



ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	LERROY SOMER LSA50.1S4
	Number of phase	3
	Power factor (Cos Phi)	0.8
	Altitude	< 1000 m
	Overspeed	2250 rpm
	Pole : number	4
	Exciter type	AREP
	Insulation : class, temperature rise	H / H
	Voltage regulator	R449
	Sustained short circuit current	4.85 AC
	Total harmonics (TGH/THC)	< 4%
	Wave form : NEMA = TIF – TGH/THC	< 50
	Wave form : CEI = FHT – TGH/THC	< 2%
	Bearing : number	1
	Coupling	Direct
	Voltage regulation 0 to 100% load	+/- 1%
	Recovery time (20% Volt dip) ms	< 500 ms
SkVA with 90% of nominal sustained voltage (at 0.4PF)	N/A	
OTHER DATAS	Continuous nominal rating @ 40°C	1025 kVA
	Standby rating @ 27°C	1130 kVA
	Efficiencies @ 4/4 load	94.5 %
	Air flow	1.6m ³ /s [3390.19cfm]
	Short circuit ratio;50 (Kcc)	0.34
	Direct axis synchro reactance unsaturated (Xd)	381 %
	Quadra axis synchro reactance unsaturated (Xq)	229 %
	Open circuit time constant;50 (T'do)	2350 ms
	Direct axis transient reactance saturated (X'd)	28.2 %
	Short circuit transient time constant (T'd)	205 ms
	Direct axis subtransient reactance saturated (X''d)	15.5 %
	Subtransient time constant (T''d)	17 ms
	Quadra axis subtransient reactance saturated (X''q)	19.5 %
	Zero sequence reactance unsaturated (Xo)	3.7 %
	Negative sequence reactance saturated (X2)	17.5 %
	Armature time constant (Ta)	36 ms
	No load excitation current (io)	1.05 A
	Full load excitation current (ic)	N/A
	Full load excitation voltage (uc)	61 V
	Recovery time (Delta U = 20% transitoire)	< 500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	2000 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	14 %	
No load losses	12.7kW [12.70Kw]	
Heat rejection	47.7 kW	