GENERATOR TYPE ECP 32-2S/2 A

Document : **DS291A/1**
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Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	44	44	44	38	46	51	53	53
		kW	35,2	35,2	35,2	30,4	36,8	40,8	42,4	42,4
Rated power class F		kVA	40	40	40	34,5	41,5	46	48	48
		kW	32	32	32	27,6	33,2	36,8	38,4	38,4
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	%	87,3	87,4	87,1	86,9	88,5	89	89,1	89,2
(see graph. for details)	3/4	%	87,4	87,7	87,6	87,3	88,9	89,1	89,3	89,5
	2/4	%	84,7	84,8	84,8	84,5	86,5	86,6	86,7	86,8
	1/4	%	80,1	80	79,8	79,3	80,8	80,6	80,7	81
Reactances (f. l.cl. F)	Xd	%	448,8	405	376,3	289,1	470,2	463,8	441,0	405
	Xd'	%	14,63	13,2	12,26	9,42	15,33	15,12	14,37	13,2
	Xd"	%	7,53	6,8	6,32	4,85	7,90	7,79	7,40	6,8
	Xq	%	251,5	227	210,9	162,0	263,6	260,0	247,2	227
	Xq'	%	251,5	227	210,9	162,0	263,6	260,0	247,2	227
	Xq"	%	30,5	27,5	25,5	19,6	31,9	31,5	29,9	27,5
	X_2	%	17,95	16,2	15,05	11,56	18,81	18,55	17,64	16,2
	X_0	%	3,21	2,9	2,69	2,07	3,37	3,32	3,16	2,9
Short Circuit Ratio	Kcc		0,37	0,47	0,63	1,15	0,20	0,27	0,37	0,47
Time Constants	Td'	sec.	0,069							
	Td"	sec.	0,016							
	Tdo'	sec.	1,10							
	Tα	sec.	0,015							
Short Circuit Current Capacity		%	>300				>320			
Excitation at no load		Amp.	0,5	0,6	0,7	0,8	0,3	0,4	0,5	0,6
Excitation at full load		Amp.	1,7	1,9	2	2,1	1,4	1,5	1,6	1,8
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)		Ω	0,11							
Rotor Winding Resistance (20°C)		Ω	3,65							
Exciter Resistance (20 °C)		Ω	Rotor : 0,417				Stator : 10,60			
Heat dissipation at f.l.cl.H		W	5121	5075	5213	4583	4782	5043	5187	5134
Telephone Interference			THF < 2%				TIF < 50			
Radio interference			EN61000-6-3, EN61000-6-1. For others standards apply to factory							
Waveform Distors.(THD) at f. load		LL/LN %	3,7 / 3,3							
Waveform Distors.(THD) at no load		LL/LN %	4,4 / 3,9							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6312-2Z							
NDE bearing			6309-2RS							
Weight of wound stator assembly		kg	50							
Weight of wound rotor assembly		kg	24,6							
Weight of complete generator		kg	173							
Maximun overspeed		rpm	4320							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	3,7							
Cooling air requirement		m^3/min	22,4				27			
Inertia Constant (H)		sec.	0,371				0,443			
Noise level at 1m/7m		dB(A)	88 / 77				93 / 80			

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

GENERATOR TYPE ECP 32-2S/2 A

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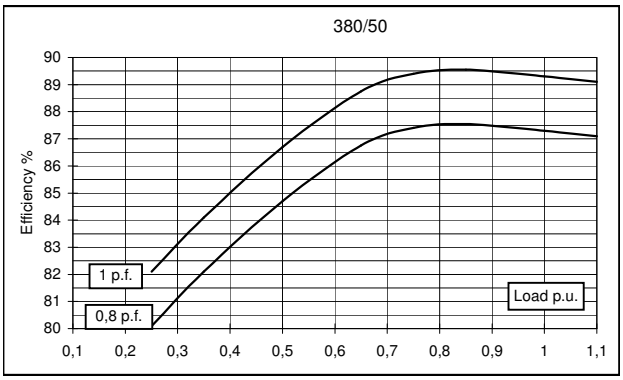
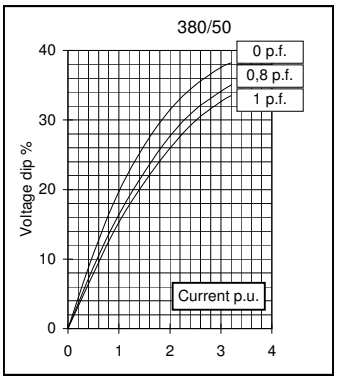
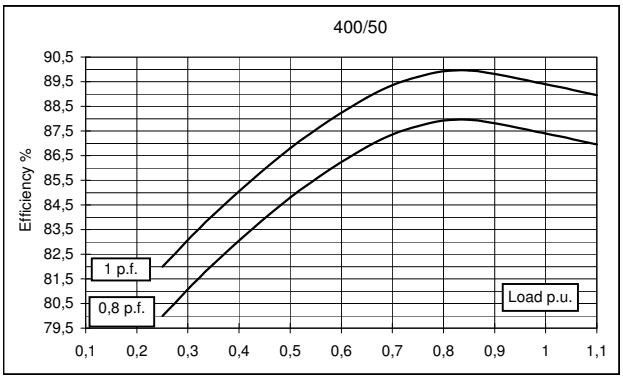
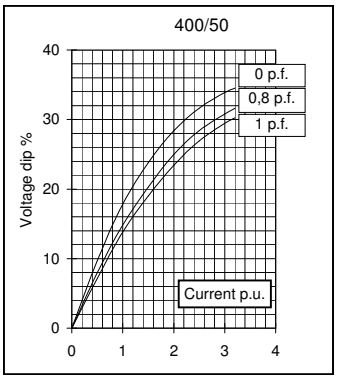
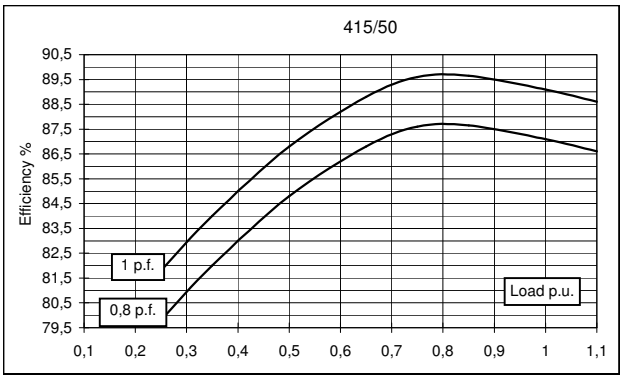
50 Hz

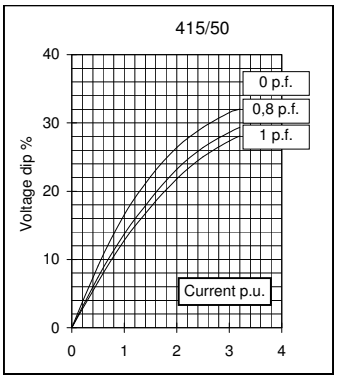


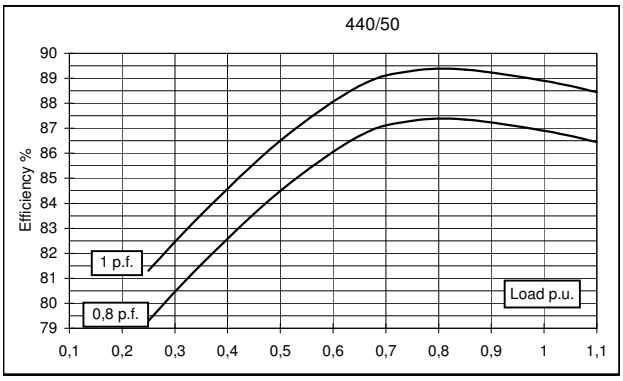


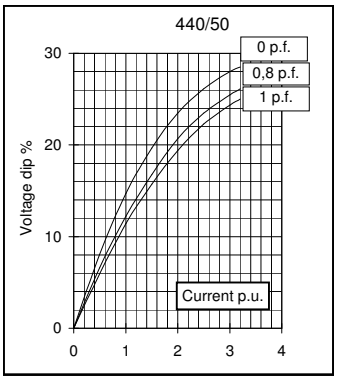


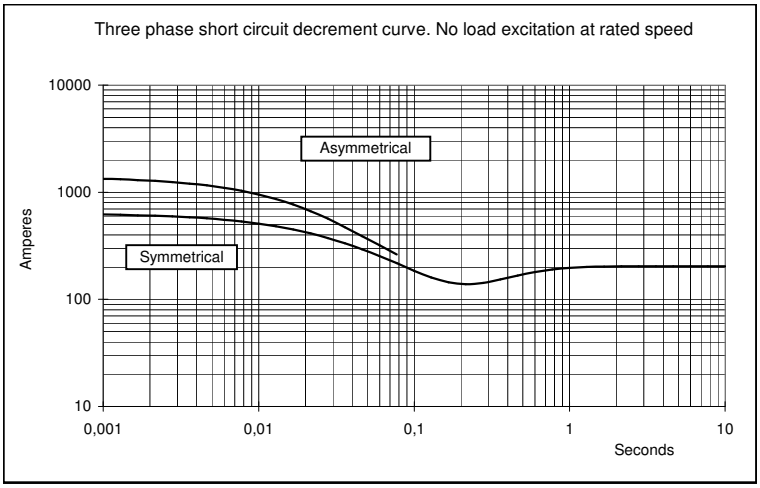










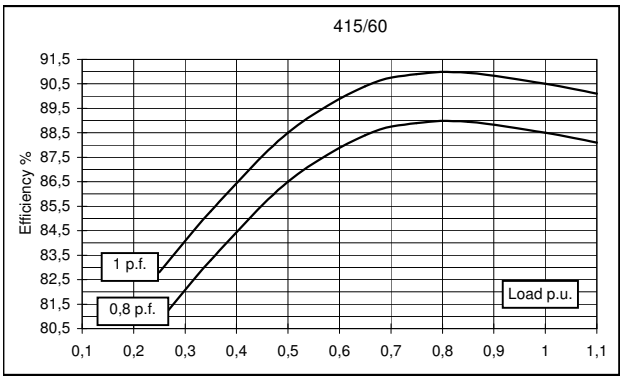


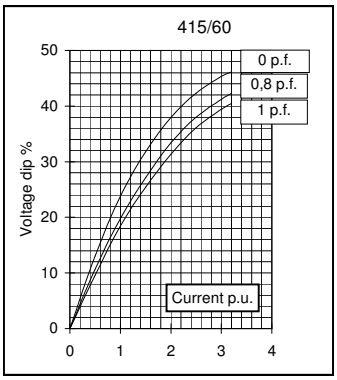
GENERATOR TYPE ECP 32-2S/2 A

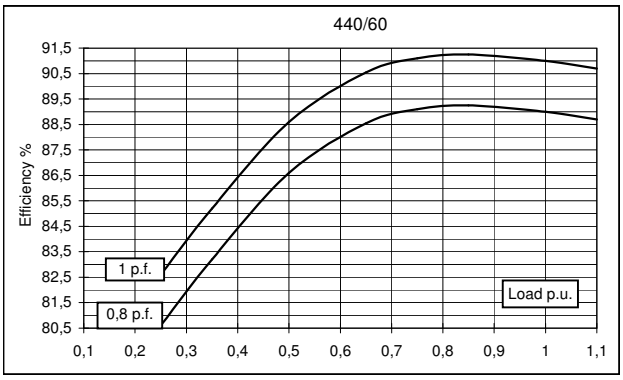
Document : **DS291A/3**

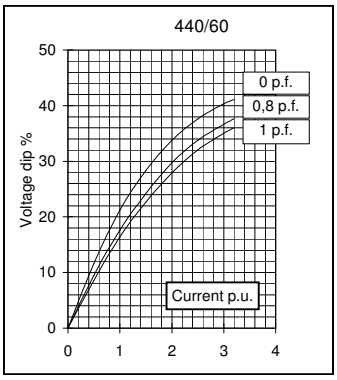
issue 000 date : 30/08/2013

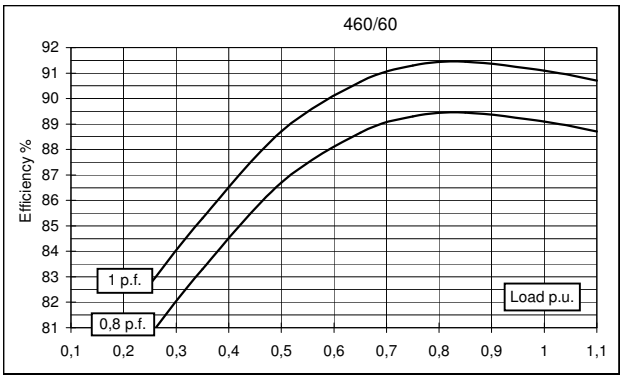
60 Hz

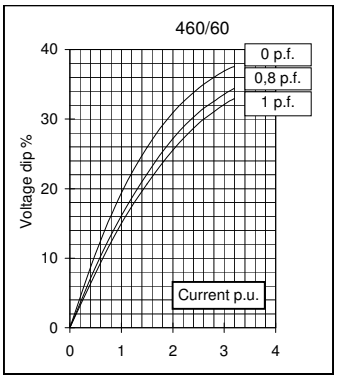


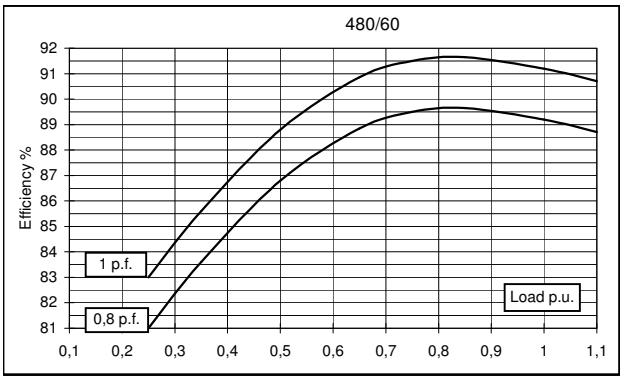


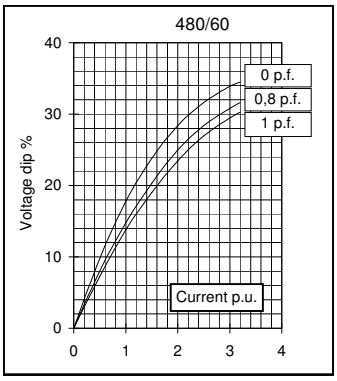


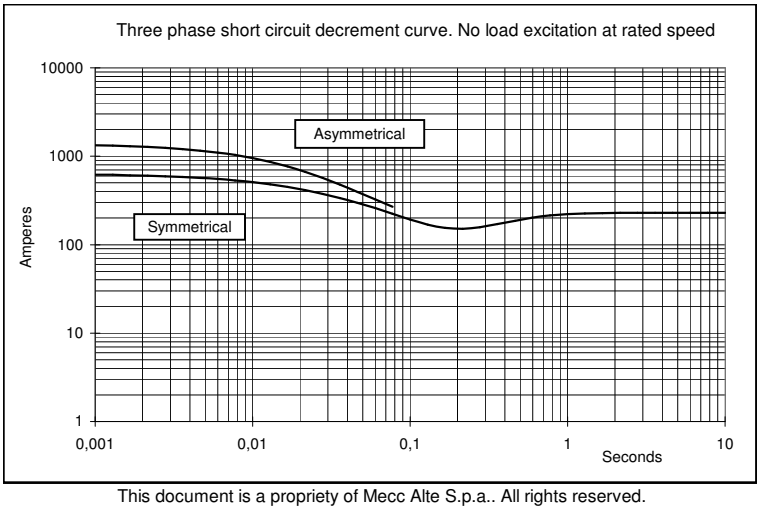




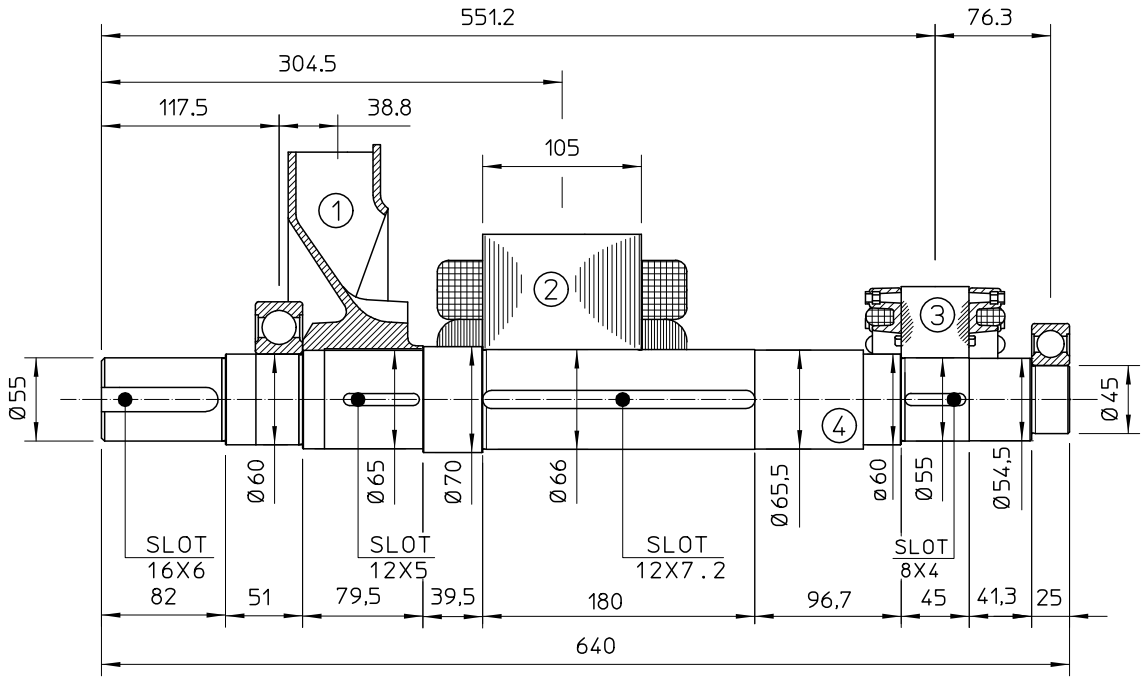






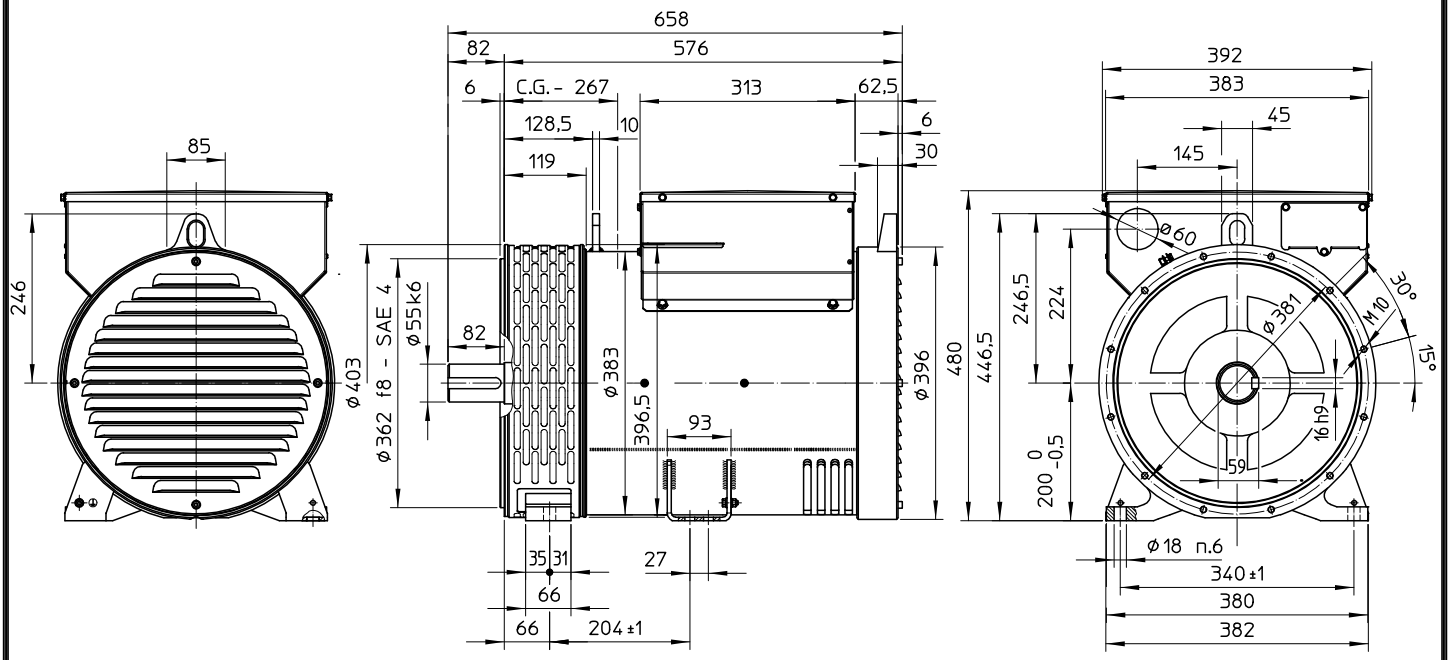


TWO BEARING MOMENTS OF INERTIA



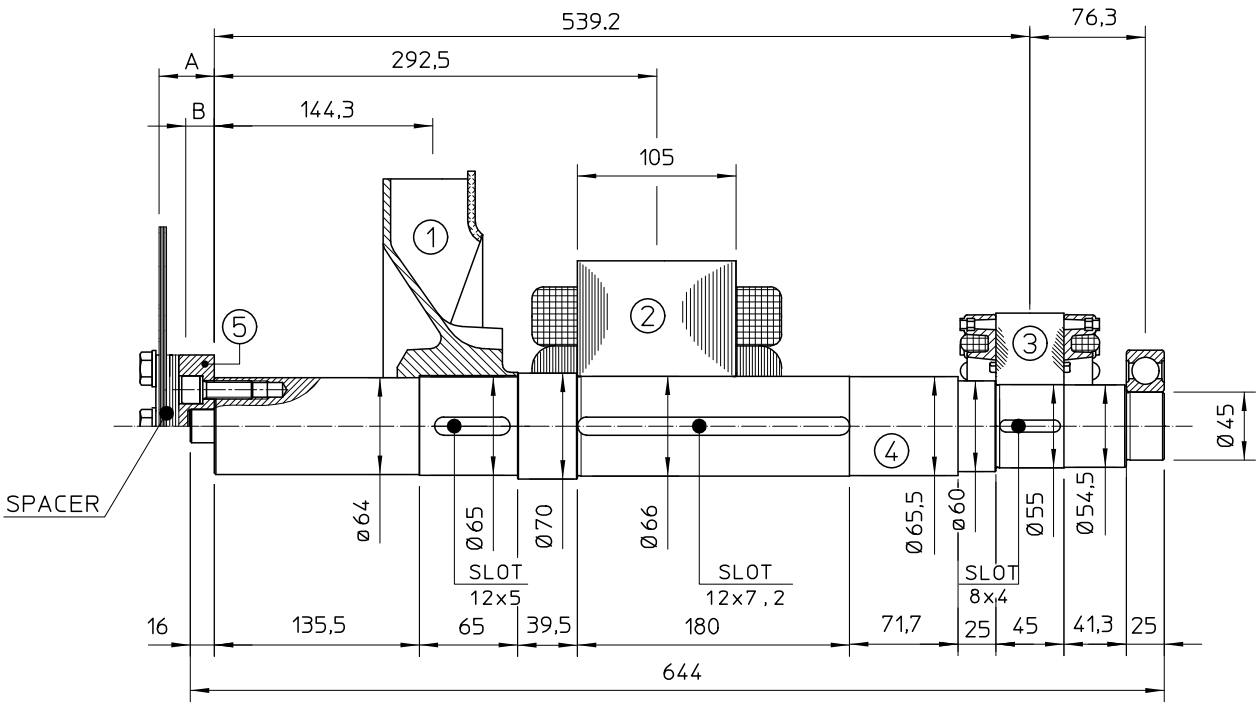
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	2.3	0.0224
2	MAIN ROTOR	24.6	0.092
3	EX. ROTOR	5.4	0.012
4	SHAFT	15.1	0.007
TOTAL		47.4	0.1334

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

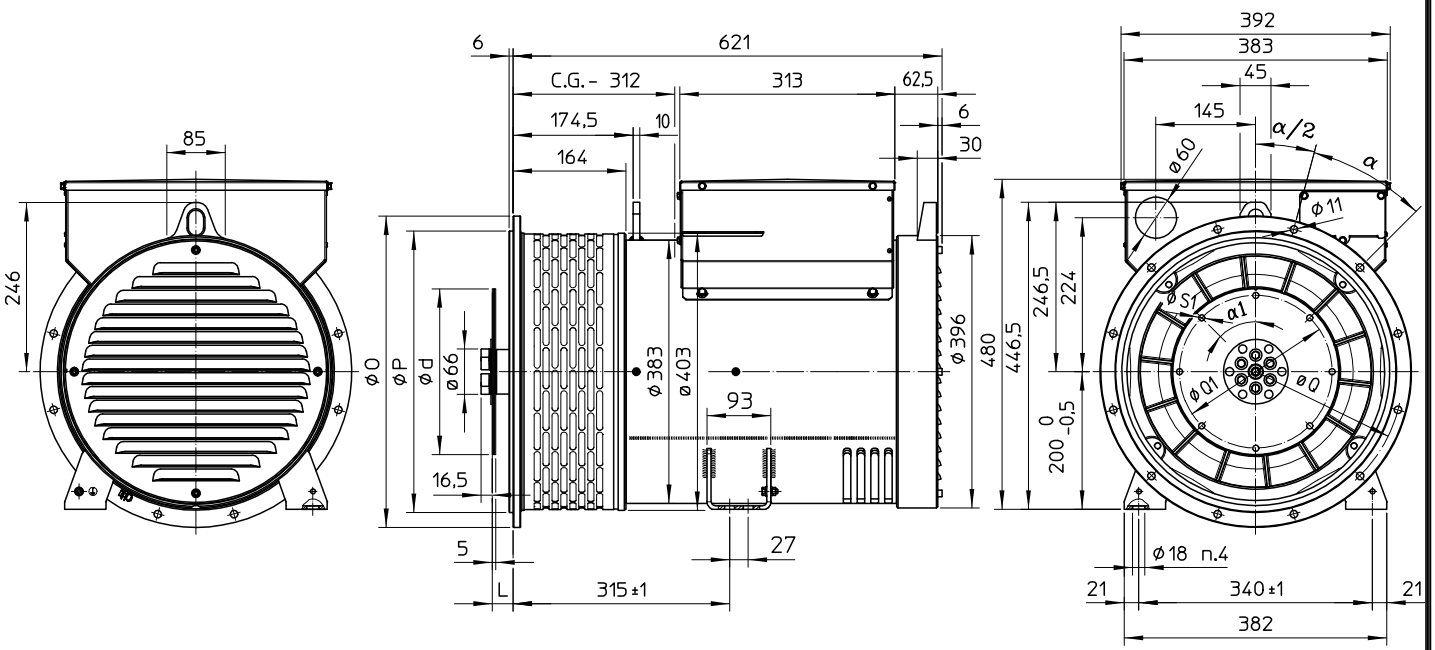
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	2.3	0.0224
2	MAIN ROTOR	24.58	0.092
3	EX. ROTOR	5.4	0.012
4	SHAFT	15.5	0.0078
TOTAL		47.78	0.1342

SAE	5	SHAFTS COUPLING FLEX PLATE		
N°	A	B	WEIGHT kg	J kgm^2
6,5	5	2.5	1.74	0.0084
7,5	5	2.5	2.1	0.013
8	36.6	28.1	3.9	0.02
10	28.6	21.6	4.47	0.038
11.5	15	11.5	4.51	0.059

SINGLE BEARING DIMENSIONS



SAE N.	FLANGIA / FLANGE BRIDE / FLANSCH			
	O	P	Q	α
5	356	314.3	333.4	45°
4	403	362	381	30°
3	451	409.6	428.6	30°
2	490	447.7	466.7	30°
1	552	511.2	530.2	30°

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

C.G.= GRAVITY CENTER