



THREE-PHASE SYNCHRONOUS GENERATOR

TH528E

Datasheet For 4 Poles - 50Hz @ 1500rpm / 60Hz @ 1800rpm

Ambient Temperature	40 °C	Excitation	Brushless	Short Circuit Current Capacity (with PMG)	≥300%
Temperature Rise	105 °C	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 F/H	Maximum Over-speed	2250 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	AVC125-10A	Altitude	≤1000 m.a.s.l	Total Harmonic Content	< 3% - At no load

Electrical and Mechanical Characteristic

Frequency	Hz	50
Round per minute	rpm	1500
Voltage (Y Connection)	V	10500
Rated power at Class F (105 °C) temperature rise	kVA	1875
	kW	1500
Rated current	A	103.1
Efficiency at Class H (P.F.=0.8)	4/4%	95.5
	3/4%	95.4
	2/4%	94.5
Efficiency at Class H (P.F.=1.0)	4/4%	96.4
	3/4%	94.3
	2/4%	95.5

Reactance (%) at Class H

Short-circuit ratio	Kcc	0.4500
Direct axis synchronous reactance unsaturated	Xd	2.2210
Quadrature axis synchronous reactance unsaturated	Xq	1.3660
Direct axis transient reactance saturated	X'd	0.1780
Direct axis subtransient reactance saturated	X''d	0.1590
Quadrature axis subtransient reactance saturated	X''q	0.1740
Zero sequence reactance unsaturated	X0	0.0830
Leakage reactance	X _L	0.1110
Negative sequence reactance saturated	X2	0.1660

Open circuit time constant (sec.)	T'do	4.6040
Short-circuit transient time constant (sec.)	T'd	0.3460
Subtransient time constant (sec.)	T''d	0.0021
Armature time constant (sec.)	Tα	0.0391
No load excitation current	io(A)	0.95
Full load excitation current	ic(A)	4.5
Full load excitation voltage	uc(V)	69
Stator Winding Resistance (20°C)	ohm	0.6939(Star)
Rotor Winding Resistance (20°C)	ohm	0.7772
Exciter Stator Resistance (20°C)	ohm	9.783
Exciter Rotor Phase resistance	ohm	0.03018
Cooling air requirement	m ³ /sec	2.85

Configuration	Single Bearing	Double Bearing
Type of Construction	B2 - SAE	IM B20
Inertia (J) [kgm2]	65.3	66.8
Total Weight	4717	4703
Drive end bearing / Lubrication	Not supply	6332 C3 / With grease nipple
Non-drive end bearing / Lubrication	6328 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