GENERATOR TYPE ECO 38-3LN/4

dedicated winding

Document : **DS103A/1**

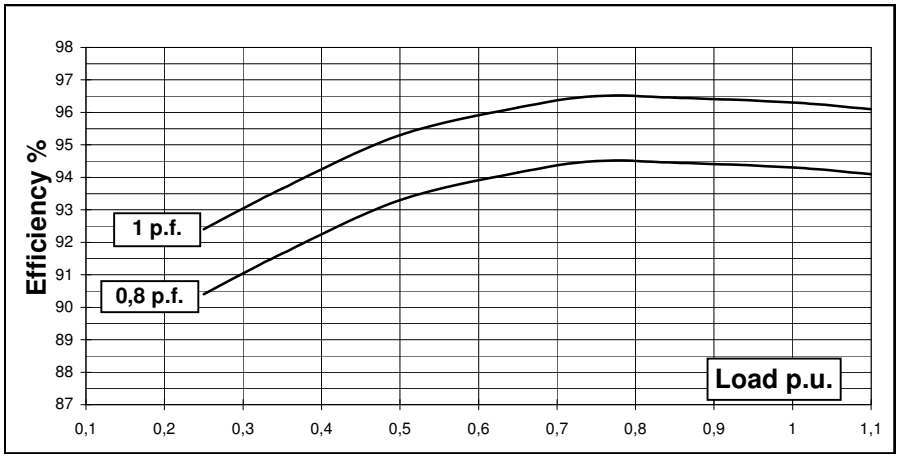
issue 001 date 11/10/2012

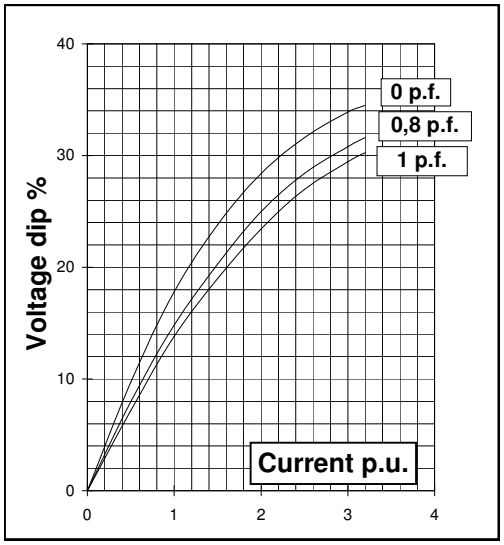
Electrical Characteristics			
Frequency		Hz	60
Voltage (series star)		V	380
Rated power class H		kVA	420
		kW	336
Rated power class F		kVA	385
		kW	308
Regulation with		DSR	±1 % with any power factor and speed variations between -5% +30%
Insulation class			H
Execution			Brushless
Stator winding			12 ends
Rotor			with damping cage
Efficiencies class H	4/4	%	94,3
(see graph. for details)	3/4	%	94,5
	2/4	%	93,3
	1/4	%	90,4
Reactances (f. l.cl. F)	Xd	%	215
	Xd'	%	17,2
	Xd"	%	9,4
	Xq	%	126
	Xq'	%	126
	Xq"	%	20,1
	X_2	%	15,7
	X_0	%	2,2
Short Circuit Ratio	Kcc		0,42
Time Constants	Td'	sec.	0,099
	Td"	sec.	0,0127
	Tdo'	sec.	1,50
	Tα	sec.	0,013
Short Circuit Current Capacity		%	>350
Excitation at no load		Amp.	0,70
Excitation at full load		Amp.	3,9
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load
Overload per 20 sec.		%	300
Stator Winding Resistance (20°C)		Ω	0,0042
Rotor Winding Resistance (20°C)		Ω	6,780
Exciter Resistance (20 °C)		Ω	Rotor : 0,685 Stator : 15,28
Heat dissipation at f.l.cl.H		W	20310
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 %	3,1 / 2,9
Waveform Distors.(THD) at no load		LL/LN %	2,7 / 2,7
Mechanical characteristics			
Protection			IP 21 (other protection on request)
DE bearing			6318.2RS
NDE bearing			6314.2RS
Weight of wound stator assembly		kg	347
Weight of wound rotor assembly		kg	230
Weight of complete generator		kg	905
Maximun overspeed		rpm	2250
Unbalanced magnetic pull at f.l.cl.F		kN/mm	6,2
Cooling air requirement		m^3/min	39
Inertia Constant (H)		sec.	0,147
Noise level at 1m/7m		dB(A)	86 / 73

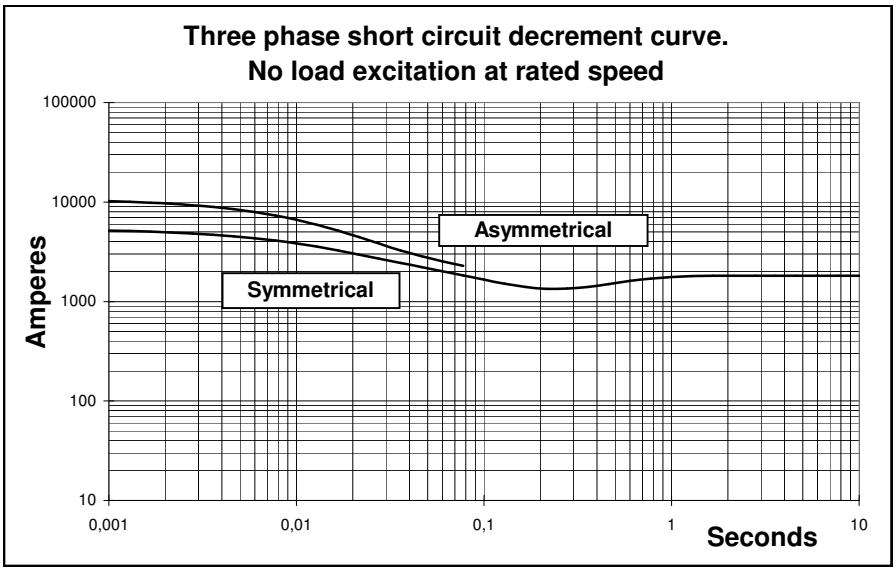
GENERATOR TYPE ECO 38-3LN/4

Document : **DS103A/2**
issue 001 date : 11/10/2012

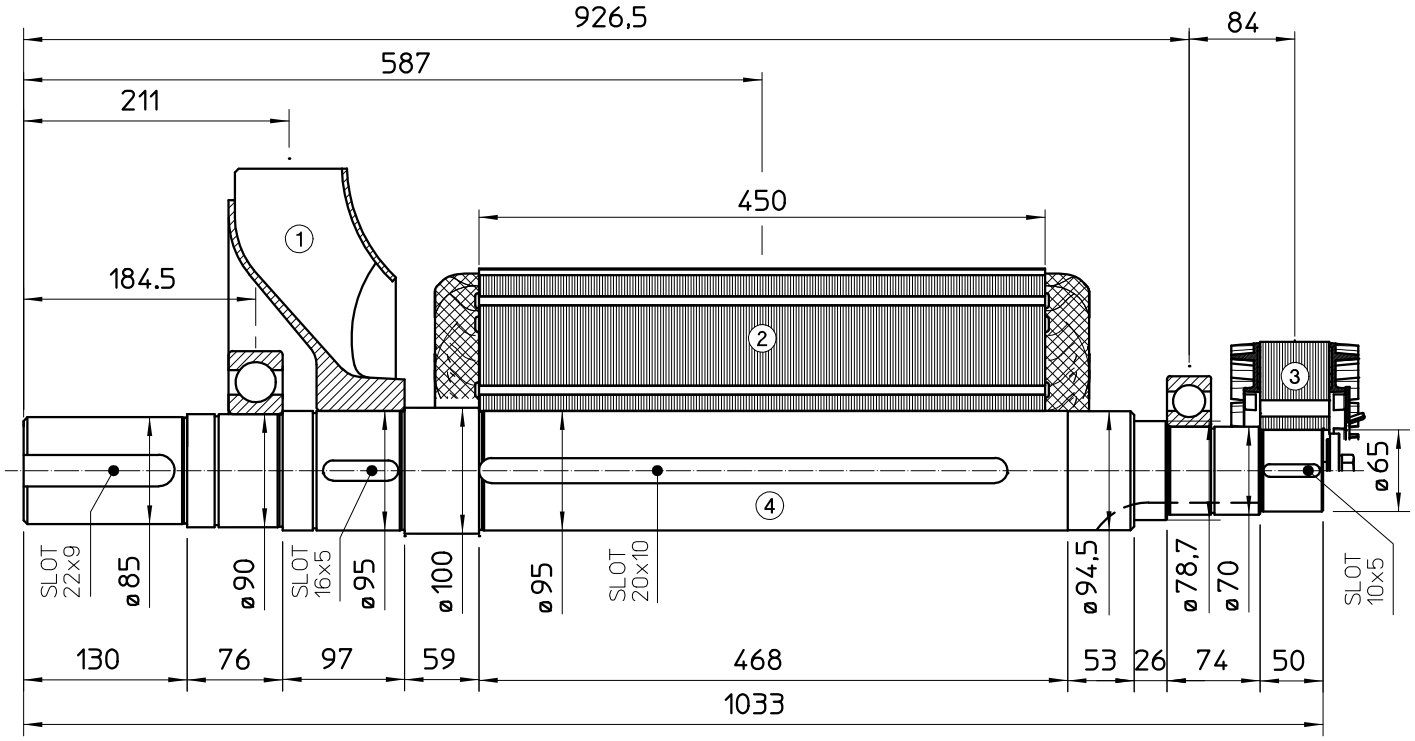
380V - 60 Hz





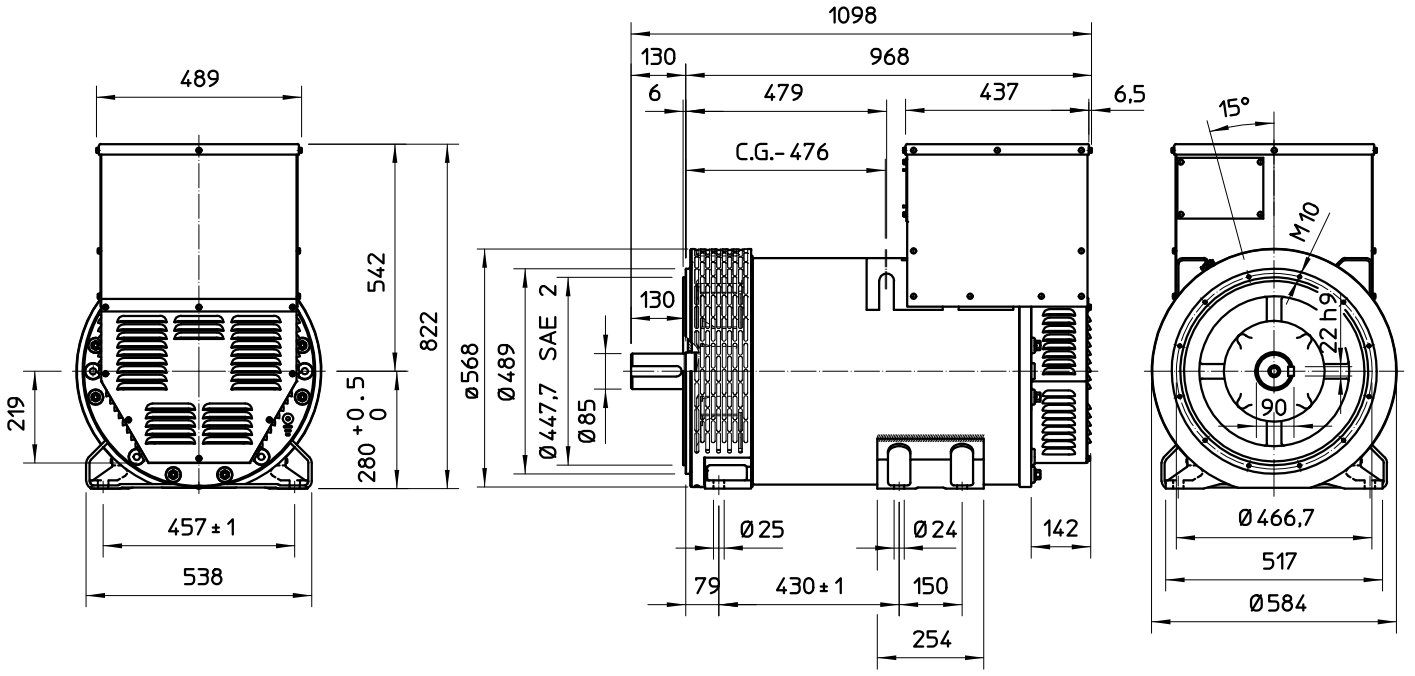


TWO BEARING MOMENTS OF INERTIA



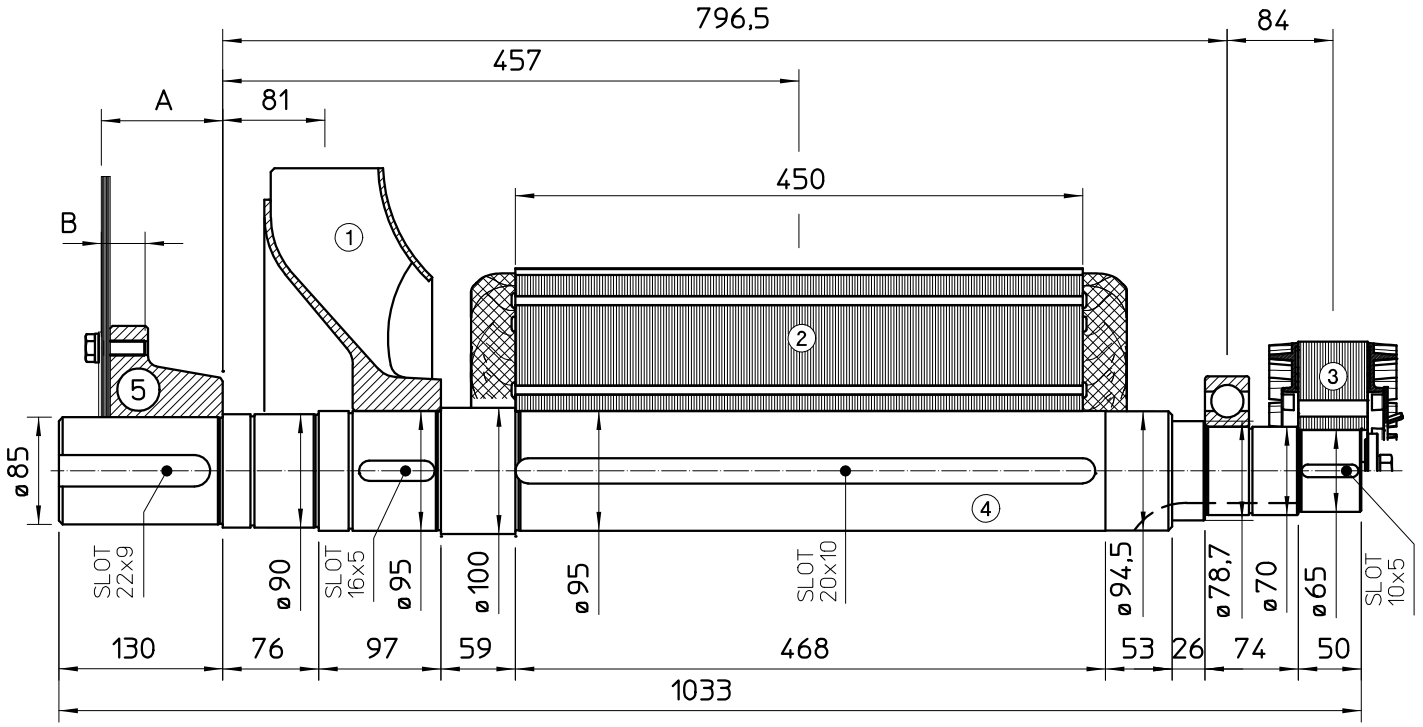
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	6.1	0.1887
2	MAIN ROTOR	230	3.1461
3	EX. ROTOR	14.5	0.0874
4	SHAFT	49.9	0.0525
TOTAL		300.5	3.4747

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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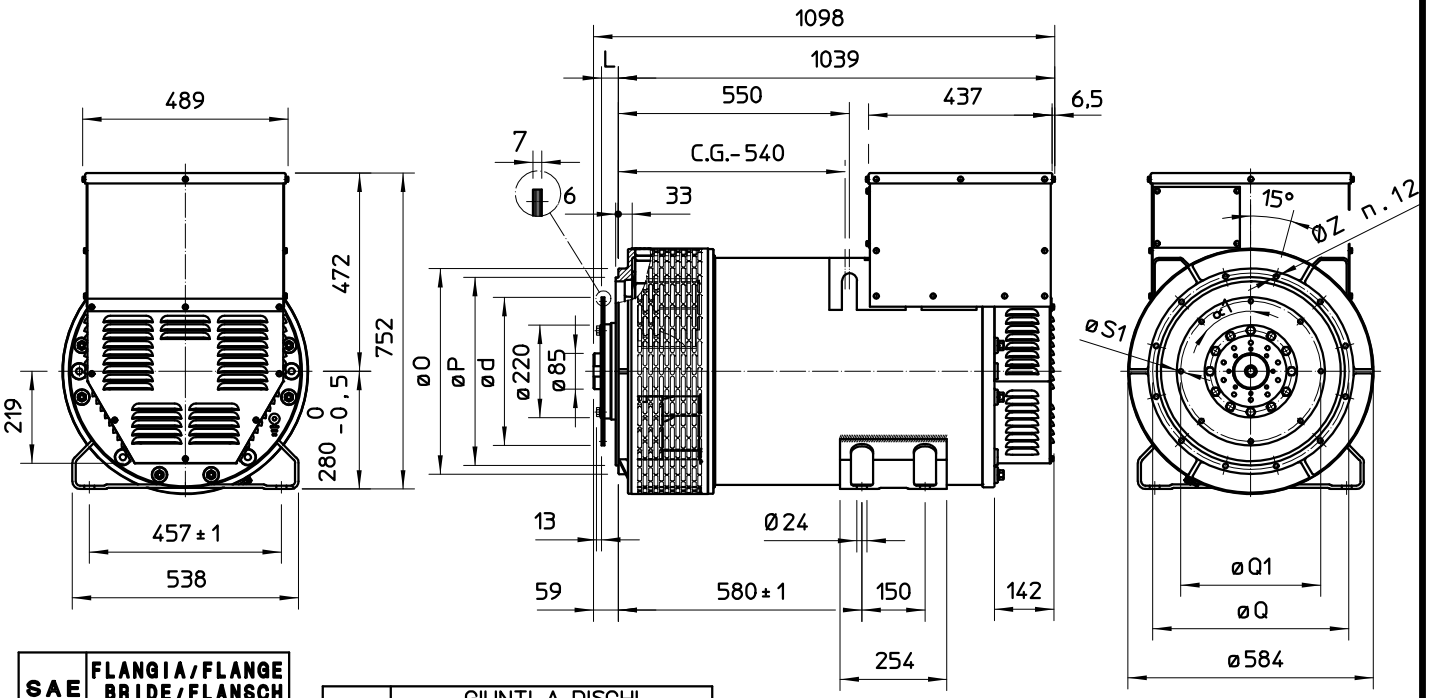
TOTAL		300.5	3.4747

SAE	5	SHAFTS COUPLING FLEX PLATE		
N°	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	∝1
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