mecc alte spa

GENERATOR TYPE ECO 38-3S/4

Document :**DS072A/1**

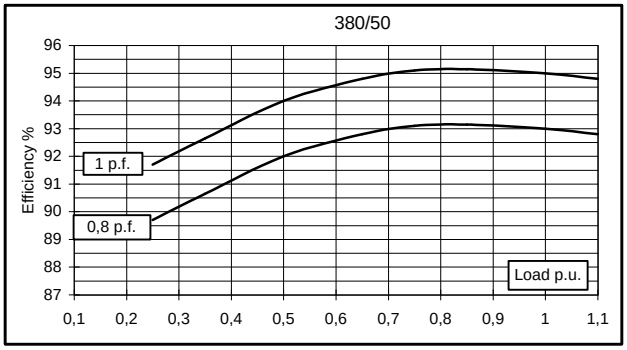
issue 001 date 05/03/2004

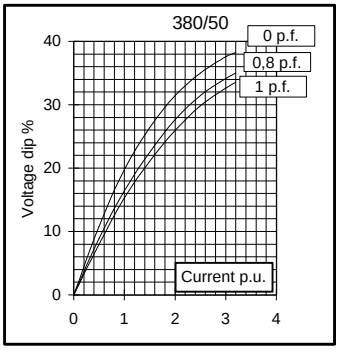
Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	225	225	225	210	260	270	270	270
		kW	180	180	180	168	208	216	216	216
Rated power class F		kVA	207	207	207	190	240	250	250	250
		kW	166	166	166	152	192	200	200	200
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	93,1	92,8	92,6	93,6	94,1	94,2	94,3
(see graph. for details)	3/4	%	93,1	93,4	93,3	93	94	94,2	94,4	94,6
	2/4	%	92	92,1	92,1	91,9	93,2	93,3	93,4	93,5
	1/4	%	89,7	89,5	89,3	89,1	90,7	90,7	90,7	90,5
Reactances (f. l.cl. F)	Xd	%	221,6	200	185,8	154,3	257,6	238,0	217,8	200
	Xd'	%	14,2	12,8	11,9	9,9	16,5	15,2	13,9	12,8
	Xd"	%	7,5	6,8	6,3	5,2	8,8	8,1	7,4	6,8
	Xq	%	121,9	110	102,2	84,8	141,7	130,9	119,8	110
	Xq'	%	121,9	110	102,2	84,8	141,7	130,9	119,8	110
	Xq"	%	25,6	23,1	21,5	17,8	29,8	27,5	25,2	23,1
	X_2	%	17,7	16,0	14,9	12,3	20,6	19,0	17,4	16,0
	X_0	%	3,0	2,7	2,5	2,1	3,5	3,2	2,9	2,7
Short Circuit Ratio	Kcc		0,40	0,43	0,65	1,10	0,30	0,35	0,40	0,43
Time Constants	Td'	sec.	0,085							
	Td"	sec.	0,0135							
	Tdo'	sec.	1,20							
	Tα	sec.	0,0185							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load		Amp.	0,55	0,67	0,8	1,1	0,3	0,4	0,5	0,65
Excitation at full load		Amp.	2,7	2,9	3,1	3,2	2,3	2,4	2,6	2,8
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)		Ω	0,0089							
Rotor Winding Resistance (20°C)		Ω	4,992							
Exciter Resistance (20 °C)		Ω	Rotor : 0,685				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	13548	13340	13966	13425	14222	13543	13299	13056
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 %	2,8 / 2,9							
Waveform Distors.(THD) at no load		LL/LN %	2,6 / 2,8							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6318.2RS							
NDE bearing			6314.2RS							
Weight of wound stator assembly		kg	201							
Weight of wound rotor assembly		kg	132,8							
Weight of complete generator		kg	602							
Maximun overspeed		rpm	2250							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,7							
Cooling air requirement		m^3/min	32				39			
Inertia Constant (H)		sec.	0,115				0,138			
Noise level at 1m/7m		dB(A)	82 / 69				86 / 73			

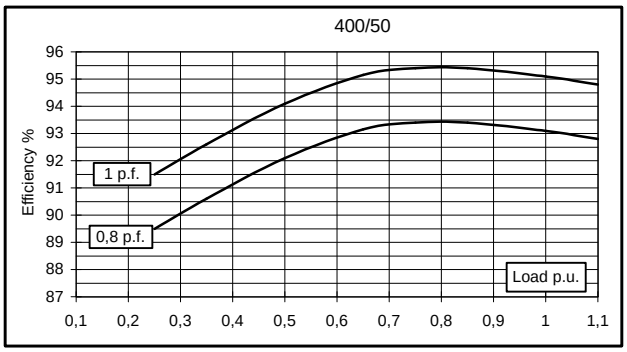
GENERATOR TYPE ECO 38-3S/4

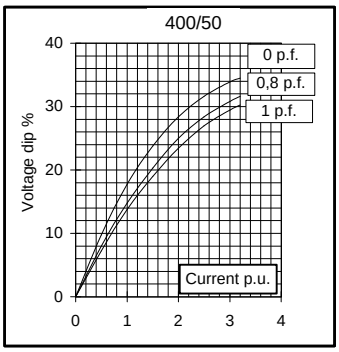
Document : **DS072A/2**
issue 000 date : 01/07/03

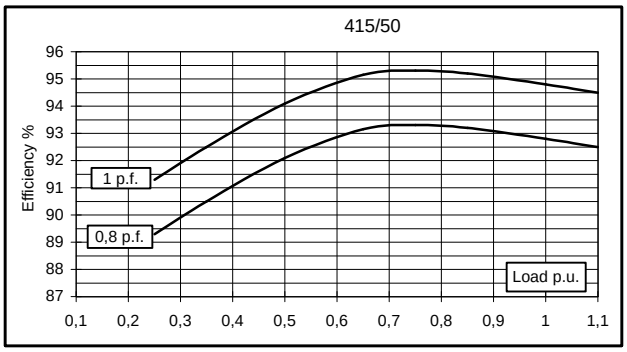
50 Hz

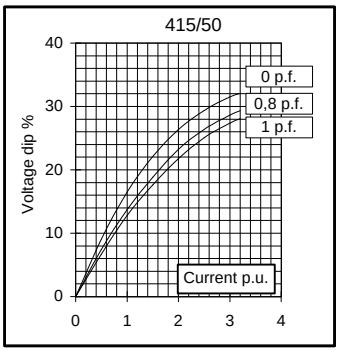


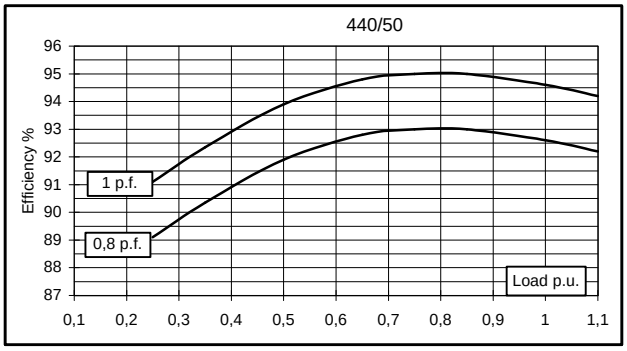


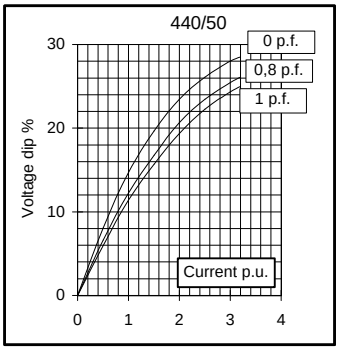


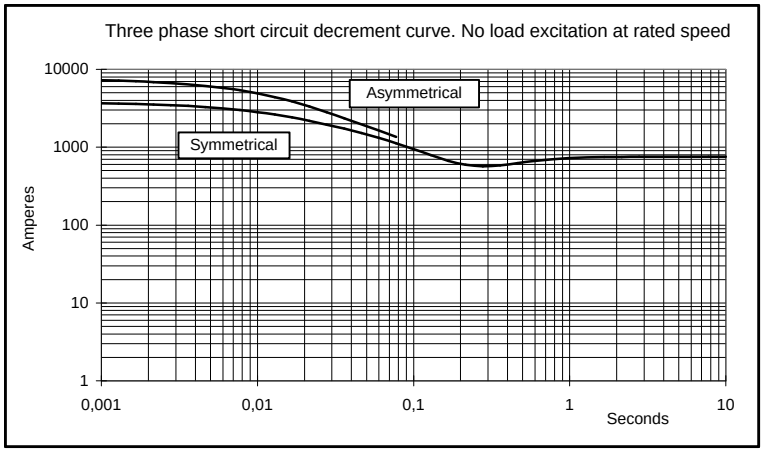












GENERATOR TYPE ECO 38-3S/4

Document : **DS072A/3**
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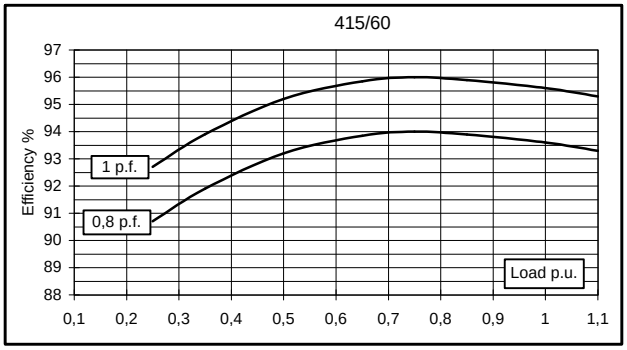
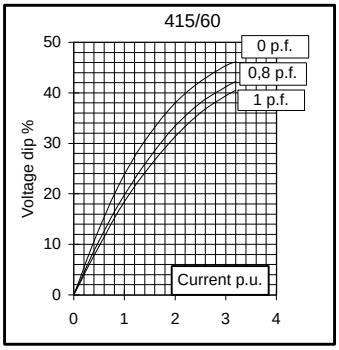
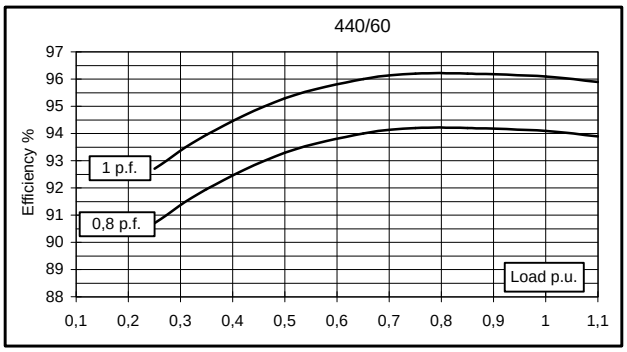
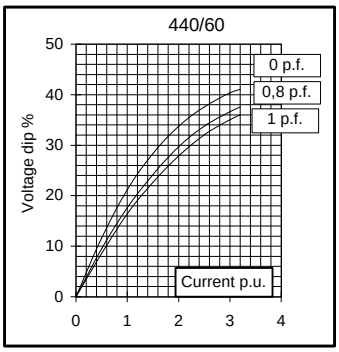
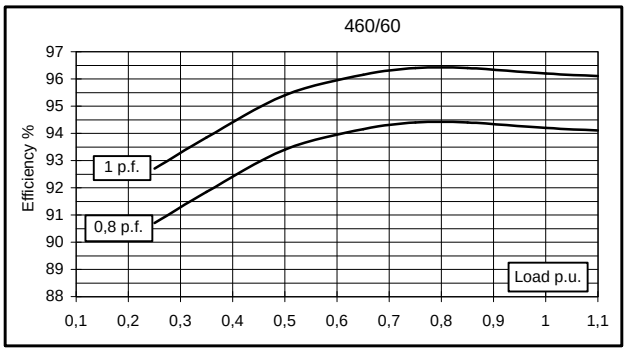
60 Hz

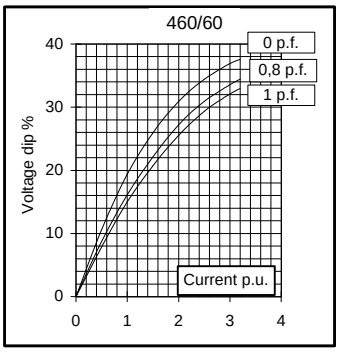


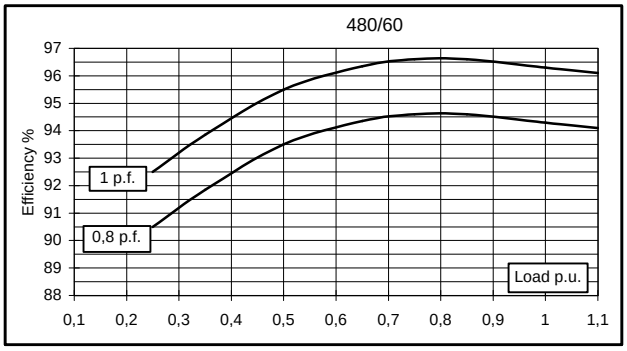


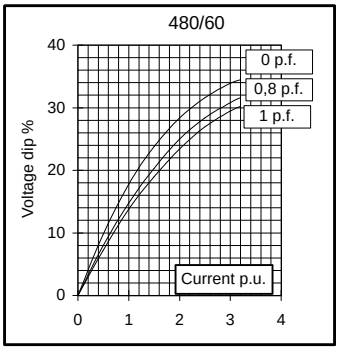


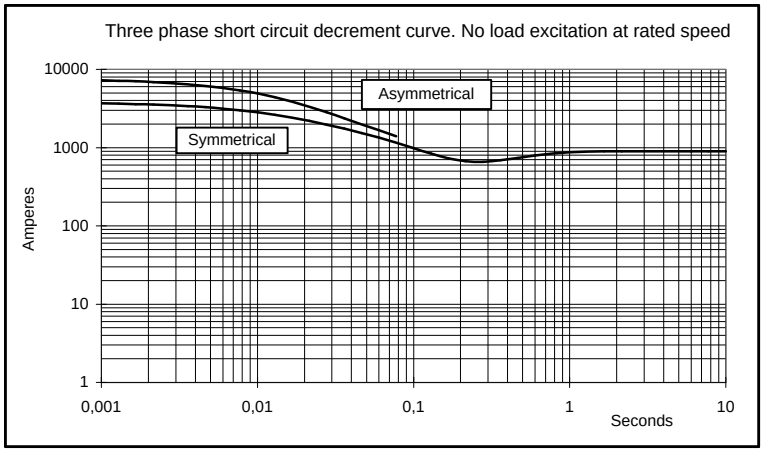




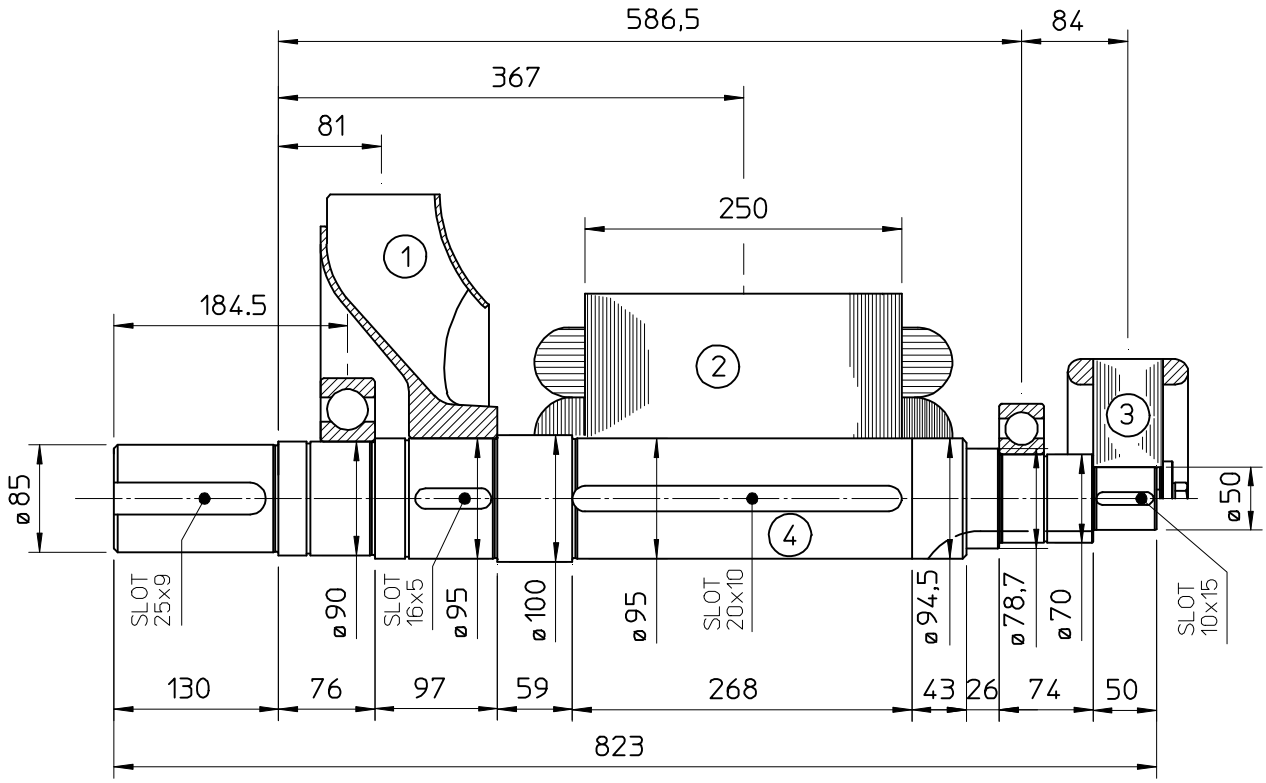






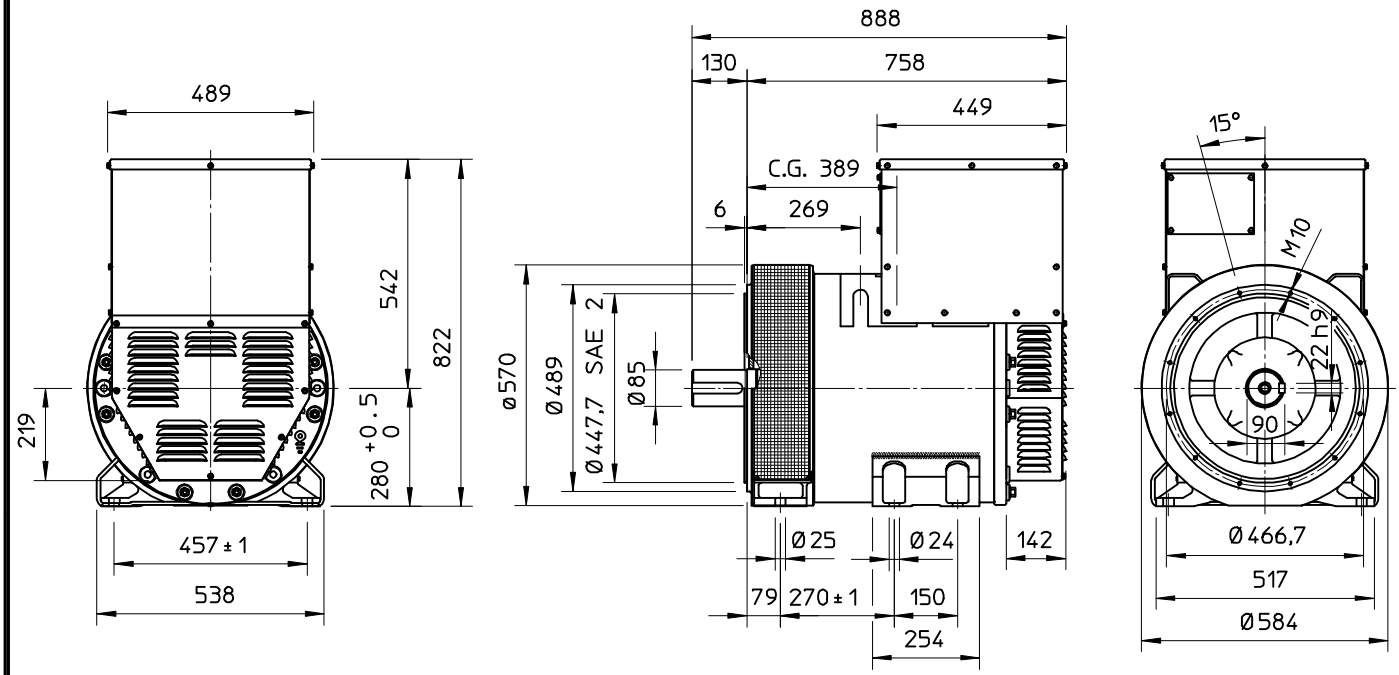


TWO BEARING MOMENTS OF INERTIA



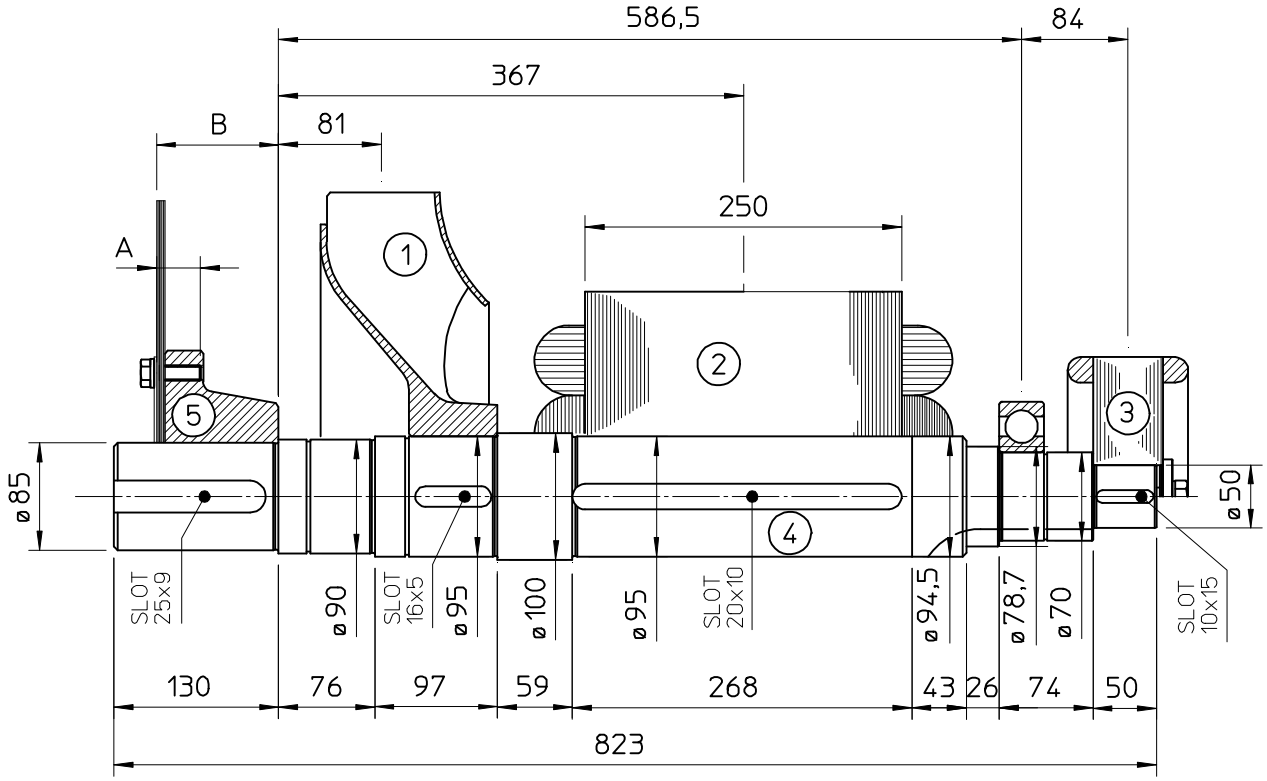
	COMPONENT	WEIGHT kg	J kgm²
1	FAN	6,1	0,1887
2	MAIN ROTOR	132,8	1,7815
3	EX. ROTOR	14,5	0,0874
4	SHAFT	38,5	0.0397
	TOTAL	191,9	2,0973

TWO BEARING DIMENSIONS



C.G = GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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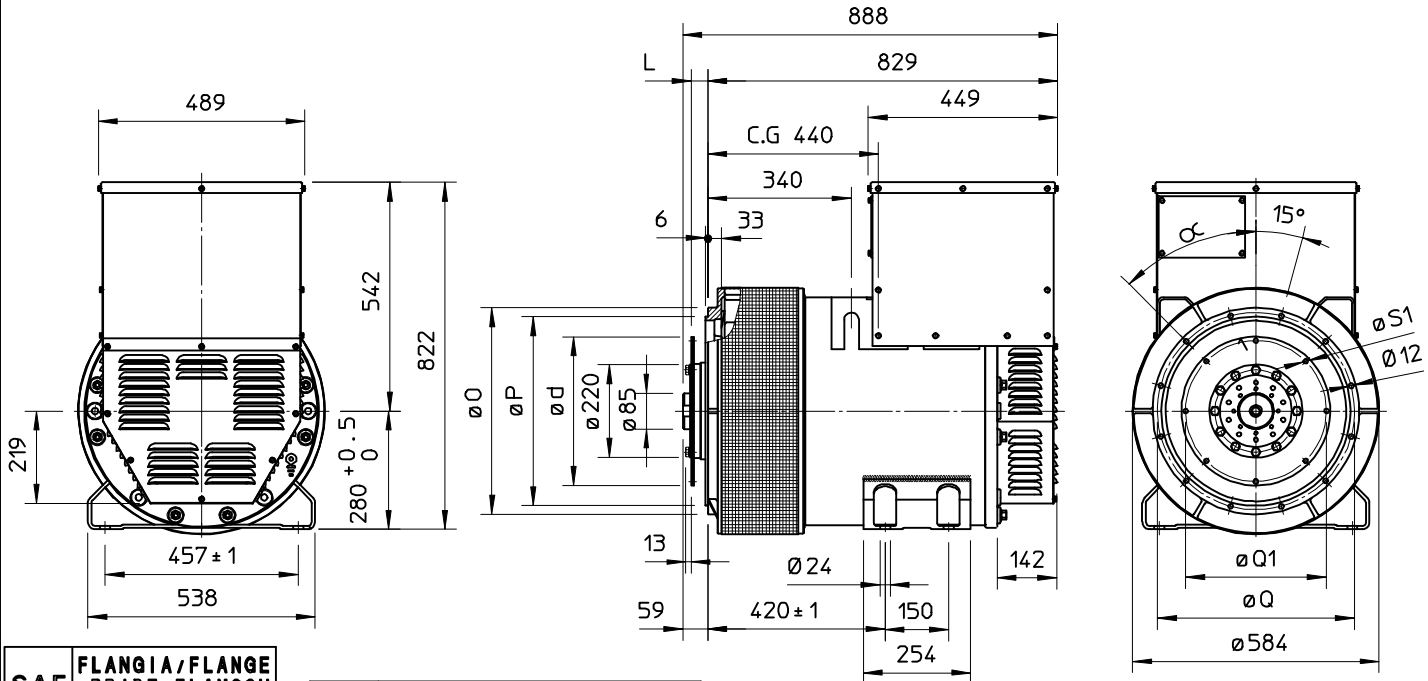
SAE No	5 SHAFTS COUPLING FLEX PLATE			
	A	B	WEIGHT kg	J kgm²
11.5	41.1	110.4	22,7	0,306
14	34.7	96.4	22,7	0,306

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	∝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