GENERATOR TYPE ECP 34-3L/4 A

Document : **DS276A/1**
issue 000 date 11/11/2013

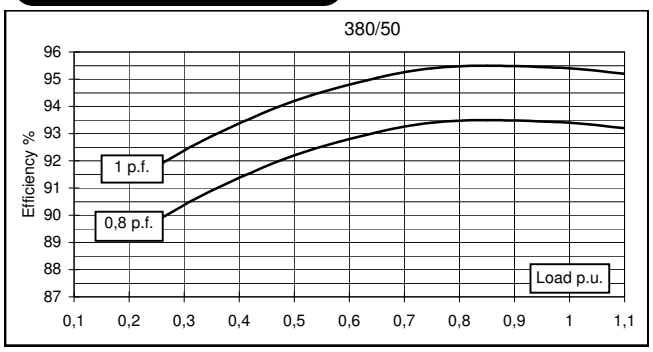
Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	155	160	160	150	165	185	192	192
		kW	124	128	128	120	132	148	154	154
Rated power class F		kVA	140	145	145	135	150	160	173	173
		kW	112	116	116	108	120	128	138	138
Regulation with		DSR	±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	94,6	95,1	95,2	95,3
(see graph. for details)	3/4	%	93,4	93,7	93,6	93,3	95	95,2	95,3	95,5
	2/4	%	92,2	92,3	92,3	92,1	93,8	93,9	94	94,1
	1/4	%	89,8	89,6	89,4	89,4	91,2	91,2	91,2	91
Reactances (f. l.cl. F)	Xd	%	225,4	210	195,1	162,7	241,4	240,8	228,7	210
	Xd'	%	18,7	17,4	16,2	13,5	20,0	20,0	18,9	17,4
	Xd"	%	7,8	7,3	6,8	5,7	8,4	8,4	7,9	7,3
	Xq	%	153,5	143	132,8	110,8	164,4	164,0	155,7	143
	Xq'	%	153,5	143	132,8	110,8	164,4	164,0	155,7	143
	Xq"	%	33,4	31,1	28,9	24,1	35,8	35,7	33,9	31,1
	X_2	%	20,7	19,3	17,9	15,0	22,2	22,1	21,0	19,3
	X_0	%	3,2	2,97	2,8	2,3	3,4	3,4	3,2	3,0
Short Circuit Ratio	Kcc		0,44	0,48	0,51	0,61	0,41	0,42	0,44	0,48
Time Constants	Td'	sec.	0,04							
	Td"	sec.	0,0096							
	Tdo'	sec.	1,91							
	Tα	sec.	0,017							
Short Circuit Current Capacity		%	>300				>350			
Excitation at no load		Amp.	0,35	0,45	0,6	0,7	0,2	0,25	0,3	0,4
Excitation at full load		Amp.	2,3	2,5	2,6	2,7	2,2	2,3	2,4	2,5
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load							
Overload per 20 sec.		%	300							
Stator Winding Resistance (20°C)		Ω	0,015							
Rotor Winding Resistance (20°C)		Ω	4,35							
Exciter Resistance (20 °C)		Ω	Rotor : 0,410				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	8762	8898	9339	9032	7535	7626	7745	7575
Telephone Interference			THF < 2%				TIF < 40			
Radio interference			EN61000-6-3, EN61000-6-2. For others standards apply to factory							
Waveform Distors.(THD) at f. load		LL/LN %	1,7 / 1,8							
Waveform Distors.(THD) at no load		LL/LN %	2,4 / 2,5							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6314.2RS							
NDE bearing			6311.2RS							
Weight of wound stator assembly		kg	168							
Weight of wound rotor assembly		kg	111							
Weight of complete generator		kg	485							
Maximun overspeed		rpm	2250							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,4							
Cooling air requirement		m^3/min	19,3				23			
Inertia Constant (H)		sec.	0,099				0,119			
Noise level at 1m/7m		dB(A)	79 / 65				83 / 69			

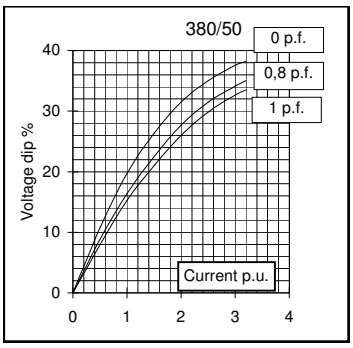
All technical data are to be considered as a reference and they can be modified without any notice

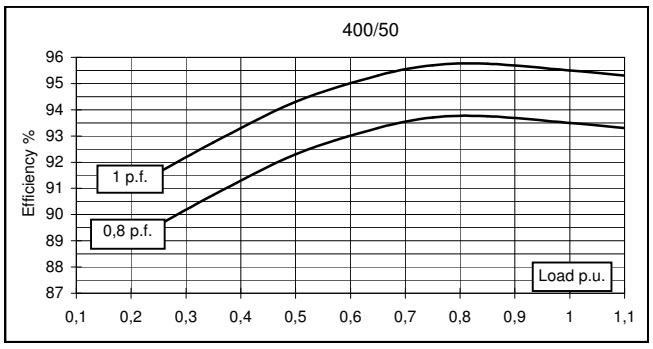
GENERATOR TYPE ECP 34-3L/4 A

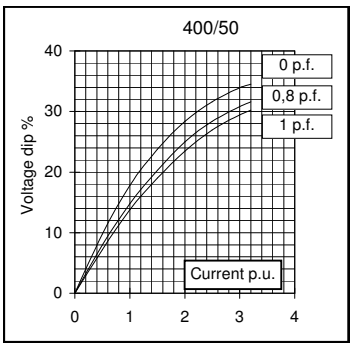
Document : **DS276A/2**
issue 000 date : 11/11/2013

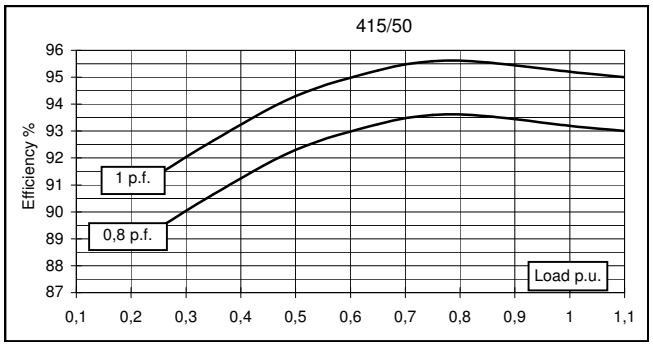
50 Hz

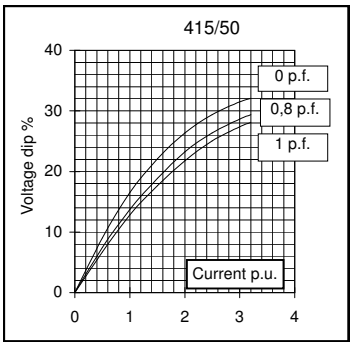


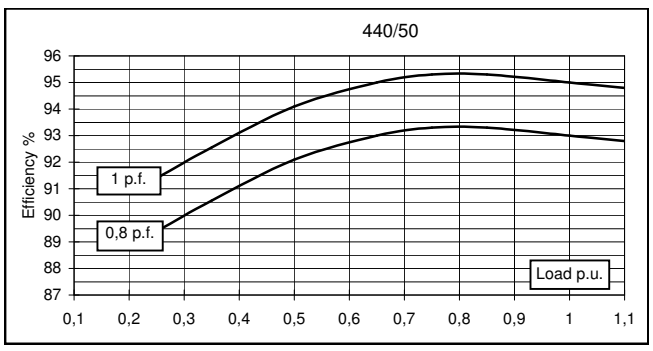


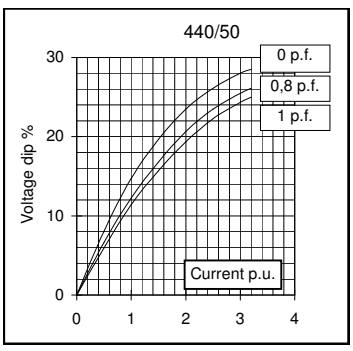


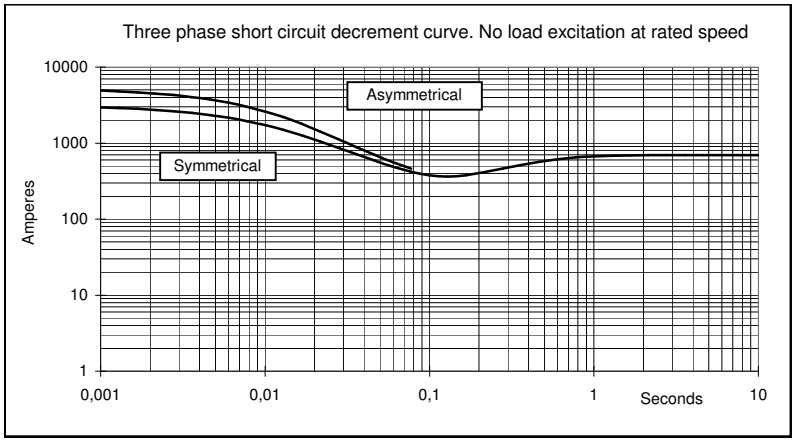








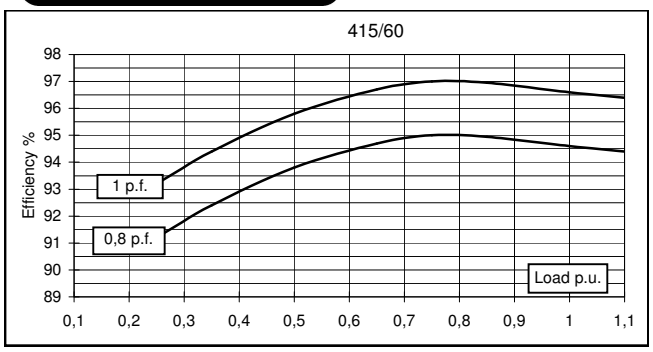


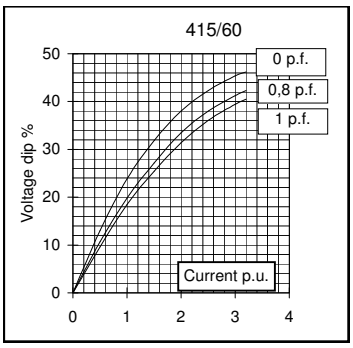


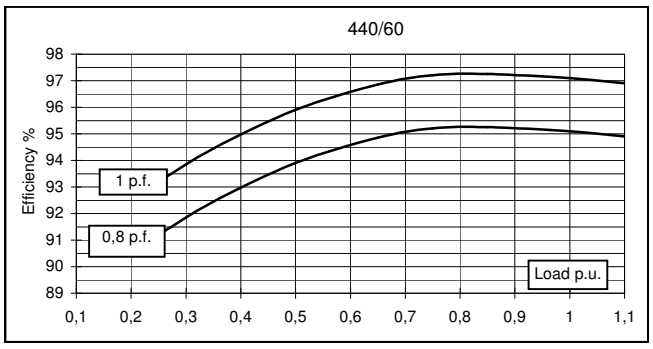
GENERATOR TYPE ECP 34-3L/4 A

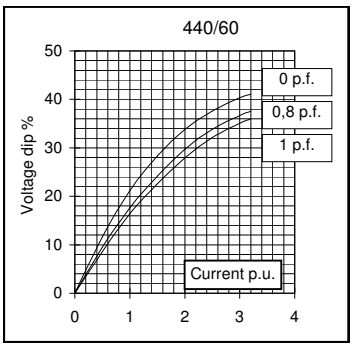
Document : **DS276A/3**
issue 000 date : 11/11/2013

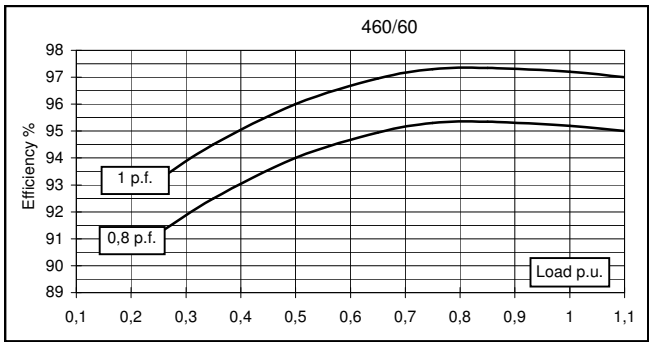
60 Hz

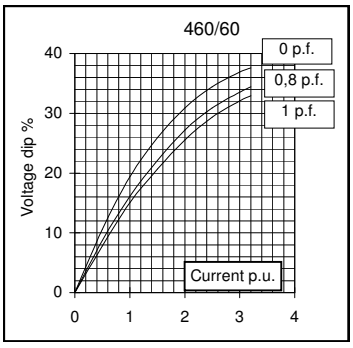


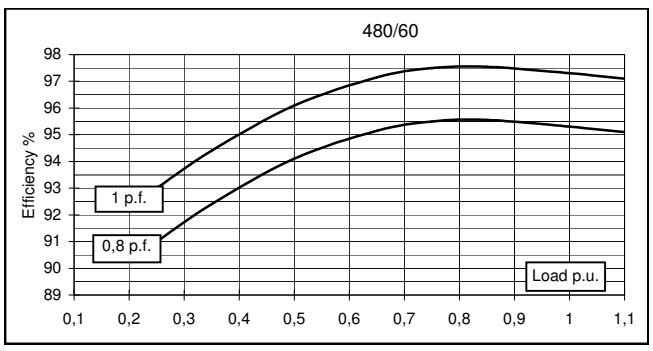


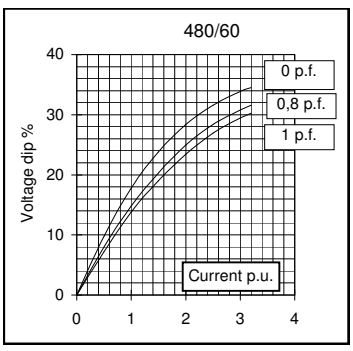


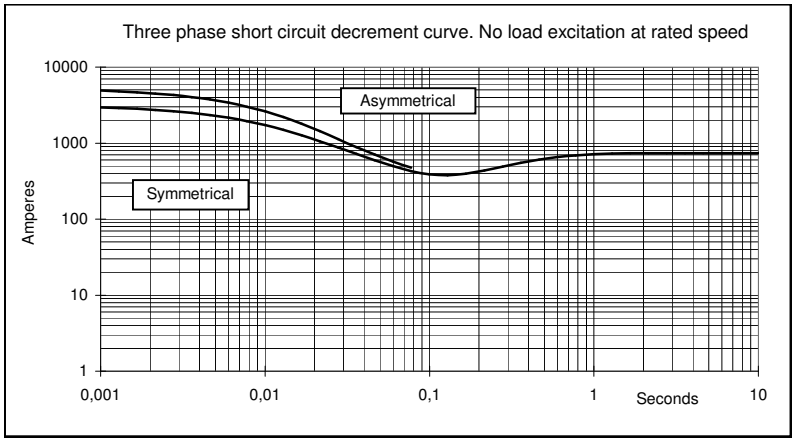




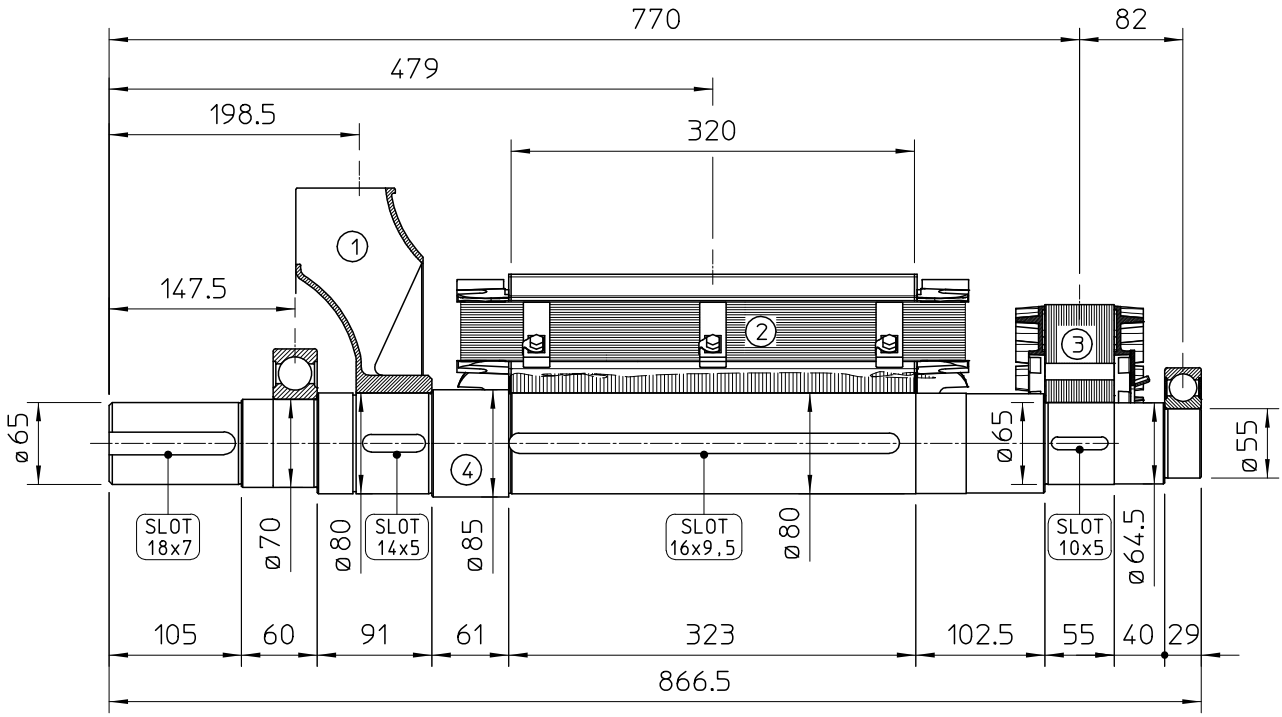






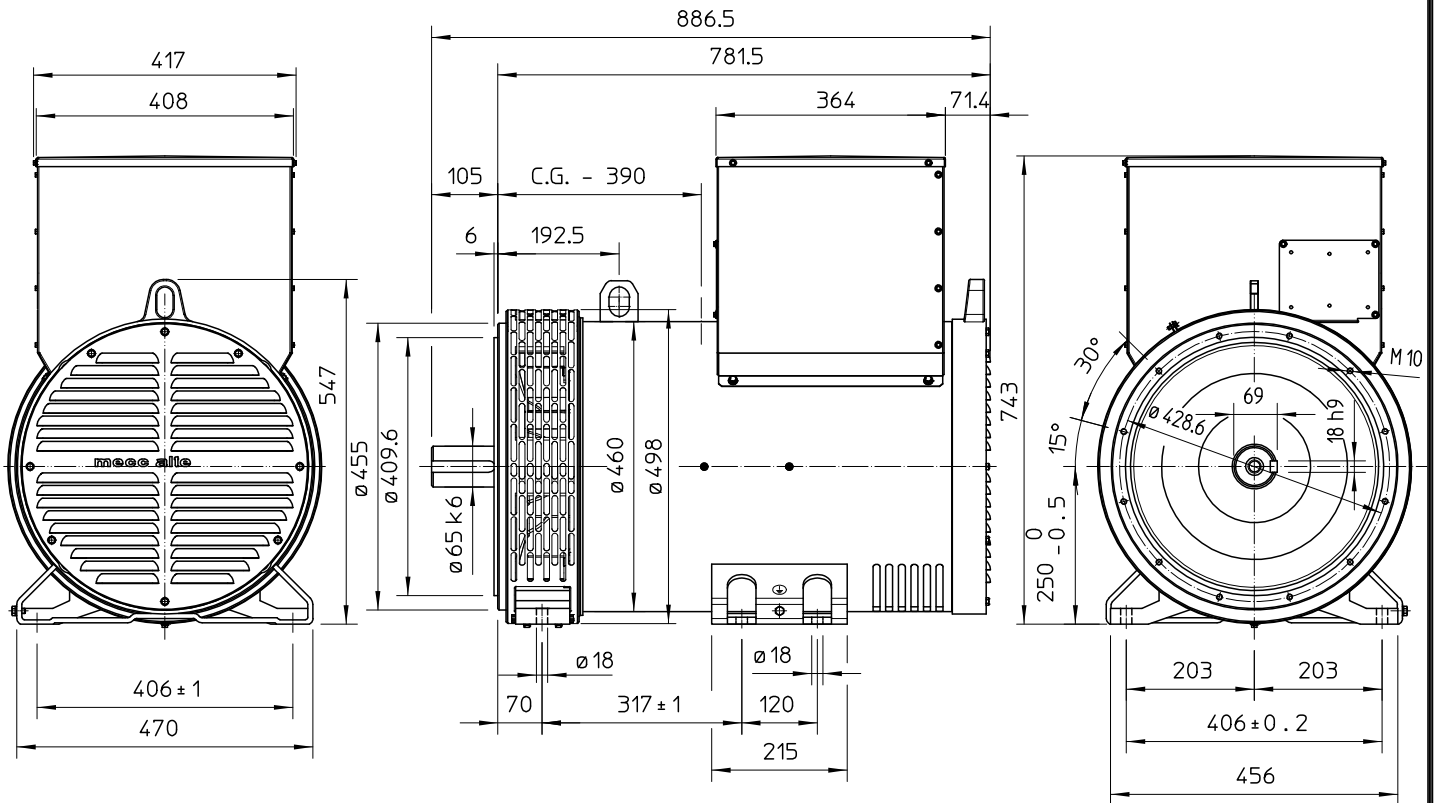


TWO BEARING MOMENTS OF INERTIA



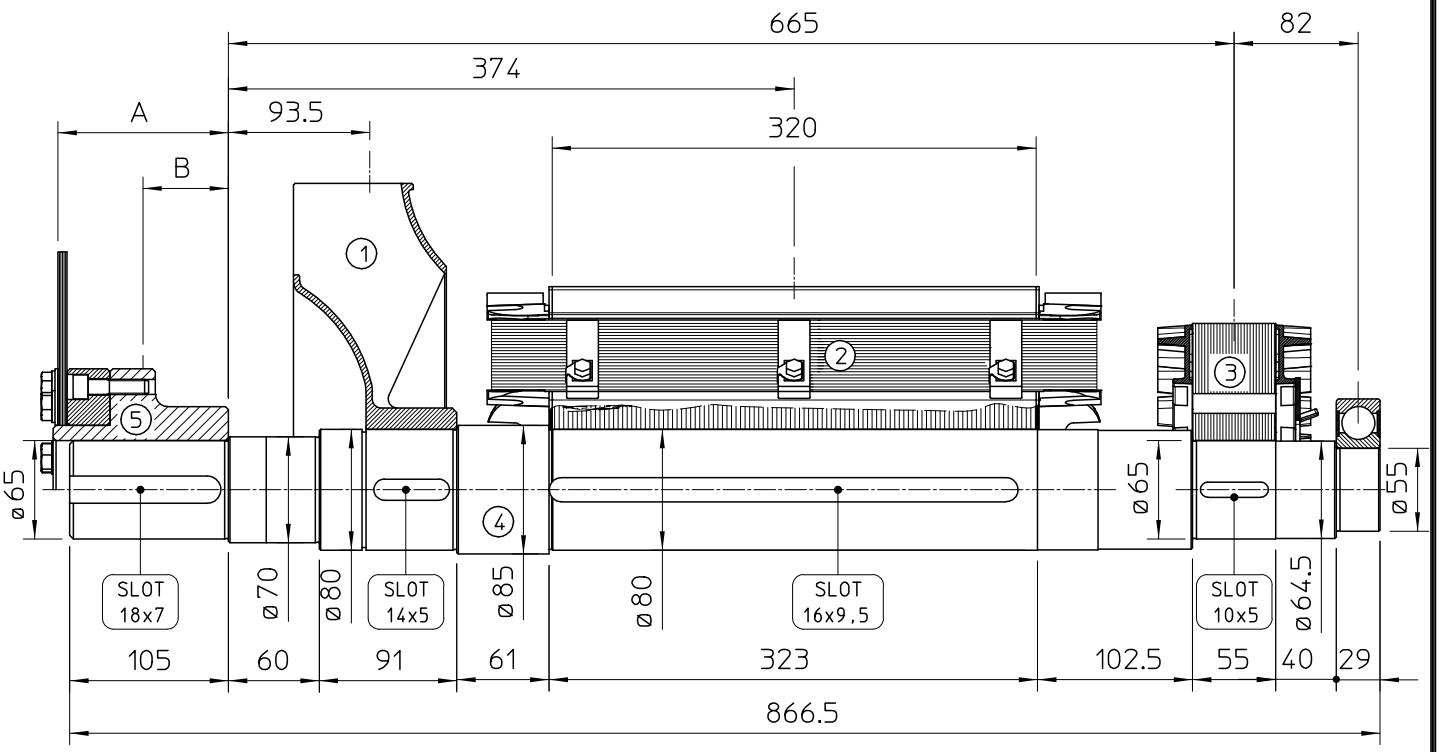
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	3.6	0.0451
2	MAIN ROTOR	111.9	1.0123
3	EX. ROTOR	14.5	0.0874
4	SHAFT	29.6	0.0218
TOTAL		159.6	1.1666

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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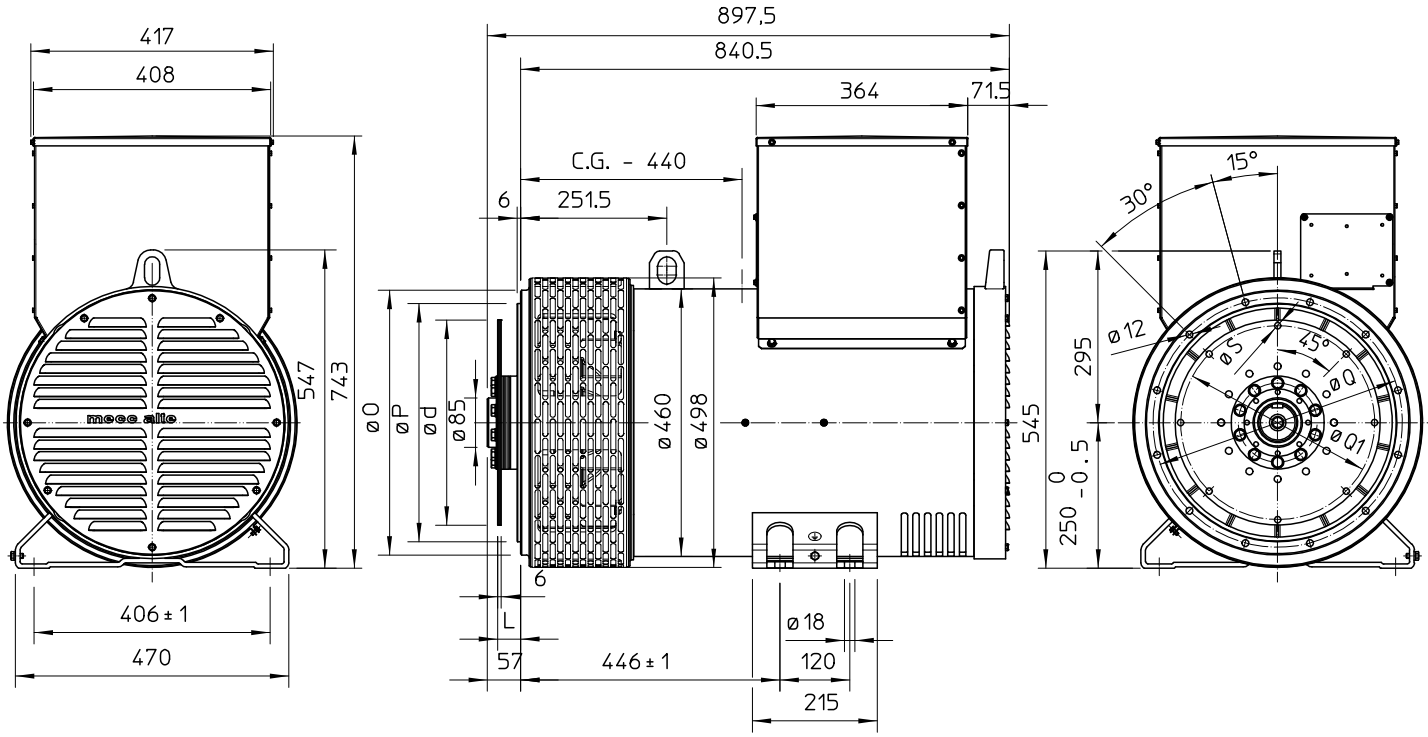
TOTAL		159.6	1.1666

SAE	5	SHAFTS COUPLING FLEX PLATE		
N°	A	B	WEIGHT kg	J kgm^2
10	112.8	35.6	13.5	0.0770
11 1/2	98.6	71.5	12.4	0.0956
14	84.4	68.6	14.8	0.2360

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

SAE N.	GIUNTI A DISCHI / DISC COUPLING DISCQUE DE MONOPALIER / SCHEIBENKUPPLUNG			
	L	d	Q1	S
10	53.8	314.32	295.27	11
11 1/2	39.6	352.42	333.37	11
14	25.4	466.72	438.15	14

C.G.= GRAVITY CENTER