



GENERATOR TYPE ECO 38-1LN/4

Dedicated Winding

Document : DS267A/1

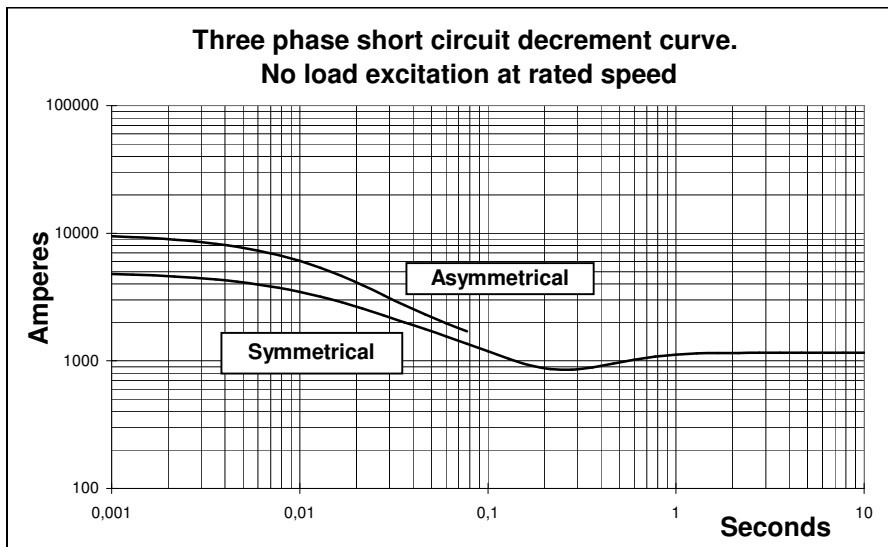
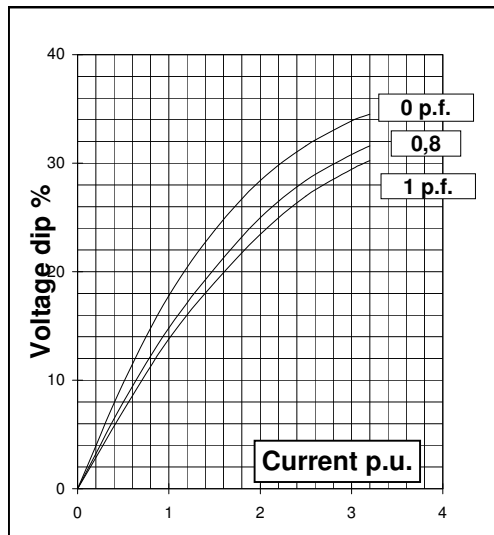
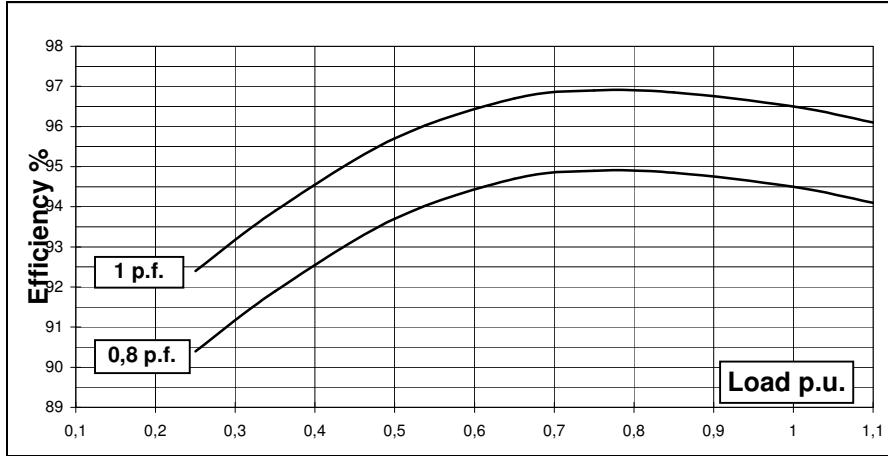
issue 000 date 21/06/2013

Electrical Characteristics			
Frequency	Hz		60
Voltage (parallel star)	V		600
Rated power class H	kVA		300
	kW		240
Rated power class F	kVA		280
	kW		224
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	%	94,5
(see graph. for details)	3/4	%	94,9
	2/4	%	93,7
	1/4	%	90,4
Reactances (f. l.cl. F)			
	Xd	%	207
	Xd'	%	14
	Xd''	%	7,2
	Xq	%	117
	Xq'	%	117
	Xq''	%	22
	X ₂	%	16
	X ₀	%	2,4
Short Circuit Ratio	Kcc		0,44
Time Constants			
	Td'	sec.	0,085
	Td''	sec.	0,013
	Tdo'	sec.	1,30
	Tα	sec.	0,017
Short Circuit Current Capacity		%	>350
Excitation at no load	Amp.		0,7
Excitation at full load	Amp.		2,8
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load
Overload per 20 sec.		%	300
Stator Winding Resistance (20 °C)	Ω		0,0065
Rotor Winding Resistance (20 °C)	Ω		4,887
Exciter Resistance (20 °C)	Ω		Rotor : 0,685 Stator : 15,28
Heat dissipation at f.l.cl.H	W		13968
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 %		2 / 2,1
Waveform Distors.(THD) at no load	LL/LN %		2,9 / 3,1
Mechanical characteristics			
Protection			IP 21 (other protection on request)
DE bearing			6318.2RS
NDE bearing			6314.2RS
Weight of wound stator assembly	kg		231
Weight of wound rotor assembly	kg		147,5
Weight of complete generator	kg		680
Maximun overspeed	rpm		2250
Unbalanced magnetic pull at f.l.cl.F	kN/mm		5,1
Cooling air requirement	m³/min		39
Inertia Constant (H)	sec.		0,139
Noise level at 1m/7m	dB(A)		86 / 73

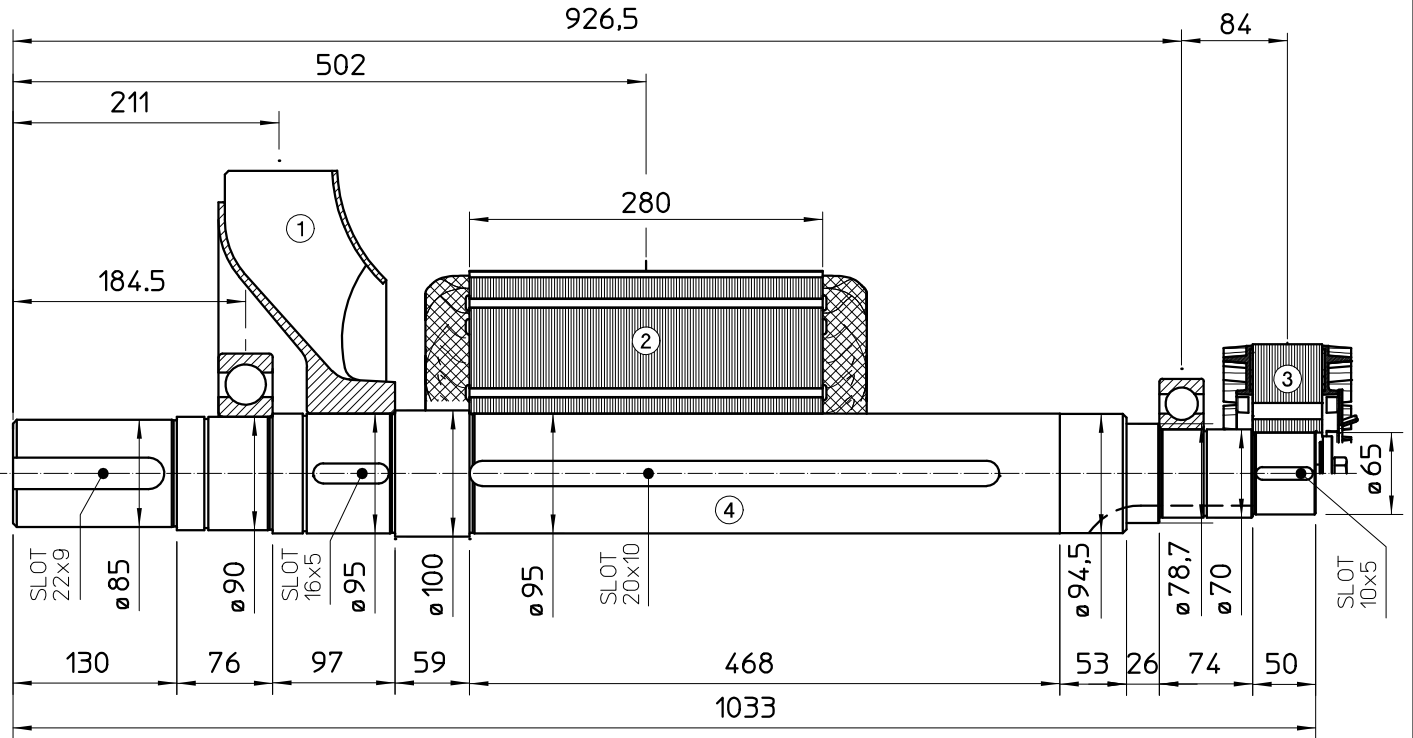
All technical data are to be considered as a reference and they can be modified without any notice.

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600V - 60Hz

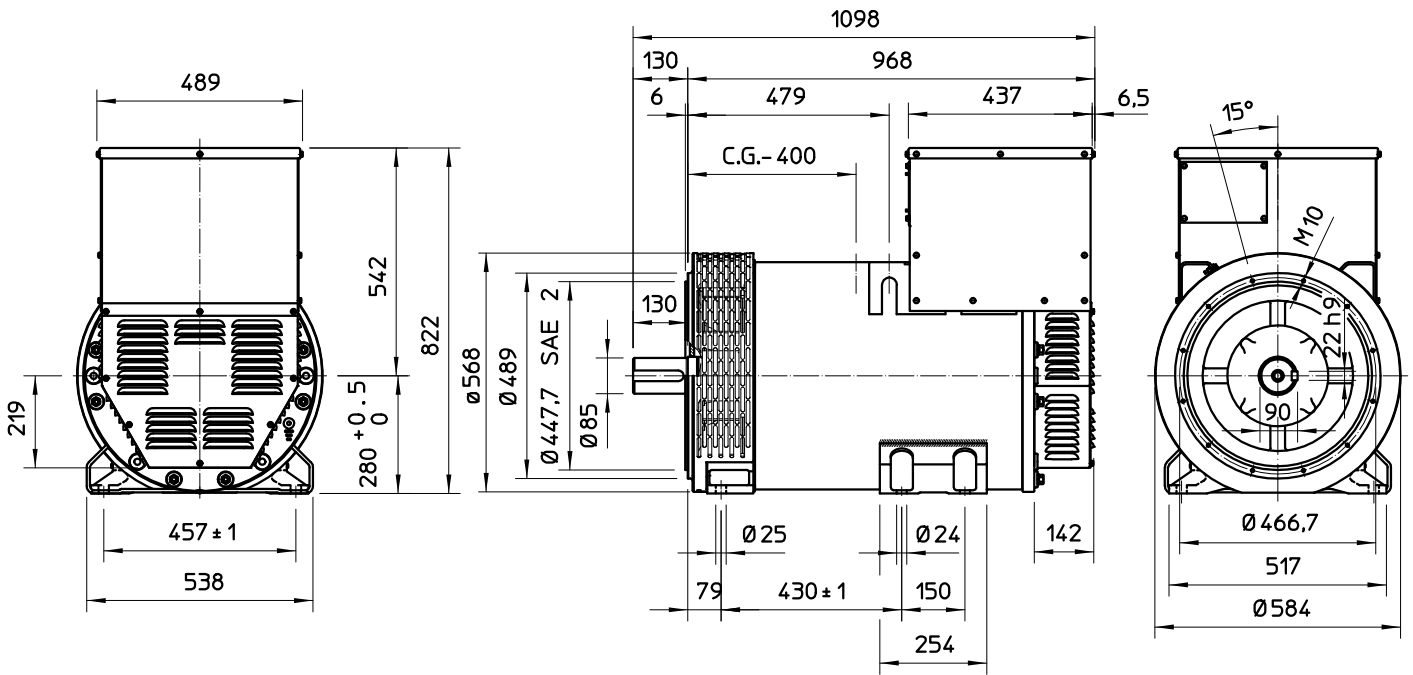


TWO BEARING MOMENTS OF INERTIA



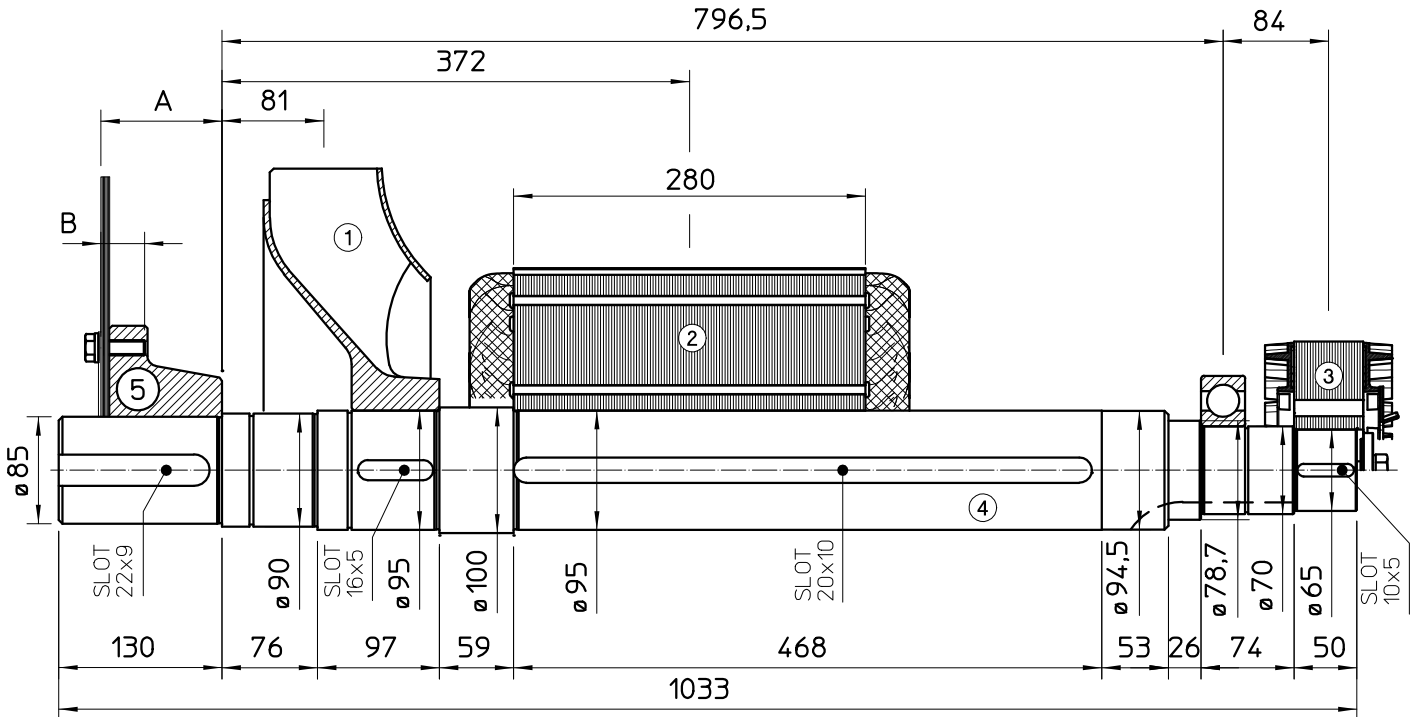
POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	6.1	0.1887
2	MAIN ROTOR	147.5	2.0195
3	EX. ROTOR	14.5	0.0874
4	SHAFT	49.9	0.0525
TOTAL		218	2.3481

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

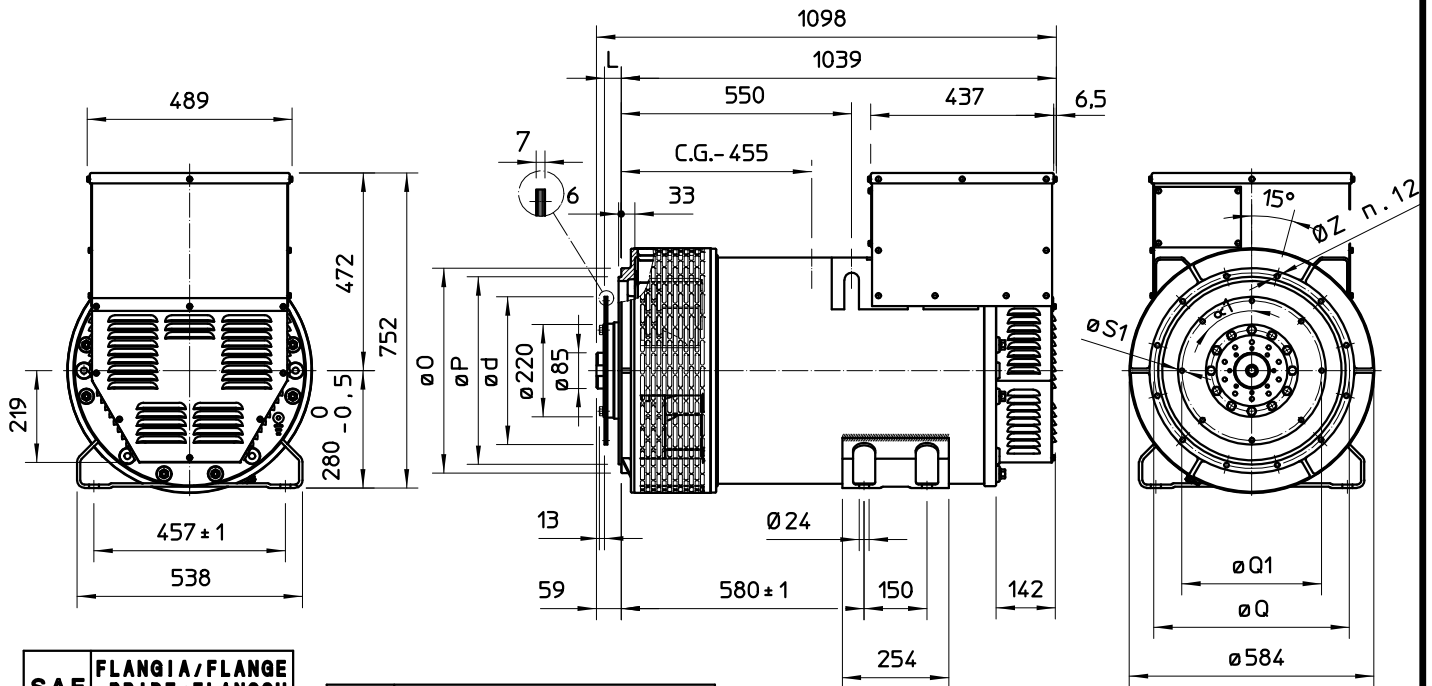
SINGLE BEARING MOMENTS OF INERTIA



POS.	COMPONENT	WEIGHT (kg)	J (kgm ²)
1	FAN	6.1	0.1887
2	MAIN ROTOR	147.5	2.0195
3	EX. ROTOR	14.5	0.0874
4	SHAFT	49.9	0.0525
TOTAL		218	2.3481

SAE N°	5		SHAFTS COUPLING FLEX PLATE	
	A	B	WEIGHT kg	J kgm ²
11.5	110.4	41.1	20.5	0.174
14	96.4	34.7	23.5	0.275

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
1/2	648	584,2	619,1

SAE N.	GIUNTI A DISCHI DISC COUPLING DISQUE DE MONOPALIER SCHEIBENKUPPLUNG					
	L	d	Q1	n _{fori}	S1	α1
11 1/2	39,6	352,42	333,37	8	11	45°
14	25,4	466,72	438,15	8	14	45°

C.G.= GRAVITY CENTER