



THREE-PHASE SYNCHRONOUS GENERATOR

TH468H

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	6300
Rated power at Class H (125K) temperature rise	kVA	1500
	kW	1200
Rated current	A	137.5
Efficiency at Class H (P.F.=0.8)	100%	95.7
	75%	95.8
	50%	95.3
Efficiency at Class H (P.F.=1.0)	100%	96.7
	75%	96.8
	50%	96.3

Short-circuit ratio	Kcc	0.5900
Direct axis synchronous reactance unsaturated	Xd	2.0330
Quadrature axis synchronous reactance unsaturated	Xq	1.0400
Direct axis transient reactance saturated	X'd	0.1510
Direct axis subtransient reactance saturated	X''d	0.1390
Quadrature axis subtransient reactance saturated	X''q	0.1520
Zero sequence reactance unsaturated	X0	0.0730
Leakage reactance	X _L	0.0890
Negative sequence reactance saturated	X2	0.1455

Open circuit time constant (sec.)	T'do	3.4090
Short-circuit transient time constant (sec.)	T'd	0.2790
Subtransient time constant (sec.)	T''d	0.0017
Armature time constant (sec.)	T _α	0.0353
No load excitation current	io(A)	1.9
Full load excitation current	ic(A)	4.5
Full load excitation voltage	uc(V)	47
Stator Winding Resistance (20°C)	ohm	0.2868
Rotor Winding Resistance (20°C)	ohm	0.886
Exciter Stator Resistance (20°C)	ohm	6.763
Exciter Rotor Phase resistance	ohm	0.02376
Cooling air requirement	m ³ /sec	1.25

Configuration	Double Bearing
Type of Construction	IM B20
Inertia (J) [kgm2]	42.6
Total Weight	3850
Drive end bearing / Lubrication	6328 C3 / With grease nipple
Non-drive end bearing / Lubrication	6322 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