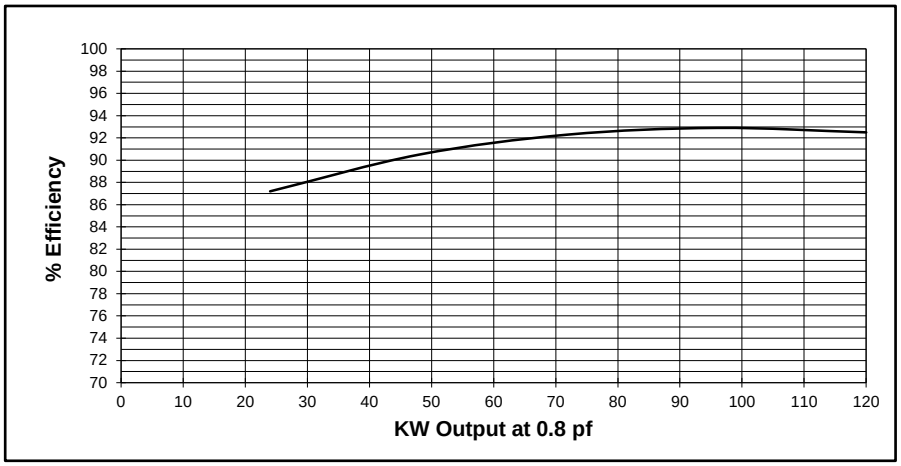
GENERATOR TYPE HCP 34-1L/20

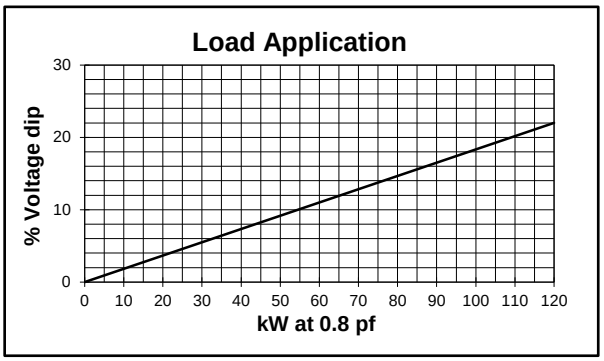
Document : **DS132A/1**
issue 002 date 07/05/2018

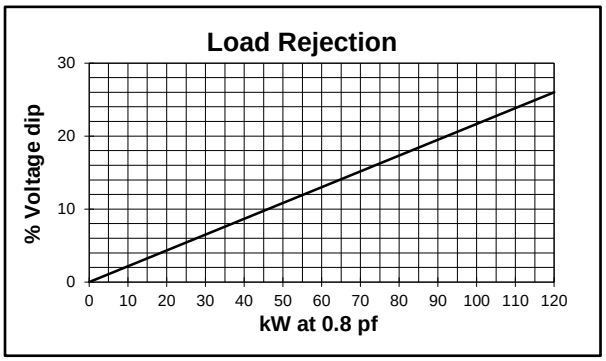
Electrical Characteristics			
Frequency		Hz	400
Voltage (star)		V	208
Rated power class H (125°C)		kVA	150
		kW	120
Rated power class F (105°C)		kVA	135
		kW	108
Rated power class B (80°C)		kVA	120
		kW	96
Regulation with		UVR6/1-H400B	±1% with any power factor and speed variations between -5% +30%
Insulation class			H
Execution			Brushless
Stator winding			12 ends
Submittal Data : 208V, 150KVA, 2400RPM, 400Hz, 3 Phase			**MIL-STD-705C**
Efficiencies	4/4	%	92,9
(see graph. for details)	3/4	%	92,3
	2/4	%	90,5
	1/4	%	87,2
Reactances	Xd	p.u.	1,61
	Xd'	p.u.	0,27
	Xd"	p.u.	0,13
	Xq	p.u.	1,51
	Xq'	p.u.	1,51
	Xq"	p.u.	0,31
	X_2	p.u.	0,27
	X_0	p.u.	0,07
Short Circuit Ratio	Kcc		0,40
Time Constants	Td'	sec.	0,07
	Td"	sec.	0,012
	Tdo'	sec.	0,180
	$T\alpha$	sec.	0,15
Short Circuit Current Capacity		%	>300
Excitation at no load		Amp.	0,7
Excitation at full load		Amp.	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	0,012
Rotor Winding Resistance (20°C)		Ω	5,182
Exciter Resistance (20 °C)		Ω	Rotor : 0,412 Stator : 15,18
Heat dissipation		W	9.171
Telephone Interference			FHT < 2% ; TIF < 100
Radio interference			EN61000-6-3 EN61000-6-1. For others standards apply to factory
Waveform Distors.(THD) at f. load		% LL	5,0
Individual harmonic max. at f. load		% LL	4,8
Insulation resistance		MΩ	> 2
High Potential Test		Volts	Main Stator : 2000 Main Rotor : 1500
		Volts	Exciter Stator : 1500 Exciter Rotor : 1500
Phase sequence			1 - 5 - 9
Mechanical characteristics			
Protection			IP 21 (other protection on request)
DE bearing			6314.2RS
NDE bearing			6311.2RS
Weight of complete generator		kg	430
Synchronous Speed		rpm	2400
Maximun overspeed		rpm	3000
Cooling air requirement		m³/min	28
Noise level at 1m/7m		dB(A)	88 / 74

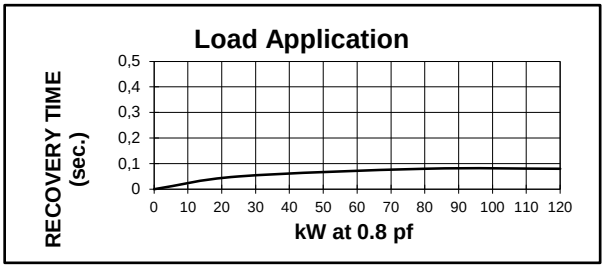
All technical data are to be considered as a reference and they can be modified without any notice.

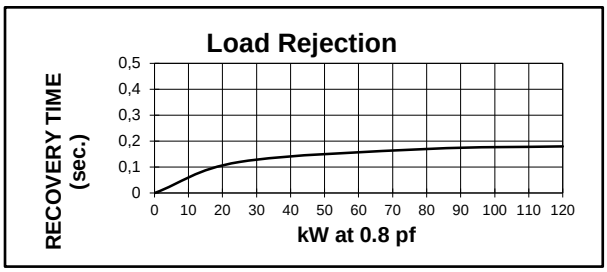
208V - 400Hz

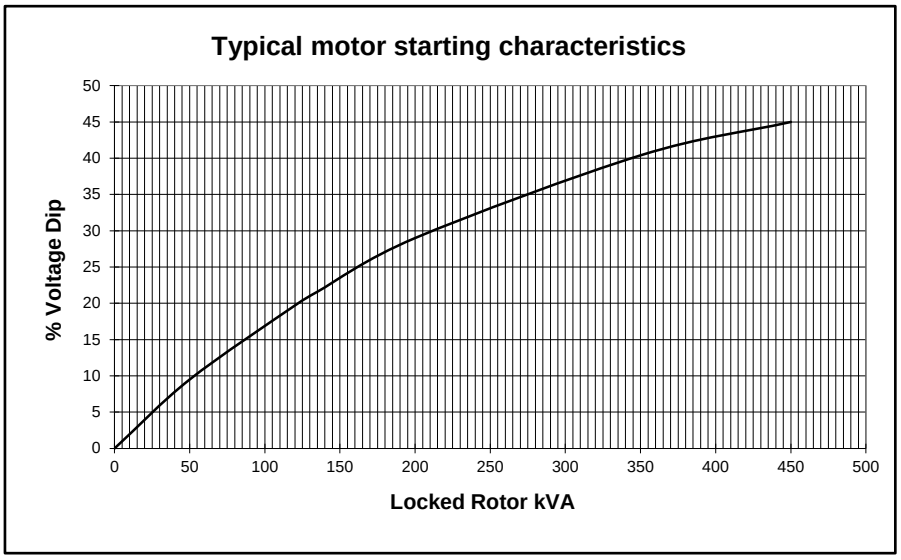




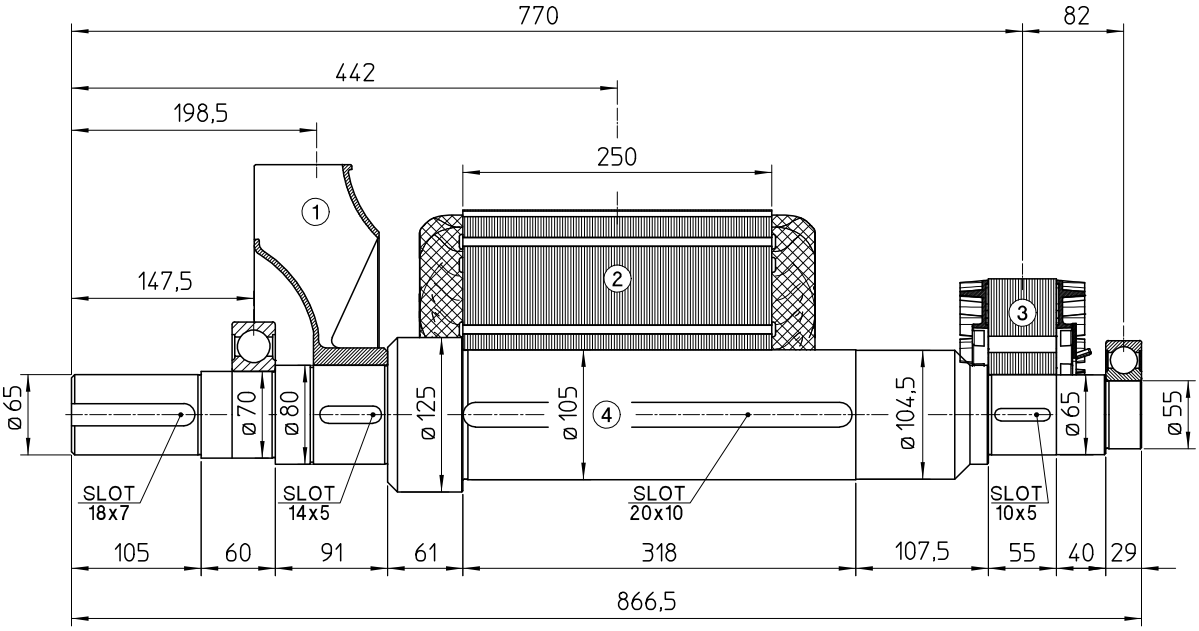






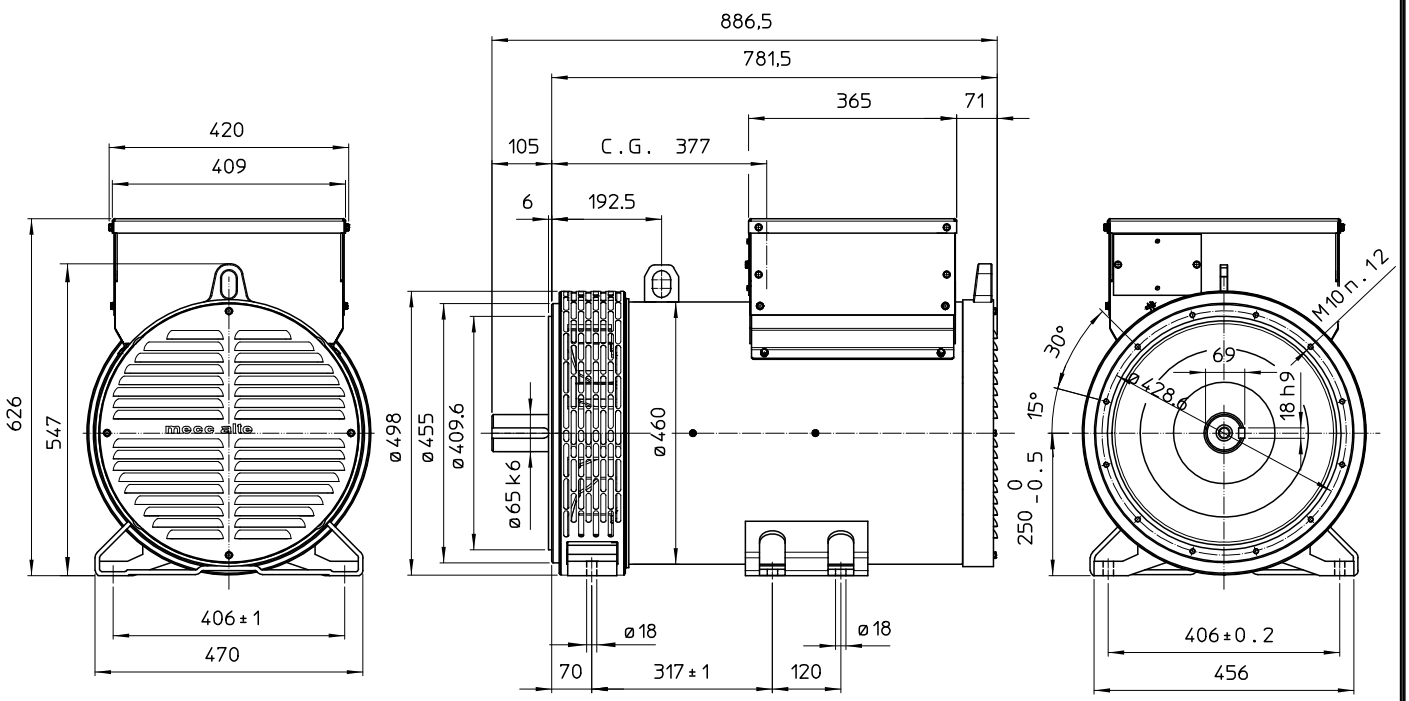


TWO BEARING MOMENTS OF INERTIA



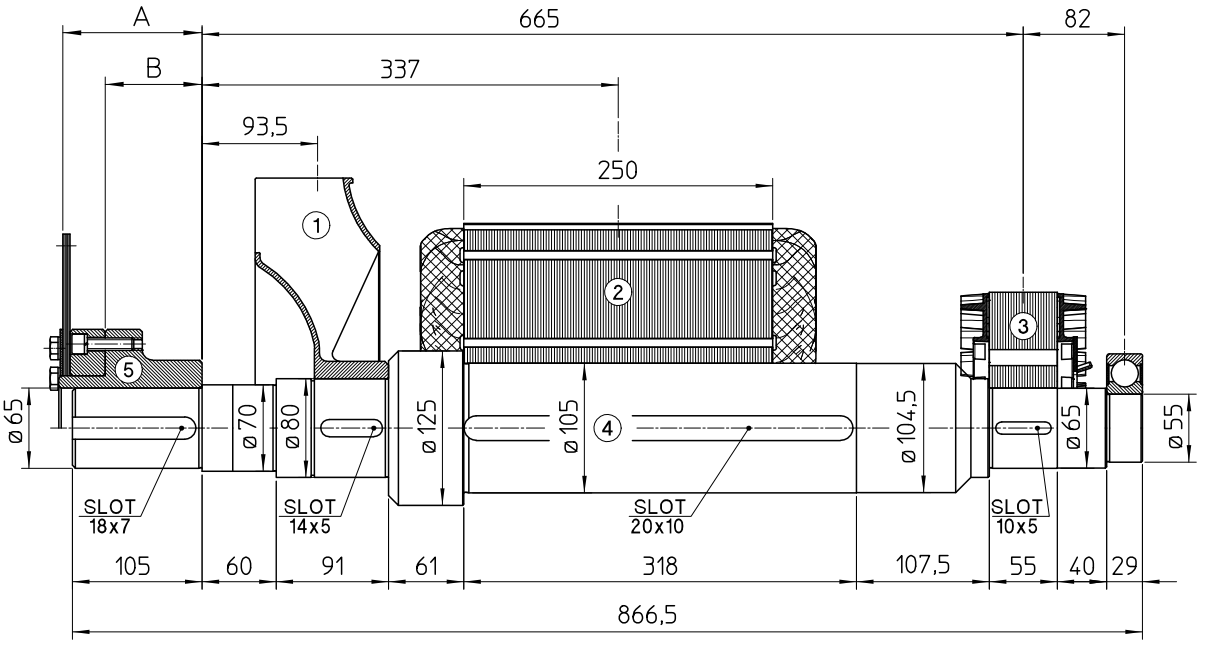
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	3.6	0.0621
2	MAIN ROTOR	133.5	2.0221
3	EX. ROTOR	14.5	0.0874
4	SHAFT	44	0.0547
TOTAL		195.6	2.2263

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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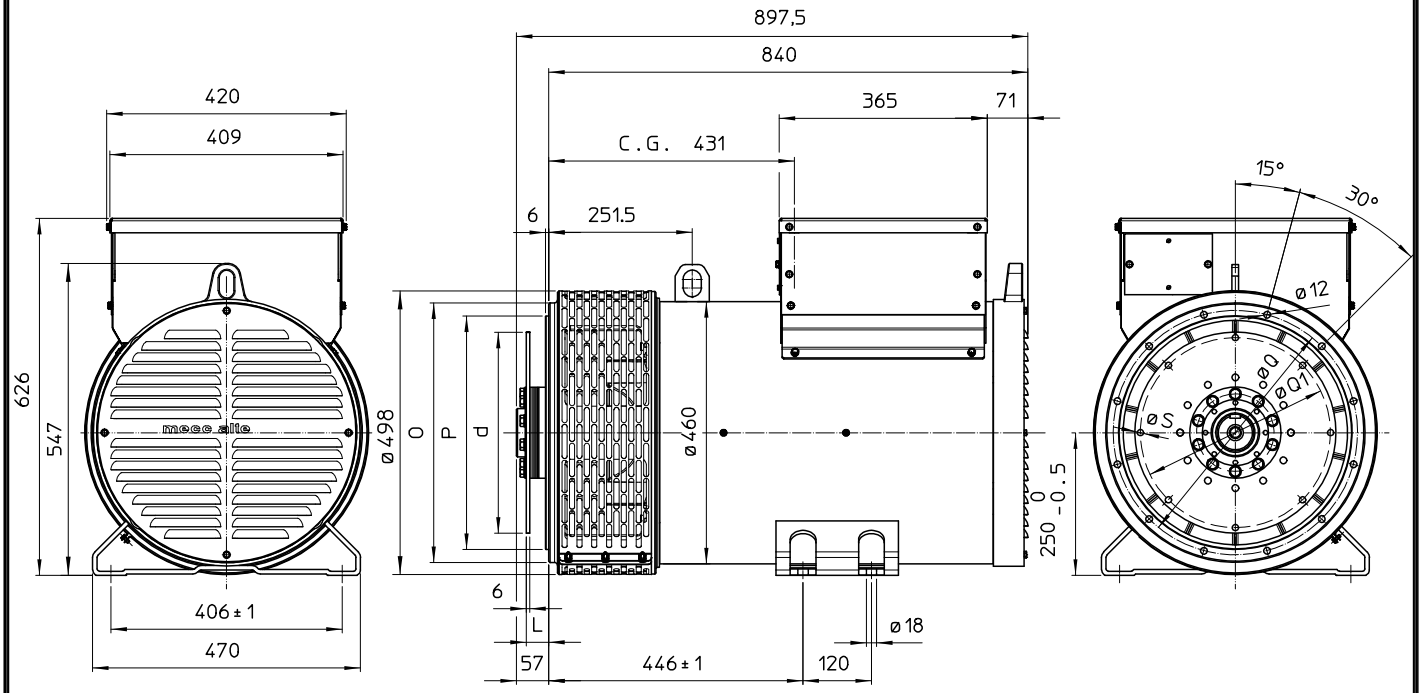
POS.	COMPONENT	SAE N°	A	B	WEIGHT (kg)	J (kgm^2)
5	SHAFTS COUPLING FLEX PLATE	10	112.8	77.2	13.5	0.0770
		11 1/2	98.4	71.5	12.4	0.0956
		14	84.4	68.6	14.8	0.2360

SINGLE BEARING DIMENSIONS



SAE N°	FLANGE		
	O	P	Q
3	451	409.6	428.6
2	489	447.7	466.7
1	552	511.2	530.2

SAE N°	DISC COUPLING			
	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