

Electrical Characteristics										
Frequency	Hz	50				60				
Voltage (parallel star)	V	380	400	415	440	415	440	460	480	
Rated power class H	kVA	400	400	400	370	420	450	480	480	
	kW	320	320	320	296	336	360	384	384	
Rated power class F	kVA	370	370	370	342	383	410	440	440	
	kW	296	296	296	274	306	328	352	352	
Regulation with	DER1	±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	%	94,1	94,2	94	93,8	94,4	94,8	95,1	95,2
(see graph. for details)	3/4	%	94,2	94,4	94,1	93,9	94,5	94,9	95,2	95,3
	2/4	%	93,3	93,5	93,3	93,1	93,3	93,8	94	94,2
	1/4	%	89,1	89,3	89,2	89	90,4	90,6	90,8	91
Reactances (f. l.cl. F)	Xd	%	333	277	185	115	406	365	333	277
	Xd'	%	27,4	22,5	20,4	18,6	29,7	28,5	27,4	22,5
	Xd''	%	16,2	14,2	12,1	10,4	19,2	18,1	16,2	14,2
	Xq	%	121	112	104	97	145	131	121	112
	Xq'	%	121	112	104	97	145	131	121	112
	Xq''	%	29,4	28,2	26,7	24,2	31,7	30,6	29,4	28,2
	X ₂	%	19,7	18,5	17,2	15,6	21,8	20,4	19,7	18,5
	X ₀	%	3,7	3,5	3,1	2,7	4,1	3,9	3,7	3,5
Short Circuit Ratio	Kcc		0,30	0,36	0,55	0,90	0,24	0,27	0,30	0,36
Time Constants	Td'	sec.	0,16							
	Td''	sec.	0,019							
	Tdo'	sec.	2,55							
	Tα	sec.	0,017							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load	Amp.		0,7	0,8	0,9	1,1	0,5	0,6	0,7	0,8
Excitation at full load	Amp.		3,4	3,6	3,7	3,8	3,1	3,3	3,4	3,5
Overload (long-term)	%	1 hour in a 6 hours period 110% rated load								
Overload per 20 sec.	%	300								
Stator Winding Resistance (20°C)	Ω	0,018								
Rotor Winding Resistance (20°C)	Ω	4,488								
Exciter Resistance (20 °C)	Ω	Rotor : 0,317				Stator : 8,85				
Heat dissipation at f.l.cl.H	W	20064	19703	20426	19565	19932	19747	19785	19361	
Telephone Interference		THF < 2%				TIF < 40				
Radio interference		EN61000-6-3, EN61000-6-2. For others standards apply to factory								
Waveform Distors.(THD) at f. load	LL/LN %	2,6 / 2,6								
Waveform Distors.(THD) at no load	LL/LN %	2,9 / 2,9								
Mechanical characteristics										
Protection		IP 21 (other protection on request)								
DE bearing		6322								
NDE bearing		6318.2RS								
Weight of wound stator assembly	kg	327								
Weight of wound rotor assembly	kg	211								
Weight of complete generator	kg	1040								
Maximun overspeed	rpm	2250								
Unbalanced magnetic pull at f.l.cl.F	kN/mm	5								
Cooling air requirement	m ³ /min	54				64,8				
Inertia Constant (H)	sec.	0,176				0,212				
Noise level at 1m/7m	dB(A)	94 / 82				98 / 88				

All technical data are to be considered as a reference and they can be modified without any notice.

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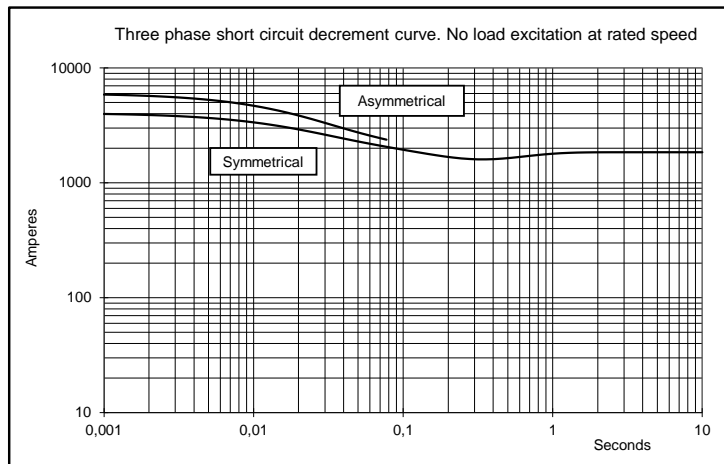
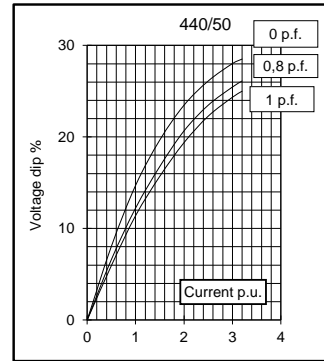
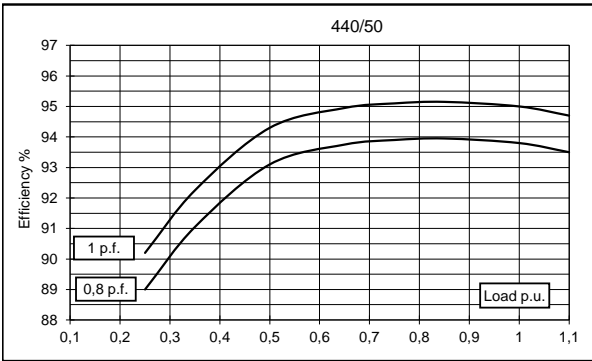
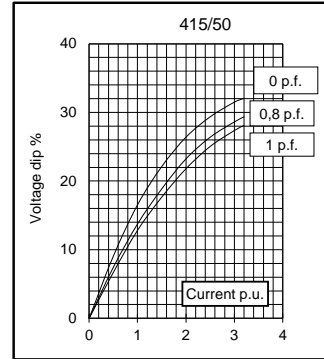
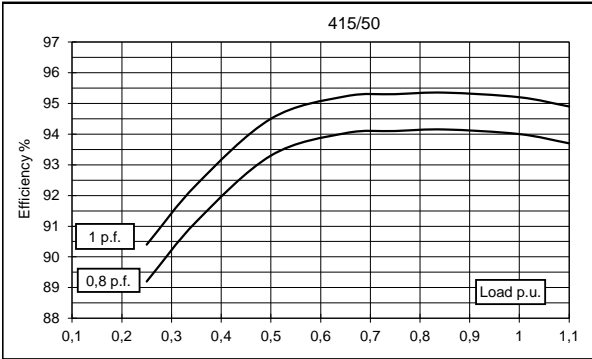
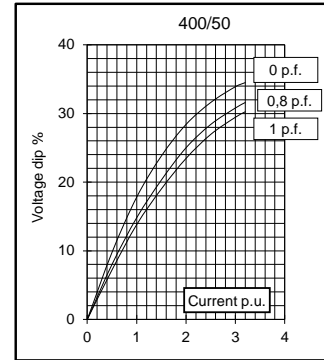
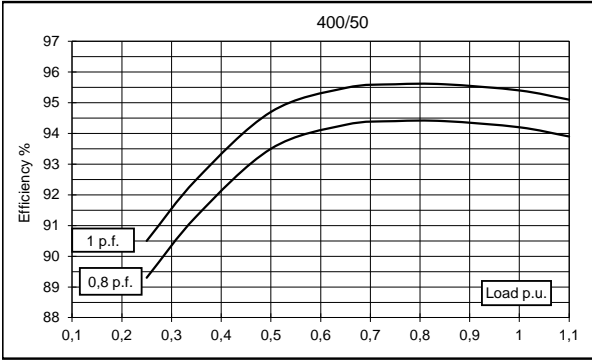
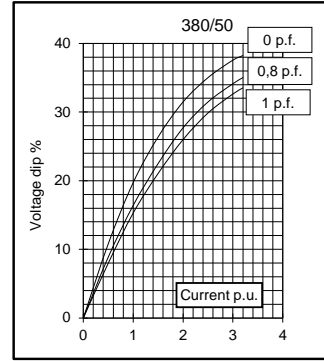
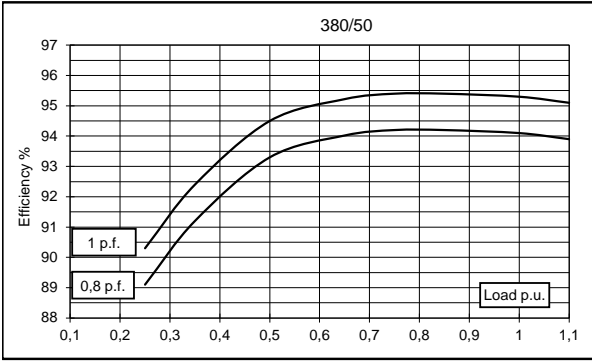


GENERATOR TYPE ECO 40-1S/4

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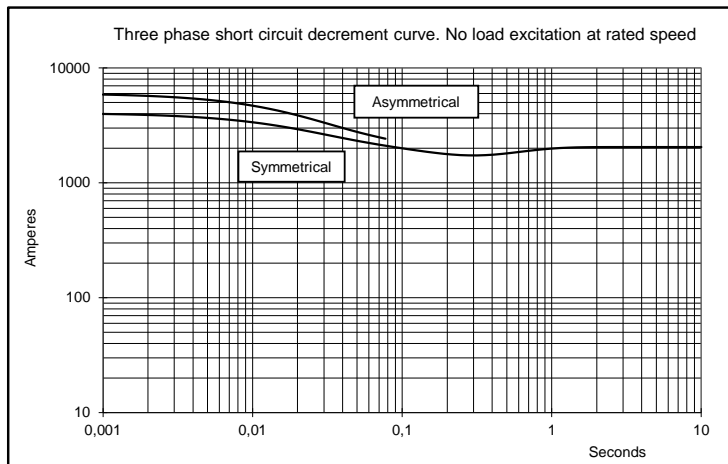
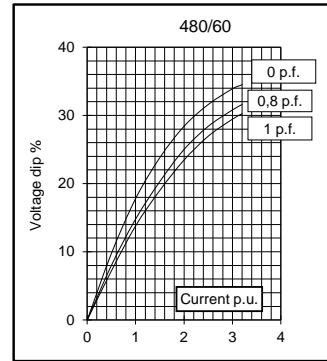
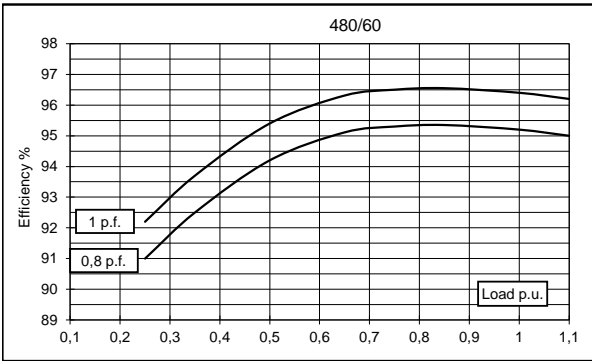
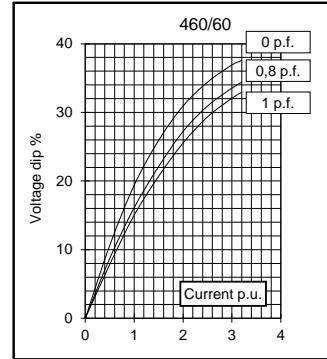
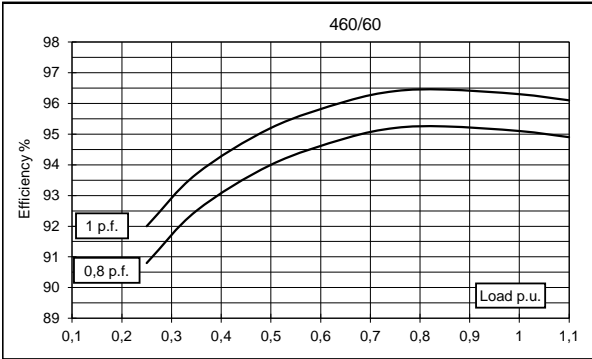
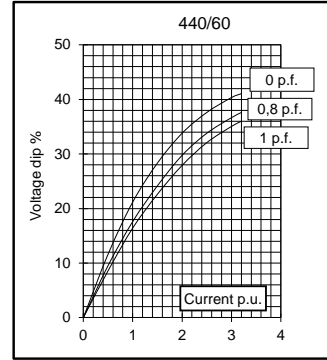
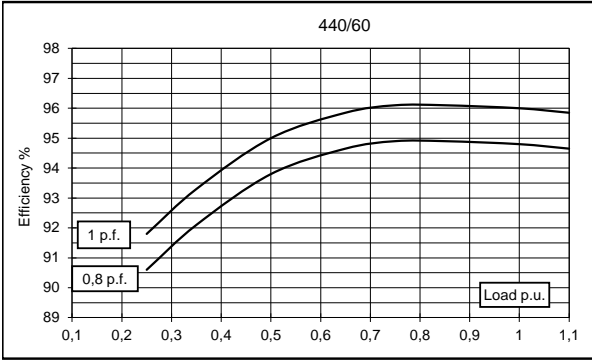
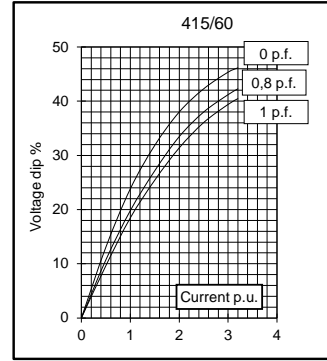
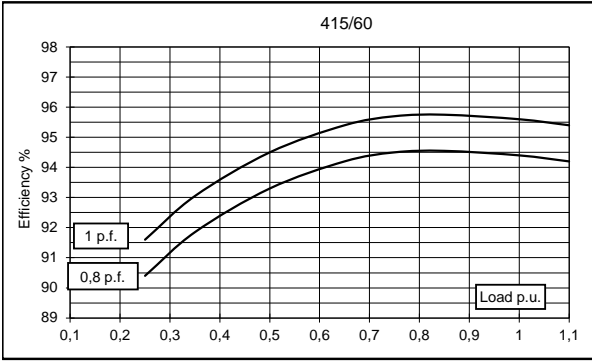
issue 009 date : 21/03/2014

50 Hz



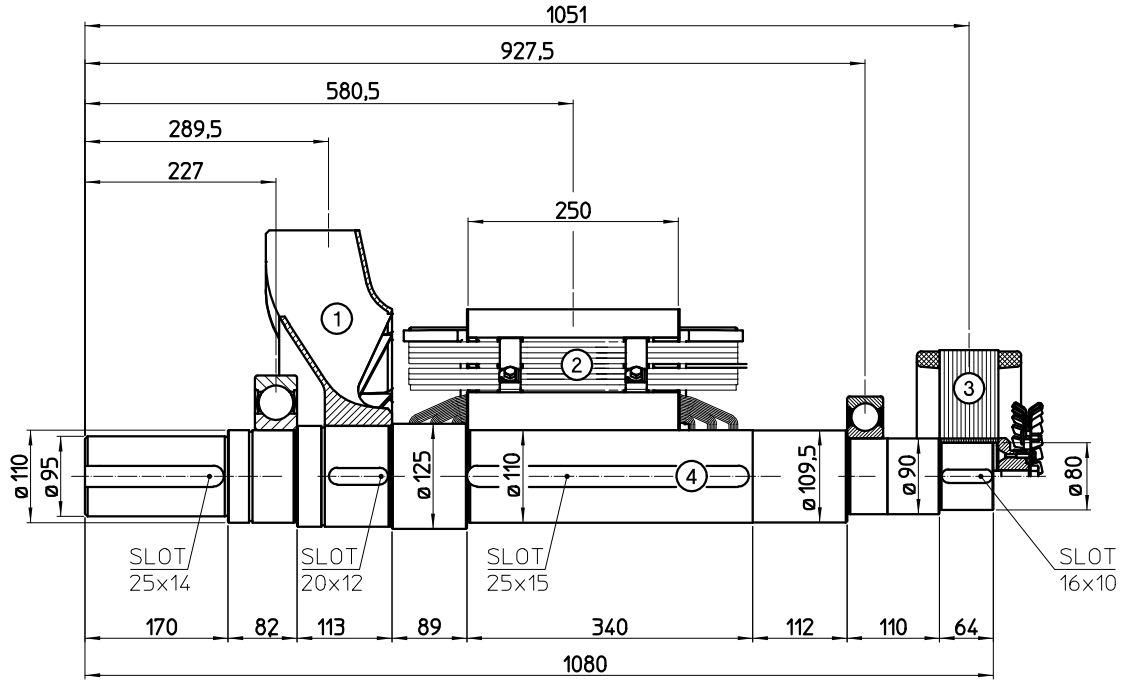


60 Hz



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TWO BEARING MOMENTS OF INERTIA



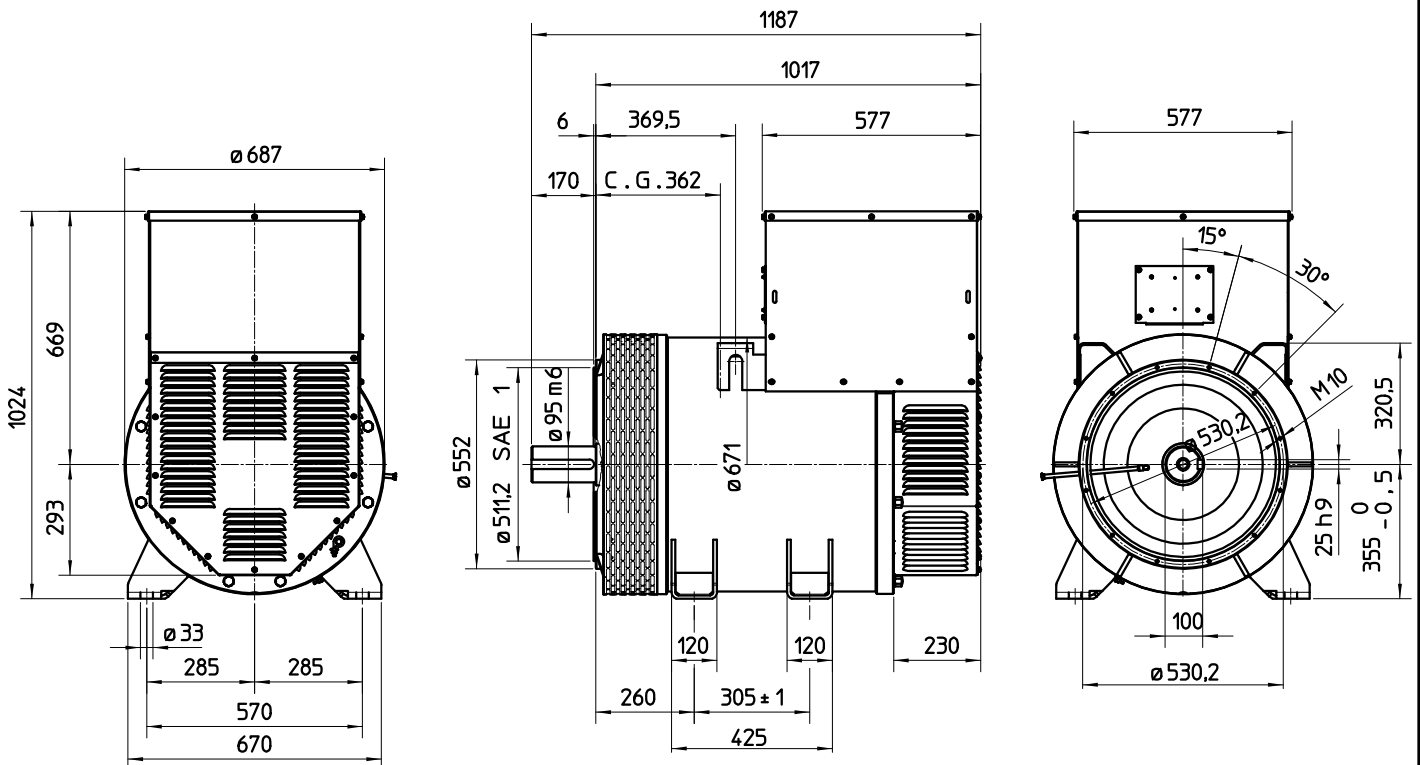
COMPONENT	WEIGHT kg	J kgm ²
1 FAN	10,2	0,335
2 MAIN ROTOR	211	4,498
3 EX. ROTOR	35	0,562
4 SHAFT	73,6	0,109
TOTAL	329,8	5,504

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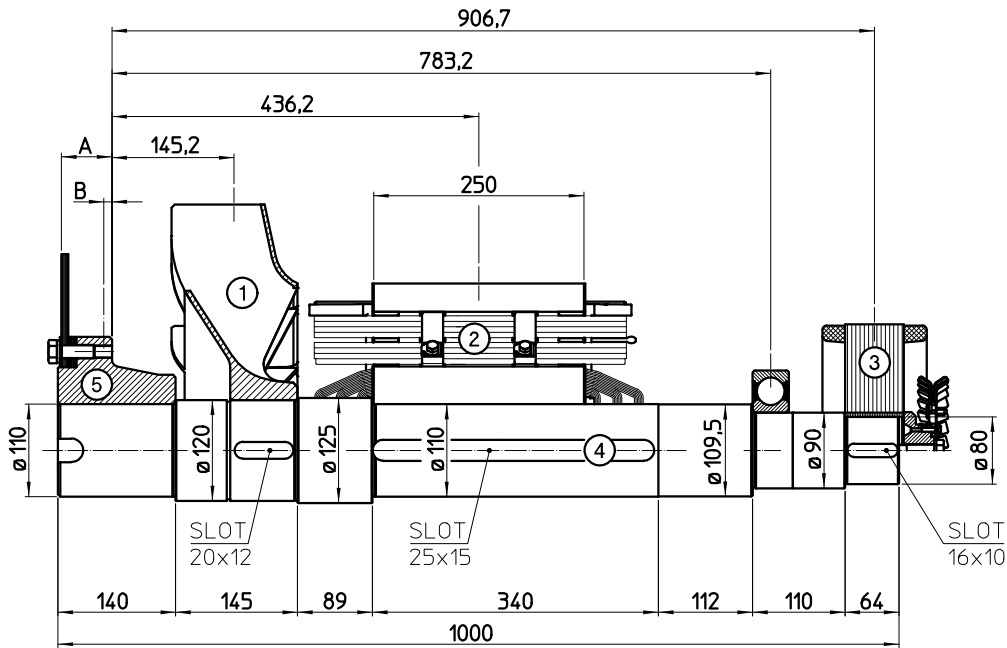
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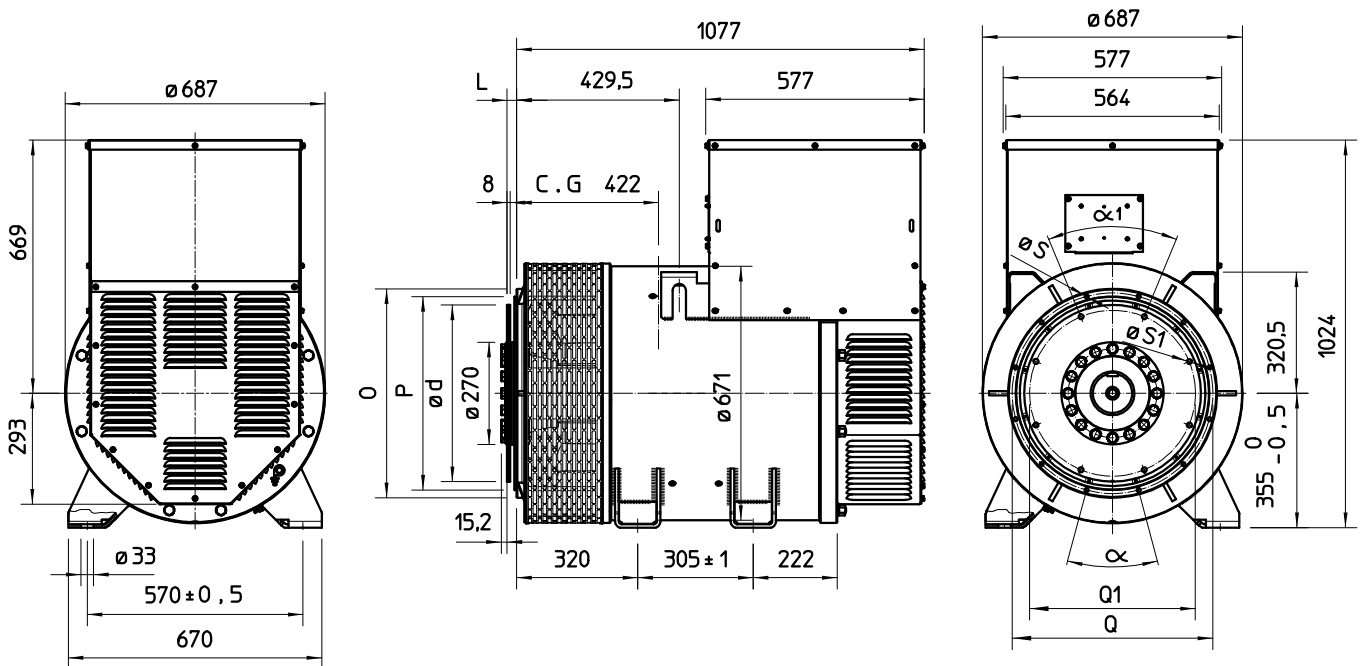
SINGLE BEARING MOMENTS OF INERTIA



COMPONENT	WEIGHT kg	J kgm ²
1 FAN	10,2	0,335
2 MAIN ROTOR	211	4,498
3 EX. ROTOR	35	0,562
4 SHAFT	72	0,111
TOTAL	328.2	5.506

Sae No	SHAFTS COUPLING FLEX PLATE		
	A	B	WEIGHT kg
14	60	9,6	41,4
18	50	6,6	45,1

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 DISCQUE 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°	