GENERATOR TYPE ECP 34-2L/2

Document : **DS068A/1**
issue 001 date 02/04/2009

Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	170	170	170	150	175	196	208	208
		kW	136	136	136	120	140	157	166	166
Rated power class F		kVA	154	154	154	135	160	173	188	188
		kW	123	123	123	108	128	138	150	150
Regulation with		SR7/2	±1,5 % 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	%	91,7	91,8	91,5	91,3	92,8	93,3	93,4	93,5
(see graph. for details)	3/4	%	92	92,3	92,2	91,9	93,3	93,5	93,6	93,8
	2/4	%	90,5	90,6	90,6	90,4	91,9	92	92,1	92,2
	1/4	%	87	86,8	86,6	86,6	87,7	87,7	87,7	87,5
Reactances (f. l.cl. F)	Xd	%	445,4	402	373,5	293,1	452,5	450,8	437,7	402
	Xd'	%	15,7	14,2	13,2	10,4	16,0	15,9	15,5	14,2
	Xd"	%	7,2	6,5	6,0	4,7	7,3	7,3	7,1	6,5
	Xq	%	188,8	170,4	158,3	124,3	191,8	191,1	185,5	170,4
	Xq'	%	188,8	170,4	158,3	124,3	191,8	191,1	185,5	170,4
	Xq"	%	25,6	23,1	21,5	16,8	26,0	25,9	25,2	23,1
	X_2	%	19,6	17,7	16,4	12,9	19,9	19,8	19,3	17,7
	X_0	%	3,1	2,8	2,6	2,0	3,2	3,1	3,0	2,8
Short Circuit Ratio	Kcc		0,38	0,41	0,43	0,45	0,35	0,37	0,38	0,41
Time Constants	Td'	sec.	0,0526							
	Td"	sec.	0,0085							
	Tdo'	sec.	1,10							
	$T\alpha$	sec.	0,0185							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load		Amp.	0,4	0,5	0,6	0,8	0,3	0,35	0,4	0,47
Excitation at full load		Amp.	3,1	3,2	3,3	3,4	3,3	3,1	3	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	0,009							
Rotor Winding Resistance (20°C)		Ω	2,003							
Exciter Resistance (20 °C)		Ω	Rotor : 0,410				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	12310	12148	12634	11435	10862	11260	11758	11568
Telephone Interference			THF < 2%				TIF < 40			
Radio interference			EN60034-1. For others standards apply to factory							
Waveform Distors.(THD) at f. load		LL/LN %	2,1 / 4,9							
Waveform Distors.(THD) at no load		LL/LN %	1,7 / 4,7							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6314.2RS							
NDE bearing			6311.2RS							
Weight of wound stator assembly		kg	220							
Weight of wound rotor assembly		kg	125,3							
Weight of complete generator		kg	492							
Maximun overspeed		rpm	4300							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	4,5							
Cooling air requirement		m^3/min	35,4				42			
Inertia Constant (H)		sec.	0,050				0,059			
Noise level at 1m/7m		dB(A)	92/79				96/82			

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

GENERATOR TYPE ECP 34-2L/2

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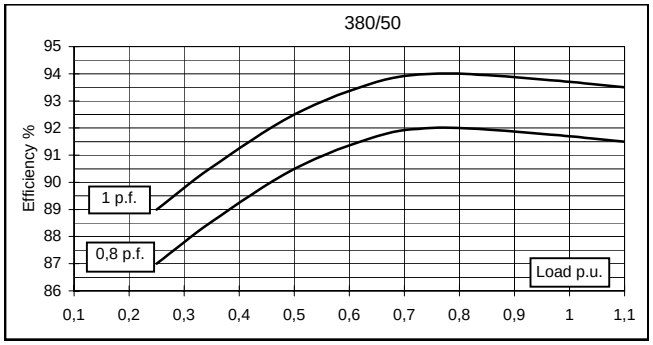
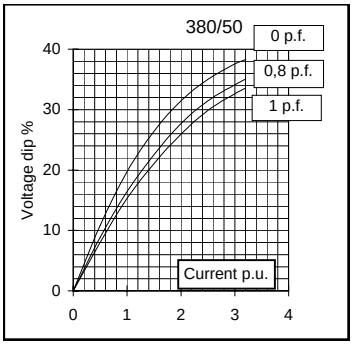
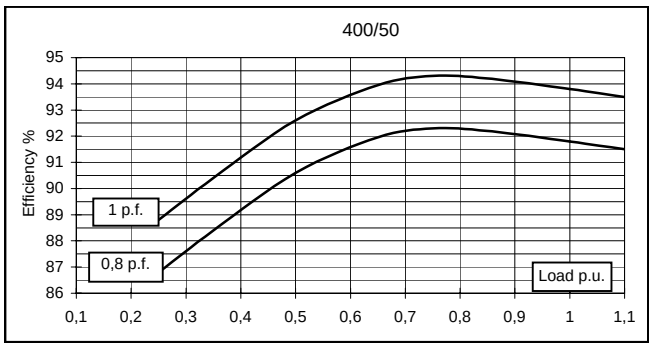
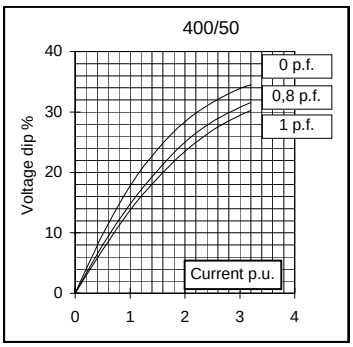
issue 001 date : 02/04/09

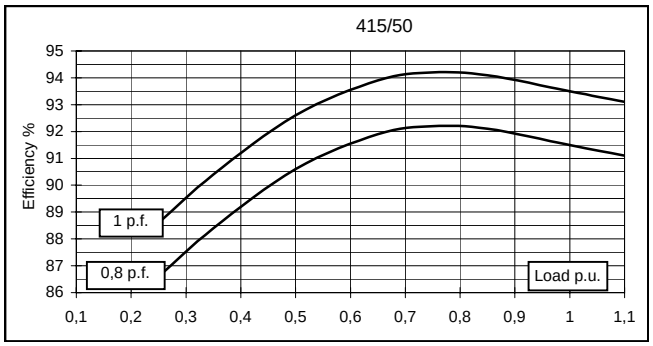
50 Hz

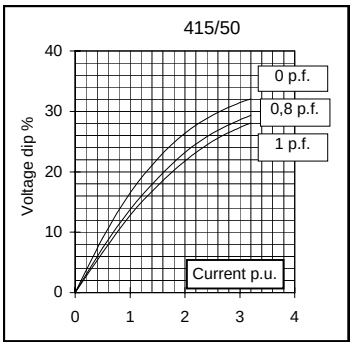


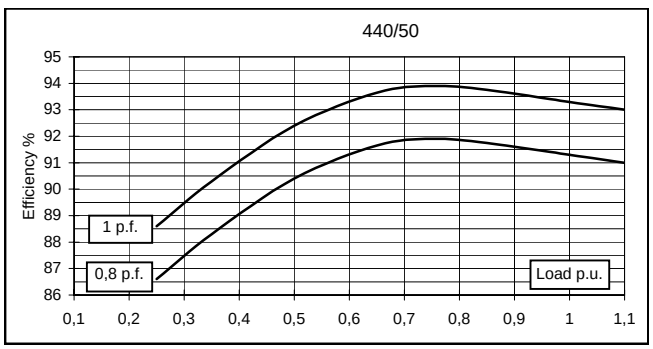


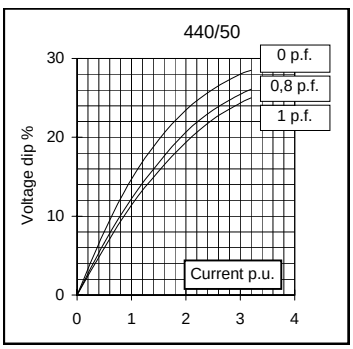


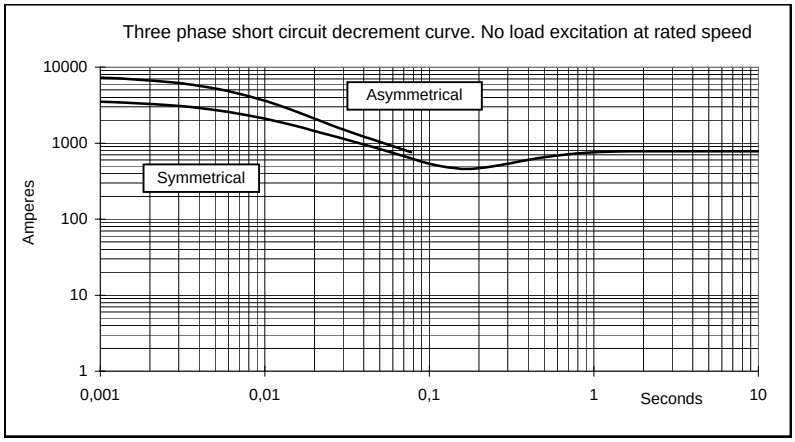












GENERATOR TYPE ECP 34-2L/2

Document : **DS068A/3**
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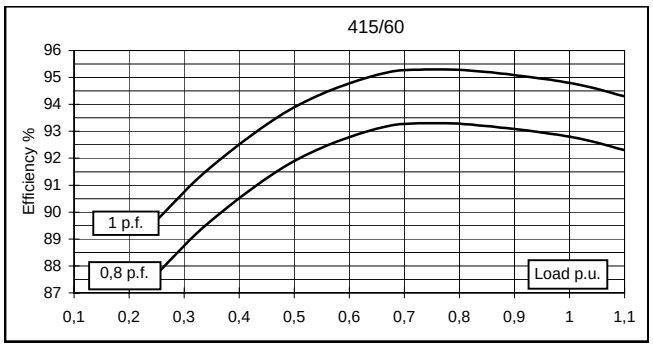
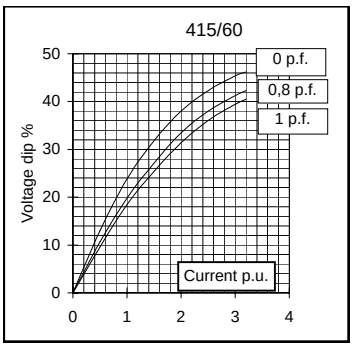
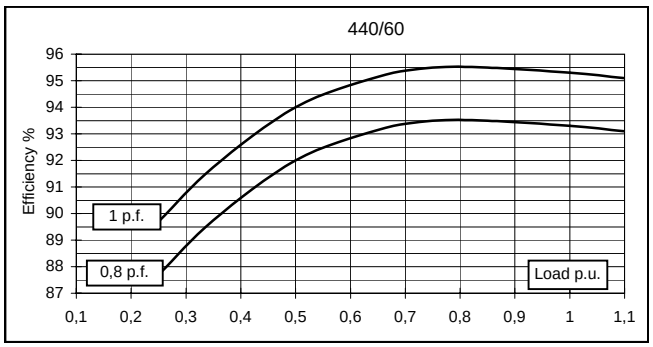
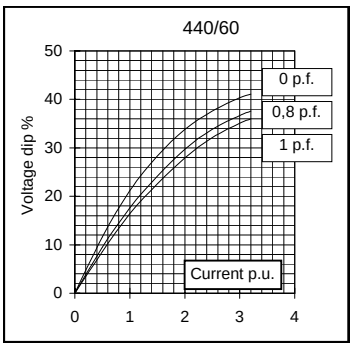
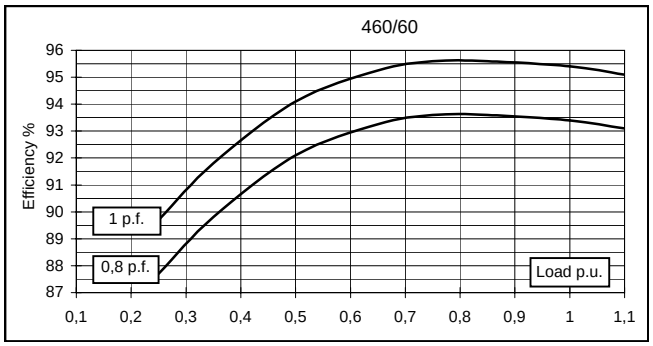
60 Hz

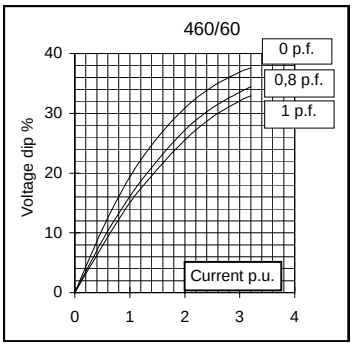


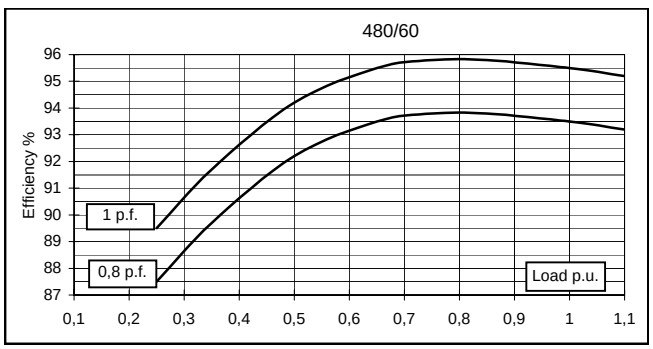


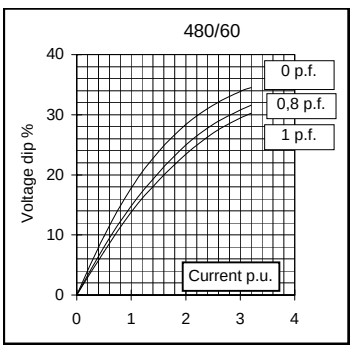


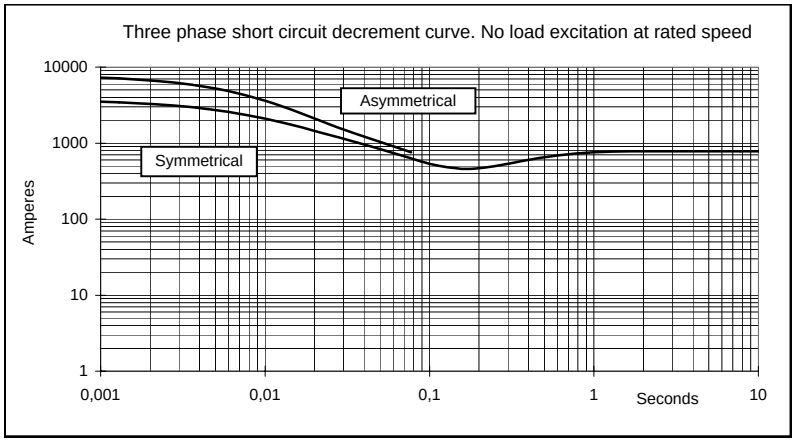




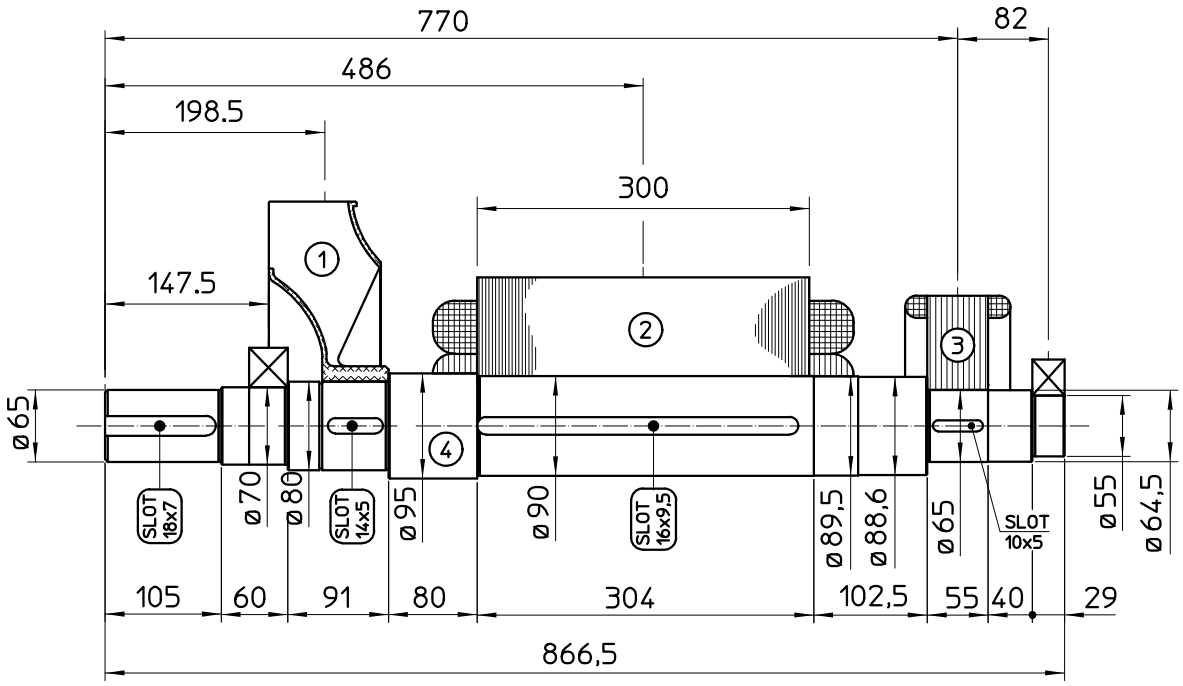






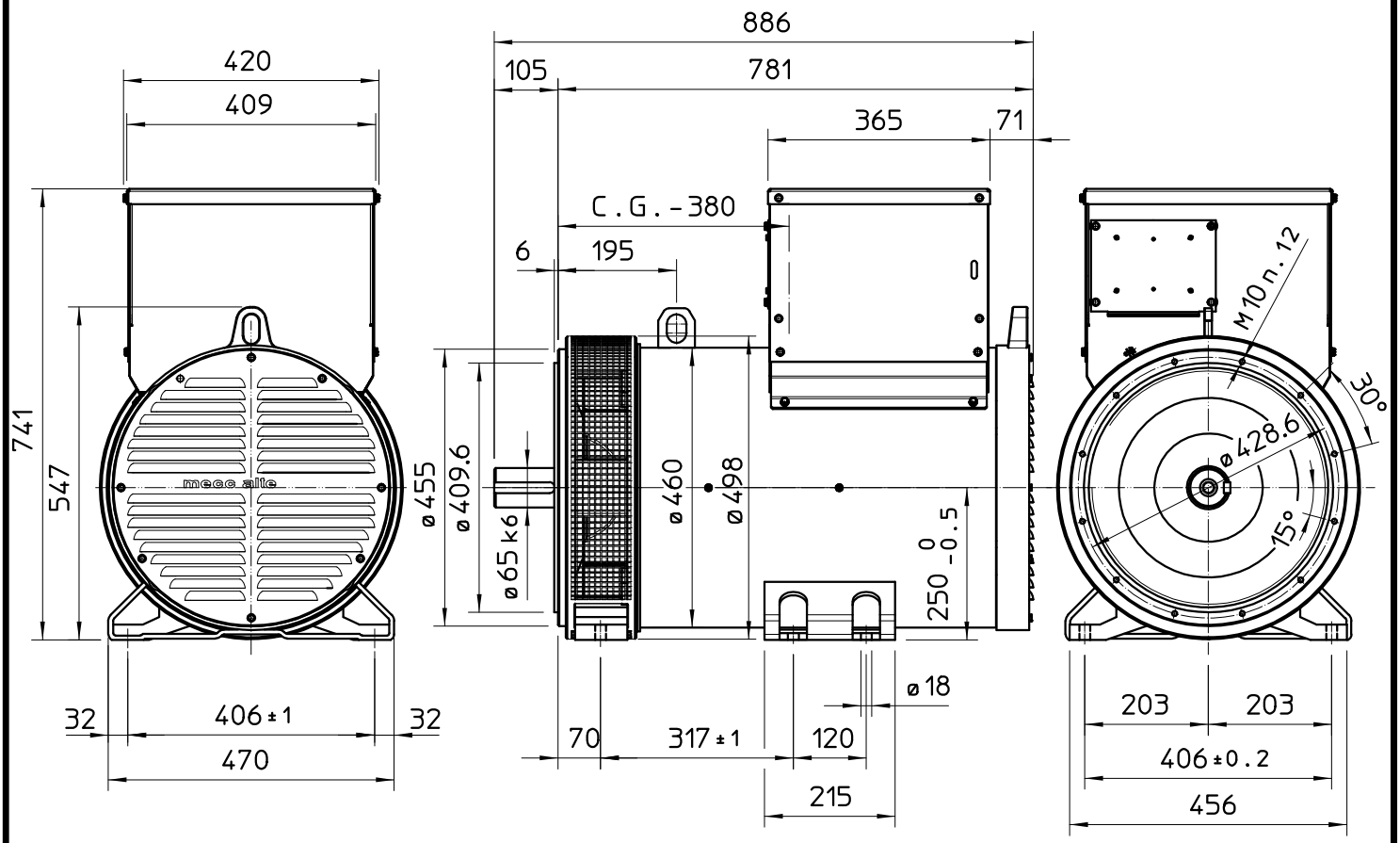


TWO BEARING MOMENTS OF INERTIA



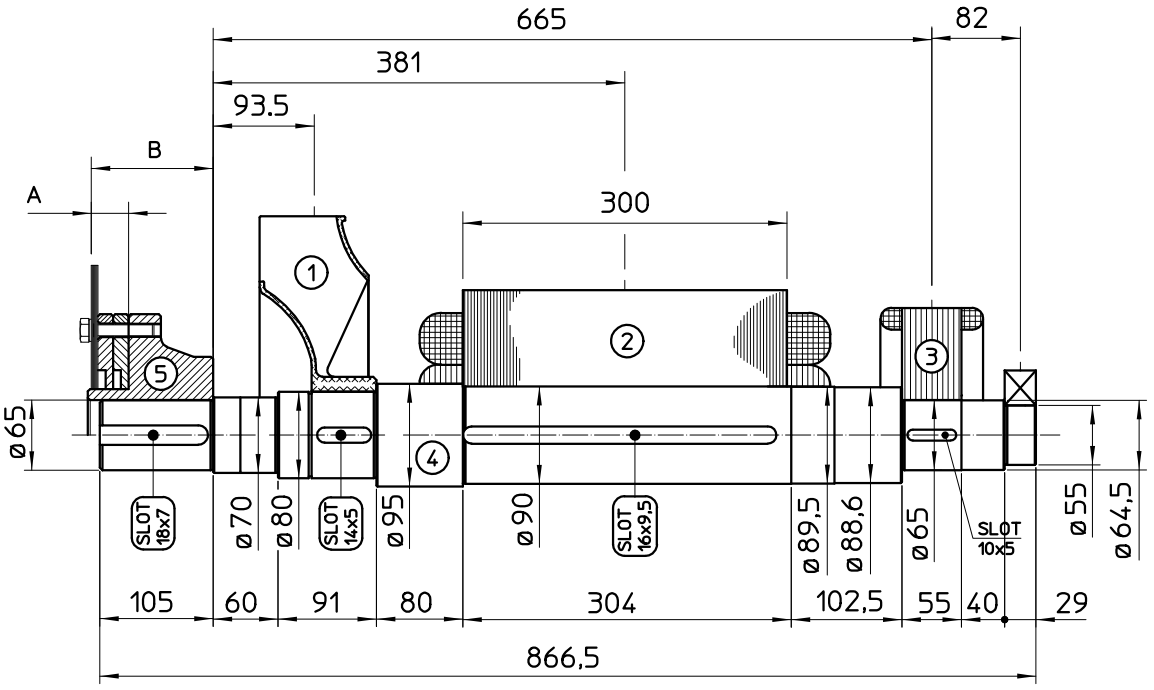
	COMPONENT	WEIGHT kg	J kgm²
1	FAN	3,3	0.0451
2	MAIN ROTOR	73	0.530
3	EX. ROTOR	14,5	0.0874
4	SHAFT	34.5	0.0313
	TOTAL	125.3	0.6938

TWO BEARING DIMENSIONS



C.G. = GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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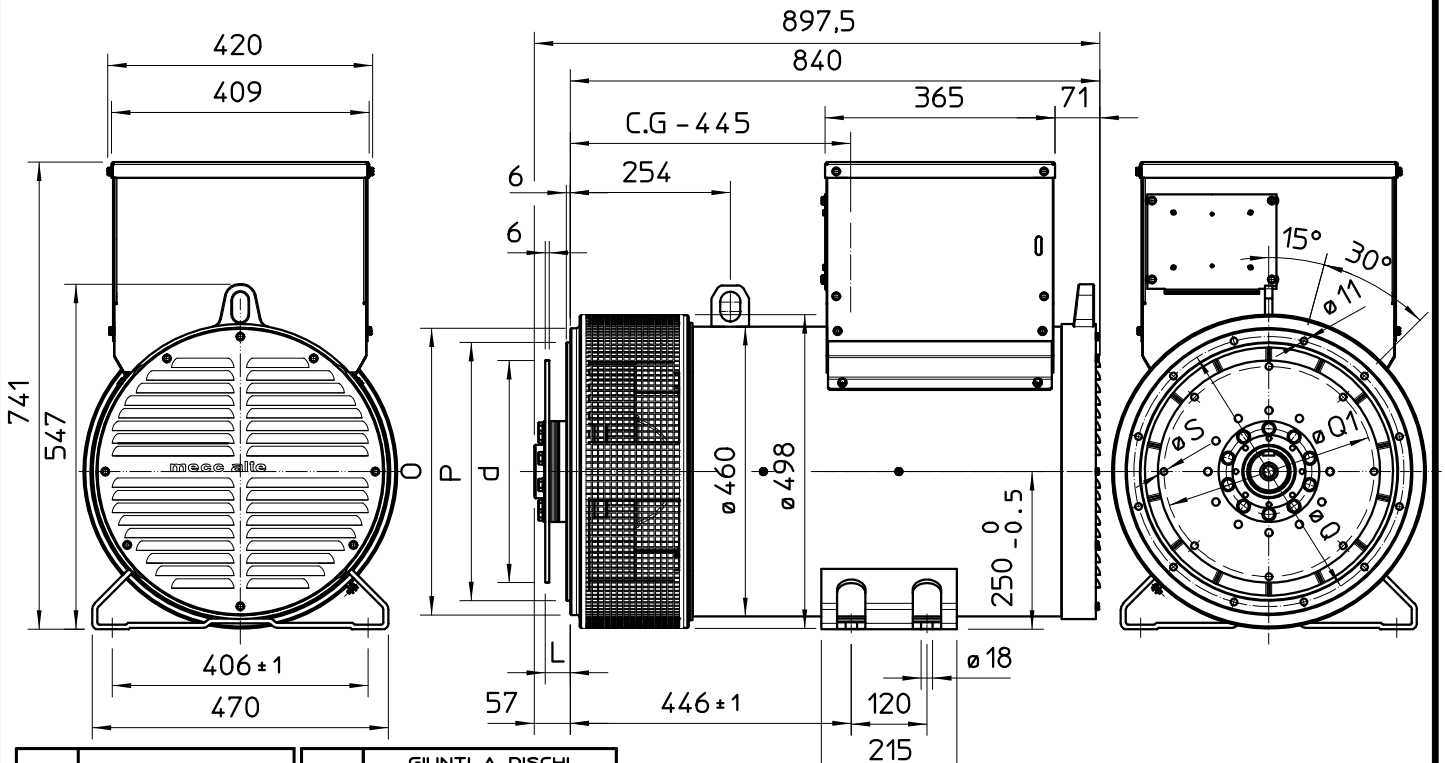
4	SHAFT	34.5	0.0313
	TOTAL	125.3	0.6938

SAE No	5 SHAFTS COUPLING FLEX PLATE			
	A	B	WEIGHT kg	J kgm²
10	46,5	112,8	20,5	0,1342
11,5	37,3	98,6	19,3	0,1512
14	27,4	84,4	21,1	0,2752

SINGLE BEARING DIMENSIONS



SAE N.	FLANGIA/FLANGE BRIDE/FLANSCH			
	O	P	Q	N. fori
3	451	409,6	428,6	12
2	489	447,7	466,7	12
1	552	511,2	530,2	12

SAE N.	GIUNTI A DISCHI DISC COUPLING DISQUE DE MONOPALIER SCHEIBENKUPPLUNG				
	L	d	Q1	N. fori	S
10	53,8	314,32	295,27	8	11
11 1/2	39,6	352,42	333,37	8	11
14	25,4	466,72	438,15	8	14

C.G. = GRAVITY CENTER