GENERATOR TYPE ECP 34-1.5VS/4

Document : **DS173A/1**
issue 000 date 01/06/2011

Electrical Characteristics										
Frequency		Hz	50				60			
Voltage (series star)		V	380	400	415	440	415	440	460	480
Rated power class H		kVA	75	75	75	70	78	85	90	90
		kW	60	60	60	56	62	68,0	72,0	72,0
Rated power class F		kVA	67	67	67	63	70	75	80	80
		kW	53,6	53,6	53,6	50,4	56,0	60,0	64,0	64,0
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	%	90,6	90,7	90,4	90,2	91,8	92,3	92,4	92,5
(see graph. for details)	3/4	%	90,7	91	90,9	90,6	92,3	92,5	92,6	92,8
	2/4	%	88,9	89	89	88,8	90,4	90,5	90,6	90,7
	1/4	%	85,2	85	84,8	84,8	87,2	87,2	87,2	87
Reactances (f. l.cl. F)	Xd	%	404,4	365	339,1	281,5	423,2	410,2	397,4	365
	Xd'	%	27,7	25	23,2	19,3	29,0	28,1	27,2	25,0
	Xd"	%	10,7	9,7	9,0	7,5	11,2	10,9	10,6	9,7
	Xq	%	212,7	192	178,4	148,1	222,6	215,8	209,1	192
	Xq'	%	212,7	192	178,4	148,1	222,6	215,8	209,1	192
	Xq"	%	38,9	35,1	32,6	27,1	40,7	39,5	38,2	35,1
	X_2	%	24,8	22,4	20,8	17,3	26,0	25,2	24,4	22,4
	X_0	%	4,8	4,3	4,0	3,3	5,0	4,8	4,7	4,3
Short Circuit Ratio	Kcc		0,25	0,27	0,29	0,36	0,24	0,24	0,25	0,27
Time Constants	Td'	sec.	0,045							
	Td"	sec.	0,0061							
	Tdo'	sec.	1,4							
	Tα	sec.	0,016							
Short Circuit Current Capacity		%	> 300				> 300			
Excitation at no load		Amp.	0,3	0,4	0,6	0,8	0,2	0,25	0,3	0,35
Excitation at full load		Amp.	2,5	2,6	2,7	2,9	2,1	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	0,045							
Rotor Winding Resistance (20°C)		Ω	2,248							
Exciter Resistance (20 °C)		Ω	Rotor :0,410				Stator : 15,28			
Heat dissipation at f.l.cl.H		W	6225	6152	6372	6084	5574	5673	5922	5838
Telephone Interference			THF < 2%				TIF < 40			
Radio interference			EN61000-6-3, EN61000-6-1. For others standards apply to factory							
Waveform Distors.(THD) at f. load		LL/LN %	1,7 / 1,9							
Waveform Distors.(THD) at no load		LL/LN %	2,9 / 3							
Mechanical characteristics										
Protection			IP 21 (other protection on request)							
DE bearing			6314.2RS							
NDE bearing			6311.2RS							
Weight of wound stator assembly		kg	90							
Weight of wound rotor assembly		kg	91,6							
Weight of complete generator		kg	310							
Maximun overspeed		rpm	2250							
Unbalanced magnetic pull at f.l.cl.F		kN/mm	4,6							
Cooling air requirement		m³/min	19,3				23			
Inertia Constant (H)		sec.	0,120				0,144			
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 34-1.5VS/4

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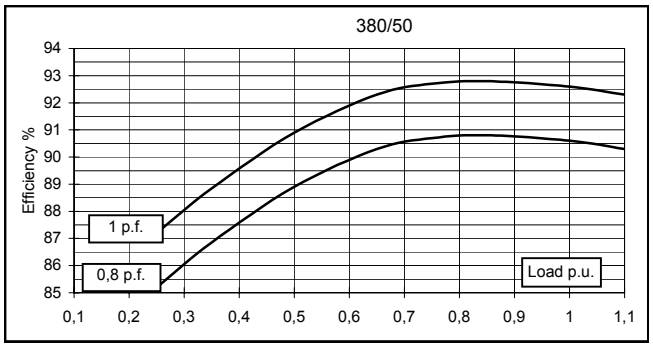
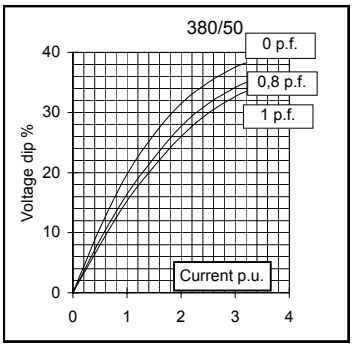
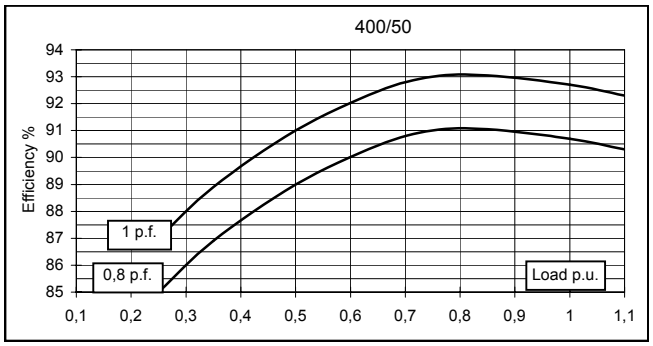
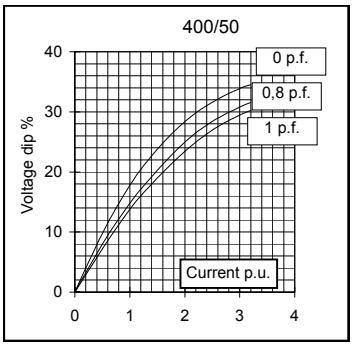
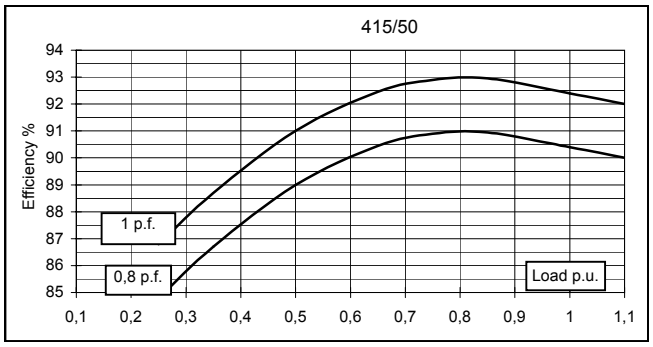
50 Hz

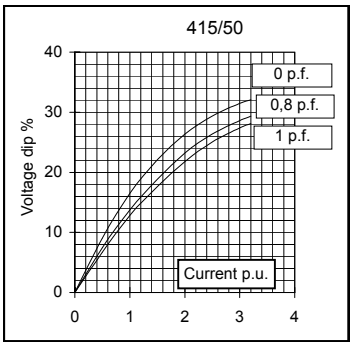


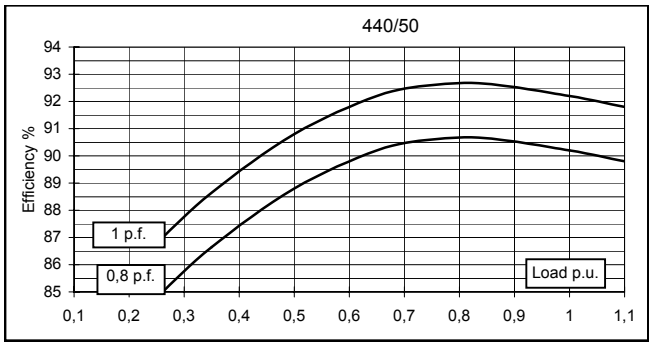


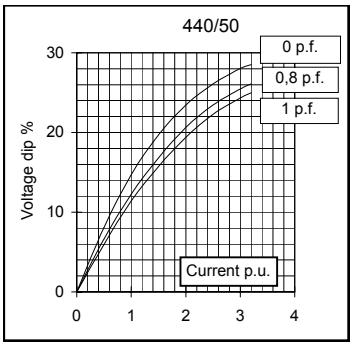


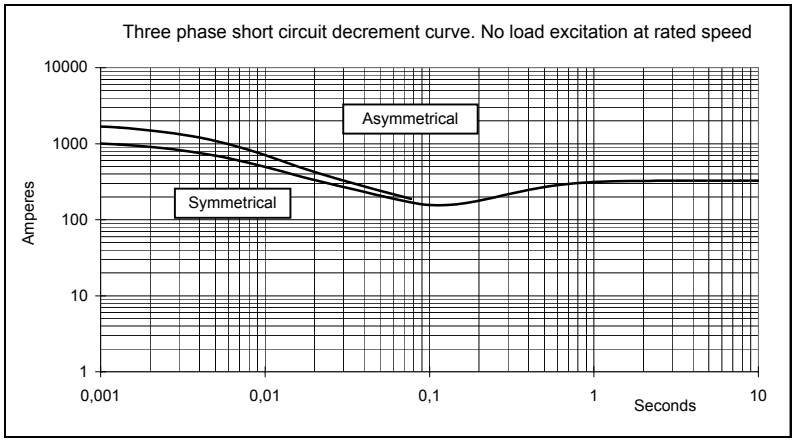










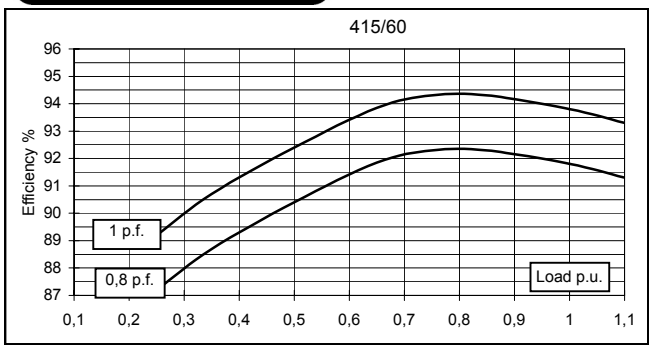


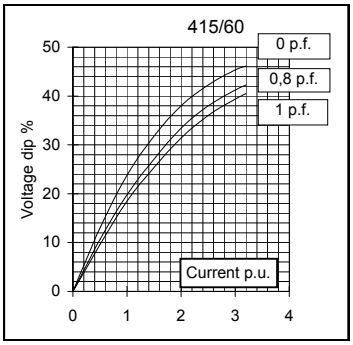
GENERATOR TYPE ECP 34-1.5VS/4

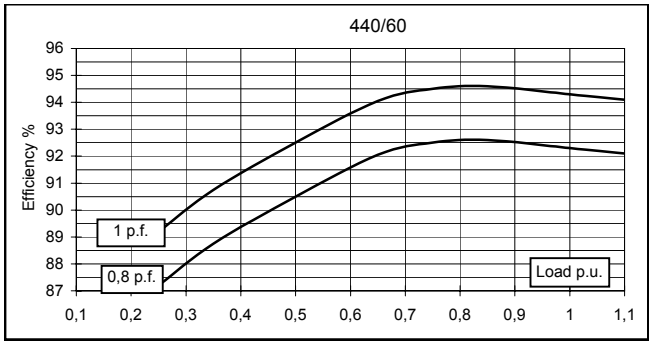
Document : **DS173A/3**

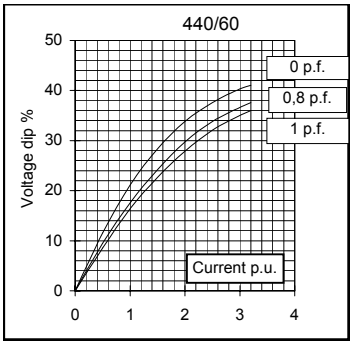
issue 000 date : 01/06/2011

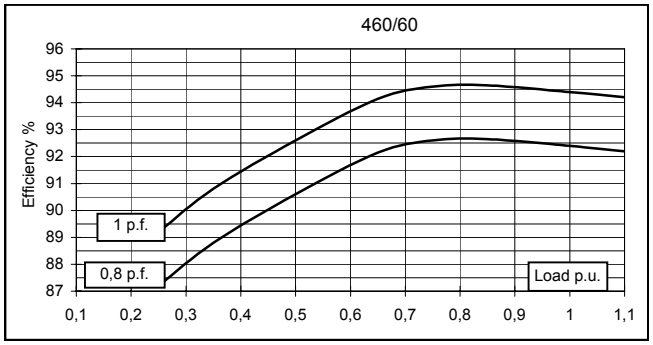
60 Hz

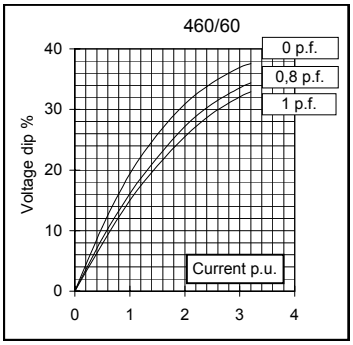


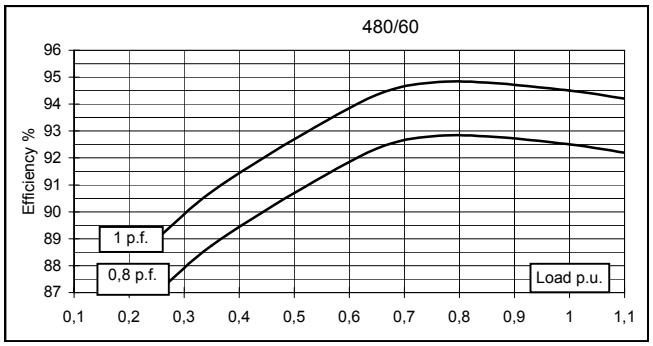


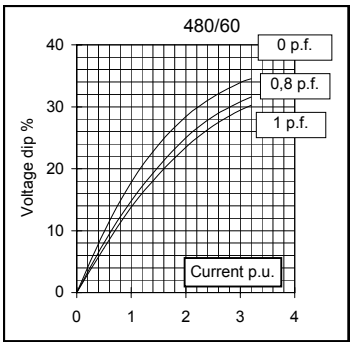


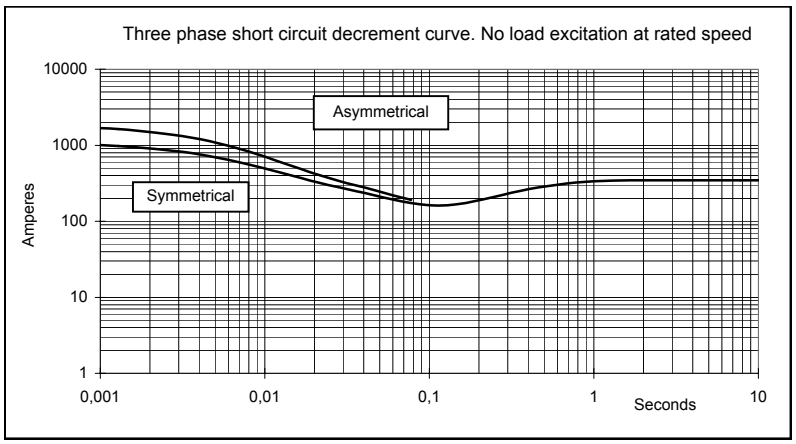




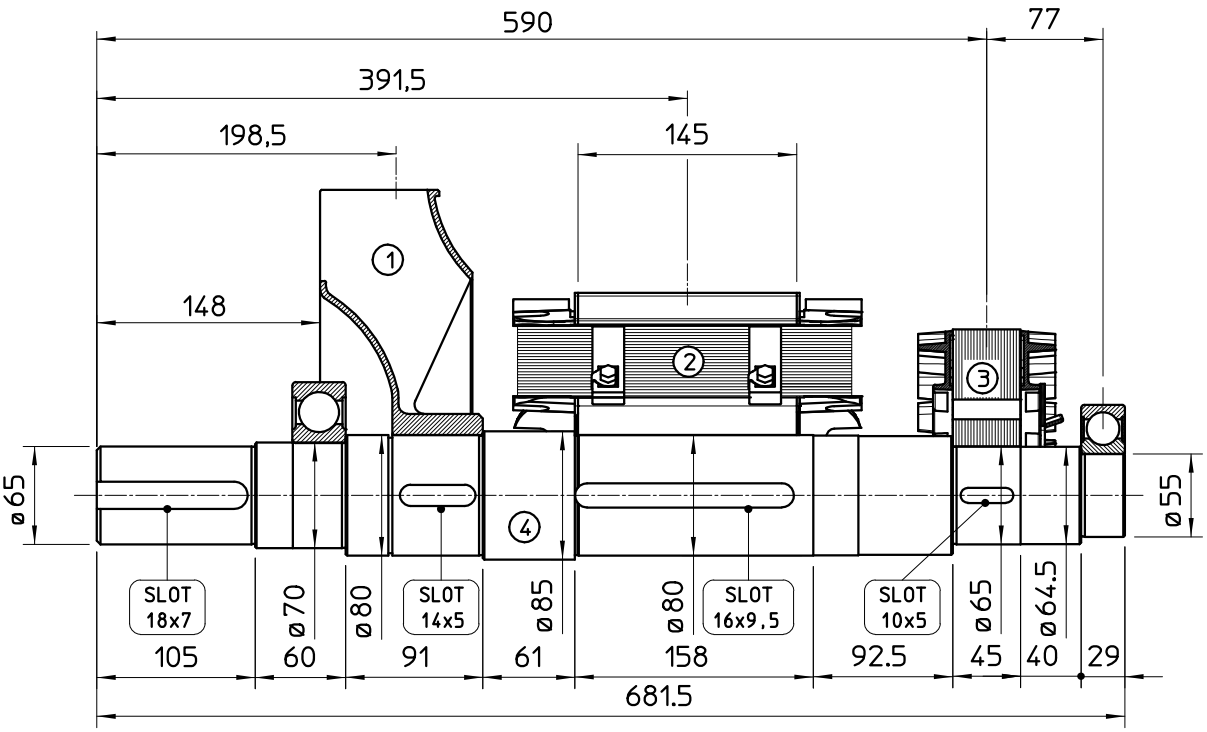






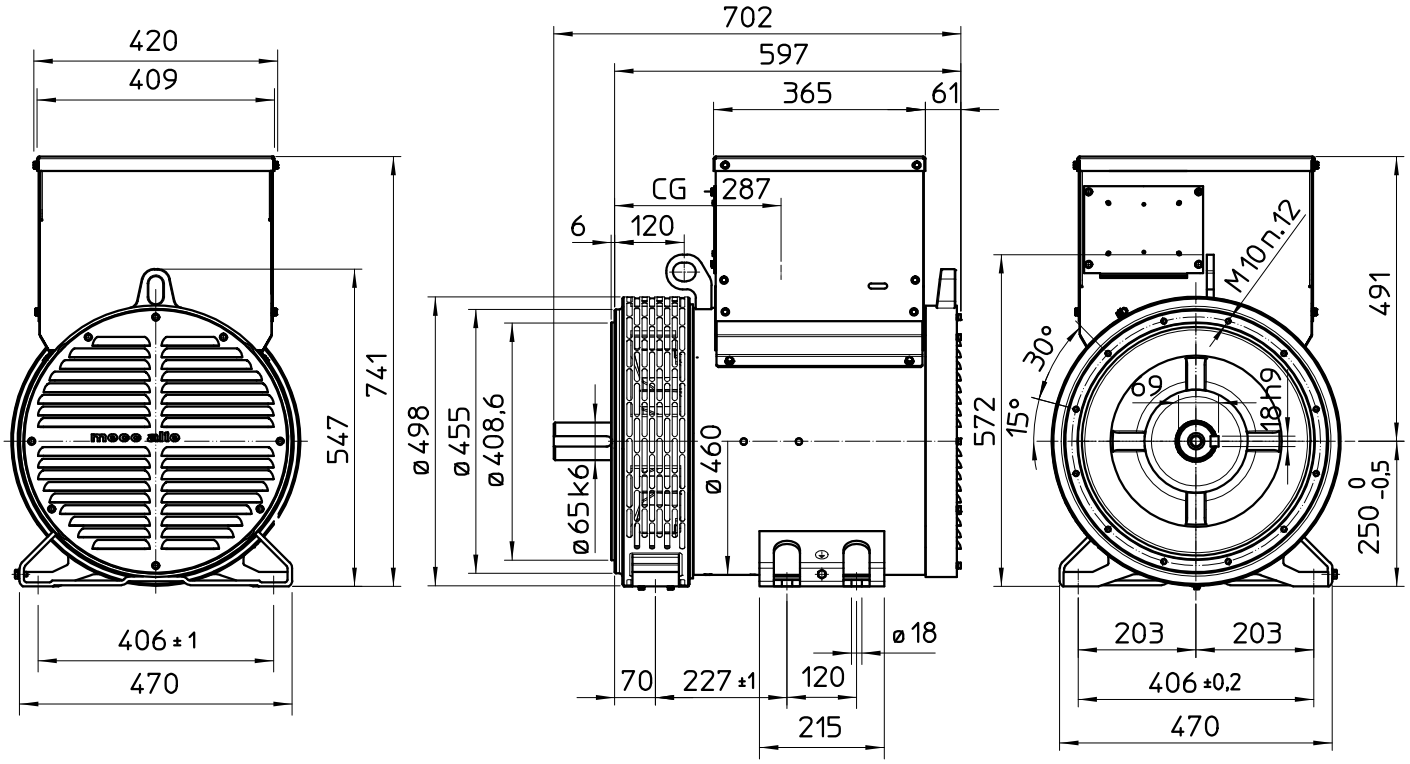


TWO BEARING MOMENTS OF INERTIA



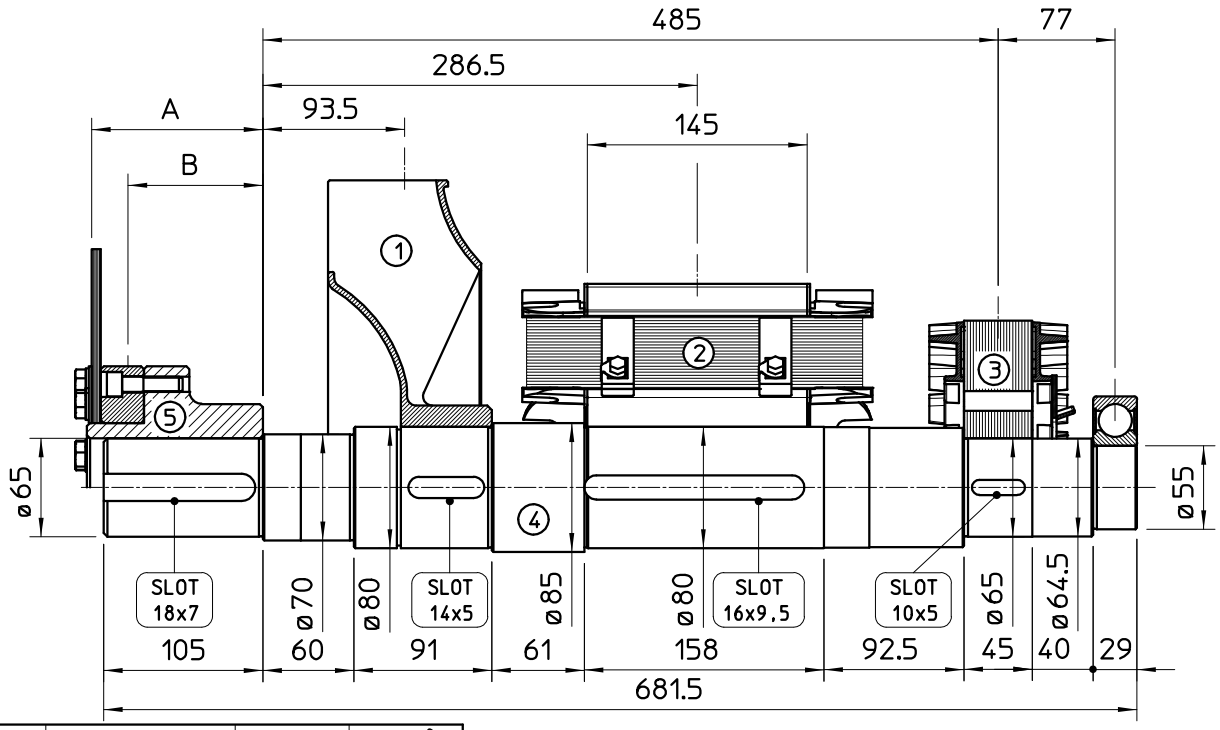
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	3.3	0.0451
2	MAIN ROTOR	111.9	0.4882
3	EX. ROTOR	11.4	0.0739
4	SHAFT	22.9	0.0166
TOTAL		91.6	0.6238

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

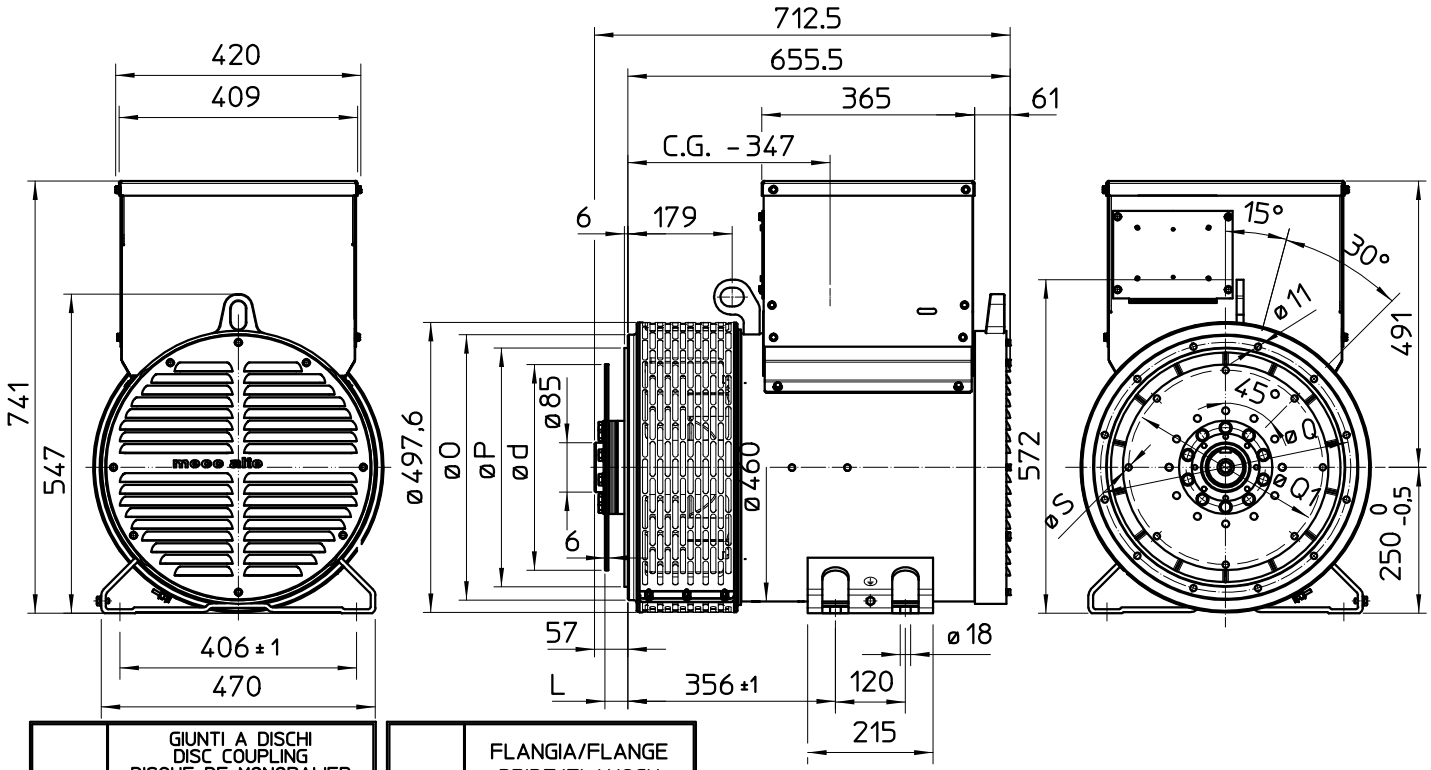
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	3.3	0.0451
2	MAIN ROTOR	54	0.4882
3	EX. ROTOR	11.4	0.0739
4	SHAFT	22.9	0.0166
TOTAL		91.6	0.6238

SAE N°	5 SHAFTS COUPLING FLEX PLATE			
	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.	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

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

C.G.= GRAVITY CENTER