GENERATOR TYPE ECO 38-3SN/4

Dedicated Winding

Document : **DS266A/1**

issue 000 date 21/06/2013

Electrical Characteristics			
Frequency		Hz	60
Voltage (parallel star)		V	600
Rated power class H		kVA	270
		kW	216
Rated power class F		kVA	250
		kW	200
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	%	94,2
(see graph. for details)	3/4	%	94,5
	2/4	%	93,4
	1/4	%	90,4
Reactances (f. l.cl. F)	Xd	%	192
	Xd'	%	12,3
	Xd"	%	6,5
	Xq	%	106
	Xq'	%	106
	Xq"	%	22,2
	X_2	%	15,4
	X_0	%	2,6
Short Circuit Ratio	Kcc		0,45
Time Constants	Td'	sec.	0,083
	Td"	sec.	0,013
	Tdo'	sec.	1,10
	Tα	sec.	0,018
Short Circuit Current Capacity		%	>350
Excitation at no load		Amp.	0,65
Excitation at full load		Amp.	2,9
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load
Overload per 20 sec.		%	300
Stator Winding Resistance (20°C)		Ω	0,0085
Rotor Winding Resistance (20°C)		Ω	4,449
Exciter Resistance (20 °C)		Ω	Rotor : 0,685 Stator : 15,28
Heat dissipation at f.l.cl.H		W	13299
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 %	2,8 / 2,9
Waveform Distors.(THD) at no load		LL/LN %	2,6 / 2,8
Mechanical characteristics			
Protection			IP 21 (other protection on request)
DE bearing			6318.2RS
NDE bearing			6314.2RS
Weight of wound stator assembly		kg	195
Weight of wound rotor assembly		kg	128
Weight of complete generator		kg	590
Maximun overspeed		rpm	2250
Unbalanced magnetic pull at f.l.cl.F		kN/mm	5,7
Cooling air requirement		m^3/min	39
Inertia Constant (H)		sec.	0,137
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.

GENERATOR TYPE ECO 38-3SN/4

Document : **DS266A/2**
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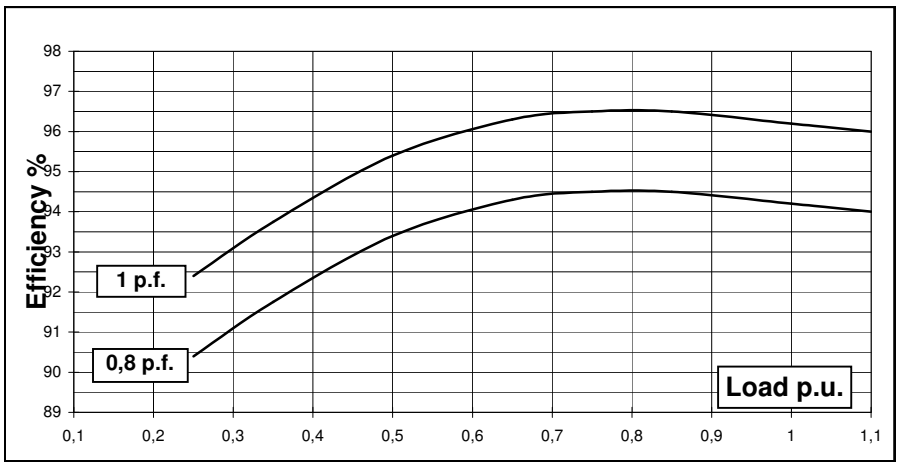
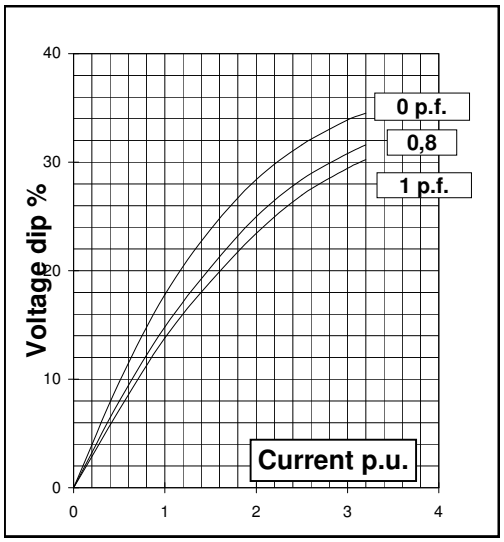
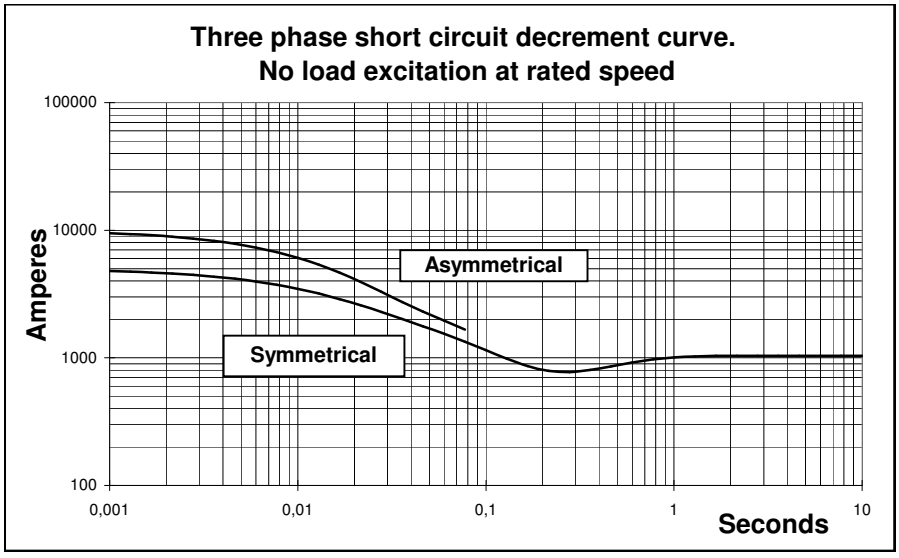
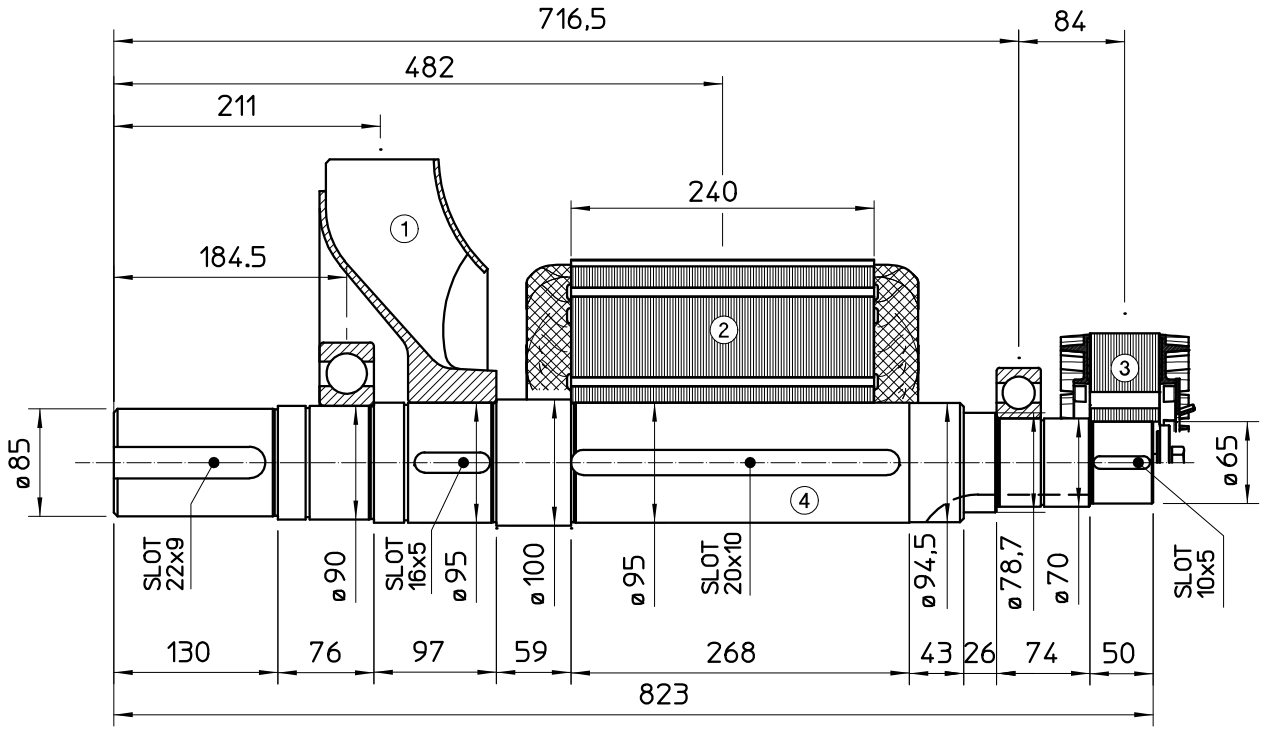
600V - 60Hz





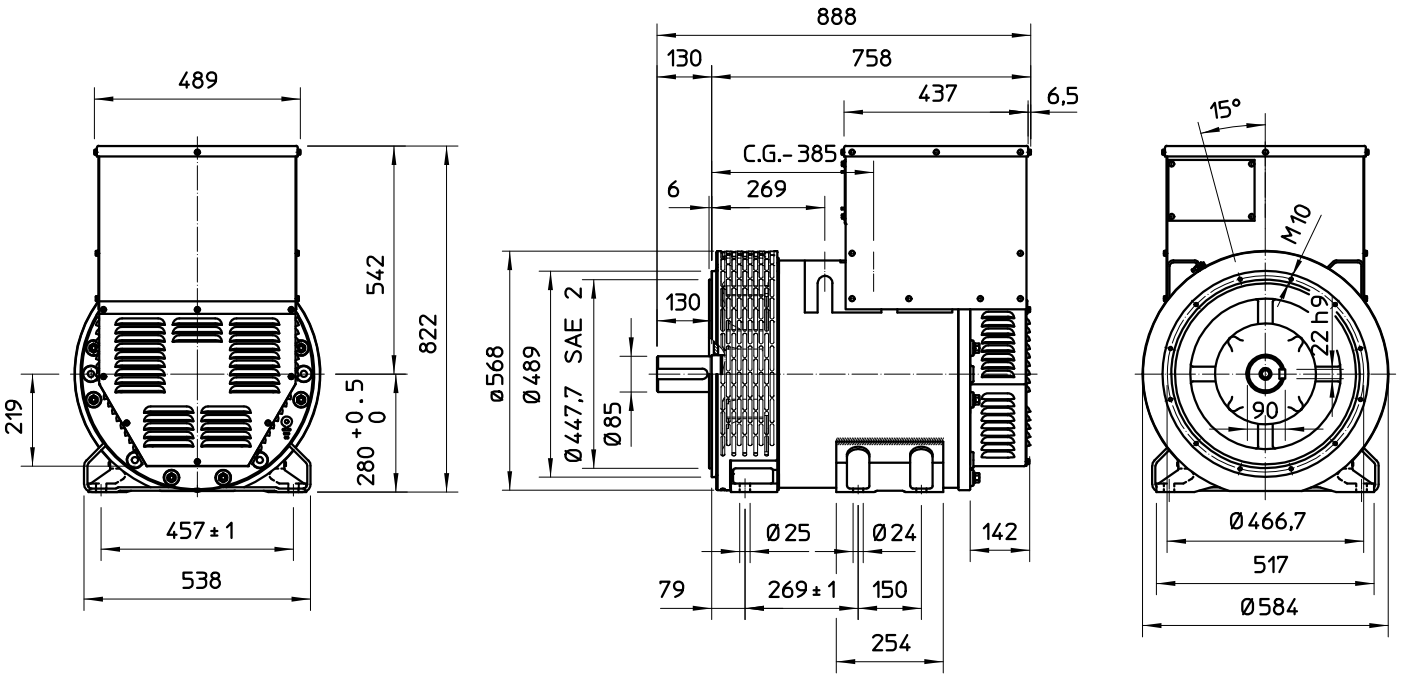


TWO BEARING MOMENTS OF INERTIA



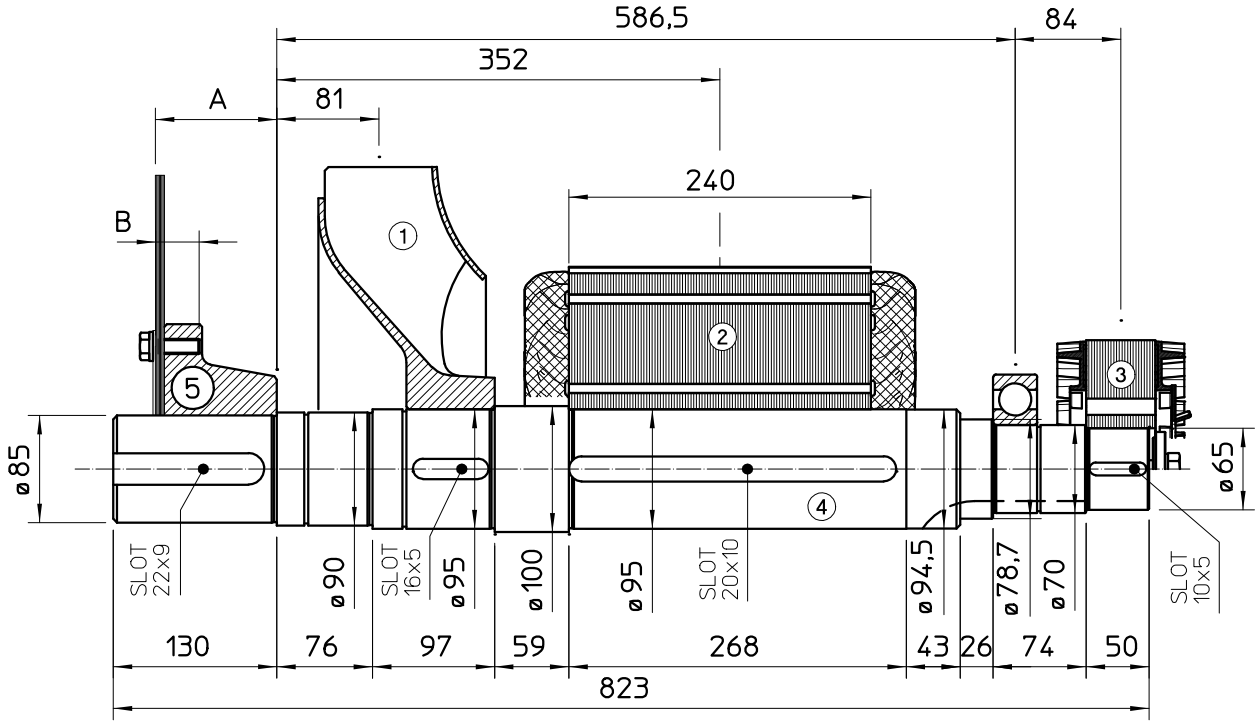
POS.	COMPONENT	WEIGHT (kg)	J (kgm^2)
1	FAN	6.1	0.1887
2	MAIN ROTOR	128	1.7593
3	EX. ROTOR	14.5	0.0874
4	SHAFT	38.5	0.0397
TOTAL		187.1	2.0751

TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

SINGLE BEARING MOMENTS OF INERTIA



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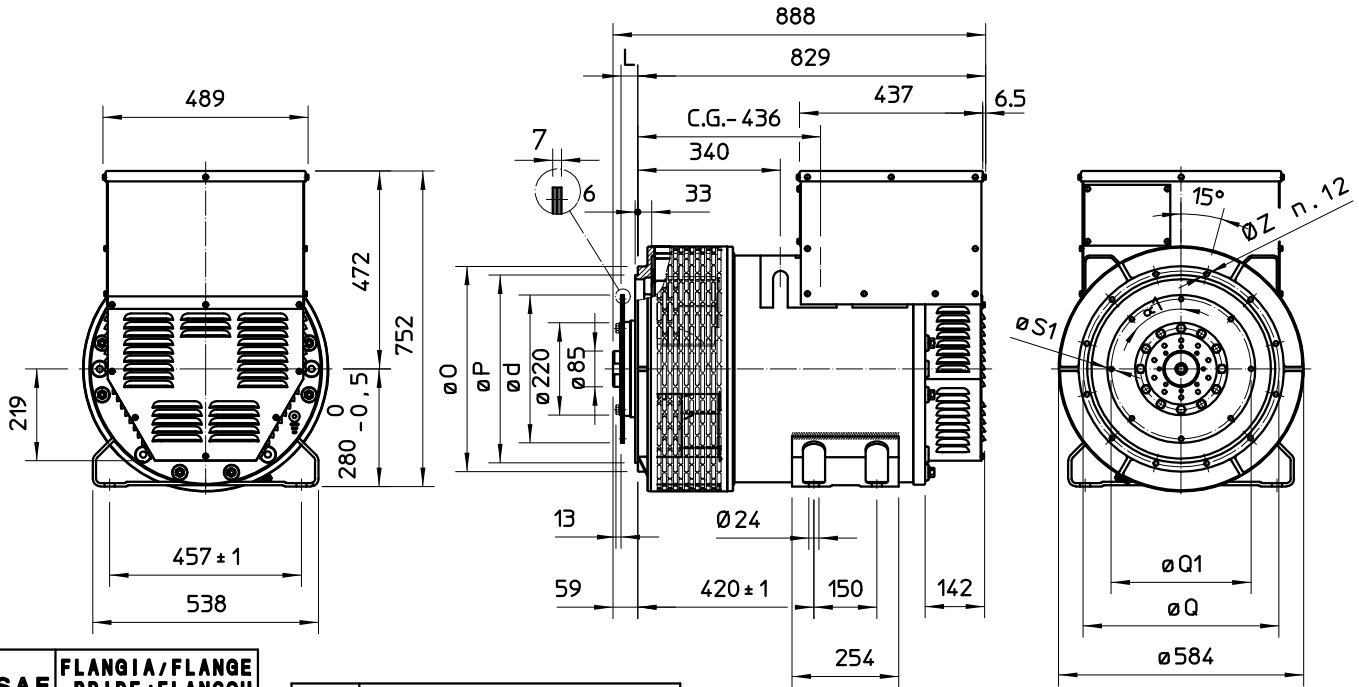
TOTAL		187.1	2.0751

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