



ALTERNATOR SPECIFICATIONS

GENERAL DATAS	Manufacturer / Type	LERROY SOMER LSA422S4
	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	R438
	Sustained short circuit current	1.4 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)	skva	
OTHER DATAS	Continuous nominal rating @ 40°C	17.5 kVA
	Standby rating @ 27°C	21 kVA
	Efficiencies @ 4/4 load	87.6 %
	Air flow	0.15m3/s [317.83cfm]
	Short circuit ratio;50 (Kcc)	0.76
	Direct axis synchro reactance unsaturated (Xd)	160 %
	Quadra axis synchro reactance unsaturated (Xq)	80 %
	Open circuit time constant;50 (T'do)	410 ms
	Direct axis transient reactance saturated (X'd)	10.1 %
	Short circuit transient time constant (T'd)	30 ms
	Direct axis subtransient reactance saturated (X''d)	5 %
	Subtransient time constant (T''d)	3 ms
	Quadra axis subtransient reactance saturated (X''q)	7.1 %
	Zero sequence reactance unsaturated (Xo)	0.8 %
	Negative sequence reactance saturated (X2)	6 %
	Armature time constant (Ta)	4 ms
	No load excitation current (io)	0.6 A
	Full load excitation current (ic)	ic
	Full load excitation voltage (uc)	36 V
	Recovery time (Delta U = 20% transitoire)	500 ms
Motor start (Delta = 20% perm. Or 50% trans.)	51 kVA	
Transient dip (4/4 charge) – PF : 1.8 AR	13.6 %	
No load losses	0.59kW [0.59Kw]	
Heat rejection	2 kW	