Generator Data Entry Form

10/4/2006

KATO Engineering Inc.

Spec. # 8P11-4000

****Rating****

Kw	4400
pf	0.8
Volts, L-L	4,160
Freq.	60
Speed	900
Amb. Temp.	40° C
Temp. Rise	80° C

****Specification****

Pitch	66.7%
Connection	Wye
No. of Bearings	Two
No. of Leads	Six
No. of Terminals	Four
Application	Cont.
Excitation	PMG

****Resistances****

Stator	0.015	Ohms
Field	2.57	Ohms
Zero Sequence	0.047	Ohms
Positive Sequence	0.020	Ohms
S.C. Ratio	0.931	

****Fault Currents****

Instantaneous 3- P Symmetrical Fault Current	1119	amps
Instantaneous L- N Symmetrical Fault Current	1435	amps
Instantaneous L- L Symmetrical Fault Current	890	amps

****Losses and Efficiency ****

P.U. Load	kW Loss	Efficiency
0.25	71	93.9%
0.50	85	96.3%
0.75	109	96.8%
1.00	136	97.0%

****Reactances****

		Saturated Per Unit		Unsaturated Per Unit
Synchronous-Direct Axis	XD-S	1.07	XD-U	1.21
Synchronous-Quadrature Axis	XQ-S	0.55	XQ-U	0.72
Transient-Direct Axis	X'D-S	0.22	X'D-U	0.25
Transient-Quadrature Axis	X'Q-S	0.55	X'Q-U	0.72
Subtransient-Direct Axis	X"D-S	0.15	X"D-U	0.17
Subtransient-Quadrature Axis	X"Q-S	0.18	X"Q-U	0.21
Negative Sequence	X2-S	0.16	X2-U	0.19
Zero Sequence	XO-S	0.02	XO-U	0.02

****Time Constants****

O.C. Transient-Direct Axis	T'DO	4.333	sec
S.C. Transient-Direct Axis	T'D	1.004	sec
O.C. Subtransient-Direct Axis	T"DO	0.043	sec
S.C. Subtransient-Direct Axis	T"D	0.029	sec
O.C. Subtransient-Quadrature Axis	T"QO	0.022	sec
S.C. Subtransient-Quadrature Axis	T"Q	0.006	sec
Armature SC	TA	0.065	sec

****Exciter Output Data****

Iexc-FL	85
Vexc-FL	298

****Rotor Data****

WK^2	17550	lb-ft²
D^2L	55470	in^3

****Saturation Data****

P.U. Arm. Amps	S.C. Fld Amps
0.25	43.58
0.50	52.60
0.75	61.92
1.00	73.17
P.U. Arm. Volts	**O.C. Fld Amps**
0.00	0.00
0.25	8.98
0.50	18.04
0.75	27.63
1.00	40.57
1.10	49.21
1.20	63.15
1.30	87.80
1.40	134.04

****Current Decrement Curve****

Elapsed Time (Cycles)	Dec. Current (Amps)
0	5228.4
5	3324.4
10	3026.9
15	2837.6
20	2668.5
25	2511.9
30	2368.5
35	2290.0
40	2290.0
45	2290.0

**Efficiencies are based on a 95° C reference temperature

**Values are subject to change without notice (values are predicted)