mecc alte spa

GENERATOR TYPE ECO 38-1L/4

Document :**DS073A/1**
issue 001 date 05/03/2004

Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	250	250	250	230	290	300	300	300
		kW	200	200	200	184	232	240	240	240
Rated power class F		kVA	230	230	230	215	270	280	280	280
		kW	184	184	184	172	216	224	224	224
Regulation with		UVR6	±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	%	93,4	93,5	93,2	93	93,9	94,4	94,5	94,6
(see graph. for details)	3/4	%	93,5	93,8	93,7	93,4	94,4	94,6	94,8	95
	2/4	%	92,4	92,5	92,5	92,3	93,5	93,6	93,7	93,8
	1/4	%	90,2	90	89,8	89,6	90,7	90,7	90,7	90,5
Reactances (f. l.cl. F)	Xd	%	238,2	215	199,7	163,5	278,0	255,9	234,1	215
	Xd'	%	16,1	14,5	13,5	11,0	18,8	17,3	15,8	14,5
	Xd"	%	8,3	7,5	7,0	5,7	9,7	8,9	8,2	7,5
	Xq	%	134,1	121	112,4	92,0	156,5	144,0	131,8	121
	Xq'	%	134,1	121	112,4	92,0	156,5	144,0	131,8	121
	Xq"	%	25,3	22,8	21,2	17,3	29,5	27,1	24,8	22,8
	X_2	%	18,4	16,6	15,4	12,6	21,5	19,8	18,1	16,6
	X_0	%	2,8	2,5	2,3	1,9	3,2	3,0	2,7	2,5
Short Circuit Ratio	Kcc		0,40	0,43	0,67	1,10	0,31	0,37	0,40	0,43
Time Constants	Td'	sec.	0,088							
	Td"	sec.	0,014							
	Tdo'	sec.	1,40							
	Tα	sec.	0,0175							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load		Amp.	0,6	0,71	0,8	0,95	0,4	0,5	0,58	0,7
Excitation at full load		Amp.	2,6	2,7	2,9	3,1	2,2	2,4	2,5	2,6
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)		Ω	0,0068							
Rotor Winding Resistance (20°C)		Ω	5,489							
Exciter Resistance (20 °C)		Ω	Rotor : 0,685				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	14133	13904	14592	13849	15071	14237	13968	13700
Telephone Interference			FHT < 2%				TIF < 40			
Radio interference			EN50081-1, EN50082-1, VDE0875K. For others standards apply to factory							
Waveform Distors.(THD) at f. load		LL/LN %	2 / 2,1							
Waveform Distors.(THD) at no load		LL/LN %	2,9 / 3,1							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6318.2RS							
NDE bearing			6314.2RS							
Weight of wound stator assembly		kg	239							
Weight of wound rotor assembly		kg	152							
Weight of complete generator		kg	692							
Maximun overspeed		rpm	2250							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,1							
Cooling air requirement		m^3/min	32				39			
Inertia Constant (H)		sec.	0,117				0,141			
Noise level at 1m/7m		dB(A)	82 / 69				86 / 73			

GENERATOR TYPE ECO 38-1L/4

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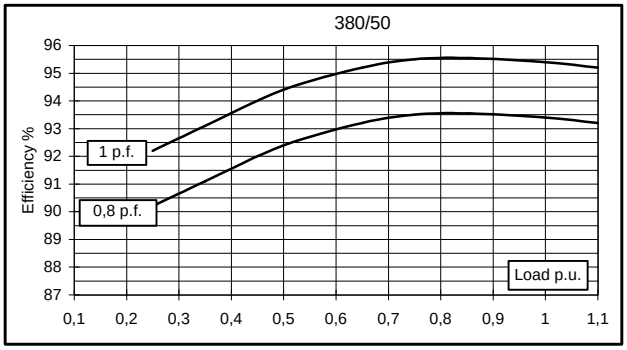
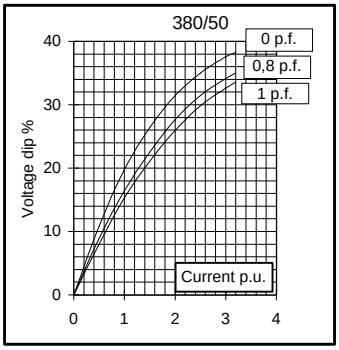
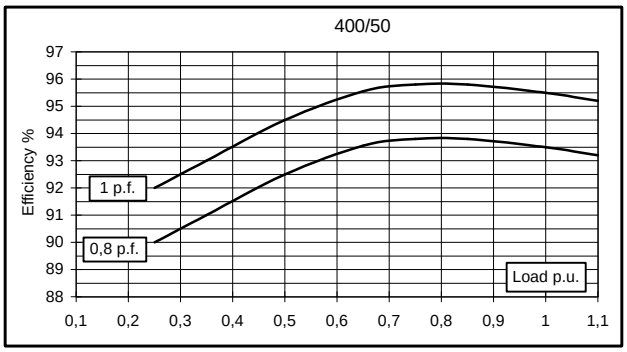
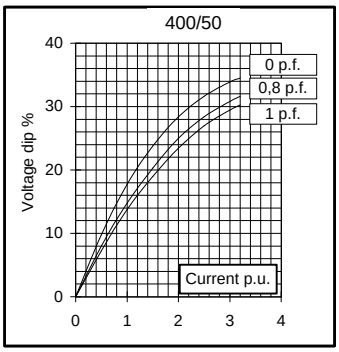
issue 000 date : 01/07/03

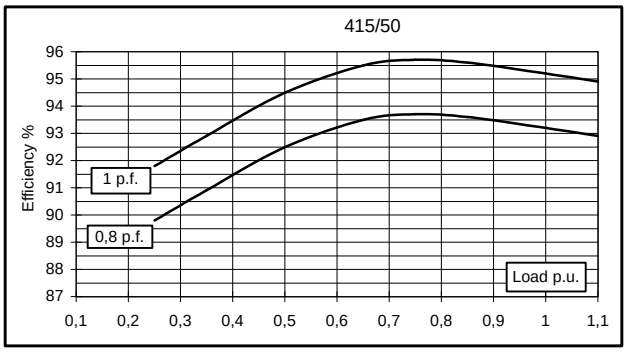
50 Hz

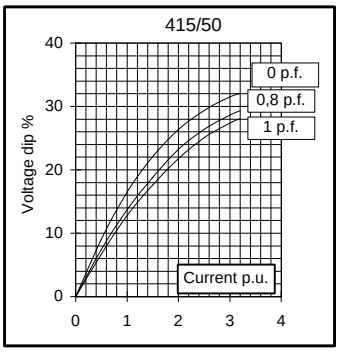


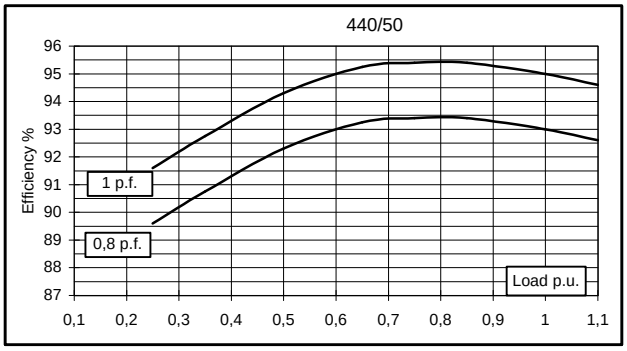


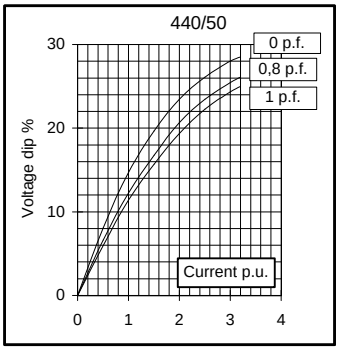


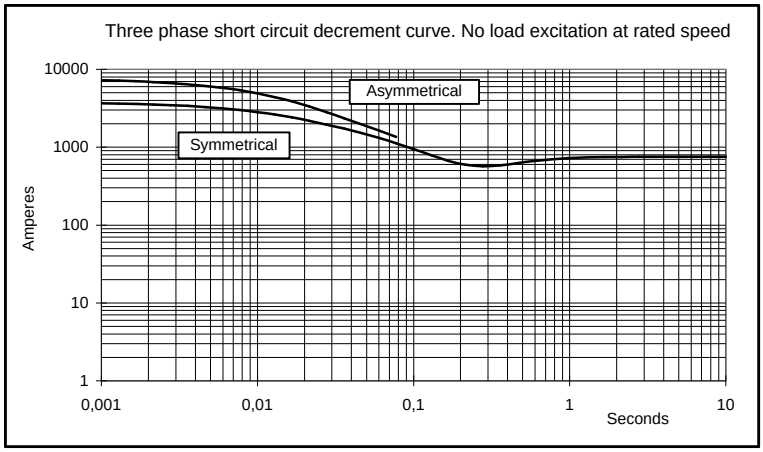








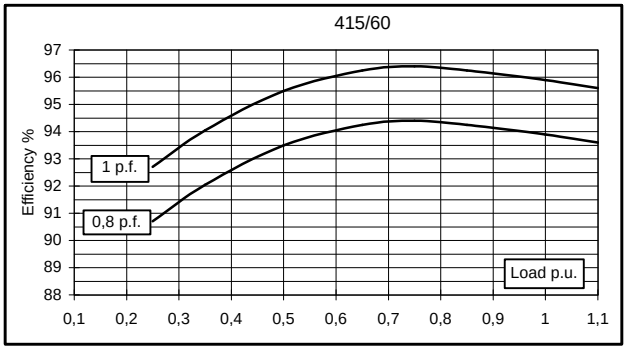


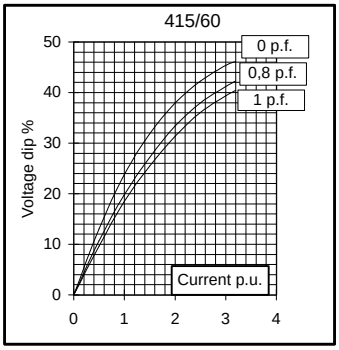


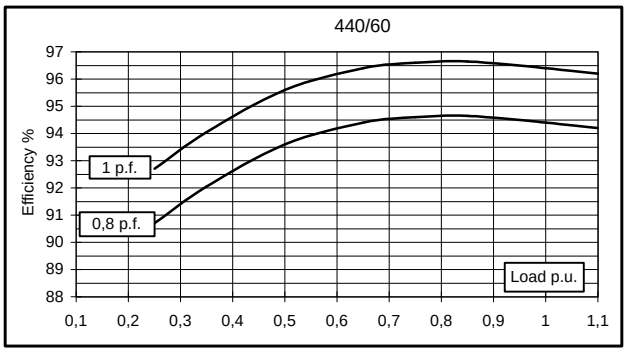
GENERATOR TYPE ECO 38-1L/4

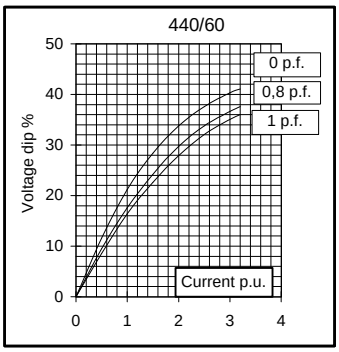
Document : **DS073A/3**
issue 000 date : 01/07/03

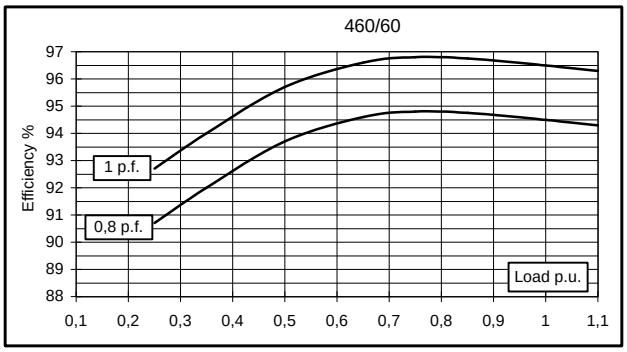
60 Hz

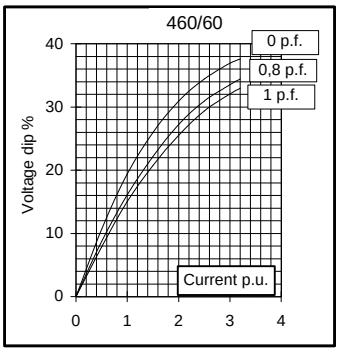


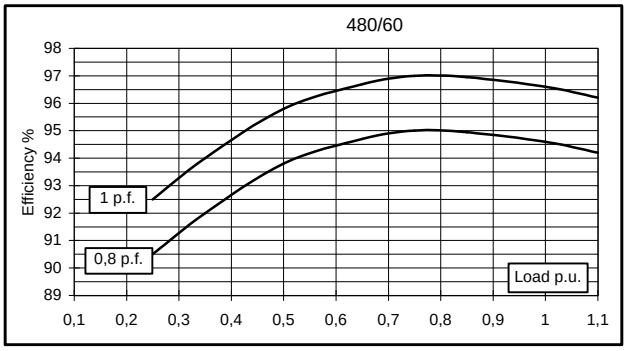


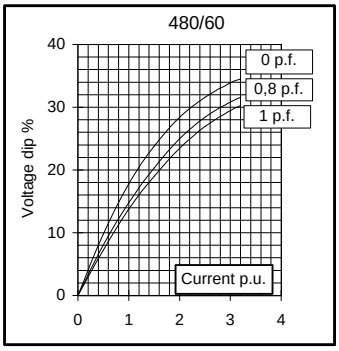


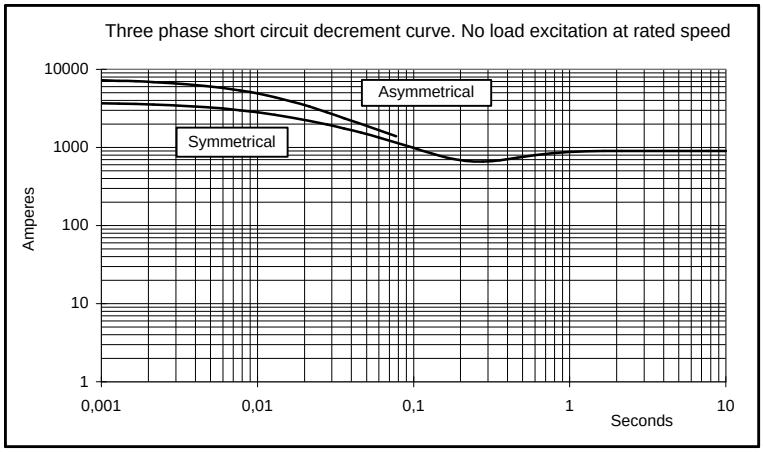




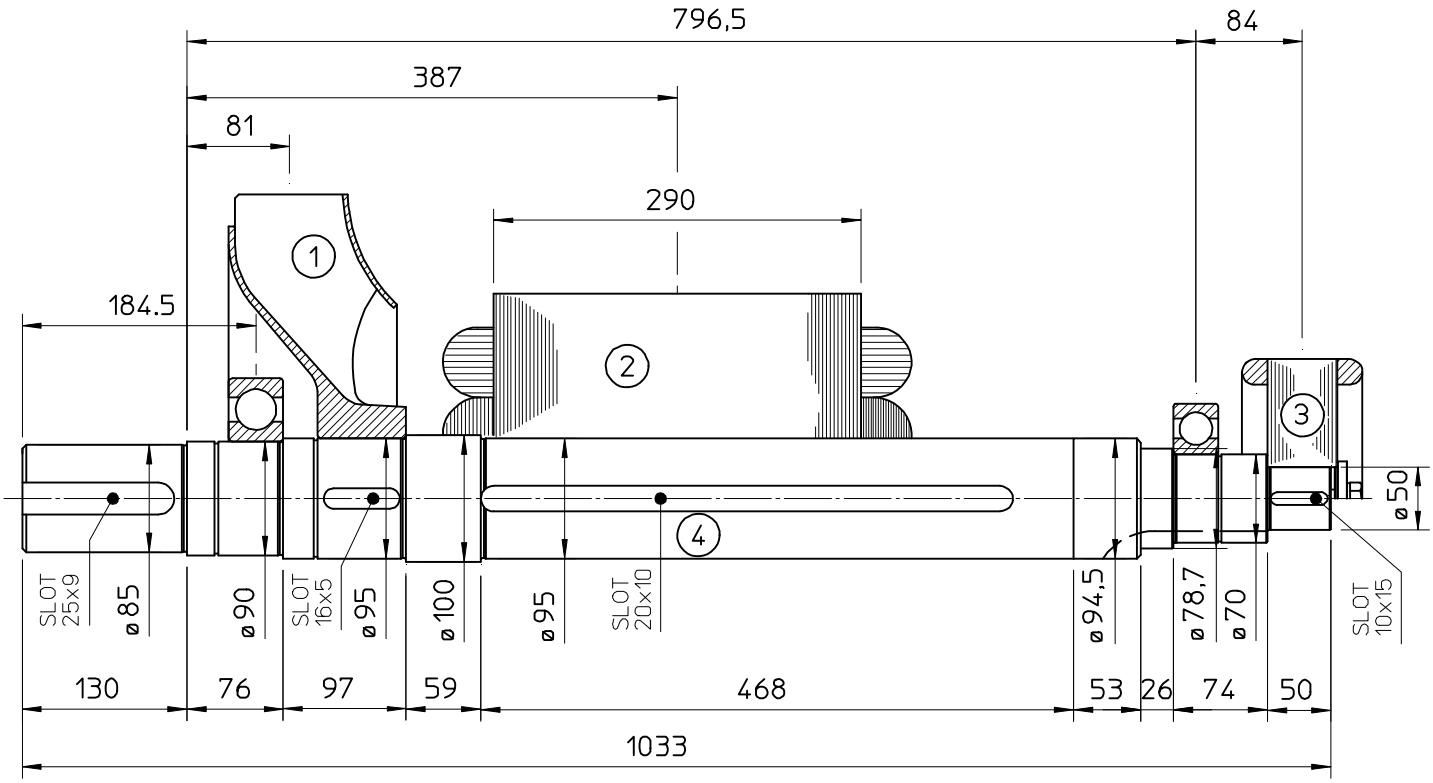






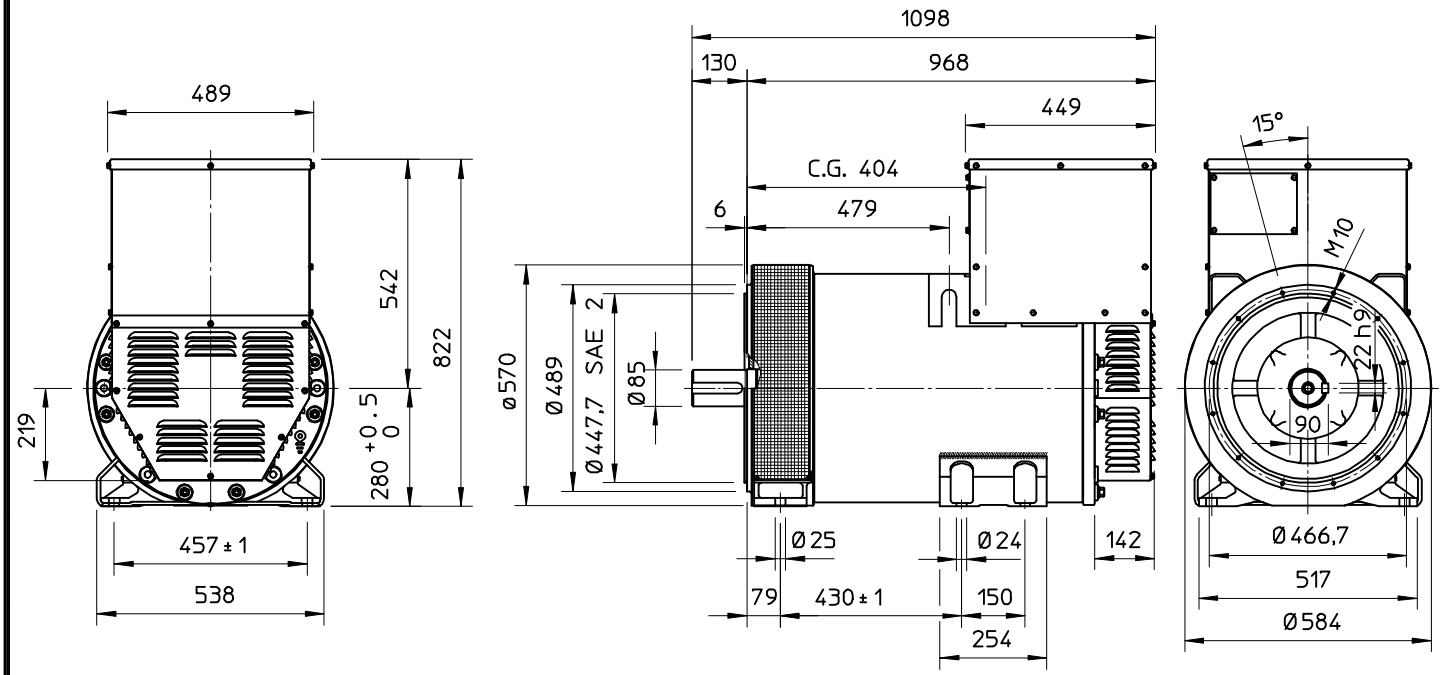


TWO BEARING MOMENTS OF INERTIA



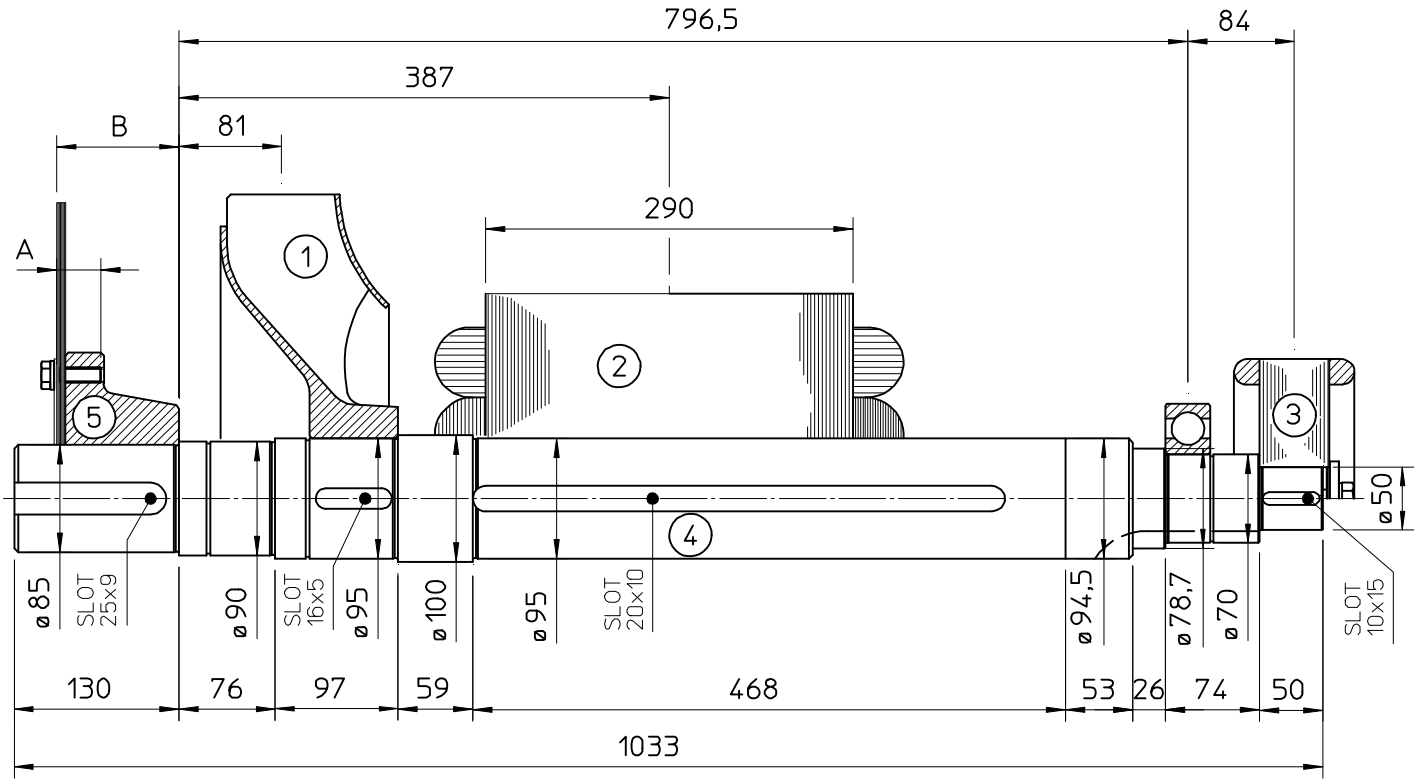
	COMPONENT	WEIGHT kg	J kgm²
1	FAN	6,1	0,1887
2	MAIN ROTOR	152	2,0397
3	EX. ROTOR	14,5	0,0874
4	SHAFT	49,9	0,0525
	TOTAL	222,5	2,3683

TWO BEARING DIMENSIONS



C.G = GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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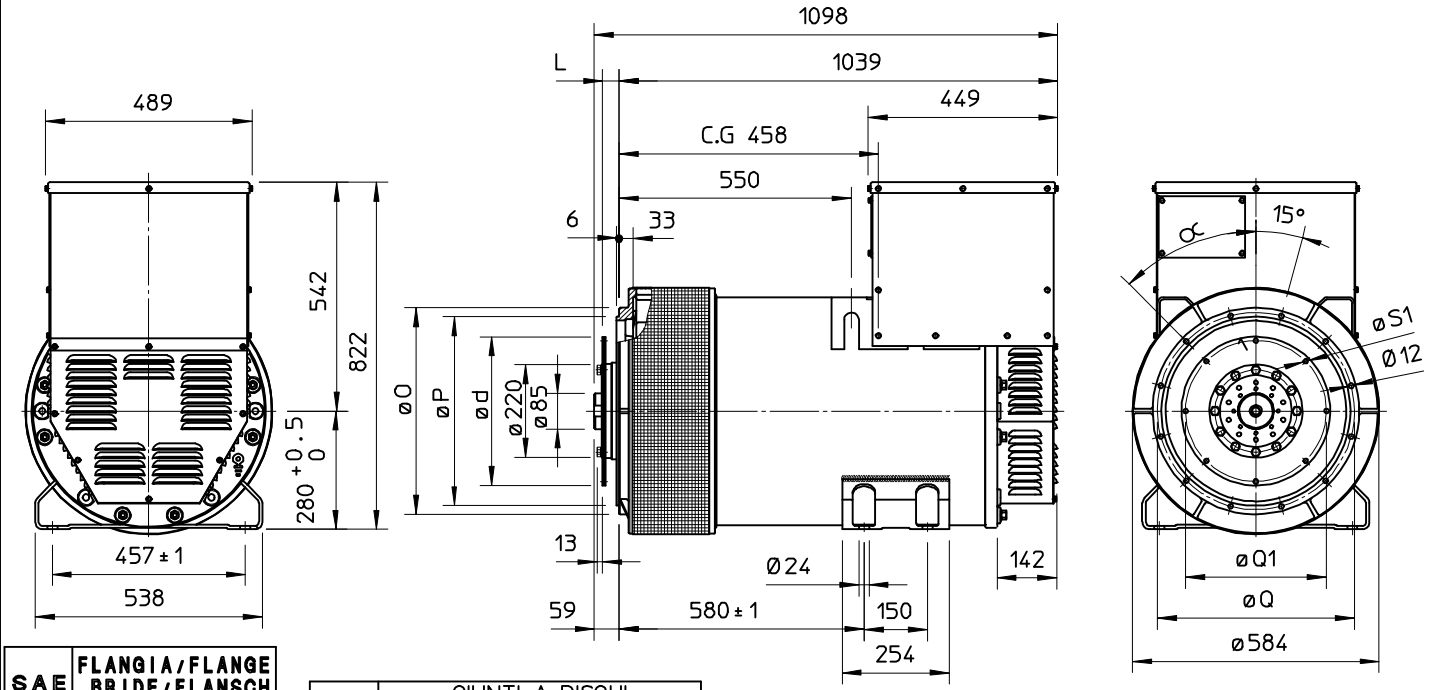
SAE No	5 SHAFTS COUPLING FLEX PLATE			
	A	B	WEIGHT kg	J kgm²
11.5	41.1	110.4	22,7	0,306
14	34.7	96.4	22,7	0,306

SINGLE BEARING DIMENSIONS



SAE N.	FLANGIA/FLANGE BRIDE/FLANSCH		
	O	P	Q
3	451	409,6	428,6
2	489	447,7	466,7
1	552	511,2	530,2
1/2	648	584,2	619,1

SAE N.	GIUNTI A DISCHI DISC COUPLING DISQUE DE MONOPALIER SCHEIBENKUPPLUNG					
	L	d	Q1	n. fori	S1	α1
11 1/2	39,6	352,42	333,37	8	11	45°
14	25,4	466,72	438,15	8	14	45°

C.G = GRAVITY CENTER