



THREE-PHASE SYNCHRONOUS HIGH VOLTAGE GENERATOR

TH528E

Datasheet For 4 Poles - 50Hz @ 1500rpm

Ambient Temperature	40°C	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	CW
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	1875.0
	kW	1500
Rated current	A	103.1
Efficiency at Class H (P.F.=0.8)	100%	95.5
	75%	95.6
	50%	95.2
Efficiency at Class H (P.F.=1.0)	100%	96.6
	75%	96.6
	50%	96.2

Short-circuit ratio	Kcc	0.4900
Direct axis synchronous reactance unsaturated	Xd	2.5390
Quadrature axis synchronous reactance unsaturated	Xq	1.3330
Direct axis transient reactance saturated	X'd	0.1830
Direct axis subtransient reactance saturated	X''d	0.1640
Quadrature axis subtransient reactance saturated	X''q	0.1780
Zero sequence reactance unsaturated	X0	0.0860
Leakage reactance	X _L	0.1170
Negative sequence reactance saturated	X2	0.1710

Open circuit time constant (sec.)	T'do	4.3520
Short-circuit transient time constant (sec.)	T'd	0.3450
Subtransient time constant (sec.)	T''d	0.0021
Armature time constant (sec.)	T _a	0.0393
No load excitation current	io(A)	1.5
Full load excitation current	ic(A)	4.4
Full load excitation voltage	uc(V)	66
Stator Winding Resistance (20°C)	ohm	0.7266
Rotor Winding Resistance (20°C)	ohm	0.7208
Exciter Stator Resistance (20°C)	ohm	10.46
Exciter Rotor Phase resistance	ohm	0.02132
Cooling air requirement	m ³ /sec	1.82

Configuration	Double Bearing
Type of Construction	IM B20
Inertia (J) [kgm ²]	71.2
Total Weight	4701
Drive end bearing / Lubrication	6332 C3 / With grease nipple
Non-drive end bearing / Lubrication	6328 C3 / With grease nipple
Recovery time - sec.	1.5
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