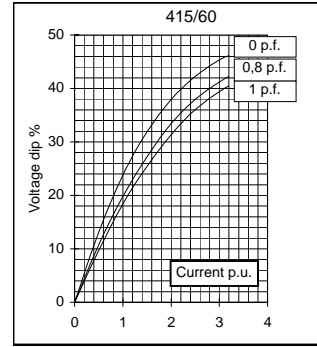
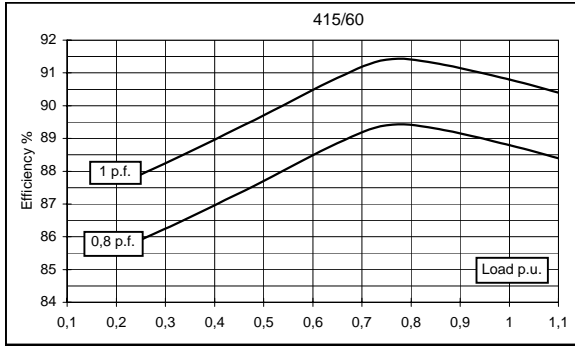


<b>Electrical Characteristics</b>										
Frequency	Hz	50				60				
Voltage (series star)	V	380	400	415	440	415	440	460	480	
Rated power class H	kVA	25	25	25	-	26	27,5	30	30	
	kW	20	20	20	-	20,8	22	24	24	
Rated power class F	kVA	23	23	23	-	24	25,5	27,5	27,5	
	kW	18,4	18,4	18,4	-	19,2	20,4	22	22	
Regulation with	SR7/2	±1,5 % with any power factor and speed variations between -5% +30%								
Insulation class		H								
Execution		Brushless								
Stator winding		12 ends								
Rotor		without damping cage								
Efficiencies class H	4/4	%	87,4	87,8	88,1	-	88,8	89,1	89,3	89,7
(see graph. for details)	3/4	%	87,8	88,1	88,2	-	89,4	89,6	89,8	90
	2/4	%	86	86,1	86,1	-	87,7	87,8	87,9	88
	1/4	%	83,8	83,6	83,6	-	85,9	85,7	85,9	85,8
Reactances (f. l.cl. F)	Xd	%	205,0	185	171,9	-	214,5	201,8	201,4	185
	Xd'	%	17,95	16,2	15,05	-	18,78	17,67	17,64	16,2
	Xd''	%	10,19	9,2	8,55	-	10,67	10,04	10,02	9,2
	Xq	%	84,2	76	70,6	-	88,1	82,9	82,8	76
	Xq'	%	84,2	76	70,6	-	88,1	82,9	82,8	76
	Xq''	%	23,3	21	19,5	-	24,3	22,9	22,9	21
	X <sub>2</sub>	%	15,18	13,7	12,73	-	15,88	14,95	14,92	13,7
	X <sub>0</sub>	%	3,43	3,1	2,88	-	3,59	3,38	3,38	3,1
Short Circuit Ratio	Kcc		0,50	0,58	0,80	-	0,38	0,43	0,50	0,58
Time Constants	Td'	sec.	0,047							
	Td''	sec.	0,013							
	Tdo'	sec.	0,93							
	Tα	sec.	0,011							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load	Amp.		0,45	0,6	0,7	-	0,3	0,4	0,5	0,55
Excitation at full load	Amp.		1,4	1,6	1,8	-	1,3	1,4	1,5	1,6
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)	Ω		0,128							
Rotor Winding Resistance (20°C)	Ω		1,67							
Exciter Resistance (20 °C)	Ω		Rotor : 0,417				Stator : 10,60			
Heat dissipation at f.l.cl.H	W		2883	2779	2701	-	2623	2691	2876	2756
Telephone Interference			FHT < 2%				TIF < 45			
Radio interference			EN60034-1. For others standards apply to factory							
Waveform Distors.(THD) at f. load	LL/LN %		2 / 2							
Waveform Distors.(THD) at no load	LL/LN %		3,4 / 3,2							
<b>Mechanical characteristics</b>										
Protection			IP 23 (other protection on request)							
DE bearing			6309-2RS							
NDE bearing			6209-2RS							
Weight of wound stator assembly	kg		50							
Weight of wound rotor assembly	kg		27							
Weight of complete generator	kg		139							
Maximun overspeed	rpm		2250							
Unbalanced magnetic pull at f.l.cl.F	kN/mm		4,5							
Cooling air requirement	m³/min		5,3				5,8			
Inertia Constant (H)	sec.		0,082				0,099			
Noise level at 1m/7m	dB(A)		68 / 57				71 / 61			

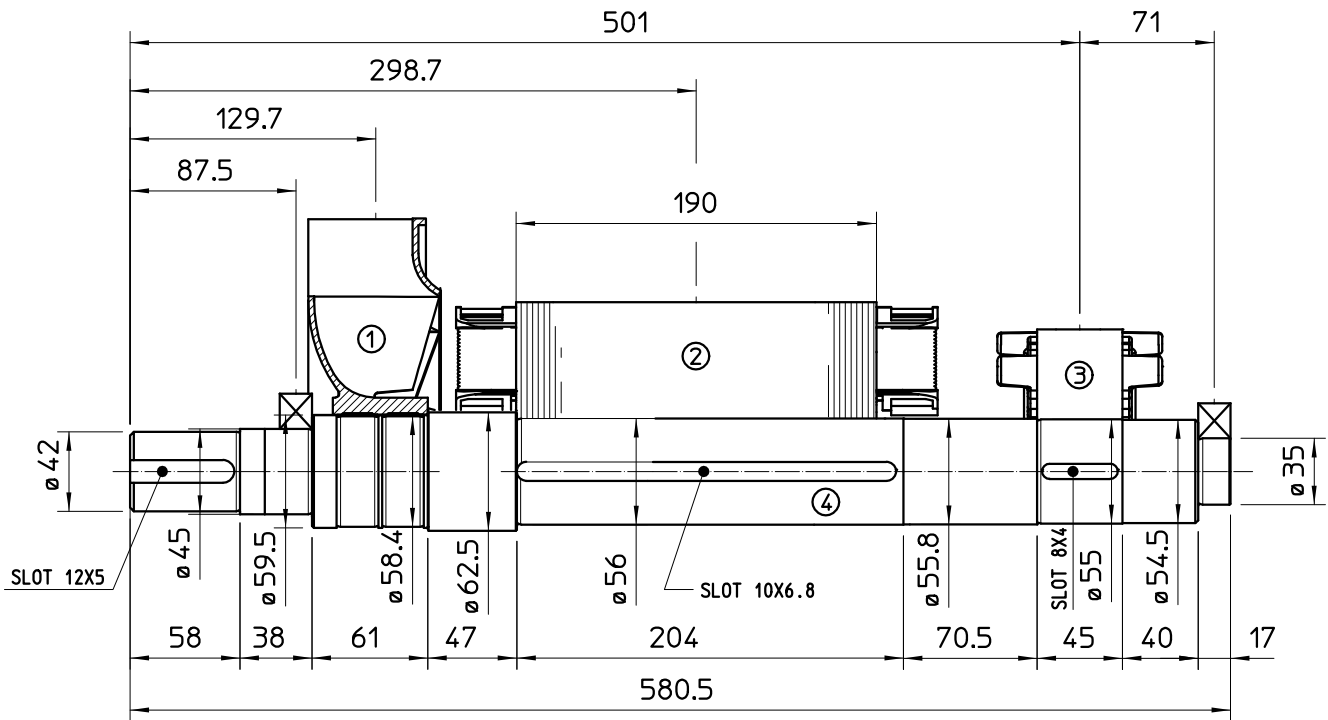
**50 Hz**



**60 Hz**

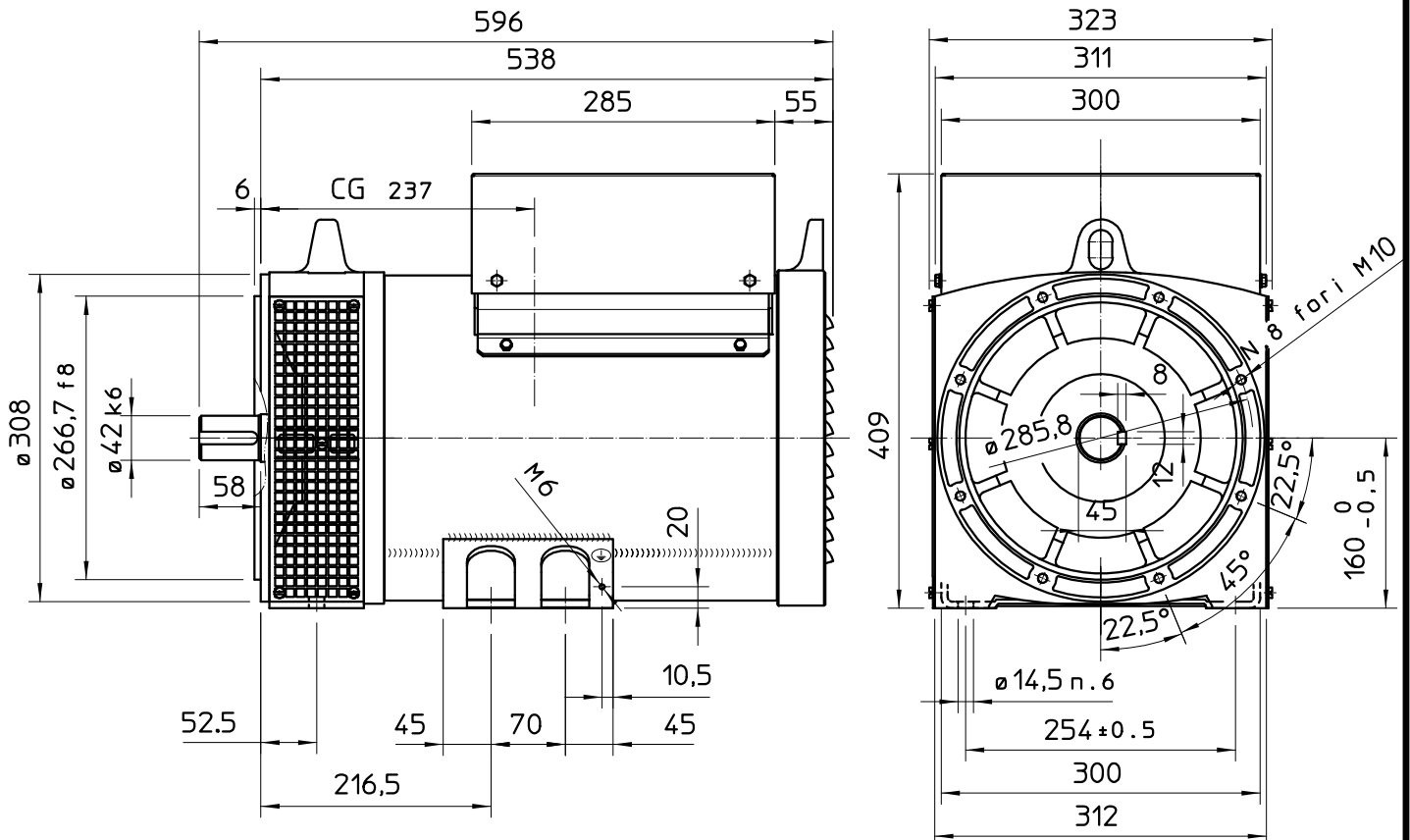


## TWO BEARING MOMENTS OF INERTIA

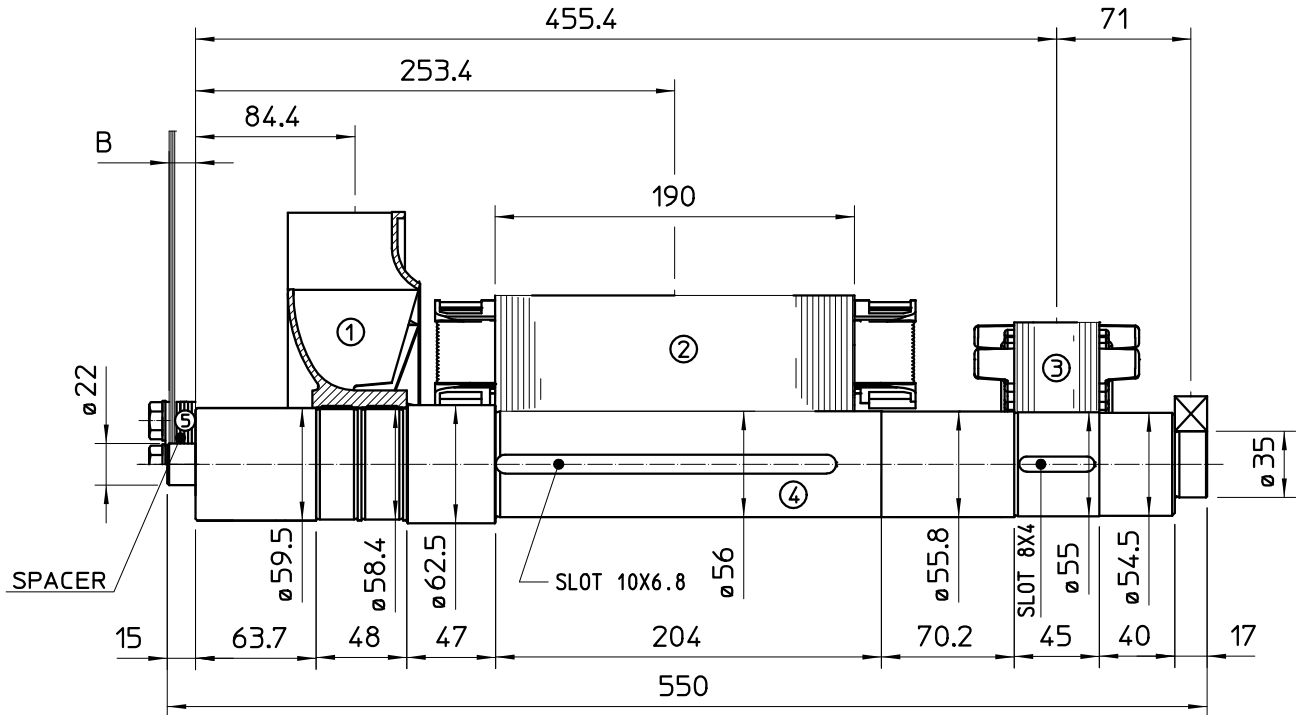


COMPONENT	WEIGHT Kg	J Kg <sup>m</sup> <sup>2</sup>
1 FAN	1.2	0.0102
2 MAIN ROTOR	26.8	0.117
3 EX ROTOR	5.4	0.012
4 SHAFT	10.6	0.004
6 TOTAL	44	0.1432

## TWO BEARING DIMENSIONS



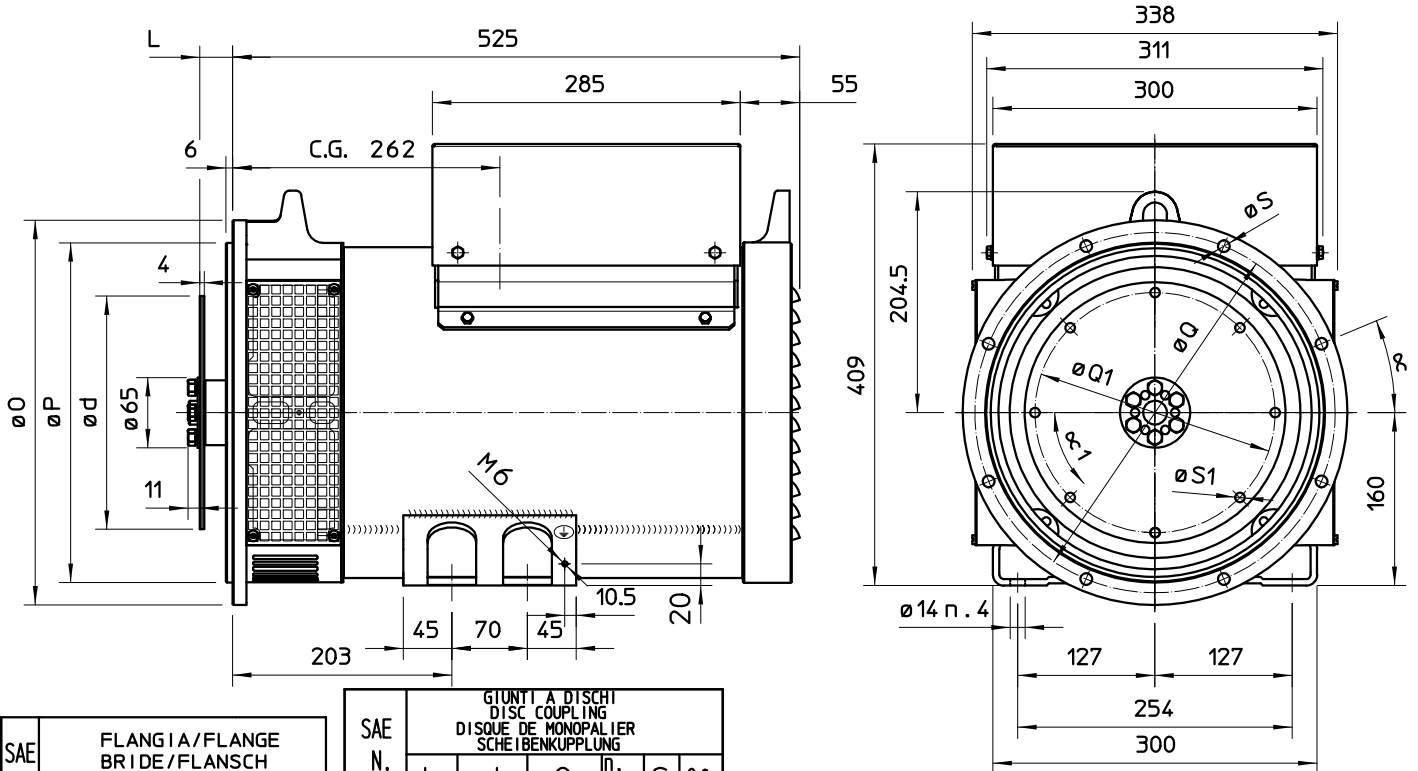
# SINGLE BEARING MOMENTS OF INERTIA



COMPONENT	WEIGHT Kg	J Kgm <sup>2</sup>
1 FAN	1.2	0.0102
2 MAIN ROTOR	26.8	0.117
3 EX ROTOR	5.4	0.012
4 SHAFT	10.5	0.0041
6 TOTAL	43.9	0.1433

SAE N.	5	SHAFT COUPLING FLEX PLATE	
	B(mm)	WEIGHT kg	J kgm <sup>2</sup>
6 1/2	4	1.14	0.0067
7 1/2	4	1.42	0.0103
8	35.6	1.97	0.0171
10	27.6	2.59	0.0319
11 1/2	14	3.1	0.0481

# SINGLE BEARING DIMENSIONS



SAE N.	FLANGIA/FLANGE BRIDE/FLANSCH					
	O	P	Q	n. fori	S	α
5	356	314.3	333.4	8	11	22°30'
4	403	362	381	12	11	15°
3	451	409.6	428.6	12	11	15°
2	489	447.7	466.7	12	11	15°

SAE N.	GIUNTI A DISCHI DISC COUPLING DISQUE DE MONOPALIER SCHEIBENKUPPLUNG						
	L	d	Q1	n. fori	S1	α1	
6 1/2	30.2	215.9	200	6	9	60°	
7 1/2	30.2	241.3	222.25	8	9	45°	
8	62	263.52	244.47	6	11	60°	
10	53.8	314.32	295.27	8	11	45°	
11 1/2	39.6	352.42	333.37	8	11	45°	

C.G. = GRAVITY CENTER