



GENERATOR TYPE ECP 34-2S/2

Document : **DS066A/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	125	125	125	110	130	150	150	150	
	kW	100	100	100	88	104	120	120	120	
Rated power class F	kVA	113	113	113	100	120	135	135	135	
	kW	90	90	90	80	96	108	108	108	
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	%	90,6	90,7	90,4	90,2	91,5	92	92,1	92,2
(see graph. for details)	3/4	%	90,7	91	90,9	90,6	92,4	92,6	92,7	92,9
	2/4	%	89,4	89,5	89,5	89,3	90,7	90,8	90,9	91
	1/4	%	85,9	85,7	85,5	85,5	86,4	86,4	86,4	86,2
Reactances (f. l.cl. F)	Xd	%	426,6	385	357,7	280,0	446,4	458,2	419,2	385
	Xd'	%	17,5	15,8	14,7	11,5	18,3	18,8	17,2	15,8
	Xd''	%	9,0	8,1	7,5	5,9	9,4	9,6	8,8	8,1
	Xq	%	166,3	150,1	139,4	109,2	174,0	178,6	163,4	150,1
	Xq'	%	166,3	150,1	139,4	109,2	174,0	178,6	163,4	150,1
	Xq''	%	26,1	23,6	21,9	17,2	27,4	28,1	25,7	23,6
	X ₂	%	21,2	19,1	17,7	13,9	22,1	22,7	20,8	19,1
	X ₀	%	3,5	3,2	3,0	2,3	3,7	3,8	3,5	3,2
Short Circuit Ratio	Kcc		0,14	0,15	0,16	0,17	0,13	0,13	0,14	0,15
Time Constants	Td'	sec.	0,0382							
	Td''	sec.	0,00875							
	Tdo'	sec.	1,40							
	Tα	sec.	0,0206							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load	Amp.		0,25	0,31	0,4	0,55	0,2	0,23	0,28	0,3
Excitation at full load	Amp.		3	2,9	3,2	3,5	3,2	3,1	2,9	3
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)	Ω		0,111							
Rotor Winding Resistance (20°C)	Ω		1,630							
Exciter Resistance (20 °C)	Ω		Rotor : 0,410				Stator : 15,28			
Heat dissipation at f.l.cl.H	W		10375	10254	10619	9561	9661	10435	10293	10152
Telephone Interference			THF < 2%				TIF < 40			
Radio interference			EN60034-1. For others standards apply to factory							
Waveform Distors.(THD) at f. load	LL/LN %		2,7 / 4,2							
Waveform Distors.(THD) at no load	LL/LN %		1,2 / 4,5							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6314.2Z							
NDE bearing			6311.2RS							
Weight of wound stator assembly	kg		152							
Weight of wound rotor assembly	kg		99,3							
Weight of complete generator	kg		413							
Maximun overspeed	rpm		4300							
Unbalanced magnetic pull at f.l.cl.F	kN/mm		4,1							
Cooling air requirement	m ³ /min		35,4				42			
Inertia Constant (H)	sec.		0,053				0,063			
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.

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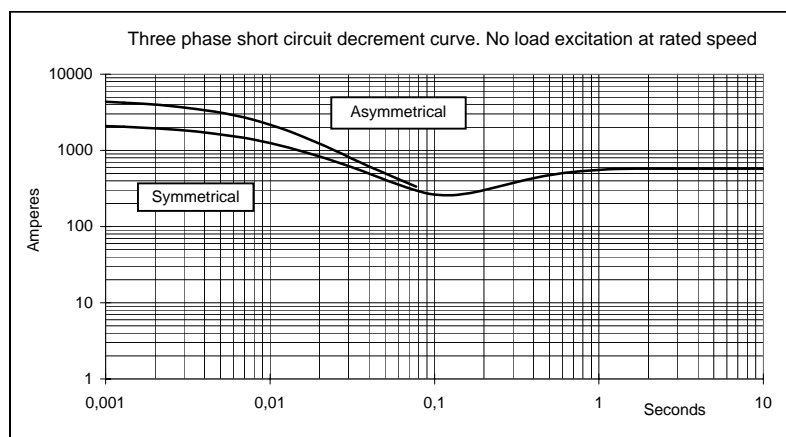
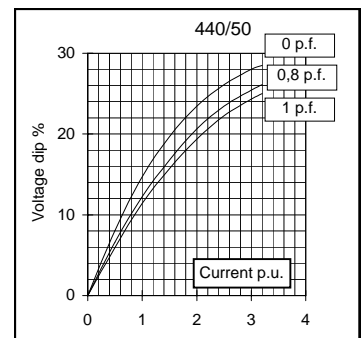
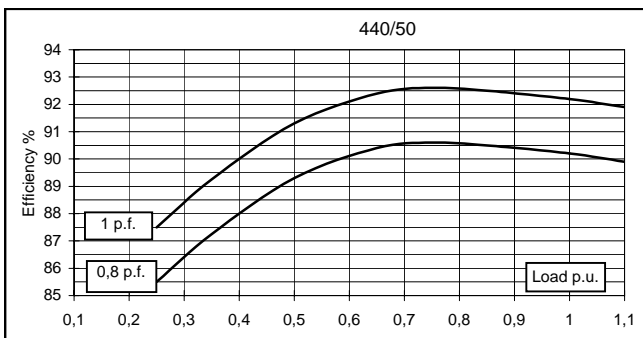
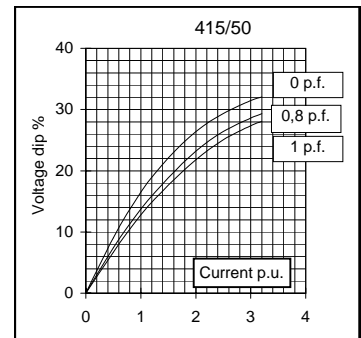
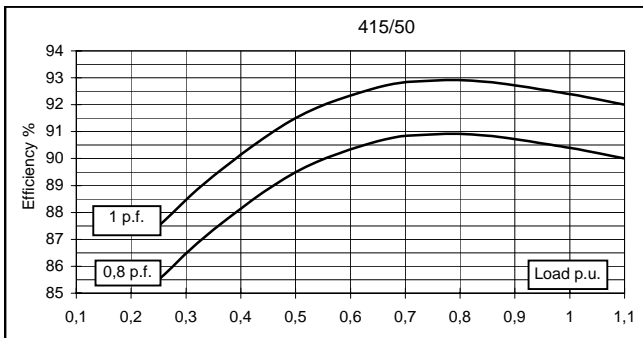
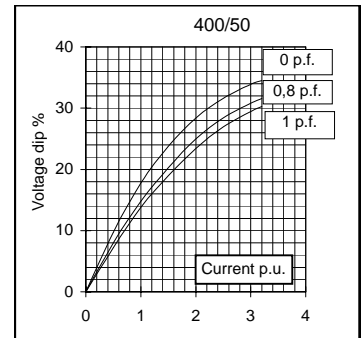
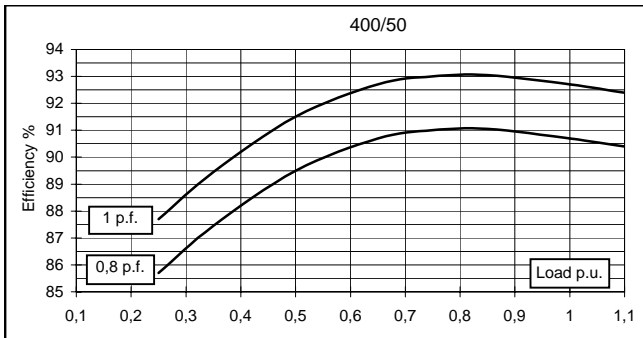
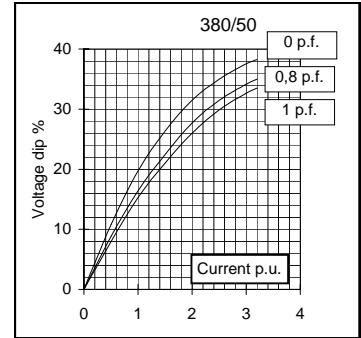
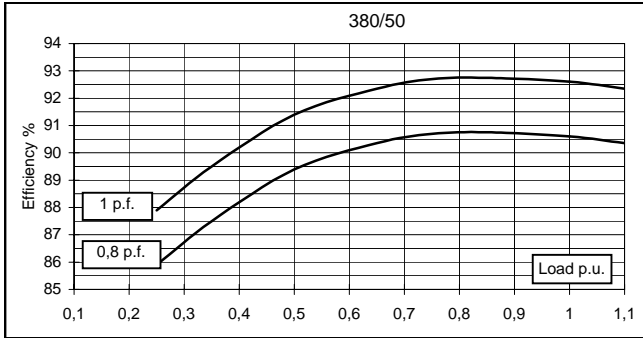


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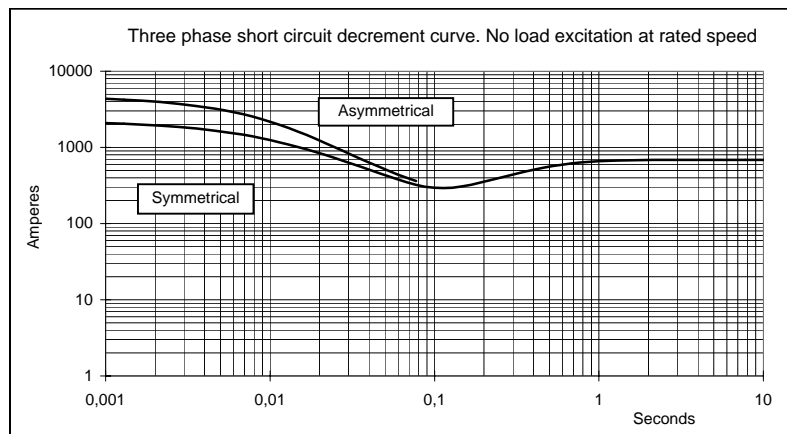
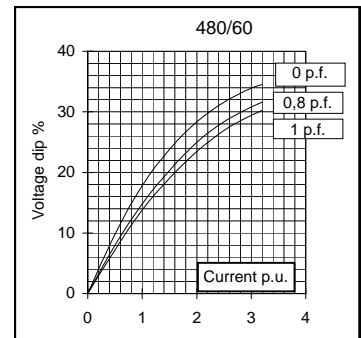
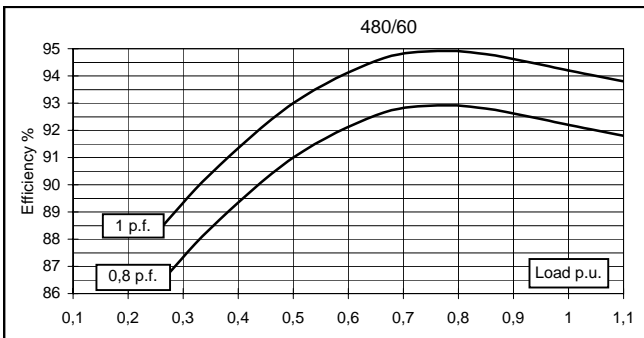
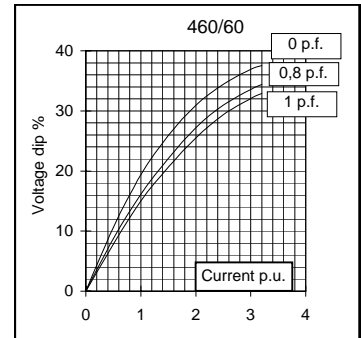
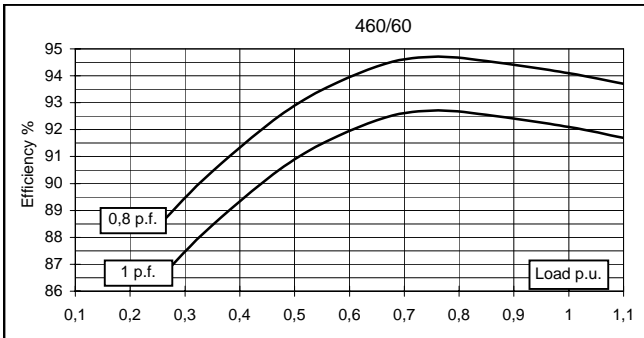
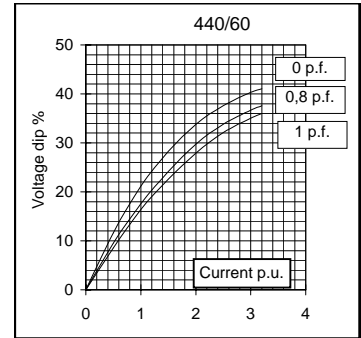
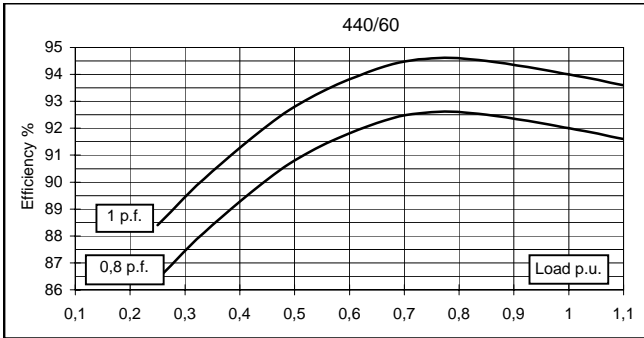
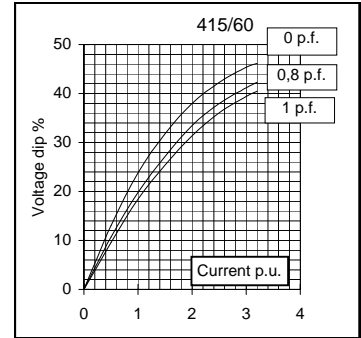
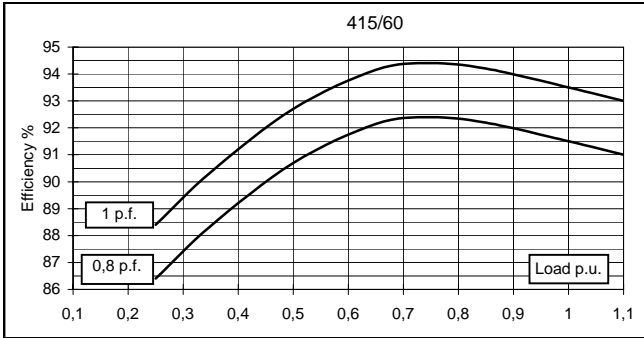
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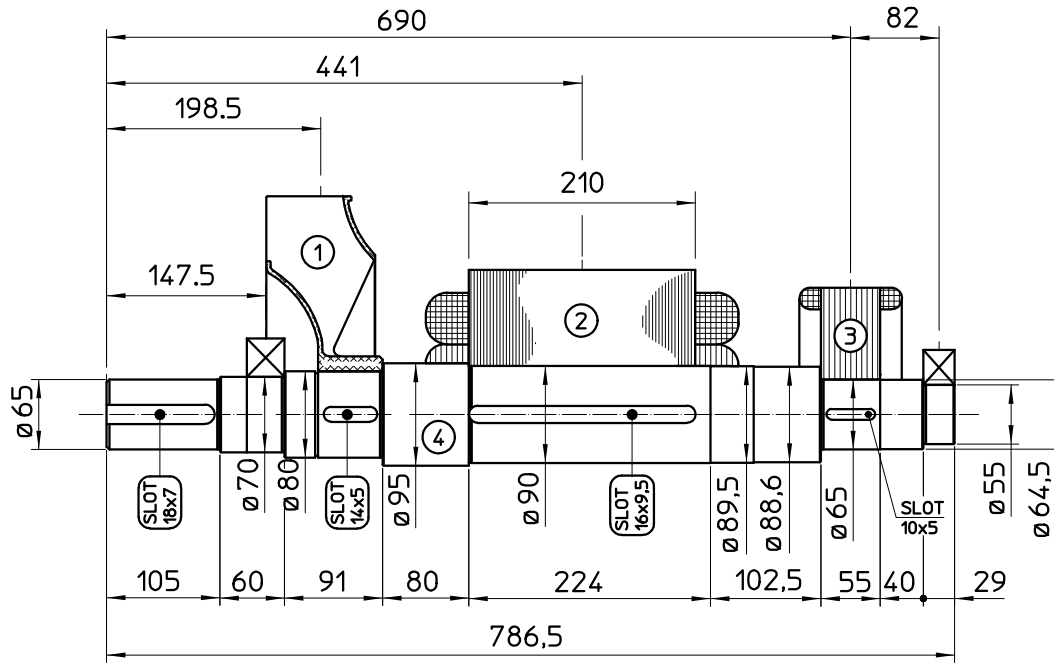
50 Hz



60 Hz

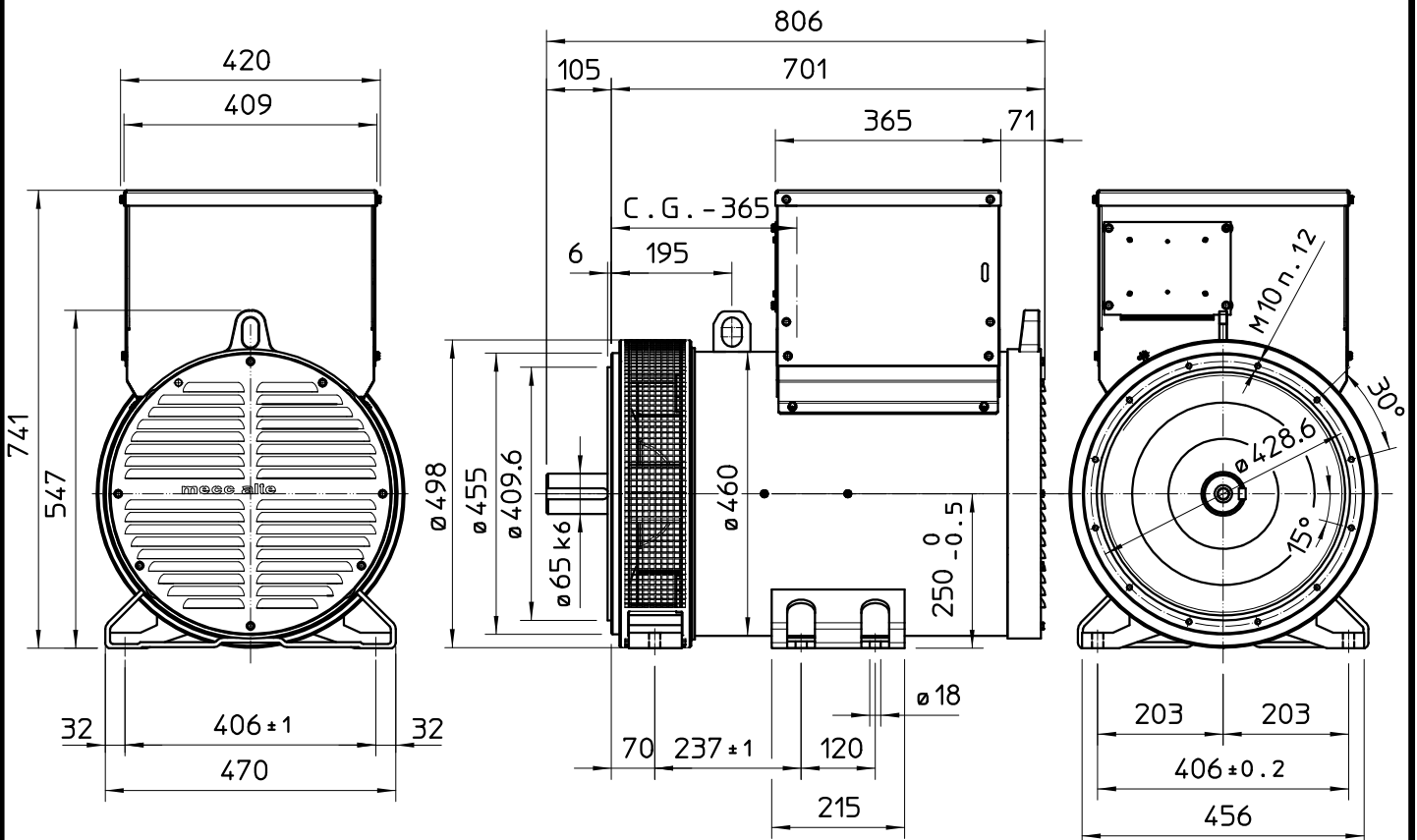


TWO BEARING MOMENTS OF INERTIA

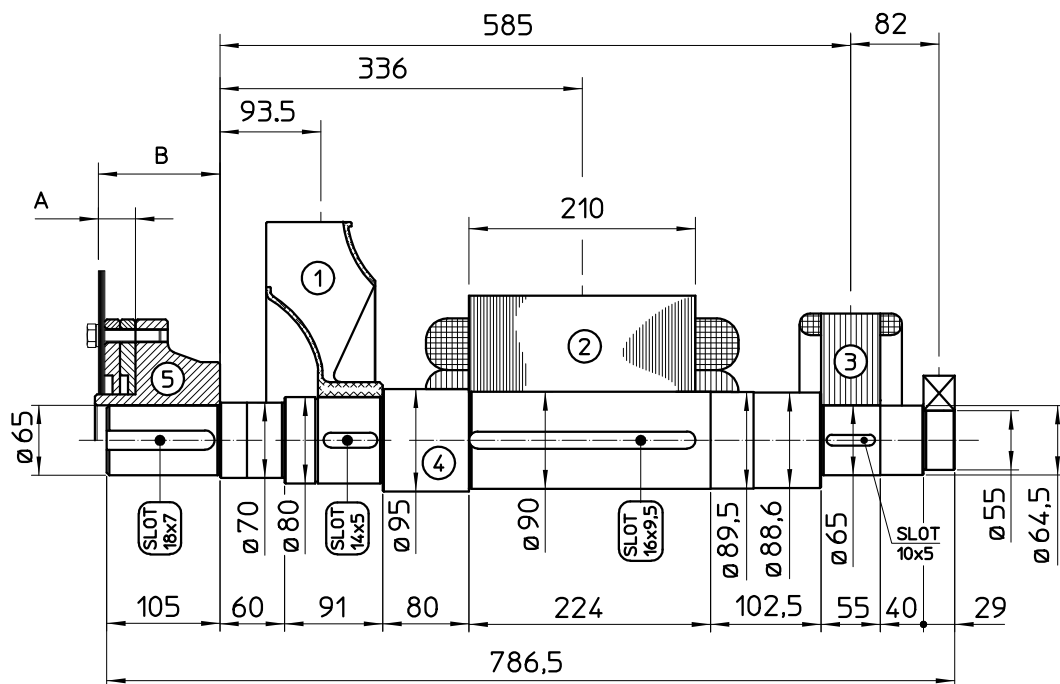


	COMPONENT	WEIGHT kg	J kgm ²
1	FAN	3,3	0.0451
2	MAIN ROTOR	50,6	0.372
3	EX. ROTOR	14,5	0.0874
4	SHAFT	30,9	0.0274
	TOTAL	99,3	0.5319

TWO BEARING DIMENSIONS



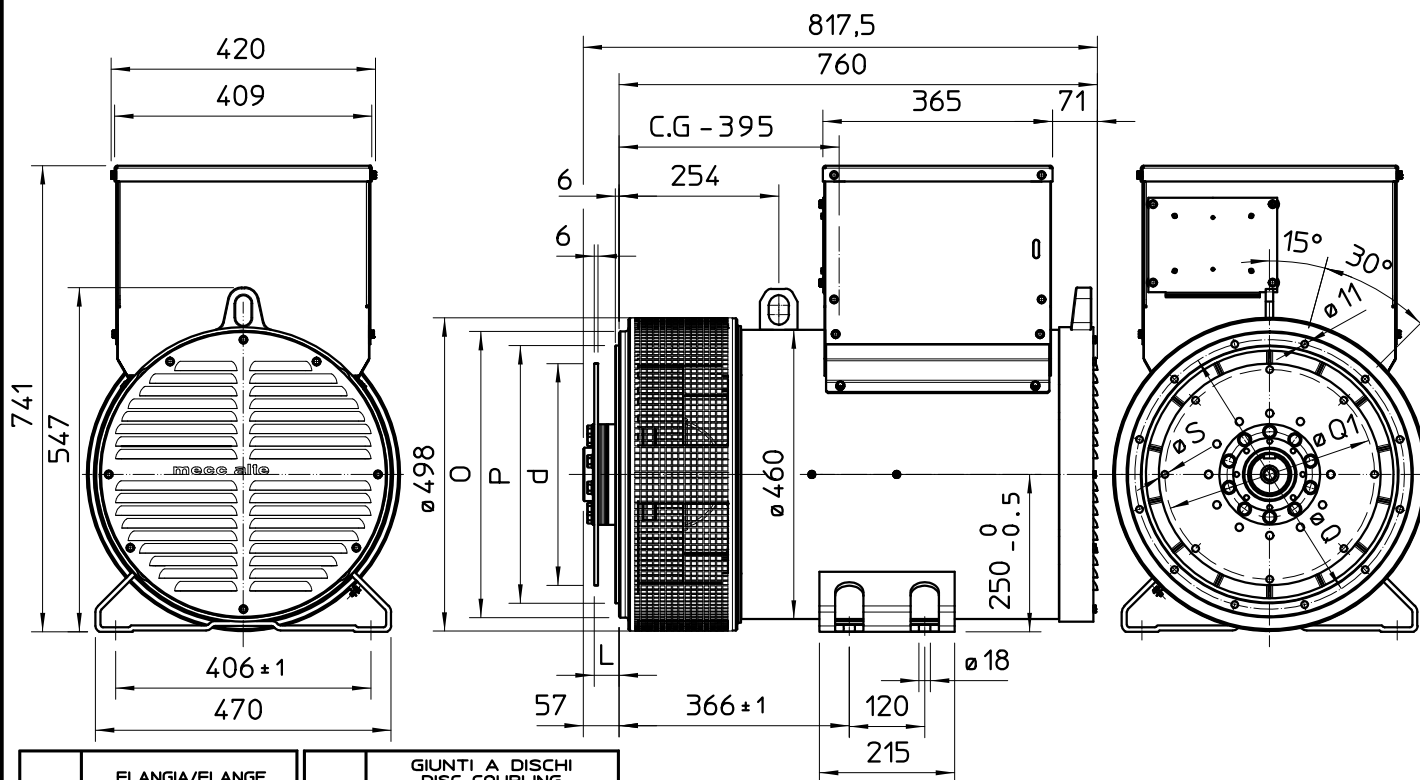
SINGLE BEARING MOMENTS OF INERTIA



COMPONENT	WEIGHT kg	J kgm ²
1 FAN	3,3	0,0451
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3 EX. ROTOR	14,5	0,0874
4 SHAFT	30,9	0,0274
TOTAL	99,3	0,5319

SAE No	SHAFTS COUPLING FLEX PLATE			
	A	B	WEIGHT kg	J kgm ²
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 Z.	FLANGIA/FLANGE BRIDE/FLANSCH				SAE Z.	GIUNTI A DISCHI DISC COUPLING DISQUE DE MONOPALIER SCHEIBENKUPPLUNG				
	O	P	Q	N. fori		L	d	Q1	N. fori	S
3	451	409,6	428,6	12	10	53,8	314,32	295,27	8	11
2	489	447,7	466,7	12	11 1/2	39,6	352,42	333,37	8	11
1	552	511,2	530,2	12	14	25,4	466,72	438,15	8	14

C.G. = GRAVITY CENTER