



GENERATOR TYPE ECO 40-VL/4

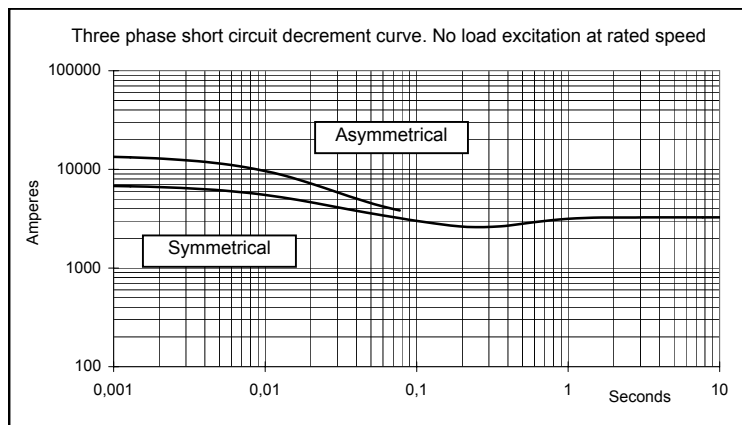
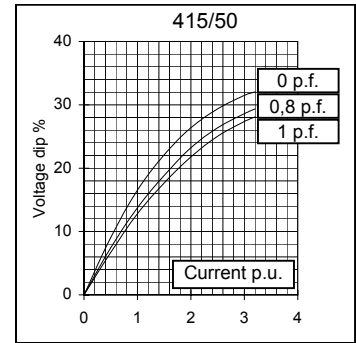
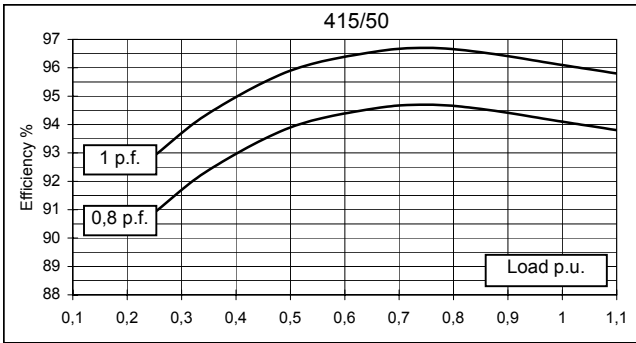
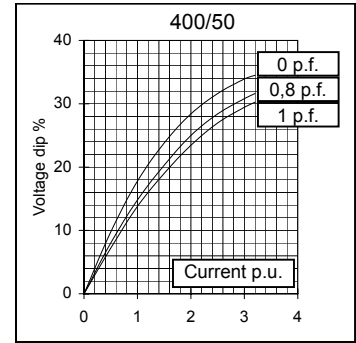
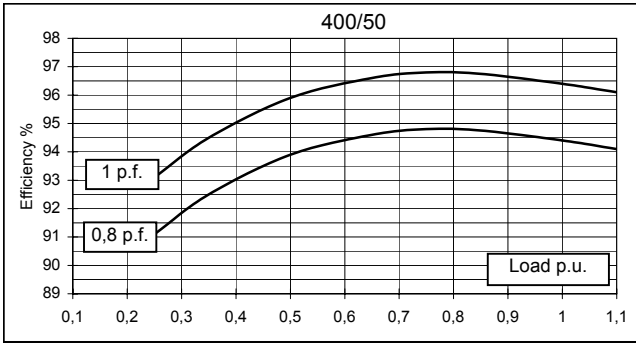
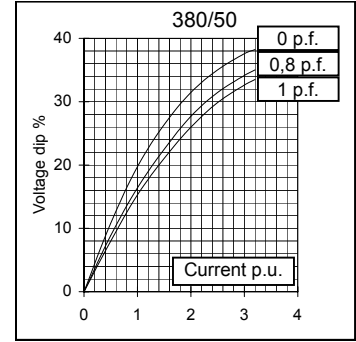
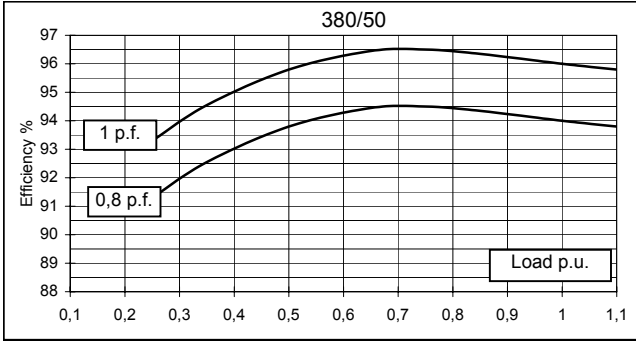
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Electrical Characteristics										
Frequency	Hz	50				60				
Voltage (parallel star)	V	380	400	415	440	415	440	460	480	
Rated power class H	kVA	720	720	710	-	830	865	865	865	
	kW	576	576	568	-	664	692	692	692	
Rated power class F	kVA	660	660	650	-	760	800	800	800	
	kW	528	528	520	-	608	640	640	640	
Regulation with	DSR	±1% with any power factor and speed variations between -5% +30%								
Insulation class		H								
Execution		Brushless								
Stator winding		12 ends								
Rotor		with damping cage								
Efficiencies class H	4/4	%	94	94,4	94,1	-	95,3	95,8	95,9	96
(see graph. for details)	3/4	%	94,5	94,8	94,7	-	96,2	96,4	96,5	96,8
	2/4	%	93,8	93,9	93,9	-	95,5	95,6	95,7	95,8
	1/4	%	91,3	91,1	90,9	-	92,2	92,3	92,3	92,2
Reactances (f. l.cl. F)	Xd	%	241,9	218,3	200,0	-	280,2	259,8	237,7	218,3
	Xd'	%	25,2	22,7	20,8	-	29,1	27,0	24,7	22,7
	Xd''	%	15,3	13,8	12,6	-	17,7	16,4	15,0	13,8
	Xq	%	139,2	125,6	115,1	-	161,2	149,5	136,8	125,6
	Xq'	%	139,2	125,6	115,1	-	161,2	149,5	136,8	125,6
	Xq''	%	18,6	16,8	15,4	-	21,6	20,0	18,3	16,8
	X ₂	%	16,8	15,2	13,9	-	19,5	18,1	16,6	15,2
	X ₀	%	2,55	2,3	2,11	-	2,95	2,74	2,50	2,3
Short Circuit Ratio	Kcc		0,63	0,59	0,54	-	0,70	0,65	0,63	0,59
Time Constants	Td'	sec.	0,128							
	Td''	sec.	0,0145							
	Tdo'	sec.	2,95							
	Tα	sec.	0,043							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load	Amp.		1,3	1,48	1,55	-	0,9	1,05	1,2	1,4
Excitation at full load	Amp.		3,9	4,01	4,2	-	3,6	3,7	3,8	4
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20 °C)	Ω		0,0104							
Rotor Winding Resistance (20 °C)	Ω		1,592							
Exciter Resistance (20 °C)	Ω		Rotor : 0,050				Stator : 8,85			
Heat dissipation at f.l.cl.H	W		36766	34169	35613	-	32747	30338	29585	28833
Telephone Interference			THF < 2%				TIF < 40			
Radio interference			EN61000-6-3, EN61000-6-1. For others standards apply to factory							
Waveform Distors.(THD) at f. load	LL/LN %		2,2 / 2,2							
Waveform Distors.(THD) at no load	LL/LN %		2,5 / 2,5							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6322							
NDE bearing			6318.2RS							
Weight of wound stator assembly	kg		685							
Weight of wound rotor assembly	kg		449							
Weight of complete generator	kg		1693							
Maximun overspeed	rpm		2250							
Unbalanced magnetic pull at f.l.cl.F	kN/mm		6,9							
Cooling air requirement	m³/min		54				64,8			
Inertia Constant (H)	sec.		0,170				0,203			
Noise level at 1m/7m	dB(A)		94 / 82				98 / 88			

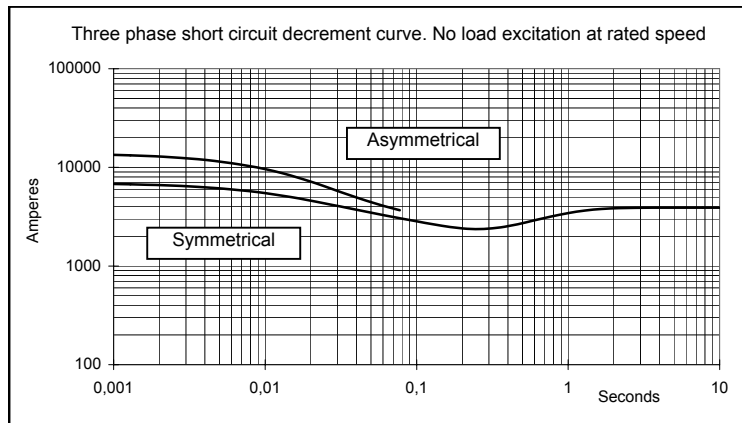
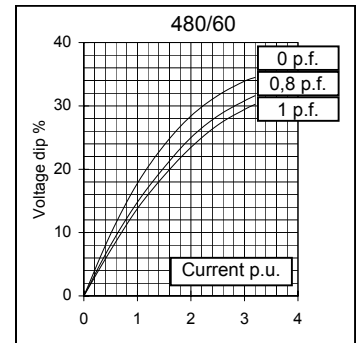
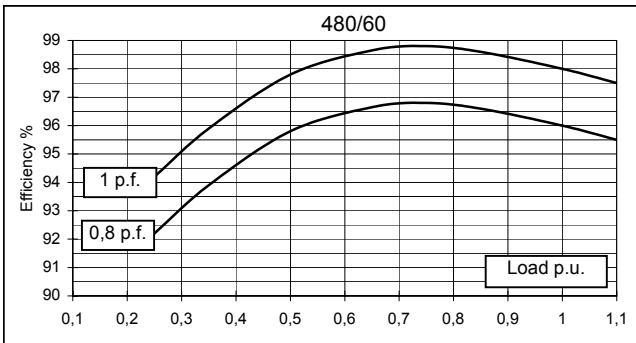
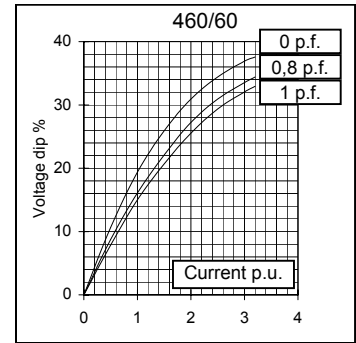
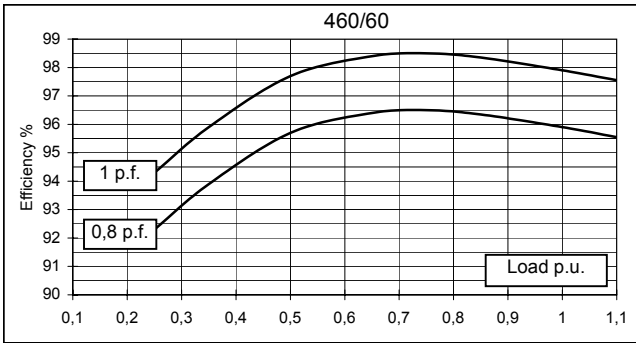
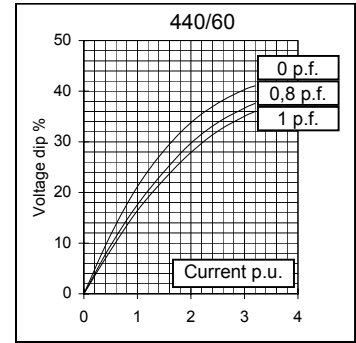
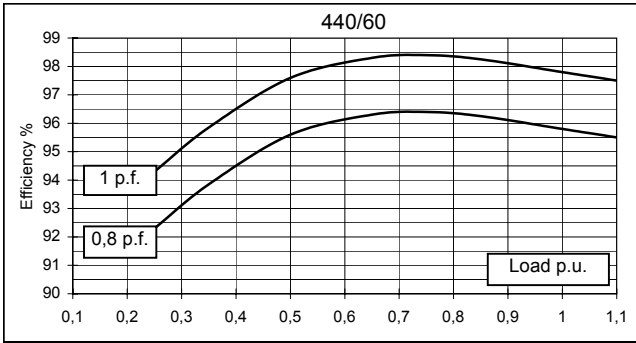
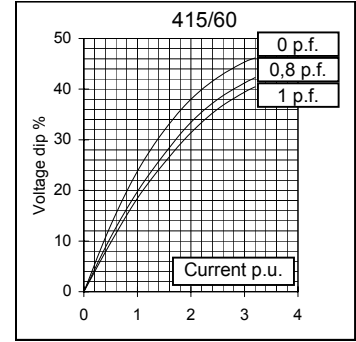
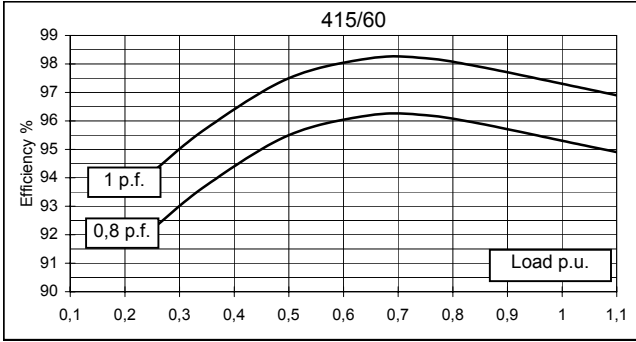
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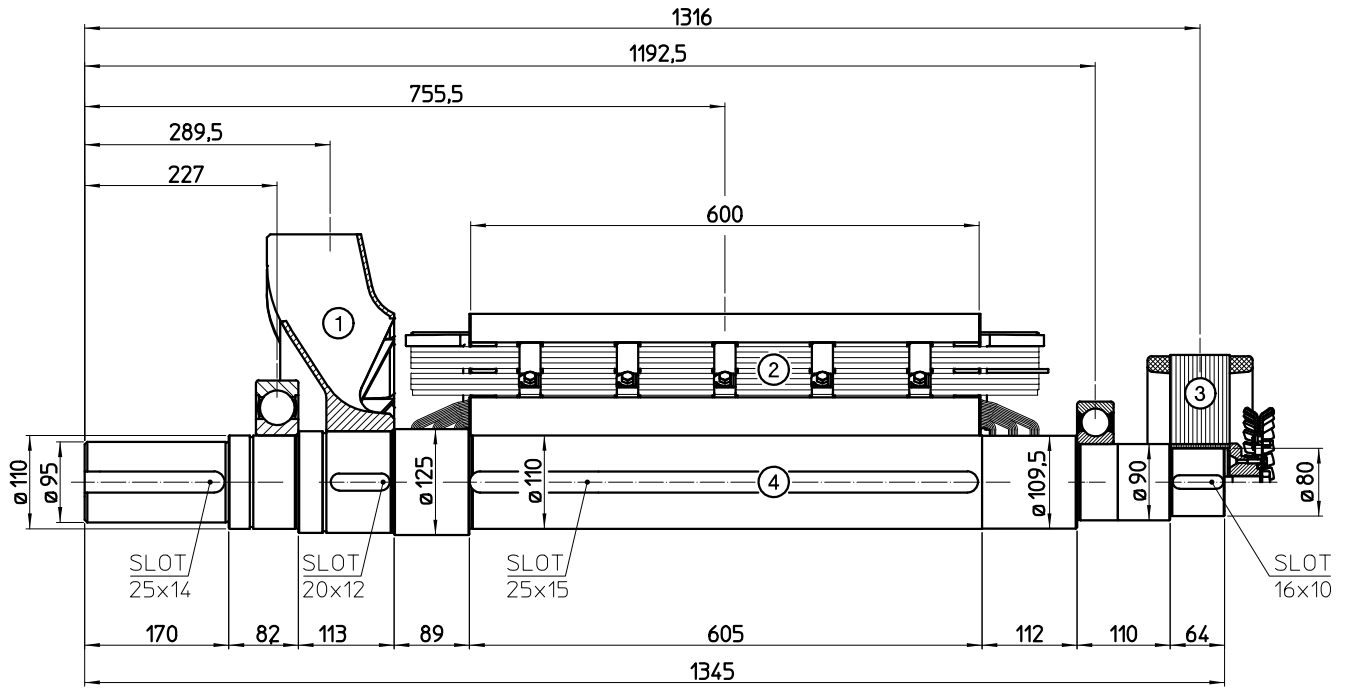
50 Hz



60 Hz

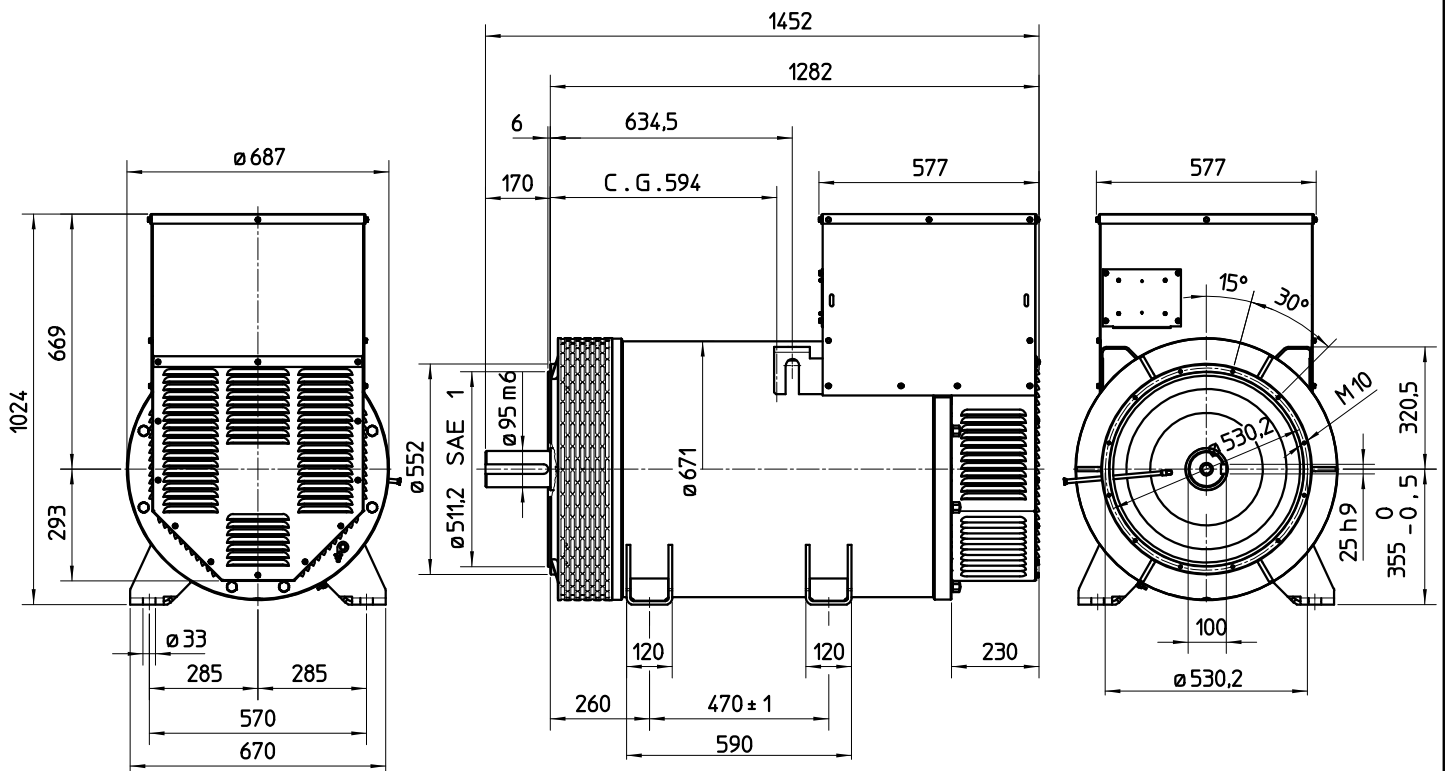


TWO BEARING MOMENTS OF INERTIA

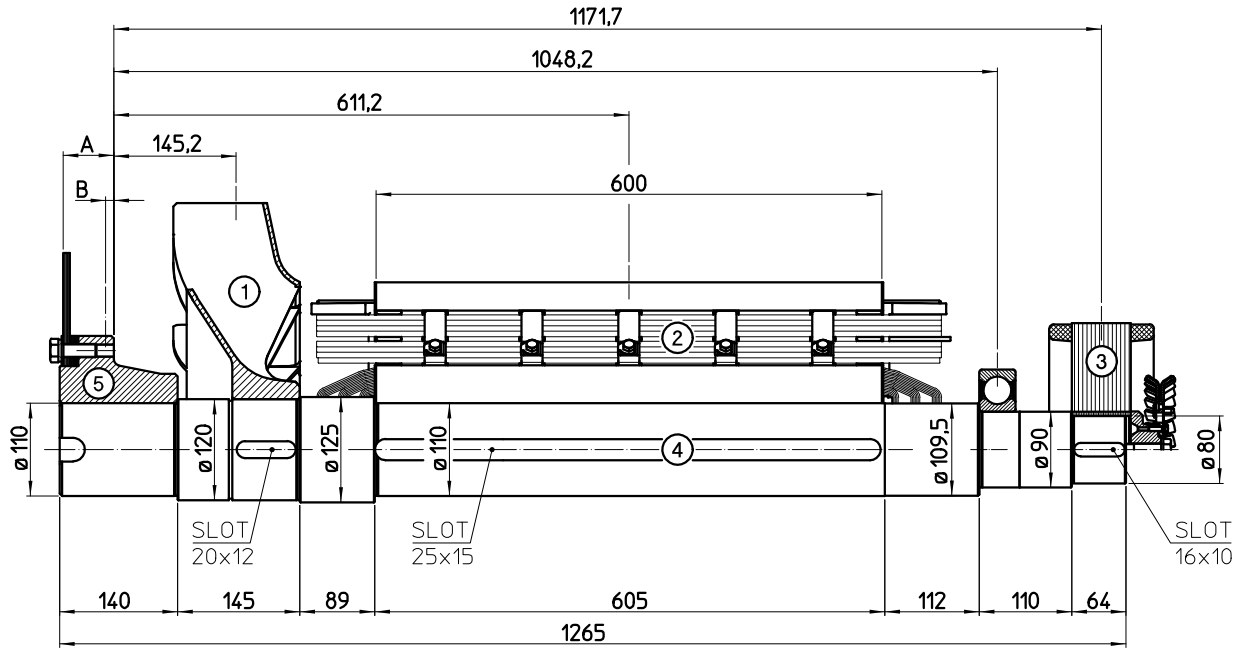


COMPONENT	WEIGHT kg	J kgm ²
1 FAN	10,2	0,335
2 MAIN ROTOR	449	8,838
3 EX. ROTOR	35	0,562
4 SHAFT	93,7	0,139
TOTAL	587,9	9,874

TWO BEARING DIMENSIONS



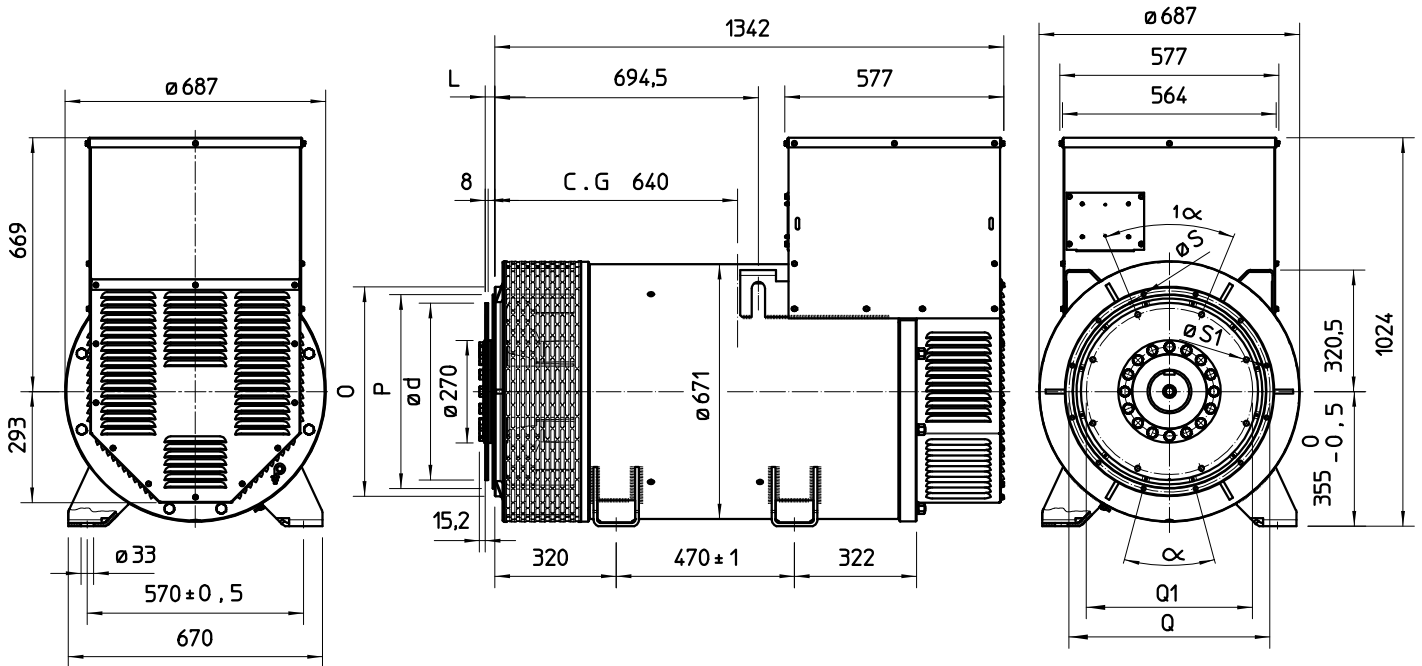
SINGLE BEARING MOMENTS OF INERTIA



COMPONENT	WEIGHT kg	J kgm ²
1 FAN	10,2	0,335
2 MAIN ROTOR	449	8,838
3 EX. ROTOR	35	0,562
4 SHAFT	91,6	0,140
TOTAL	585,8	9,875

Sae No	A	B	WEIGHT kg	J kgm ²
14	60	9,6	41,4	0,511
18	50	6,6	45,1	0,858

SINGLE BEARING DIMENSIONS



SAE N.	FLANGIA / FLANGE BRIDE / FLANSCH					
	O	P	Q	N. FORI	S	α
1	552	511,2	530,2	12	11	30°
1/2	648	584,2	619,1	12	14	30°
0	711	647,7	679,5	16	14	22,5°
00	883	787,4	850,9	16	14	22,5°

VOL. N.	GIUNTI A DISCHI / DISC COUPLING DISQUE DE MONOPALIER / SCHEIBENKUPPLUNG					
	L	d	Q1	N. FORI	S1	α1
14	25,4	466,72	438,15	8	14	45°
18	15,7	571,5	542,92	6	17	60°

C.G.= GRAVITY CENTER