



GENERATOR TYPE ECO 46-1L/6

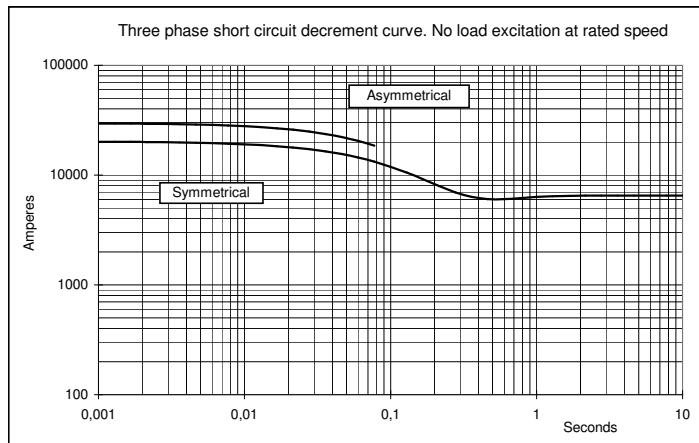
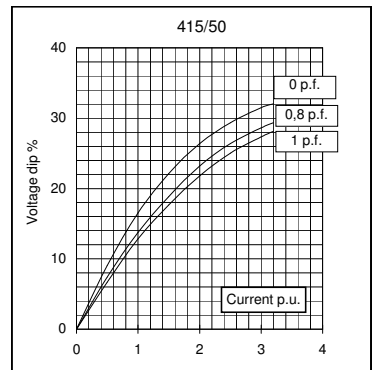
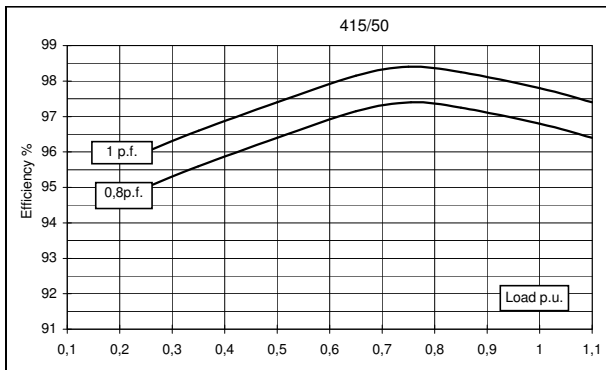
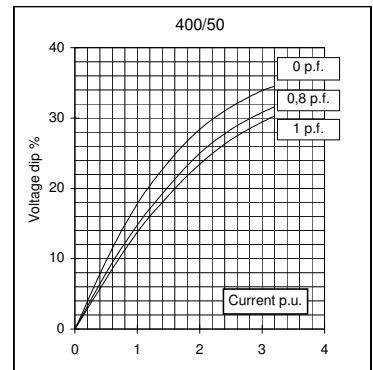
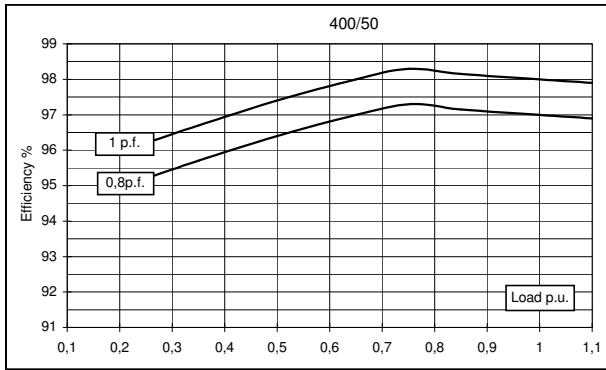
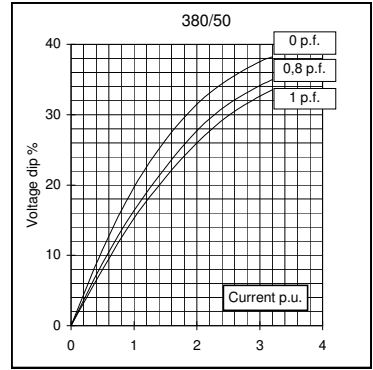
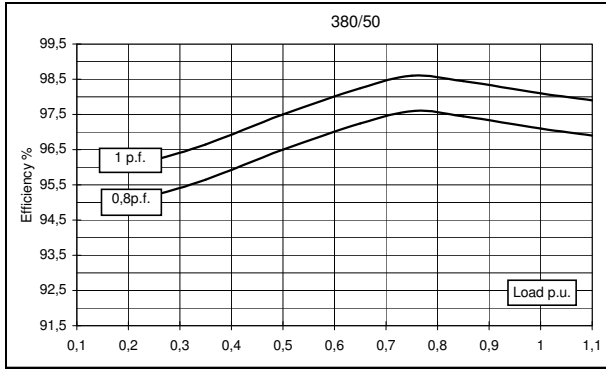
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Electrical Characteristics										
Frequency	Hz	50				60				
Voltage (parallel star)	V	380	400	415	440	415	440	460	480	
Rated power class H	kVA	1500	1500	1500	/	/	1700	1800	1800	
	kW	1200	1200	1200	/	/	1360	1440	1440	
Rated power class F	kVA	1350	1350	1350	/	/	1500	1620	1620	
	kW	1080	1080	1080	/	/	1200	1296	1296	
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	%	97,1	97	96,8	/	/	97,5	97,7	97,6
(see graph. for details)	3/4	%	97,6	97,3	97,4	/	/	97,7	98,1	97,8
	2/4	%	96,5	96,4	96,4	/	/	96,7	96,9	96,8
	1/4	%	95,2	95,2	95	/	/	95,4	95,3	95,4
Reactances (f. l.cl. F)	Xd	%	238,2	215	199,7	/	/	236,9	234,1	215
	Xd'	%	17,2	15,5	14,4	/	/	17,08	16,9	15,5
	Xd''	%	11,9	10,7	9,9	/	/	11,79	11,7	10,7
	Xq	%	133,0	120	111,5	/	/	132,2	130,7	120
	Xq'	%	133,0	120	111,5	/	/	132,2	130,7	120
	Xq''	%	26,6	24,0	22	/	/	26,4	26,1	24,0
	X ₂	%	19,9	18,0	16,7	/	/	19,83	19,6	18,0
	X ₀	%	2,7	2,4	2	/	/	2,64	2,6	2,4
Short Circuit Ratio	Kcc		0,42	0,47	0,50	/	/	0,42	0,43	0,47
Time Constants	Td'	sec.	0,15							
	Td''	sec.	0,12							
	Tdo'	sec.	2,8							
	Tα	sec.	0,02							
Short Circuit Current Capacity		%	>300				>300			
Excitation at no load	Amp.		0,9	0,95	1,1	/	/	0,8	0,85	0,9
Excitation at full load	Amp.		3,2	3,4	3,6	/	/	3	3,1	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		0,0053							
Rotor Winding Resistance (20 °C)	Ω		5,18							
Exciter Resistance (20 °C)	Ω		Rotor : 0,17				Stator : 16,9			
Heat dissipation at f.l.cl.H	W		35.839	37.113	39.669	/	/	34.872	33.900	35.410
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 %		3,6 / 3,3							
Waveform Distors.(THD) at no load	LL/LN %		1,2 / 1,0							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6330							
NDE bearing			6324							
Weight of wound stator assembly	kg		1325							
Weight of wound rotor assembly	kg		1265							
Weight of complete generator	kg		3965							
Maximun overspeed	rpm		1500							
Unbalanced magnetic pull at f.l.cl.F	kN/mm		5,7							
Cooling air requirement	m³/min		95				120			
Inertia Constant (H)	sec.		0,21				0,25			
Noise level at 1m/7m	dB(A)		91 / 82				93 / 84			

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

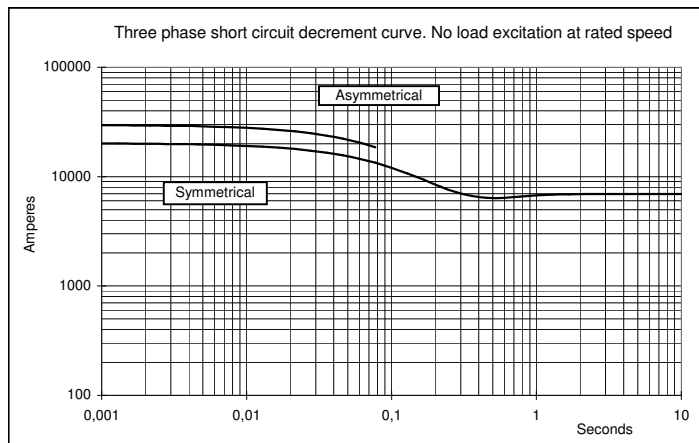
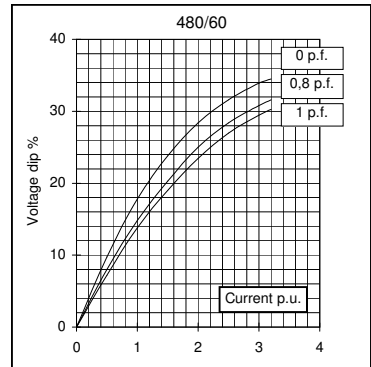
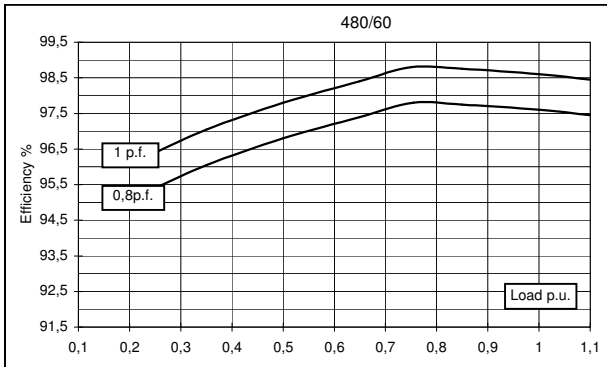
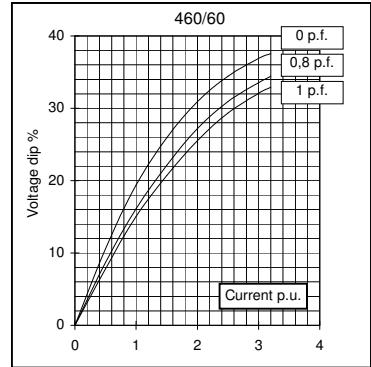
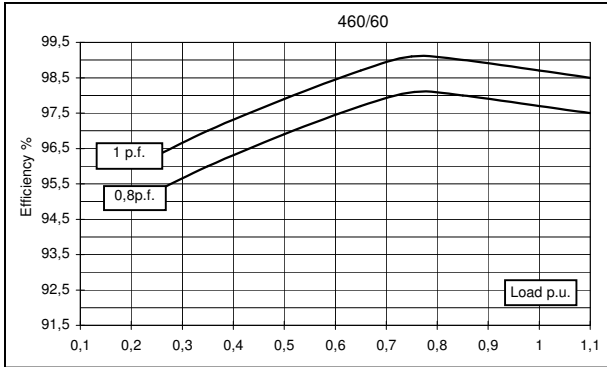
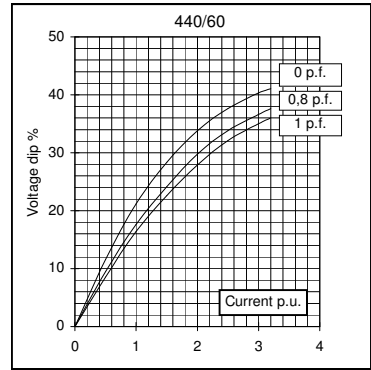
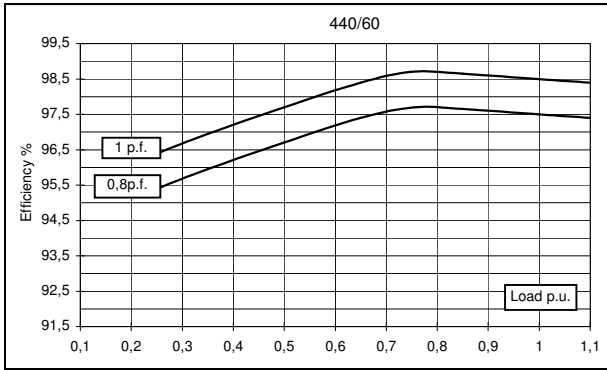
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50 Hz

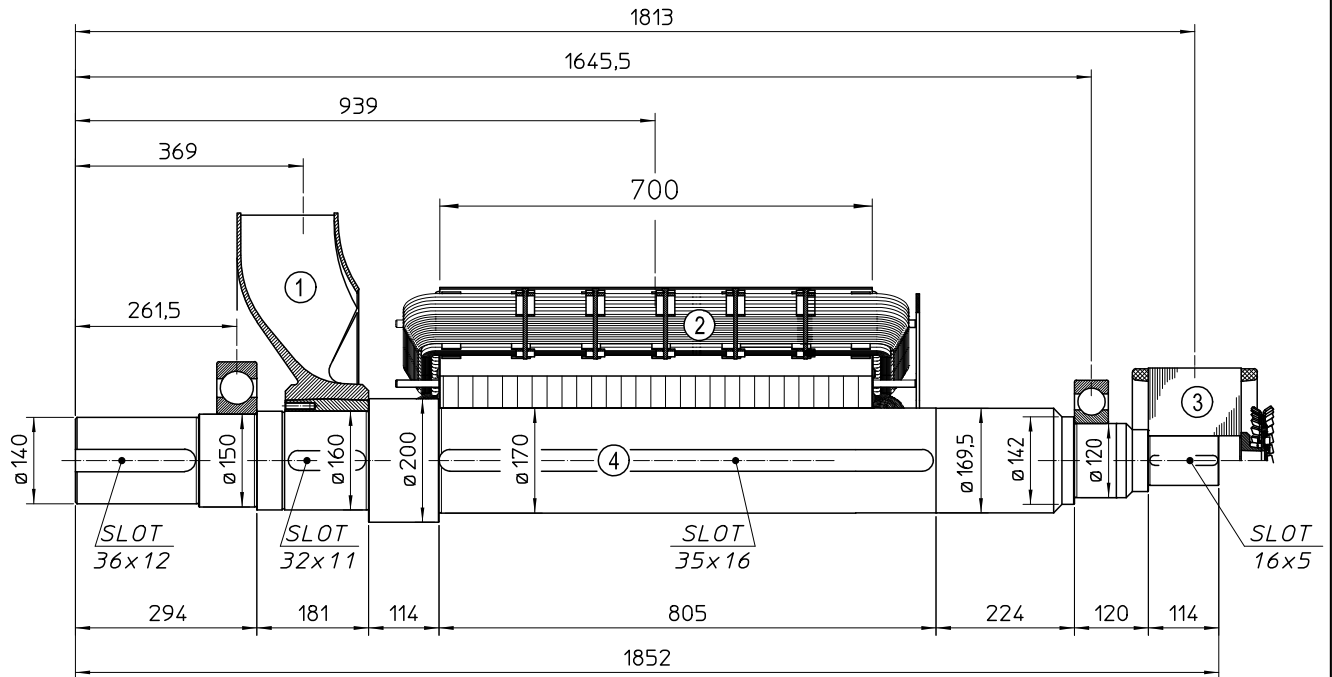




60 Hz

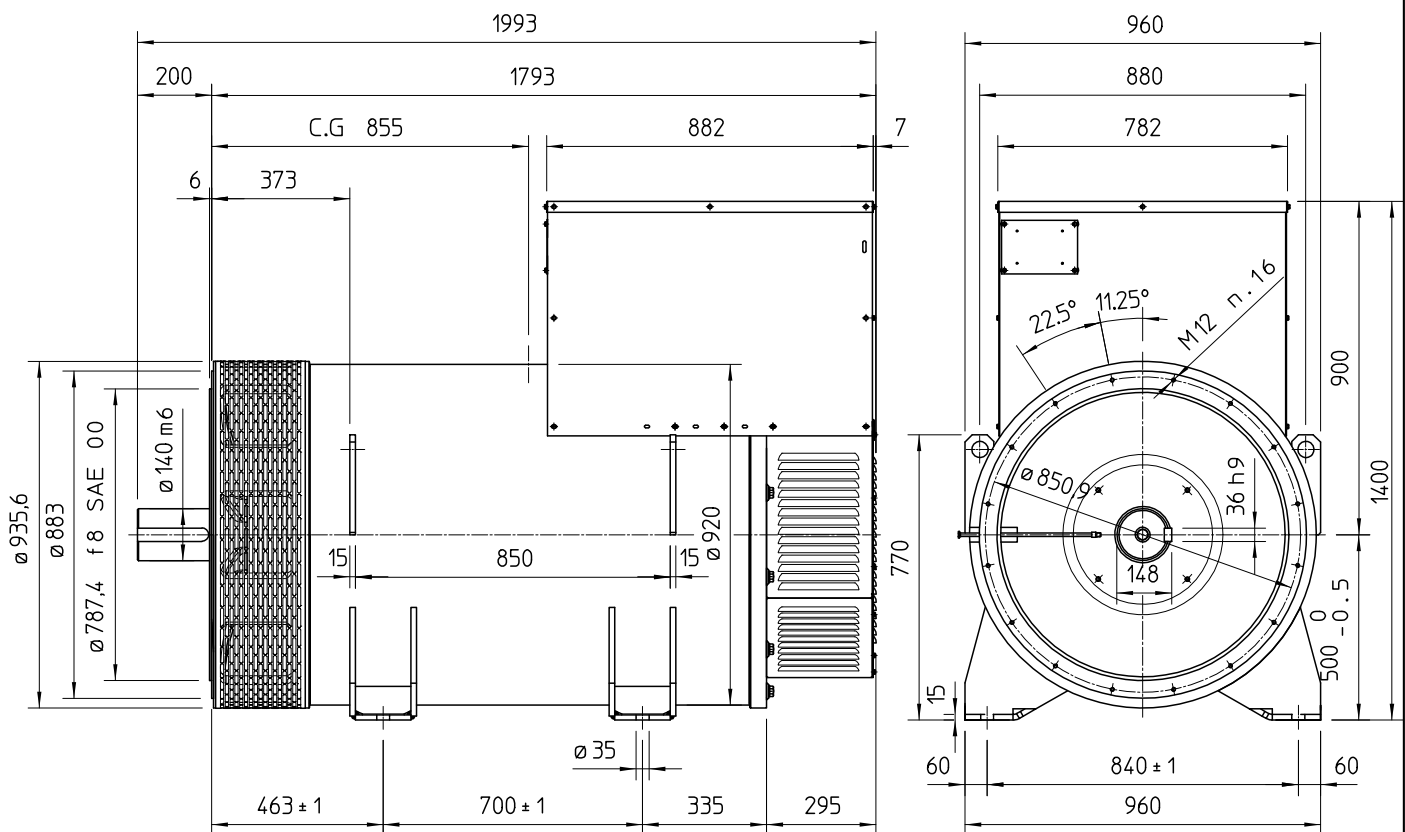


TWO BEARING MOMENTS OF INERTIA



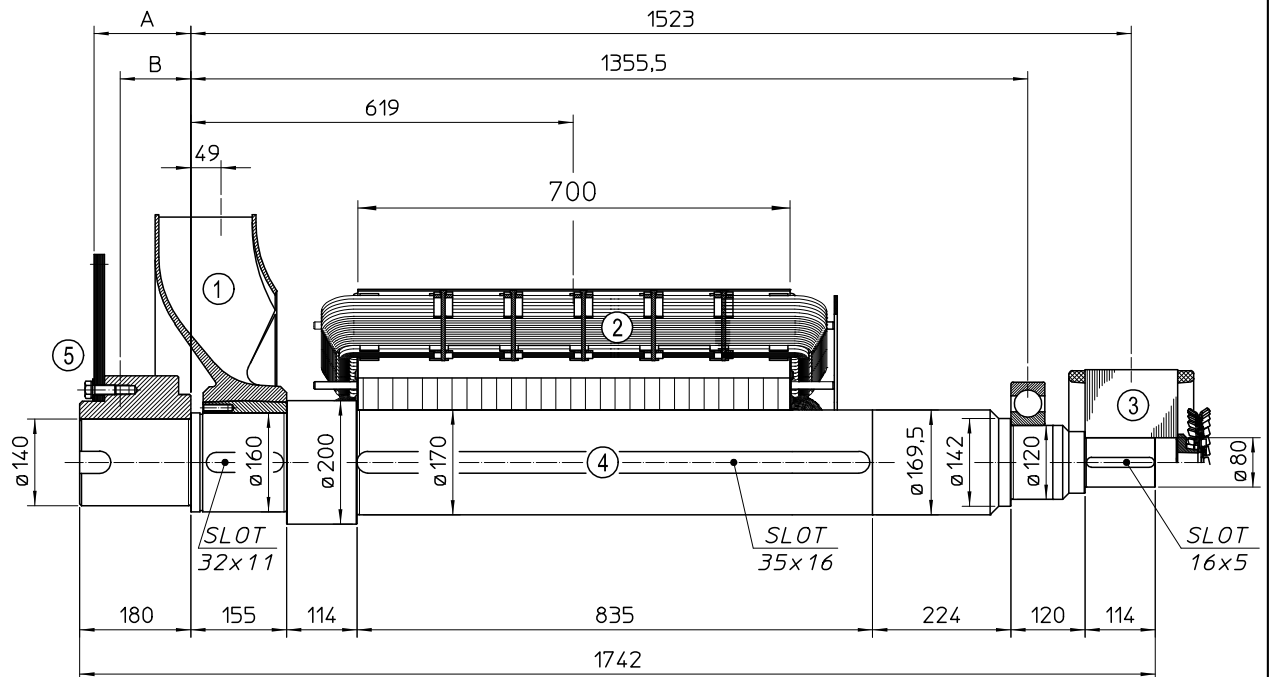
POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	42.7	2.250
2	MAIN ROTOR	1265	52.936
3	EX. ROTOR	74.7	0.909
4	SHAFT	288	0.985
TOTAL		1670.4	57.029

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

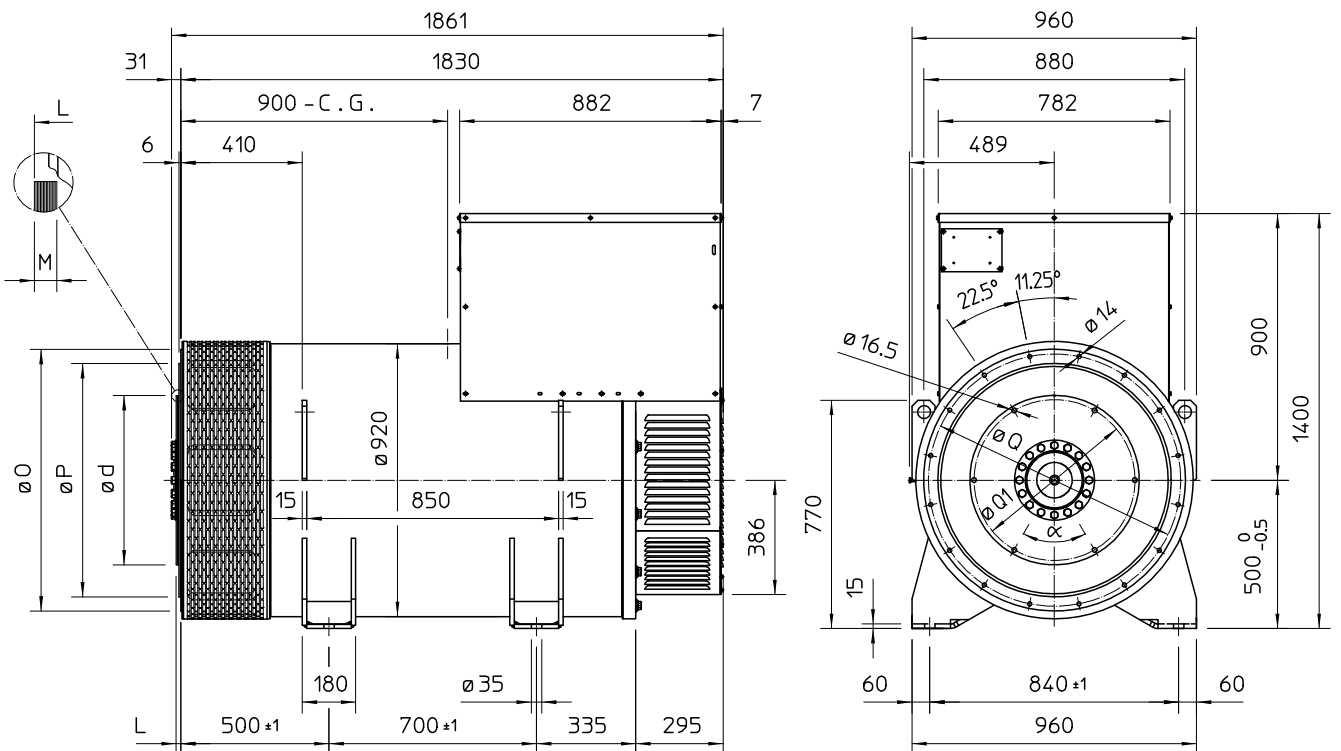
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	42.7	2,250
2	MAIN ROTOR	1265	52.936
3	EX. ROTOR	74.7	0,909
4	SHAFT	269.5	0.934
TOTAL		1651.9	57.029

SAE N°	5		SHAFTS COUPLING FLEX PLATE	
	A	B	WEIGHT kg	J kgm ²
18	172.7	113.4	82.7	1.863
21	157	114.6	93,6	3,206

SINGLE BEARING DIMENSIONS



SAE N°	FLANGE		
	O	P	Q
0	711	647.7	679.5
00	883	787.4	850.9

SAE N°	DISC COUPLING						
	d	L	M	Q1	HOLES N°	α	
18	571.5	15.7	15	542.92	6	60°	
21	673.1	0	17	641.35	12	30°	

C.G.= GRAVITY CENTER