mecc alte spa

GENERATOR TYPE ECO 38-2S/4

Document :**DS071A/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	200	200	200	190	230	240	240	240
		kW	160	160	160	152	184	192	192	192
Rated power class F		kVA	185	185	185	175	210	220	220	220
		kW	148	148	148	140	168	176	176	176
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	%	92,7	92,8	92,5	92,3	93,2	93,7	93,8	93,9
(see graph. for details)	3/4	%	92,7	93	92,9	92,6	93,5	93,7	93,9	94,1
	2/4	%	91,7	91,8	91,8	91,6	92,6	92,7	92,8	92,9
	1/4	%	90,2	90	89,8	89,6	90,7	90,7	90,7	90,5
Reactances (f. l.cl. F)	Xd	%	232,7	210	195,1	164,9	269,2	249,9	228,7	210
	Xd'	%	12,7	11,5	10,7	9,0	14,7	13,7	12,5	11,5
	Xd"	%	6,9	6,2	5,8	4,9	7,9	7,4	6,8	6,2
	Xq	%	127,4	115	106,8	90,3	147,4	136,9	125,2	115
	Xq'	%	127,4	115	106,8	90,3	147,4	136,9	125,2	115
	Xq"	%	24,9	22,5	20,9	17,7	28,8	26,8	24,5	22,5
	X_2	%	16,6	15,0	13,9	11,8	19,2	17,9	16,3	15,0
	X_0	%	2,9	2,6	2,4	2,0	3,3	3,1	2,8	2,6
Short Circuit Ratio	Kcc		0,41	0,44	0,62	1,00	0,30	0,37	0,41	0,44
Time Constants	Td'	sec.	0,080							
	Td"	sec.	0,013							
	Tdo'	sec.	0,95							
	Tα	sec.	0,017							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load		Amp.	0,5	0,7	0,9	1,2	0,3	0,35	0,45	0,65
Excitation at full load		Amp.	2,9	3	3,2	3,4	2,4	2,6	2,8	2,9
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)		Ω	0,0108							
Rotor Winding Resistance (20°C)		Ω	4,485							
Exciter Resistance (20 °C)		Ω	Rotor : 0,685				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	12600	12414	12973	12680	13425	12909	12691	12473
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 %	2,7 / 2,6							
Waveform Distors.(THD) at no load		LL/LN %	3 / 2,9							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6318.2RS							
NDE bearing			6314.2RS							
Weight of wound stator assembly		kg	182							
Weight of wound rotor assembly		kg	118							
Weight of complete generator		kg	573							
Maximun overspeed		rpm	2250							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,2							
Cooling air requirement		m^3/min	32				39			
Inertia Constant (H)		sec.	0,118				0,141			
Noise level at 1m/7m		dB(A)	82 / 69				86 / 73			

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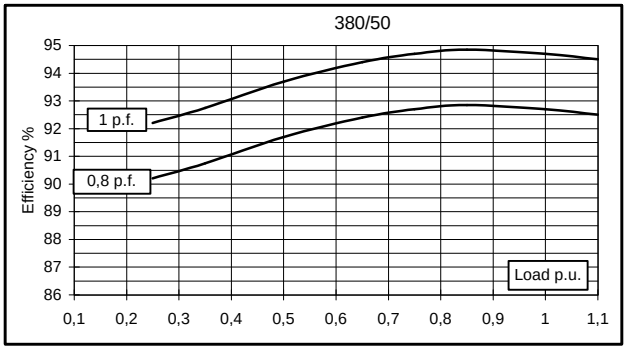
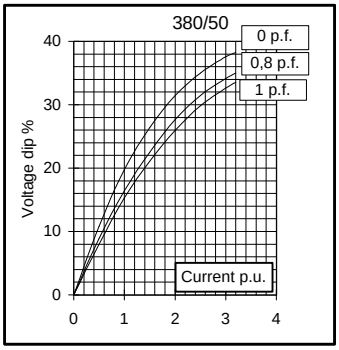
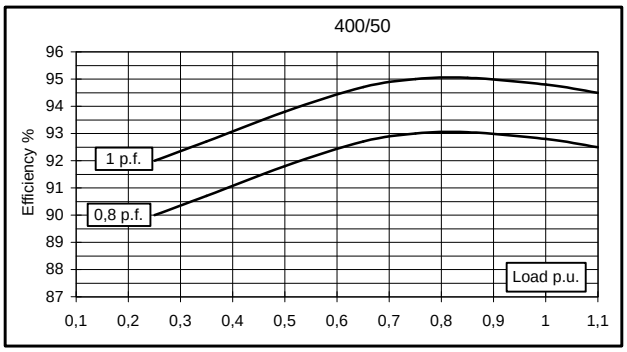
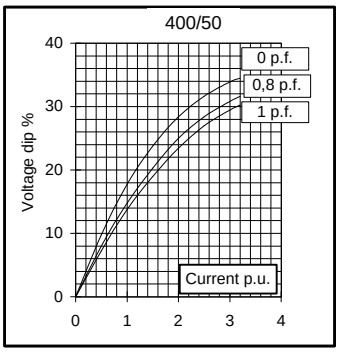
Document : **DS071A/2**
issue 000 date : 01/07/03

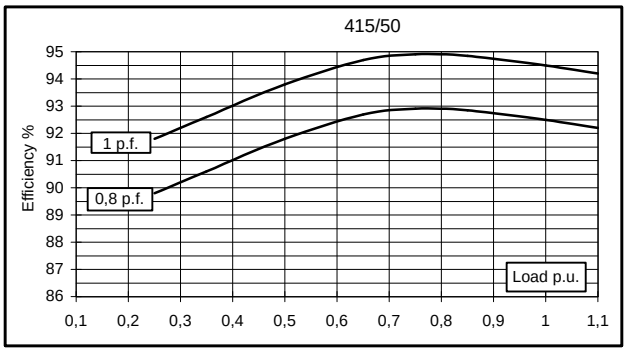
50 Hz

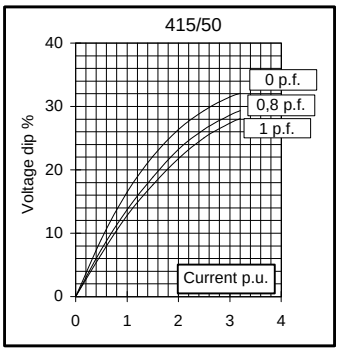


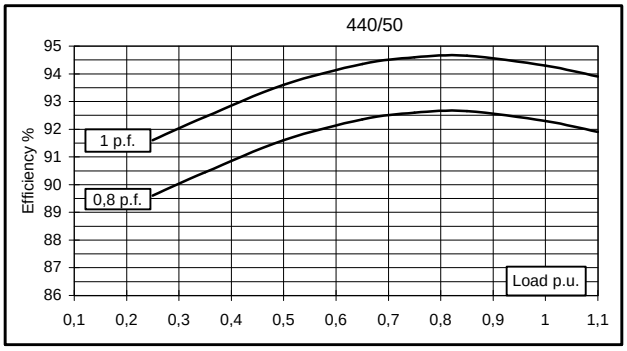


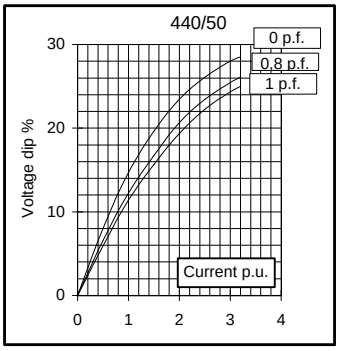


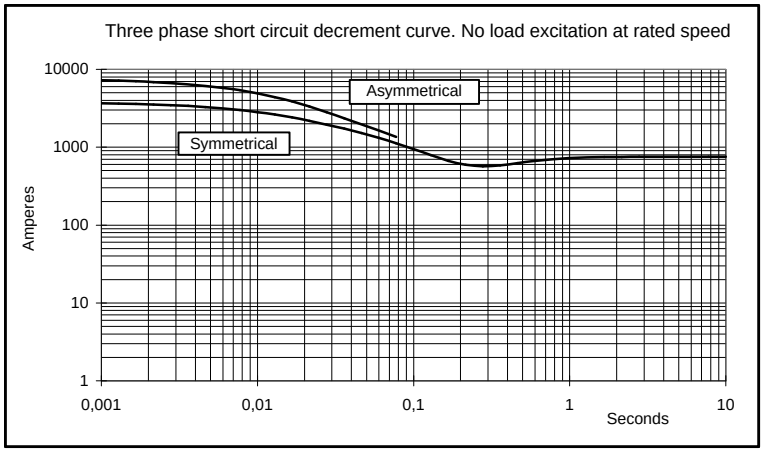








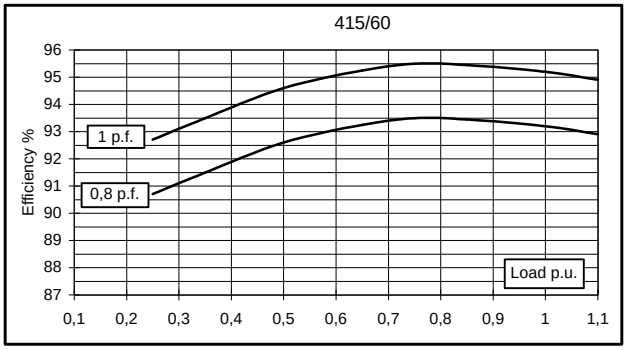


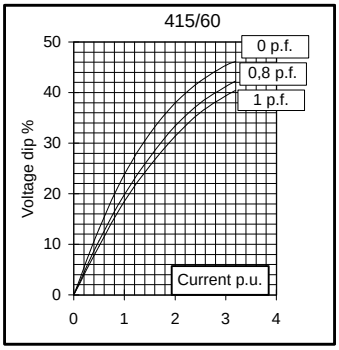


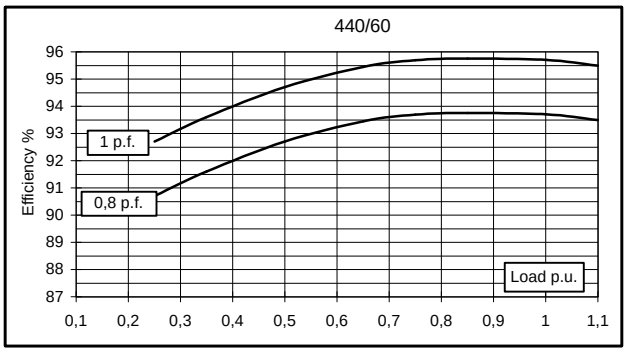
GENERATOR TYPE ECO 38-2S/4

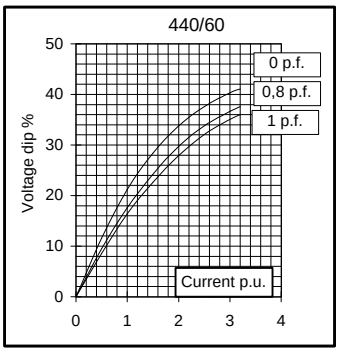
Document : **DS071A/3**
issue 000 date : 01/07/03

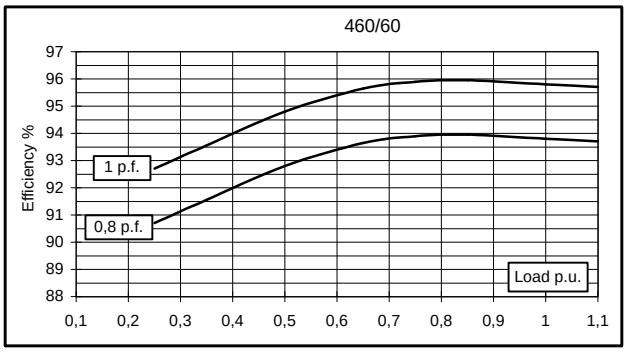
60 Hz

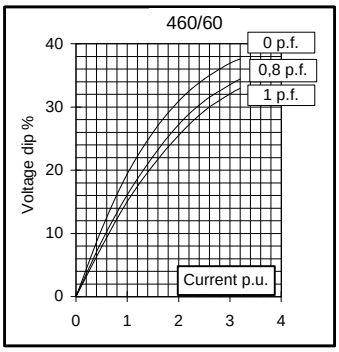


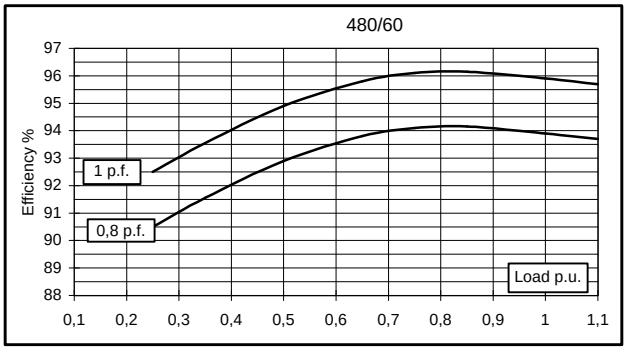


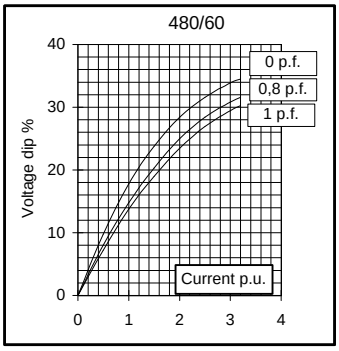


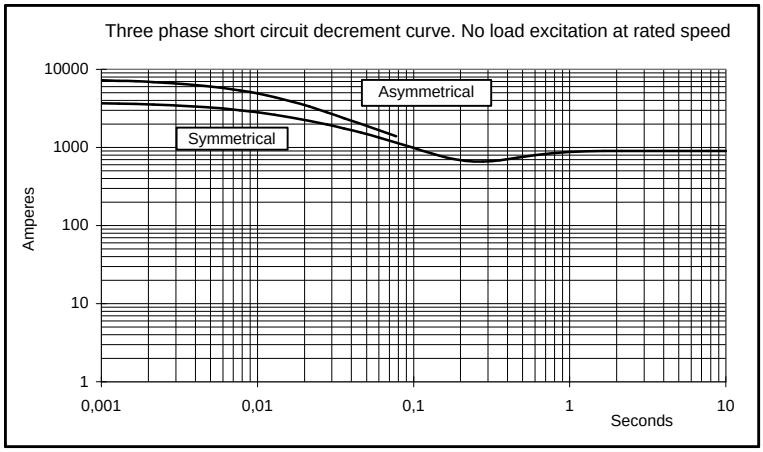




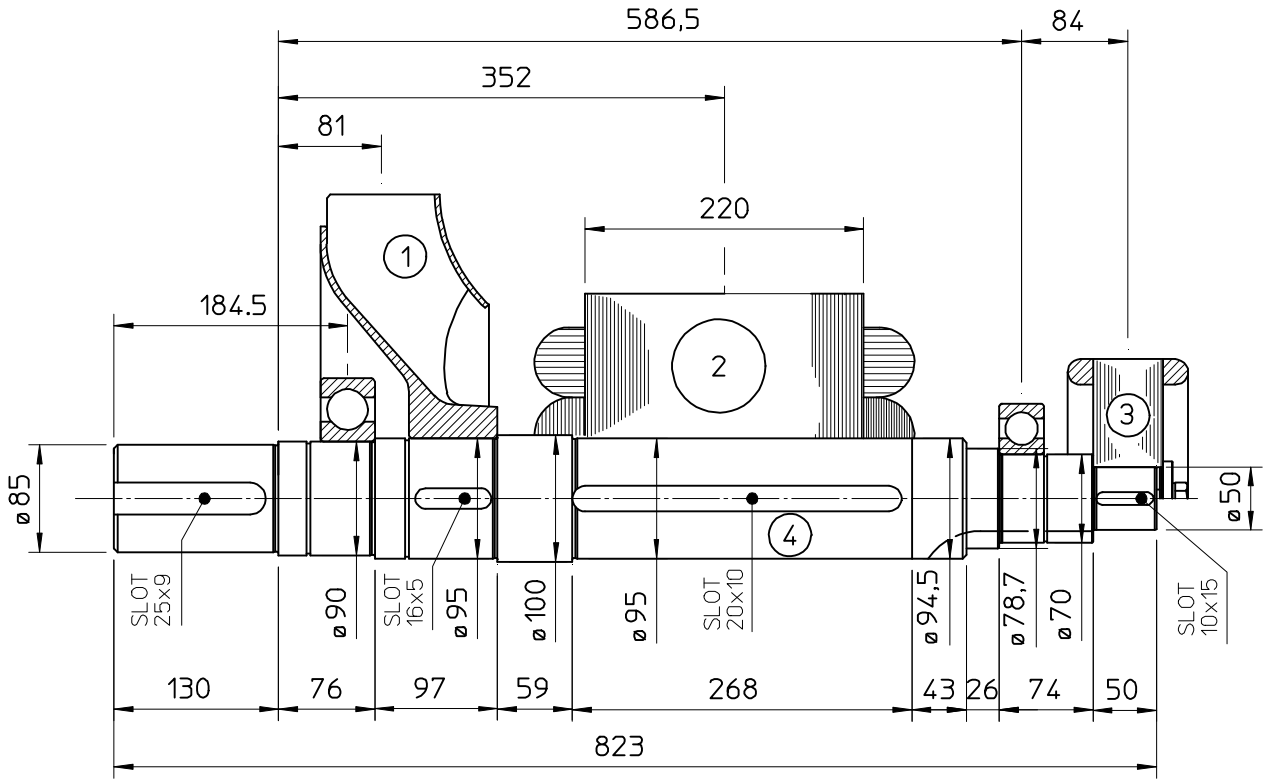






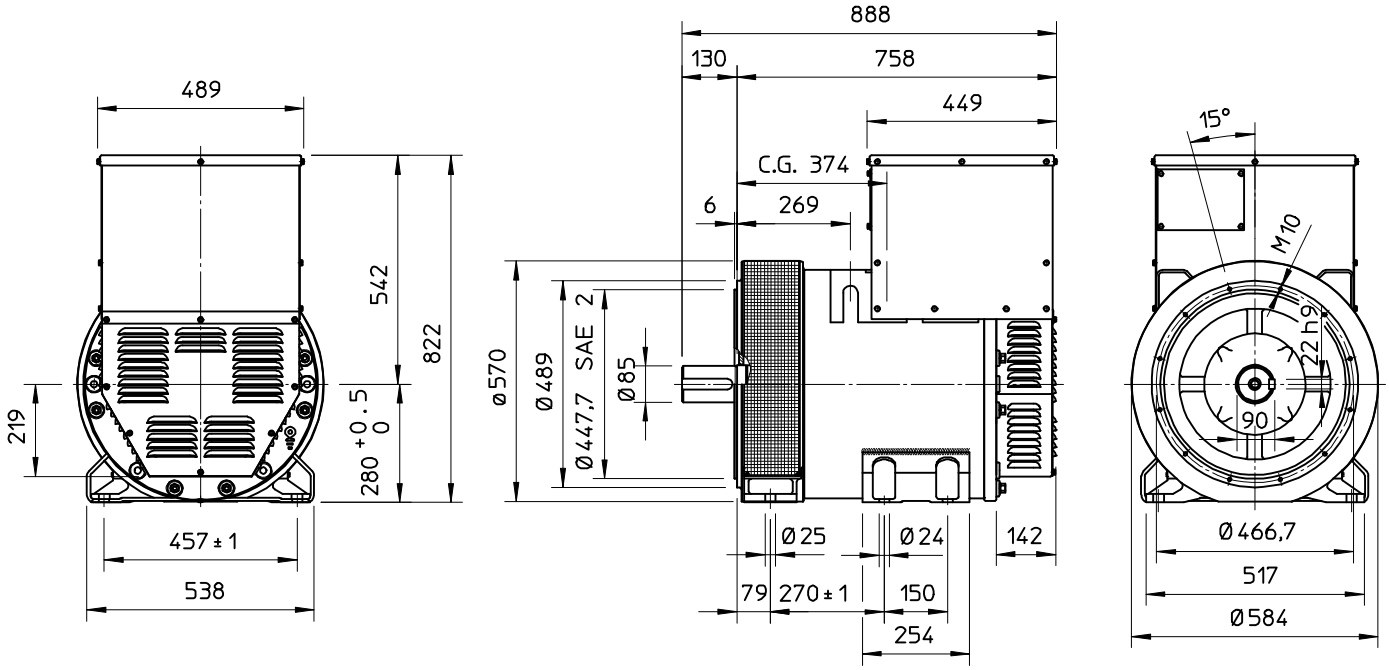


TWO BEARING MOMENTS OF INERTIA



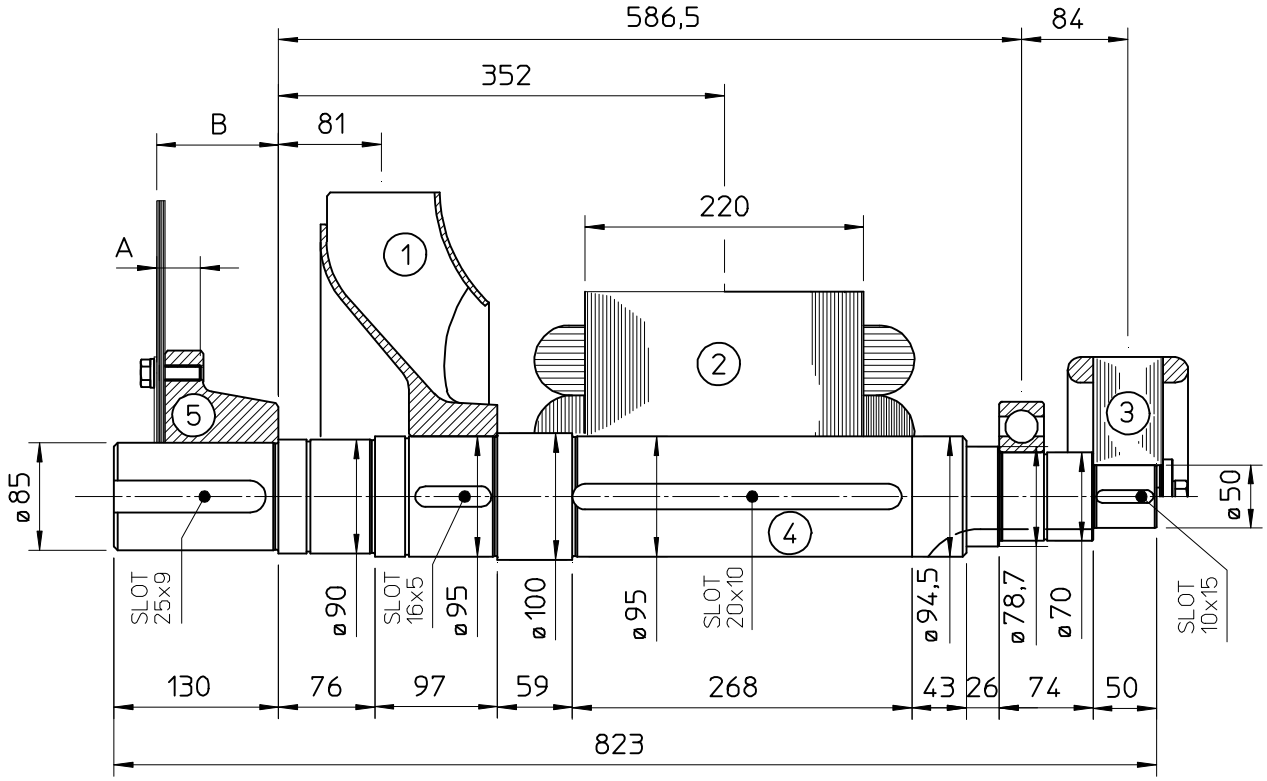
	COMPONENT	WEIGHT kg	J kgm²
1	FAN	6,1	0,1887
2	MAIN ROTOR	118	1,5878
3	EX. ROTOR	14,5	0,0874
4	SHAFT	38,5	0.0397
	TOTAL	177,1	1,9036

TWO BEARING DIMENSIONS



C.G = GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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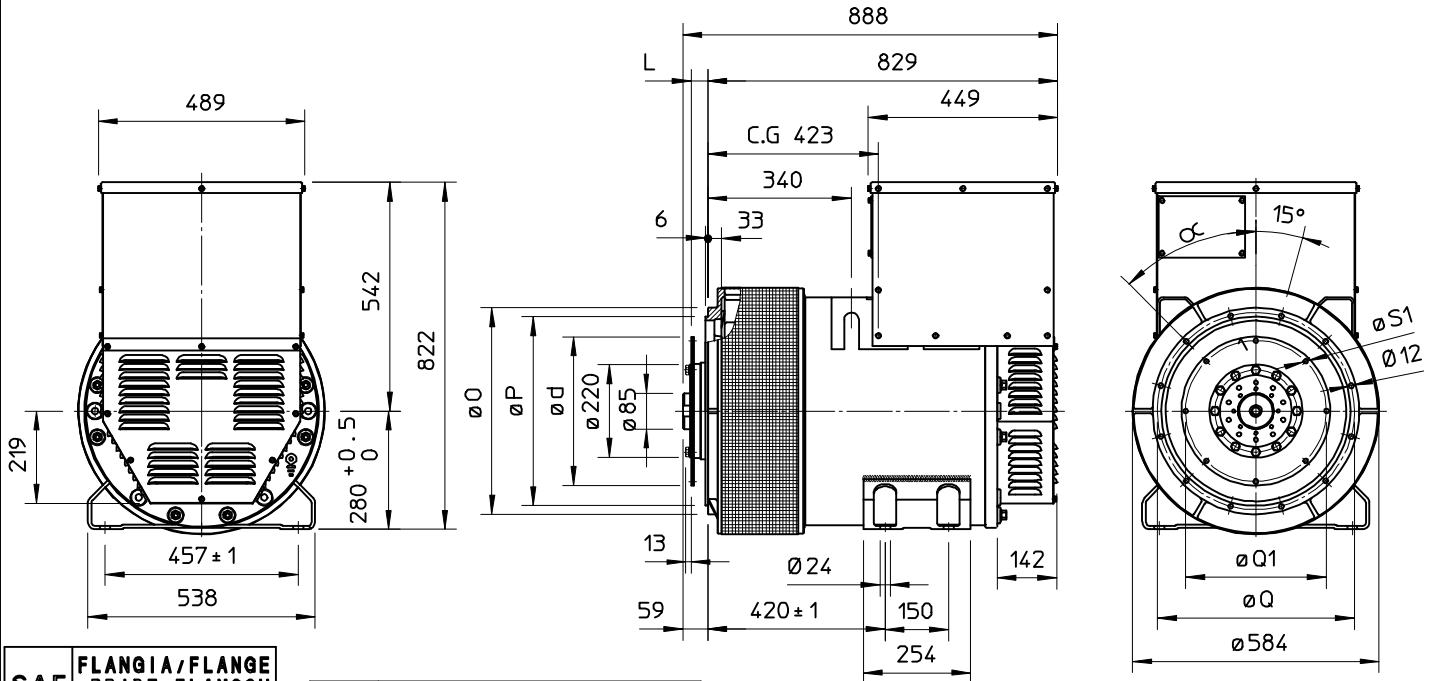
	TOTAL	177,1	1,9036

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	∝1
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