



# GENERATOR TYPE ECO 40-1S/4

Dedicated Winding

Document : DS269A/1

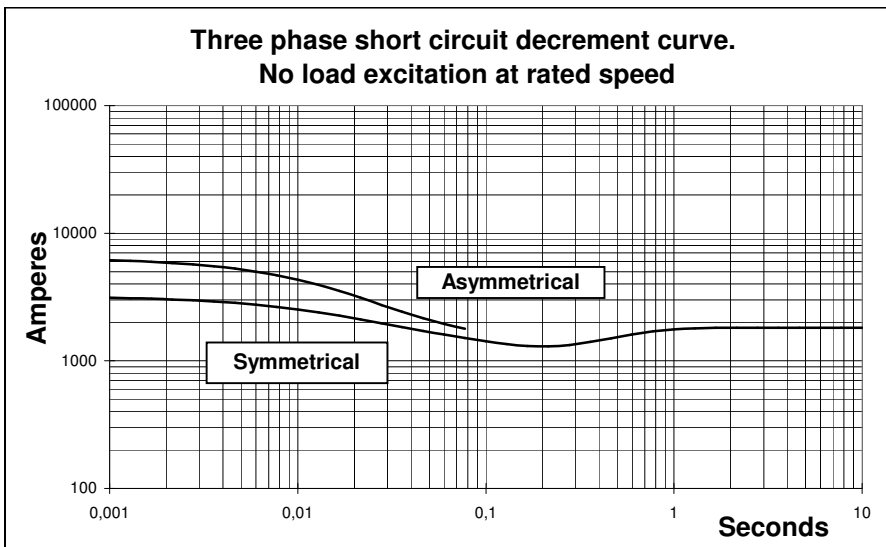
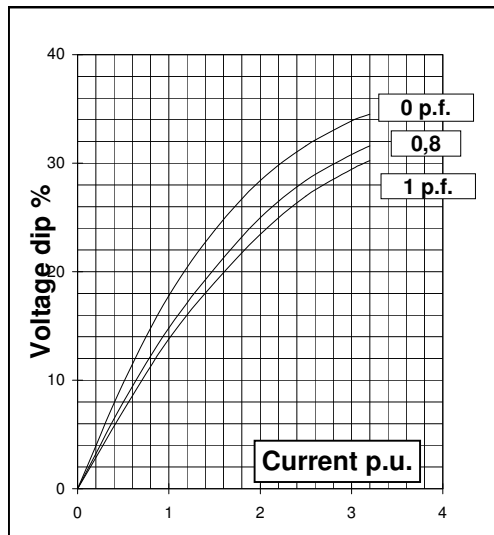
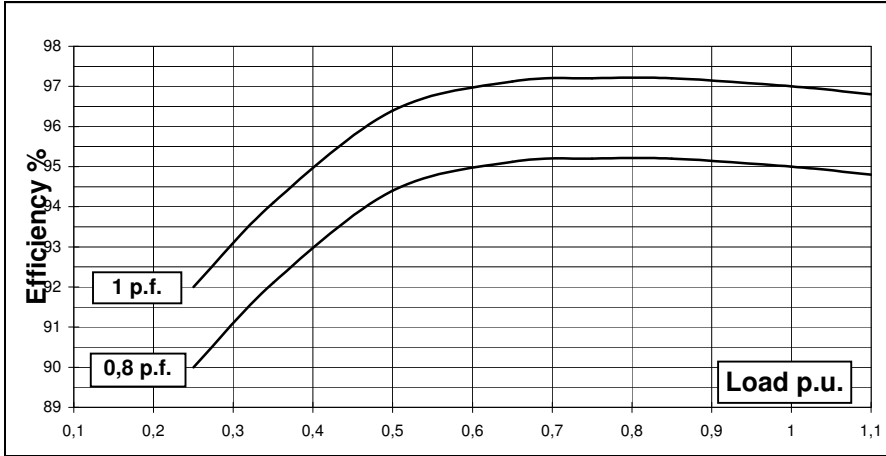
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Electrical Characteristics			
Frequency	Hz		60
Voltage (parallel star)	V		600
Rated power class H	kVA		480
	kW		384
Rated power class F	kVA		440
	kW		352
Regulation with	DER1		±1% with any power factor and speed variations between -5% +30%
Insulation class			H
Execution			Brushless
Stator winding			12 ends
Rotor			with damping cage
Efficiencies class H	4/4	%	95
(see graph. for details)	3/4	%	95,2
	2/4	%	94,4
	1/4	%	90
<b>Reactances (f. l.cl. F)</b>			
	Xd	%	288
	Xd'	%	29,2
	Xd''	%	19
	Xq	%	130,8
	Xq'	%	130,8
	Xq''	%	35,4
	X <sub>2</sub>	%	27,2
	X <sub>0</sub>	%	3,77
Short Circuit Ratio	Kcc		0,36
<b>Time Constants</b>			
	Td'	sec.	0,11
	Td''	sec.	0,014
	Tdo'	sec.	2,50
	Tα	sec.	0,013
Short Circuit Current Capacity		%	>350
Excitation at no load	Amp.		0,8
Excitation at full load	Amp.		3,5
Overload (long-term)		%	1 hour in a 6 hours period 110% rated load
Overload per 20 sec.		%	300
Stator Winding Resistance (20 °C)	Ω		0,018
Rotor Winding Resistance (20 °C)	Ω		4,488
Exciter Resistance (20 °C)	Ω		Rotor : 0,317                      Stator : 8,85
Heat dissipation at f.l.cl.H	W		20211
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 %		2,6 / 2,6
Waveform Distors.(THD) at no load	LL/LN %		2,9 / 2,9
<b>Mechanical characteristics</b>			
Protection			IP 21 (other protection on request)
DE bearing			6322
NDE bearing			6318.2RS
Weight of wound stator assembly	kg		327
Weight of wound rotor assembly	kg		211
Weight of complete generator	kg		1040
Maximun overspeed	rpm		2250
Unbalanced magnetic pull at f.l.cl.F	kN/mm		5
Cooling air requirement	m <sup>3</sup> /min		64,8
Inertia Constant (H)	sec.		0,212
Noise level at 1m/7m	dB(A)		98 / 88

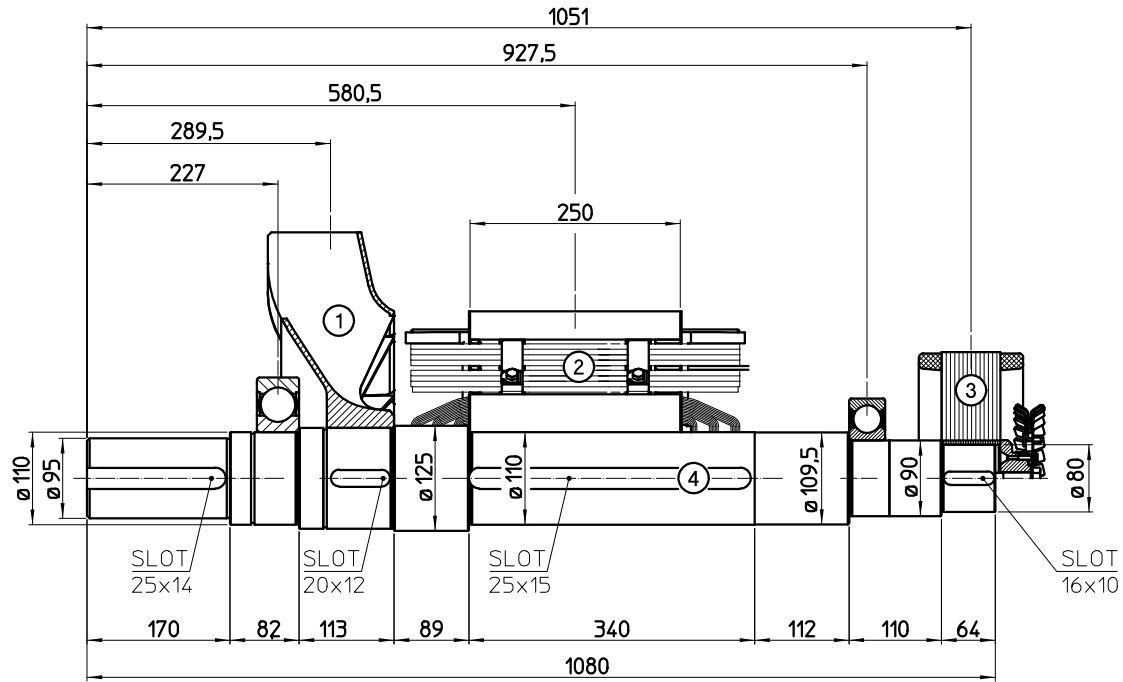
All technical data are to be considered as a reference and they can be modified without any notice.

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**600V - 60Hz**

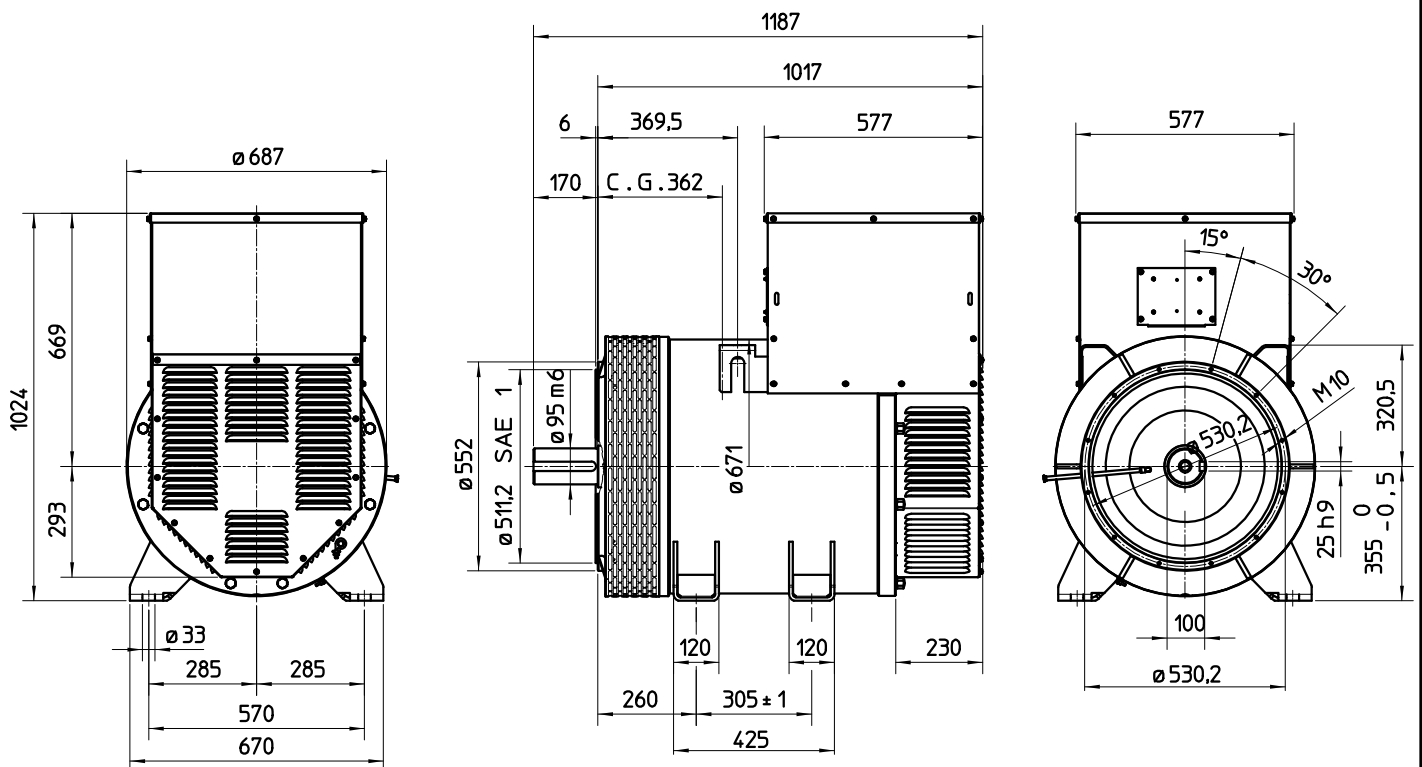


### TWO BEARING MOMENTS OF INERTIA



COMPONENT	WEIGHT kg	J kgm <sup>2</sup>
1 FAN	10,2	0,335
2 MAIN ROTOR	211	4,498
3 EX. ROTOR	35	0,562
4 SHAFT	73,6	0,109
TOTAL	329,8	5,504

### TWO BEARING DIMENSIONS



C.G.= GRAVITY CENTER

