GENERATOR TYPE ECO 46-2S/6

Document : **DS184A/1**
issue 001 date 14/02/2012

Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (parallel star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	1250	1250	1250	/	/	1400	1500	1500
		kW	1000	1000	1000	/	/	1120	1200	1200
Rated power class F		kVA	1125	1125	1125	/	/	1250	1350	1350
		kW	900	900	900	/	/	1000	1080	1080
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	%	96,9	96,8	96,6	/	/	97,2	97,4	97,3
(see graph. for details)	3/4	%	97,4	97,1	97,2	/	/	97,5	97,9	97,6
	2/4	%	96,4	96,3	96,3	/	/	96,4	96,6	96,5
	1/4	%	95,4	95,4	95,2	/	/	94,9	95,1	95,1
Reactances (f. l.cl. F)	Xd	%	243,8	220	204,4	/	/	242,4	239,5	220
	Xd'	%	18,0	16,2	15,1	/	/	17,85	17,6	16,2
	Xd"	%	12,7	11,5	10,7	/	/	12,67	12,5	11,5
	Xq	%	146,3	132	122,6	/	/	145,5	143,7	132
	Xq'	%	146,3	132	122,6	/	/	145,5	143,7	132
	Xq"	%	31,0	28,0	26	/	/	30,9	30,5	28,0
	X_2	%	21,1	19,0	17,7	/	/	20,94	20,7	19,0
	X_0	%	2,8	2,5	2	/	/	2,75	2,7	2,5
Short Circuit Ratio	Kcc		0,41	0,46	0,49	/	/	0,41	0,42	0,46
Time Constants	Td'	sec.	0,18							
	Td"	sec.	0,15							
	Tdo'	sec.	2,6							
	Tα	sec.	0,016							
Short Circuit Current Capacity		%	>300				>300			
Excitation at no load		Amp.	0,8	0,93	1,1	/	/	0,75	0,8	0,9
Excitation at full load		Amp.	2,9	3,3	3,7	/	/	2,7	2,9	3,1
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)		Ω	0,0032							
Rotor Winding Resistance (20°C)		Ω	4,72							
Exciter Resistance (20 °C)		Ω	Rotor :0,17				Stator : 16,90			
Heat dissipation at f.l.cl.H		W	31.992	33.058	35.197	/	/	32.263	32.033	33.299
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 %	3,5 / 3,2							
Waveform Distors.(THD) at no load		LL/LN %	1,1 / 1,0							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6330							
NDE bearing			6324							
Weight of wound stator assembly		kg	1100							
Weight of wound rotor assembly		kg	1116							
Weight of complete generator		kg	3520							
Maximun overspeed		rpm	1500							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,4							
Cooling air requirement		m^3/min	95				120			
Inertia Constant (H)		sec.	0,22				0,27			
Noise level at 1m/7m		dB(A)	91 / 82				93 / 84			

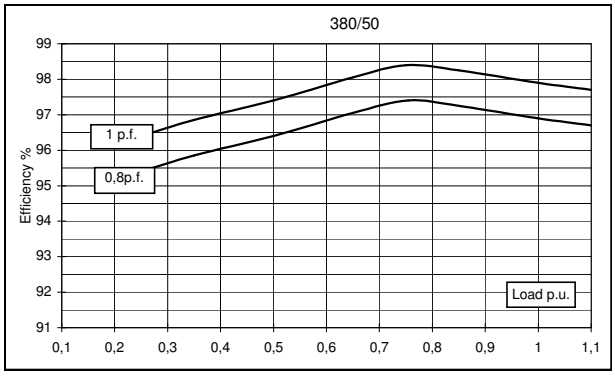
All technical data are to be considered as a reference and they can be modified without any notice.

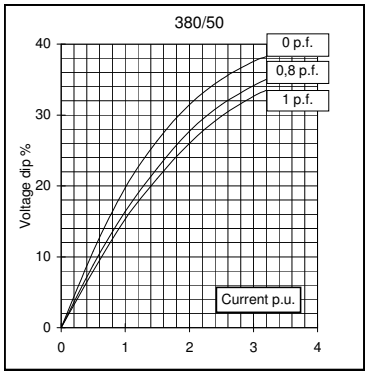
GENERATOR TYPE ECO 46-2S/6

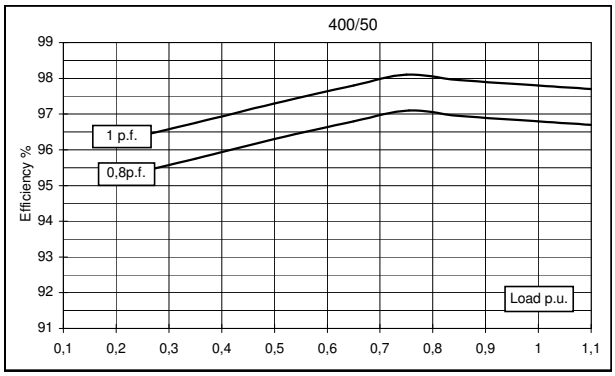
Document : **DS184A/2**

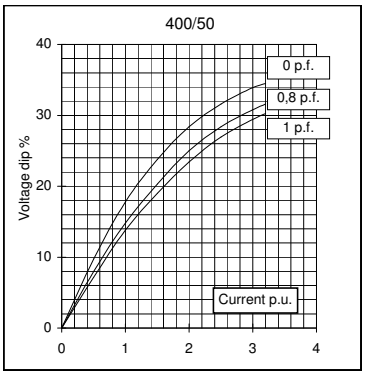
issue 001 date : 14/02/2012

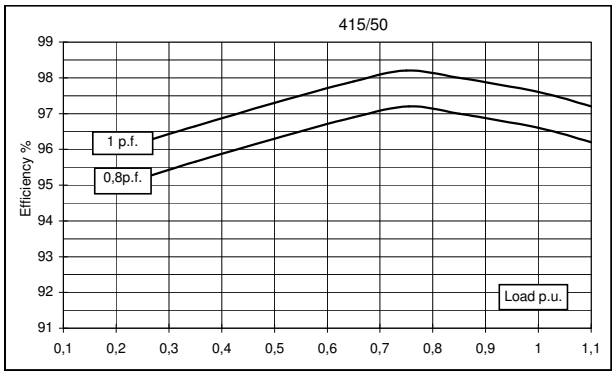
50 Hz

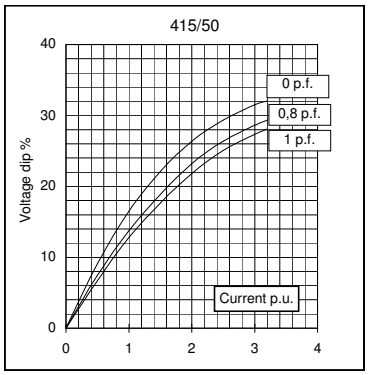


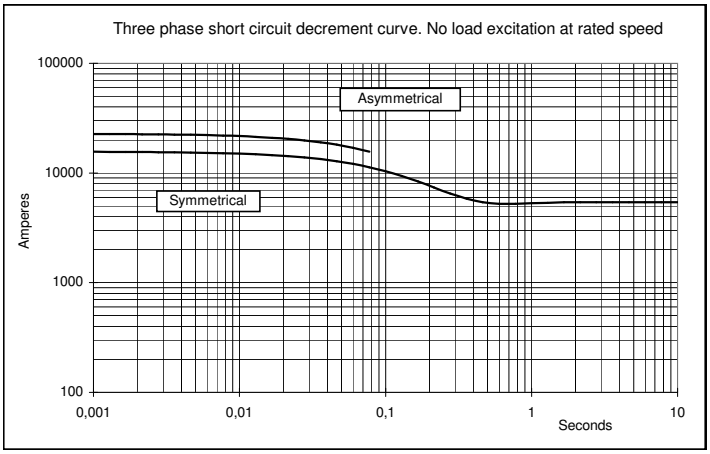












GENERATOR TYPE ECO 46-2S/6

Document : **DS184A/3**

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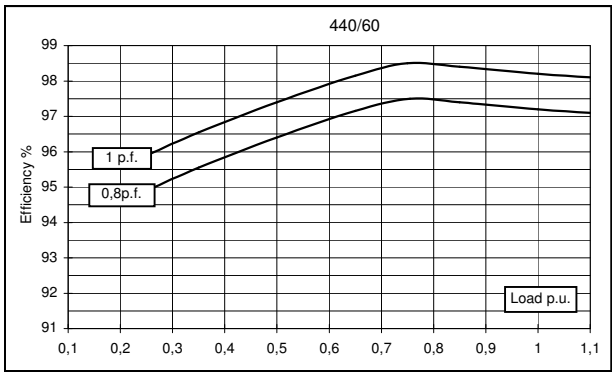
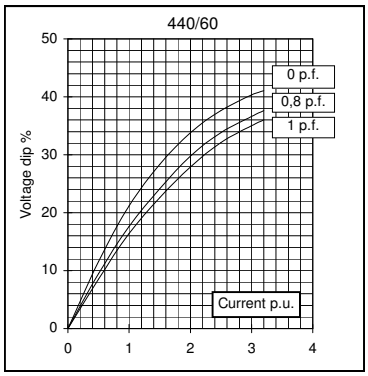
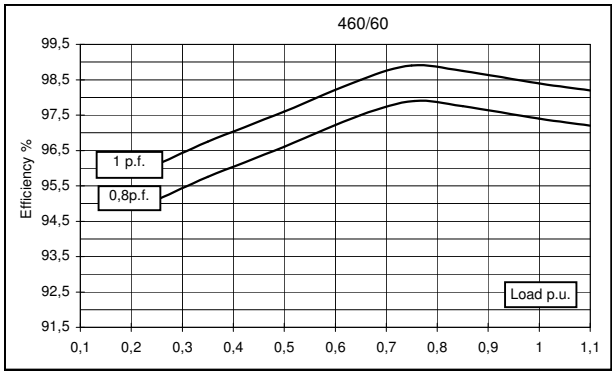
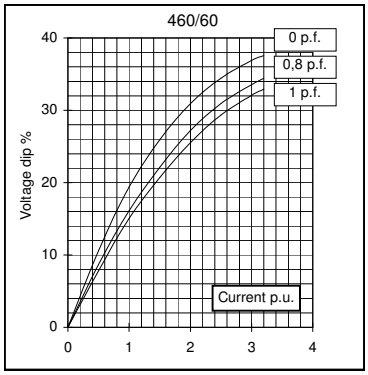
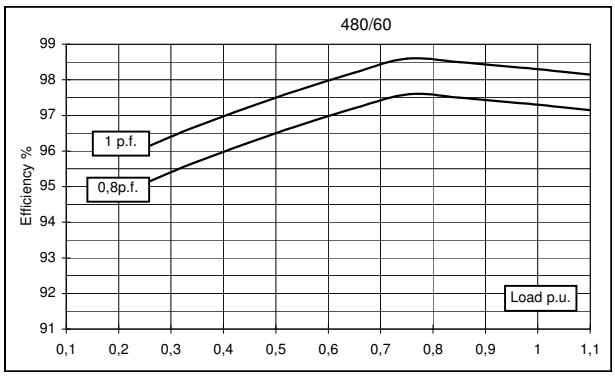
60 Hz

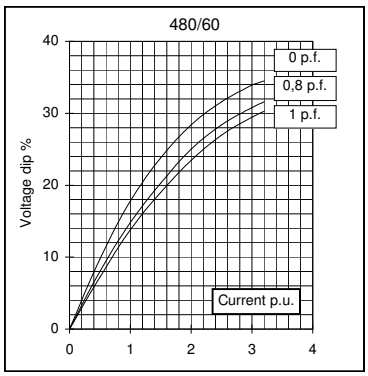


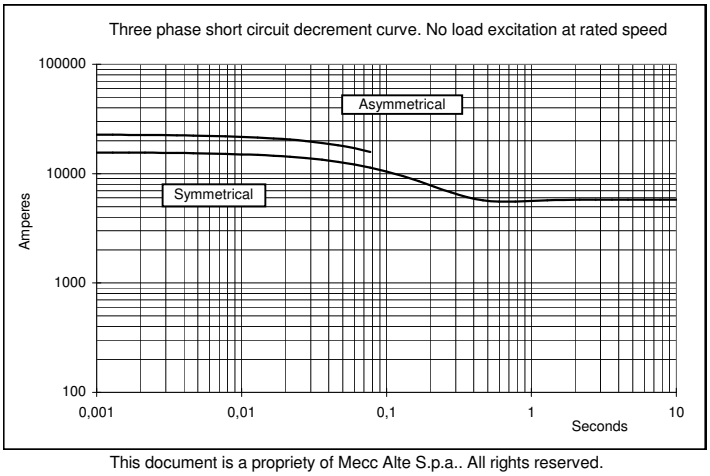




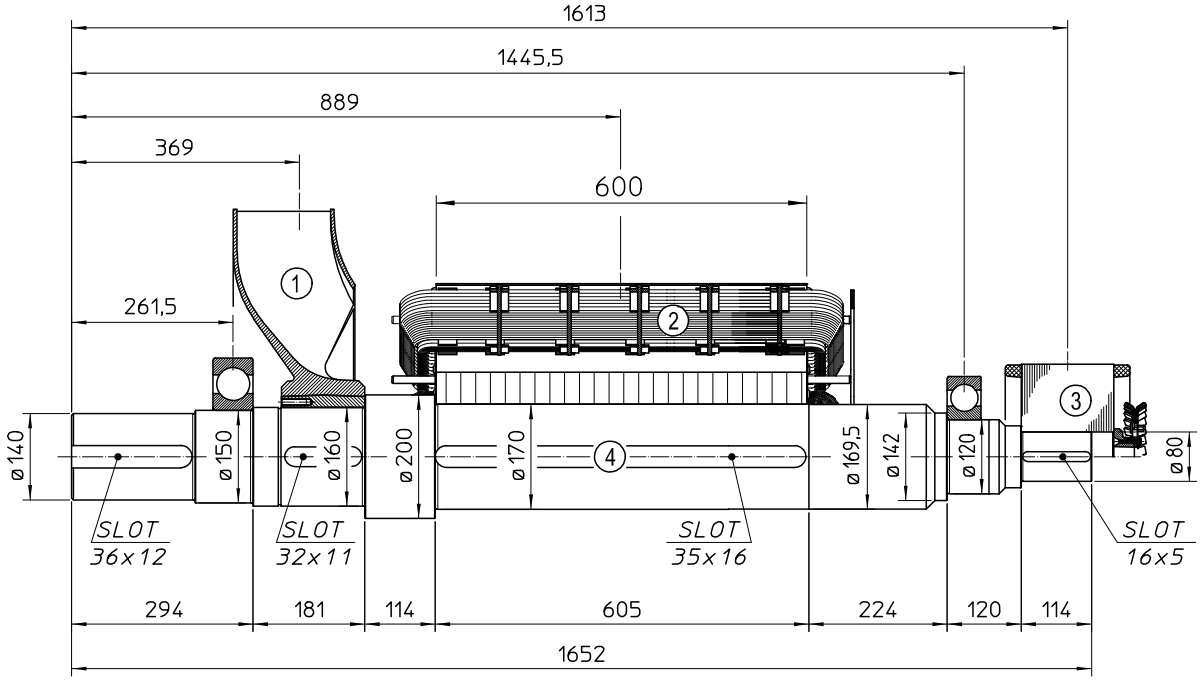






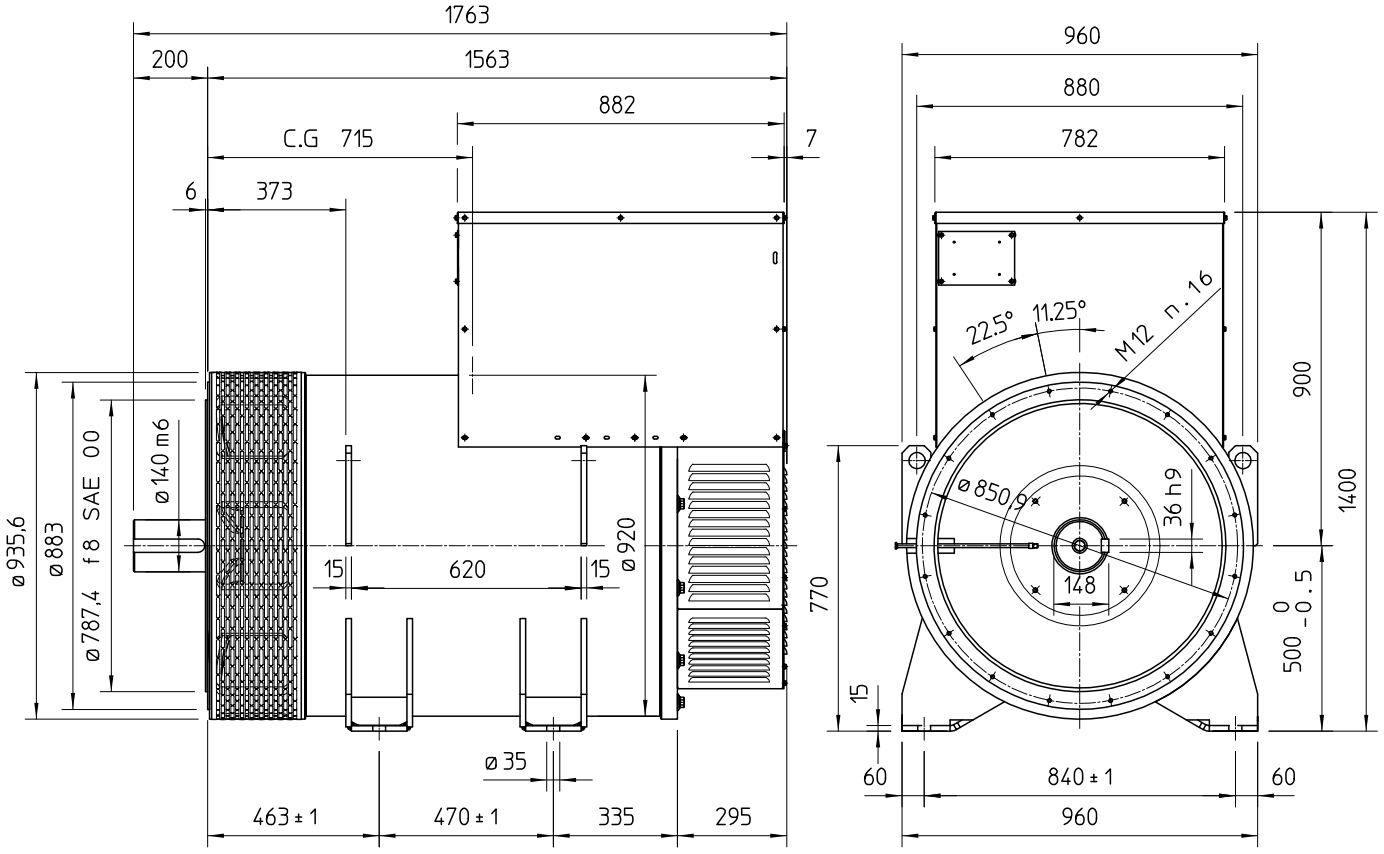


TWO BEARING MOMENTS OF INERTIA



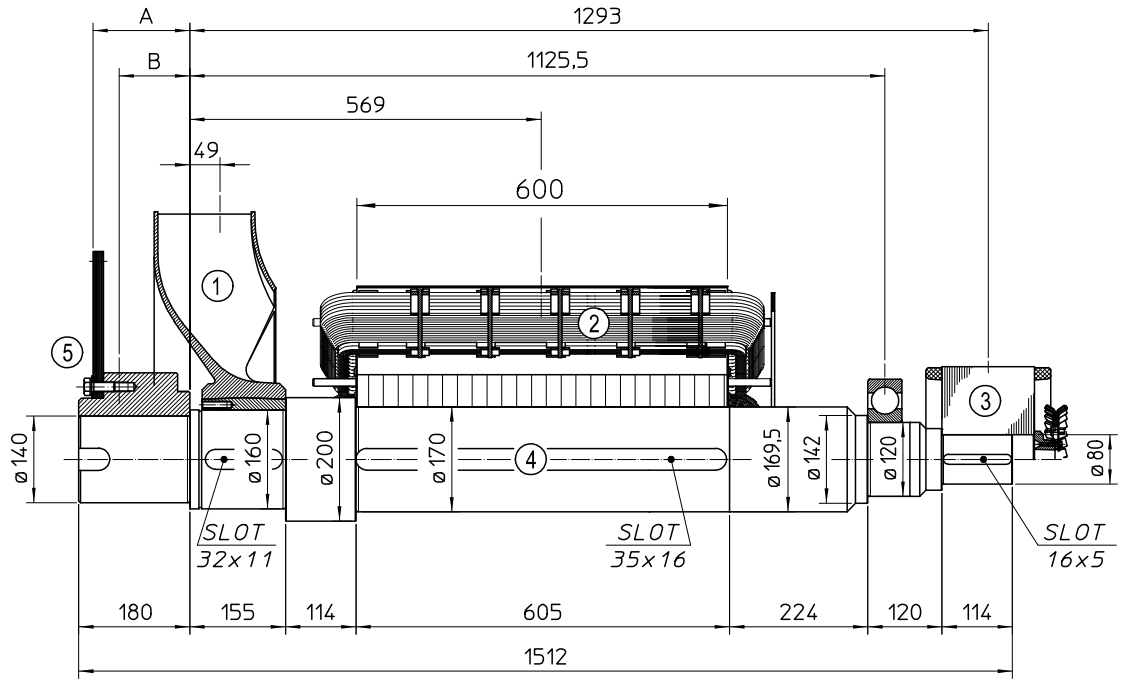
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	42.7	2,250
2	MAIN ROTOR	1116	46.519
3	EX. ROTOR	74.7	0.909
4	SHAFT	248.3	0,844
TOTAL		1481.7	50.522

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

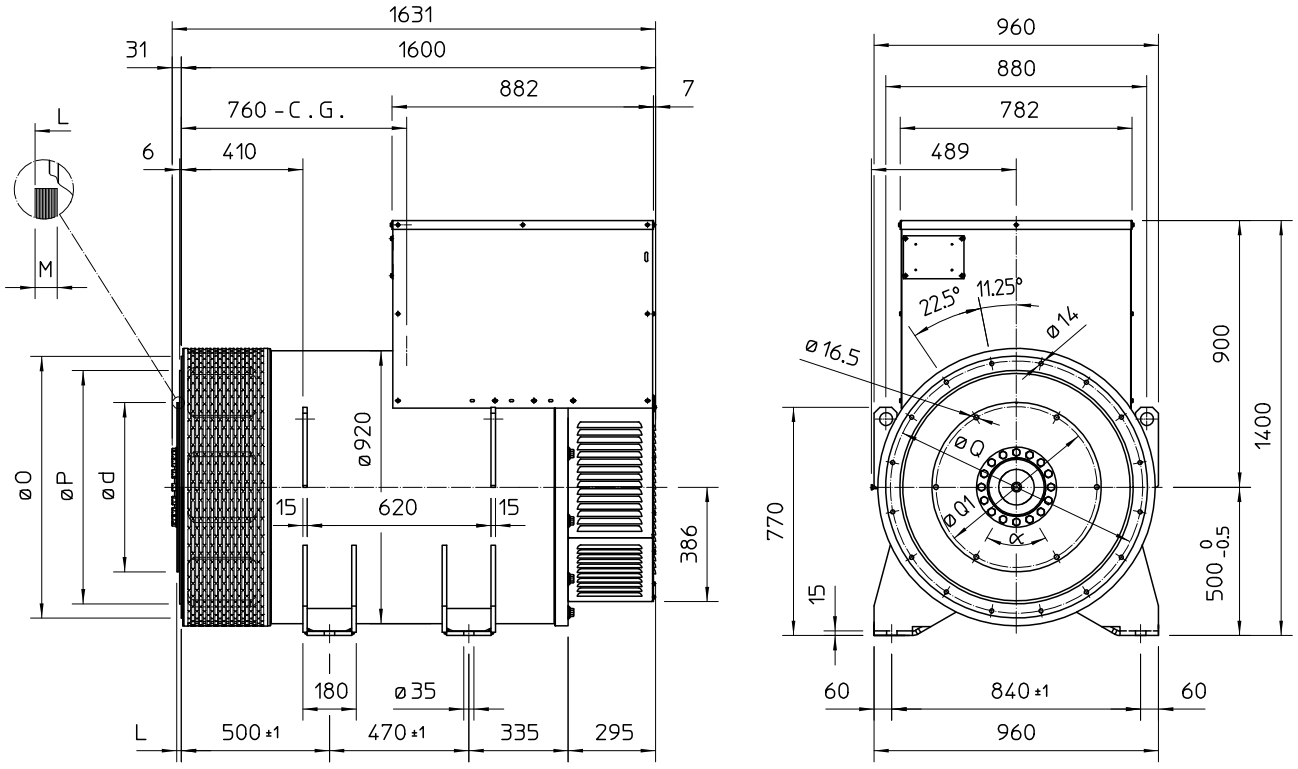
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	42.7	2,250
2	MAIN ROTOR	1116	46.519
3	EX. ROTOR	74.7	0.909
4	SHAFT	230	0,792
TOTAL		1463.4	50.47

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