THREE-PHASE SYNCHRONOUS HIGH VOLTAGE GENERATOR

TH568D

Datasheet For 4 Poles - 50Hz @ 1500rpm

Ambient Temperature	40 ℃	**Excitation**	Brushless	**Short Circuit Current Capacity (with PMG)**	≥300%
Temperature Rise	125K	**Winding Pitch**	5 / 6	**Method of Cooling**	IC01
Service Duty	Continuous	**Power Factor**	0.8	**Direction of Rotation**	Counter-clockwise
Phase	3	**Insulation Class**	Class H	**Maximum Over-speed**	1800 rpm
Pole	4	**Waveform : TIF**	<50	**Degree of Protection**	IP23
Voltage Regulation	+/- 0.5%	**Waveform : THF**	<2%	**Radio interference**	Class B Group 1
AVR Model	AVC125-10A1	**Altitude**	≤1000 m.a.s.l	**Total Harmonic Content**	< 2% - At no load

Electrical and Mechanical Characteristic

Frequency	**Hz**	**50**
Round per minute	**rpm**	**1500**
Voltage (Y Connection) - Star	**V**	**10500**
Rated power at Class H (125K) temperature rise	**kVA**	**3250.0**
	kW	**2600**
Rated current	**A**	**178.7**
Efficiency at Class H (P.F.=0.8)	**100%**	**96.3**
	75%	**96.2**
	50%	**95.5**
Efficiency at Class H (P.F.=1.0)	**100%**	**97.1**
	75%	**97.0**
	50%	**96.3**

Short-circuit ratio	**Kcc**	**0.5200**
Direct axis synchronous reactance unsaturated	**Xd**	**2.3090**
Quadrature axis synchronous reactance unsaturated	**Xq**	**1.2980**
Direct axis transient reactance saturated	**X'd**	**0.1700**
Direct axis subtransient reactance saturated	**X"d**	**0.1170**
Quadrature axis subtransient reactance saturated	**X"q**	**0.1320**
Zero sequence reactance unsaturated	**X0**	**0.0610**
Leakage reactance	**X_L**	**0.0870**
Negative sequence reactance saturated	**X2**	**0.1245**

Open circuit time constant (sec.)	**T'do**	5.6950
Short-circuit transient time constant (sec.)	**T'd**	0.4600
Subtransient time constant (sec.)	**T"d**	0.0042
Armature time constant (sec.)	**Tα**	0.0417
No load excitation current	**io(A)**	1.8
Full load excitation current	**ic(A)**	4.6
Full load excitation voltage	**uc(V)**	55
Stator Winding Resistance (20°C)	**ohm**	0.2721
Rotor Winding Resistance (20°C)	**ohm**	1.143
Exciter Stator Resistance (20°C)	**ohm**	10.09
Exciter Rotor Phase resistance	**ohm**	0.00944
Cooling air requirement	**m^3/sec**	4.23

Configuration	**Single Bearing**	**Double Bearing**
Type of Construction	**B2 - SAE**	**IM B20**
Inertia (J) [kgm2]	/	150.3
Total Weight	/	7934
Drive end bearing / Lubrication	Not supply	6334C3 / With grease nipple
Non-drive end bearing / Lubrication	6332 C3 / With grease nipple	
Recovery time - sec.	0.5	
Stator winding	DOUBLE LAYER LAP	
Number of Terminal	6	
Rotor	with damping cage	
Overload	110% rated load for 1 hour	

STANDARD COMPLIANCE - IEC 60034-1; CEI 2-3; BS 4999-5000; VDE 0530; NF 51-100,111; OVE M-10, NEMA MG 1.22.

Data and Technical Specification are subject to change in order to update or improve the products, without prior notice