



GENERATOR TYPE ECP 34-1S/4

Dedicated Winding

Document : DS261A/1

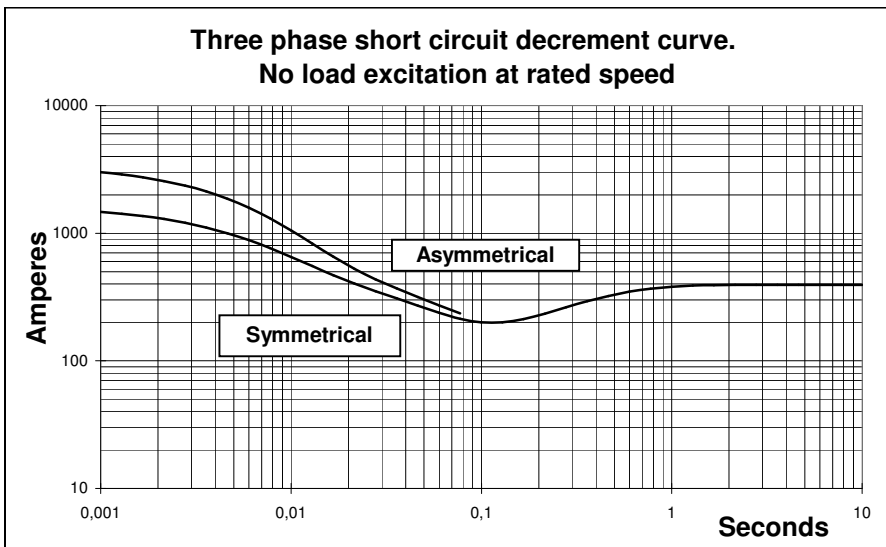
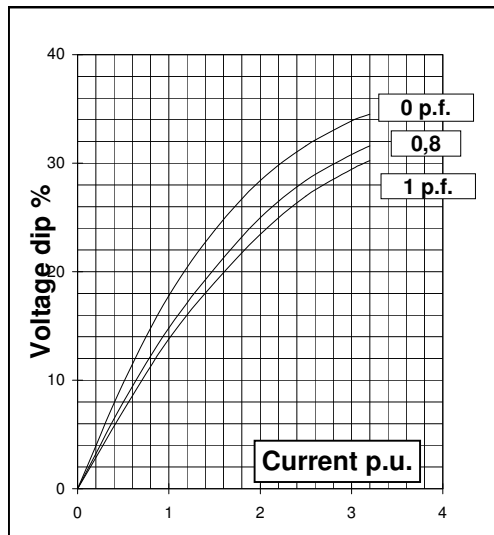
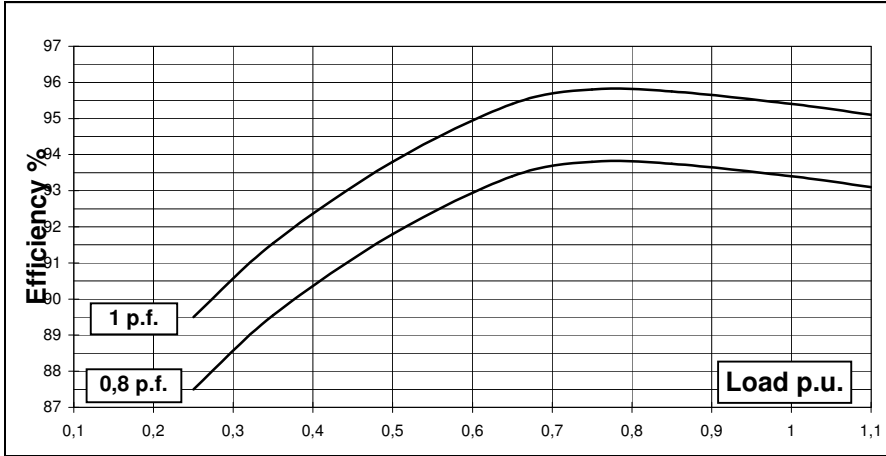
issue 000 date 21/06/2013

Electrical Characteristics			
Frequency	Hz		60
Voltage (parallel star)	V		600
Rated power class H	kVA		102
	kW		81,6
Rated power class F	kVA		92
	kW		73,6
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
(see graph. for details)	3/4	%	93,8
	2/4	%	91,8
	1/4	%	87,5
Reactances (f. l.cl. F)			
	Xd	%	325
	Xd'	%	22,3
	Xd''	%	7,4
	Xq	%	170,5
	Xq'	%	170,5
	Xq''	%	29,5
	X ₂	%	19,2
	X ₀	%	3,6
Short Circuit Ratio	Kcc		0,50
Time Constants	Td'	sec.	0,04192
	Td''	sec.	0,00575
	Tdo'	sec.	1,50
	Tα	sec.	0,0154
Short Circuit Current Capacity		%	>350
Excitation at no load	Amp.		0,7
Excitation at full load	Amp.		2,2
Overload (long-term)	%		1 hour in a 6 hours period 110% rated load
Overload per 20 sec.	%		300
Stator Winding Resistance (20 °C)	Ω		0,03
Rotor Winding Resistance (20 °C)	Ω		2,477
Exciter Resistance (20 °C)	Ω		Rotor : 0,410 Stator : 15,28
Heat dissipation at f.l.cl.H	W		5766
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 %		1,6 / 1,8
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		97
Weight of wound rotor assembly	kg		63
Weight of complete generator	kg		341
Maximun overspeed	rpm		2250
Unbalanced magnetic pull at f.l.cl.F	kN/mm		4,9
Cooling air requirement	m³/min		23
Inertia Constant (H)	sec.		0,133
Noise level at 1m/7m	dB(A)		83 / 69

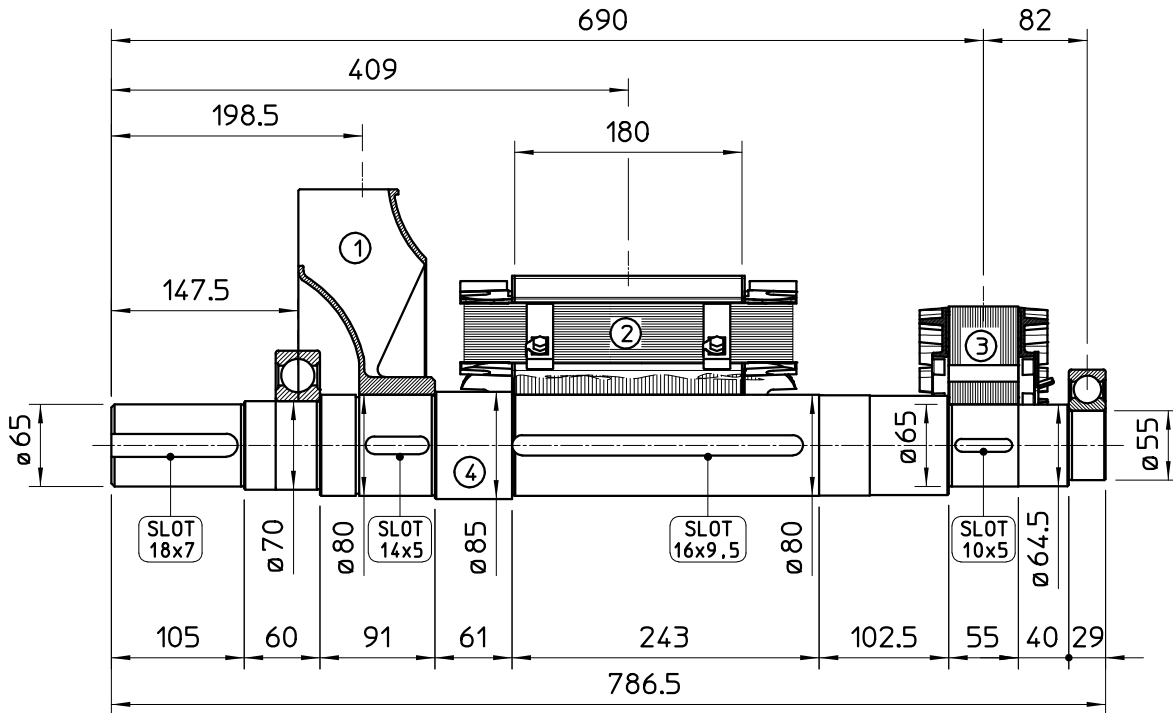
All technical data are to be considered as a reference and they can be modified without any notice.

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600V - 60Hz

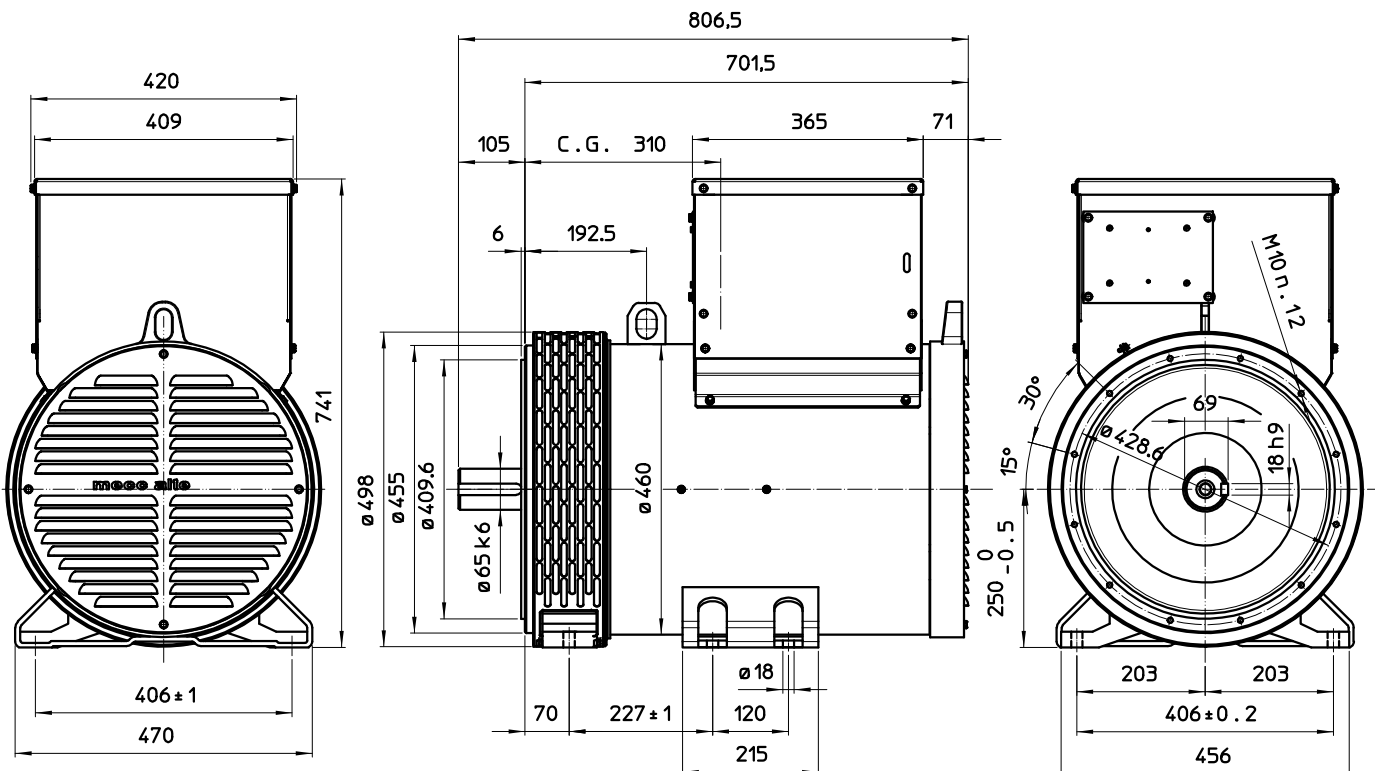


TWO BEARING MOMENTS OF INERTIA



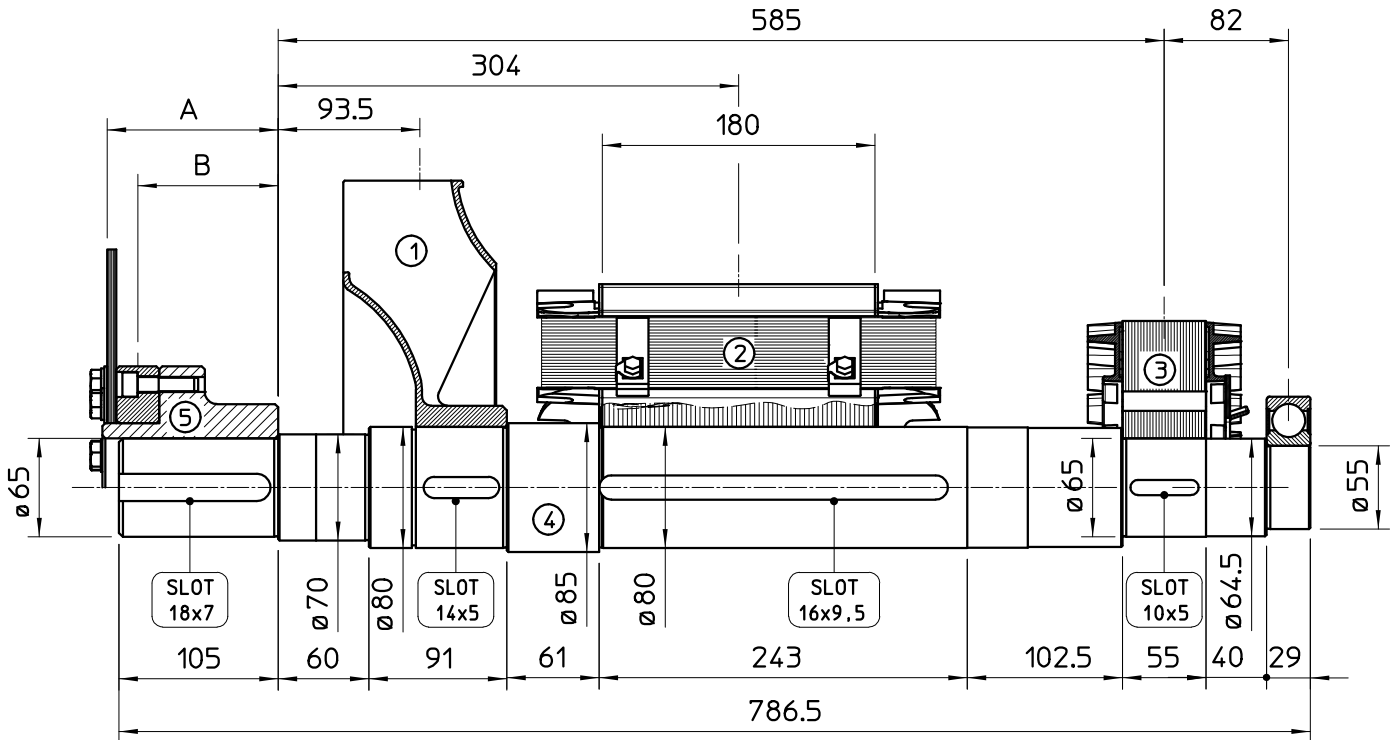
POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	3.3	0.0451
2	MAIN ROTOR	64.8	0.5847
3	EX. ROTOR	14.5	0.0874
4	SHAFT	26.8	0.0196
TOTAL		109.4	0.7366

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

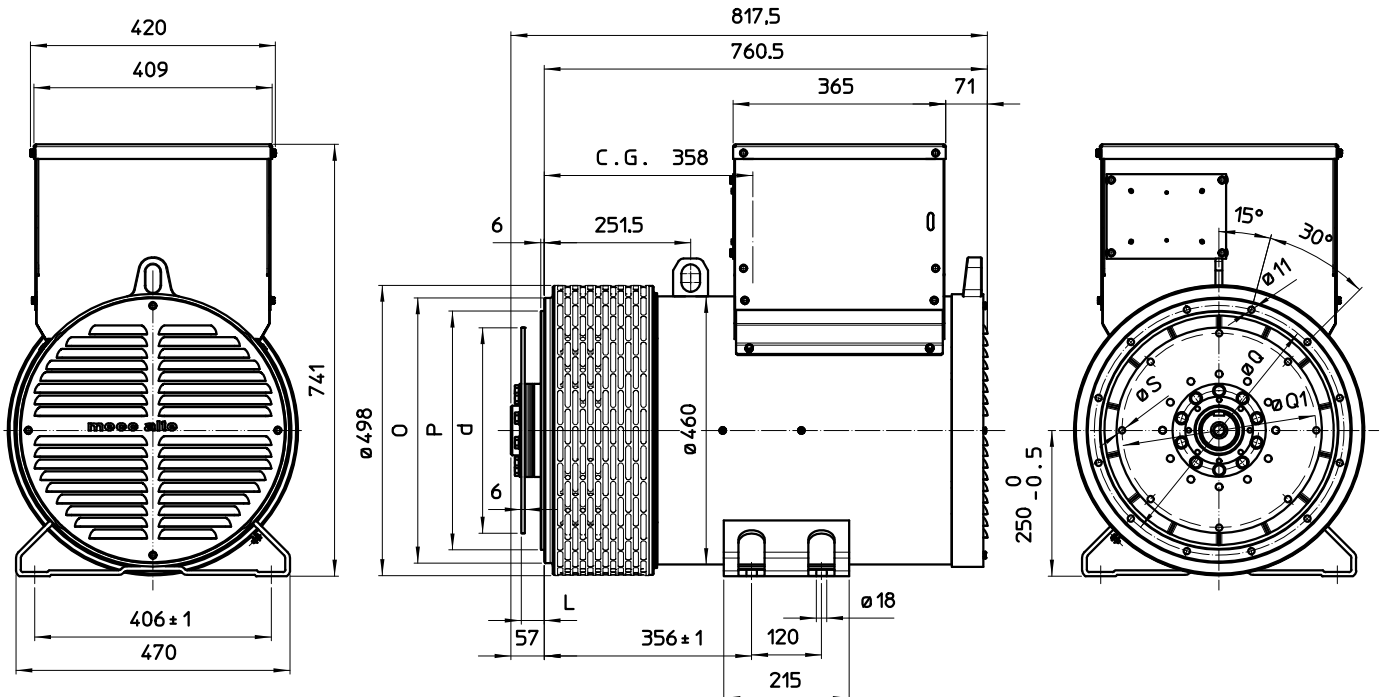
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	3.3	0.0451
2	MAIN ROTOR	64.8	0.5847
3	EX. ROTOR	14.5	0.0874
4	SHAFT	26.8	0.0196
TOTAL		109.4	0.7366

SAE N°	A	B	WEIGHT kg	J kgm ²
5	SHAFTS COUPLING FLEX PLATE			
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

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