



Low Voltage Alternators - 4 pole

10 to 3300 kVA - 50 Hz / 12.5 to 3900 kVA - 60 Hz
General features and ratings

Leroy-Somer™


EMERSON™

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Technical definitions

INTRODUCTION

- This catalogue is a summary of ratings for the range at the most common voltages around the world.
For other voltages, please consult LEROY-SOMER.

1 - RATING DEFINITION

• Continuous rating S1/ 40°C - IEC 60034-1 definition

- Running at constant load limited to the insulation class ; permissible overload 1 h every 12 hours.

• Stand-by rating 40°C

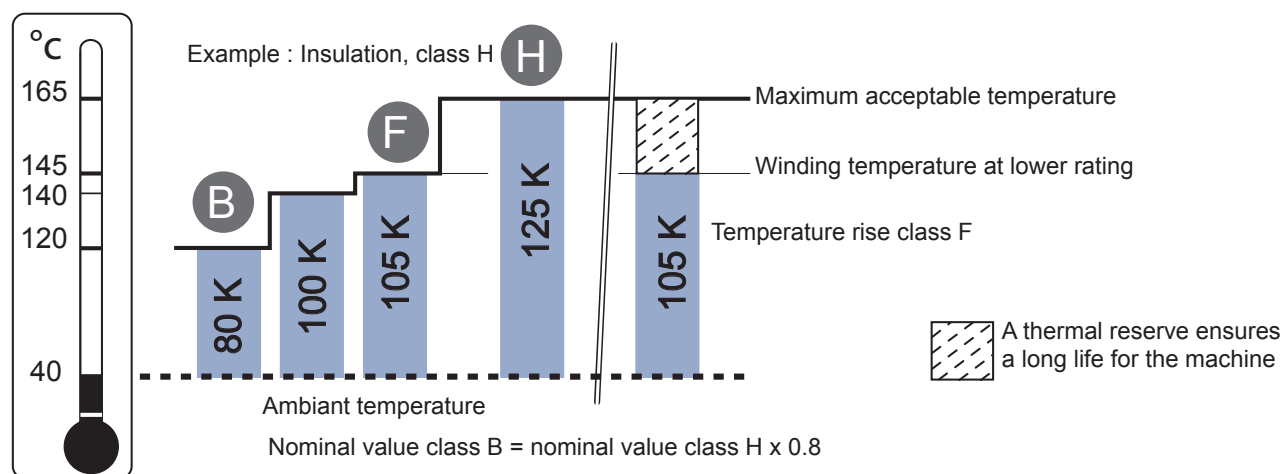
- Running at constant load **without** over load, for a limited duration of maximum 500h/year, with a permissible increase of the temperature rise above class H.

• Stand-by rating 27°C

- Same conditions than stand-by duty 40°C but with acceptance of a lower ambient temperature (27°C) that allows to increase the rating and the temperature rise for the same level of temperature in the alternator.

ex: S1/40°C = 100 kW - std by/40°C = 105 kW - std by/27°C = 110 kW

2 - INSULATION CLASS AND TEMPERATURE RISE



3 - DERATING

Multiply nominal rating by derating factor from following chart.

Ambient temperature						
ALTITUDE	25 °C	40 °C	45 °C	50 °C	55 °C	60 °C (*)
0 to 1000 m	1.045	1	0.97	0.94	0.91	0.88
1001 to 1500 m	1.01	0.97	0.94	0.91	0.88	0.85
1501 to 2000 m	0.98	0.94	0.91	0.88	0.86	0.83
2001 to 2500 m	0.95	0.91	0.88	0.86	0.83	0.8
2501 to 3000 m	0.91	0.87	0.84	0.82	0.79	0.77

Power factor						
Lagging Power Factor	1	0.9	0.8	0.7	0.6	
Factor	1	1	1	0.92	0.85	

(*) External A.V.R. if $\geq 56^\circ\text{C}$

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4 - WINDINGS

LEROY SOMER proposes various 2/3 pitch windings for rating optimisation according to the required voltage and frequency.

- Standard winding N° : 6
- Optimized winding N° : 7, 8, 9, 10, 22, 23 and 52.
- Windings M or M1, dedicated single phase windings.

"S" after the winding number means "6 leads" ex : 6S.

"T" or "+" after winding give an information about the saturation level of the stator.

5 - GENERAL FEATURES

5.1 - COMPLIANCE WITH INTERNATIONALLY RECOGNIZED STANDARDS

4 Pole Alternators are in compliance to the main international standards and regulations :

- IEC 60034, NEMA MG 1.32 - 33, ISO 8528/3, CSA, UL 1446, UL 1004 on request and depending on voltages, marine regulations, etc. It can be integrated into a CE marked generator.

Alternators are designed, manufactured and marketed in an ISO 9001 and ISO 14001 environments.

5.2 - ELECTRICAL FEATURES

- **Excitation Systems** : Short circuit capacity

LEROY-SOMER propose a large choice of excitation systems, depending on the customer needs :

- **SHUNT** system, without short-circuit capacity.
- **AREP, PMG**, with a short-circuit capacity of 3 times the nominal current for 10 seconds.

- **Voltage regulators** :

4 Pole Alternators are fitted with reliable and performant AVR's, adapted to LS excitation systems, powered by transistors and fulfilling perfect regulation.

Available excitation systems depending on alternator frames, are indicated in rating tables.

Alternators LSA	40	42.3	44.3	46.3	47.2	49.3	50.2	52.3	53.1	54
SHUNT	R 220	R 220	R 250	R 250	R 250	-	-	-	-	-
Shunt dedicated 1 phase	R 220	R 220	R 250	-	-	-	-	-	-	-
AREP / PMG	R 438*	R 438*	R 438*	R 450M	R 450	R 450M	R 450	D510C	R 449	R 449
SHUNT / AREP / PMG	D510C**	D510C**	D510C**	D510C**	D510C**	D510C**	D510C**	D510C	D510C**	D510C**

* AREP only. - ** Option.

- **Frequency** :

4 Pole alternators may operate either 50 or 60 Hz. The standard winding (code 6) is suitable both for 50 and 60 Hz. For dedicated windings, see specific table or consult factory.

- **Power factor** :

4 Pole alternators are designed to operate between 0.8 and 1 power factor.

Derating is necessary below 0.8 power factor (see derating chart).

- **Waveform** :

Total harmonic distortion (THD), at no load or linear load is less than 5% according to IEC.

TIF/Telephone influence factor according to NEMA is less than 50.

- **Transient features** :

Transient voltage dip for rated step load at 0.8 power factor is less than 18 %.

Recovery time for a 20 % transient voltage dip is less than 0.5 s.

- **Parallel operation** :

All 4 Pole alternators can operate in parallel with other alternators or with the mains, when they are equipped with the appropriate devices (AVR, current transformer...).

- **Overload acceptance** :

4 Pole alternators can be overloaded according to NEMA

- **Single Phase operation** :

4 Pole alternators from LSA 40 up to LSA 46.3 can be reconnected for single phase use. The single phase rating is given in the various alternator data sheets. Alternators from LSA 40 up to LSA 44.3 can be supplied with a dedicated single phase winding. (Code M or M1).

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Technical definitions

- EMI suppression :

All the alternators delivered to the European Community are provided with an EMI suppression device in accordance with EN 55011, group 1, class B. This equipment is optional for other areas.

5.3 - MECHANICAL FEATURES

- Forms :

4 Pole alternators can be provided in single bearing or two bearing configurations. A large range of engine adaptors and coupling discs are available to fit the major engines.

- Enclosure :

Standard enclosure is **IP 23**. Other enclosures such as IP 44, IP 55 can be proposed on request.

- Bearings :

Sealed for life bearings up to LSA 50.2 (regreasable bearing option from LSA 46.3), regreasable bearings for LSA 52.3.

- Balancing :

All the rotors are dynamically balanced according to ISO 1940 and NFC 51-111. Two bearing rotors are balanced with a half key.

- Direction of rotation :

4 pole alternators can operate in both directions (5% derating for anticlockwise running for LSA 47.2 , LSA 49.3 and LSA 50.2).

- Overspeed :

The maximum overspeed is 2250 min^{-1} (1.25 times the 60 Hz rated speed).

- Insulation and protection :

4 Pole alternators are class H insulated. The standard winding protection can accept up to 95 % relative humidity and is suitable for indoors marine applications. Specific added coatings can be proposed for harsh environments.

- Terminal box and connectors :

4 Pole alternators have a large terminal box which allows easy access for reconnection or to the AVR. Current transformers and other optional modules can be fitted within the box.

- Mechanical structure :

Steel frame. Aluminium, cast iron or steel housings and flanges depending on models.

6 - ACCESSORIES AND OPTIONS

- Digital A.V.R. D 510C (includes three phase sensing and paralleling with the grid).
- EMI suppression module R791 for other areas than EC.
- PMG (from LSA 42.3).
- Engine adaptors for two bearing alternators.
- Air inlet filters (5% derating).
- Air outlet filters or deflectors (5% derating).
- Specific stator protections for harsh environments.
- Specific painting.
- Greasable bearings for LSA 46.3, LSA 47.2, LSA 49.3 and LSA 50.2.
- Thermal protections for bearings.
- Thermal protections for stator windings.
- Anti condensation heaters (retrofitable).
- Remote voltage potentiometers.
- Current transformers for paralleling with other alternators.
- First emergency kits (AVR + diodes).

7 - PRODUCT DESCRIPTION

The machine name is defined according to various criteria (see below).

Example of description for :

LSA 49.3 M6 C6/4

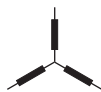

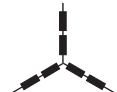

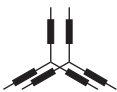




- LSA : Leroy-Somer Alternator
- 49.3 : Frame size
- M6 : Core length
- C : Excitation system (C: AREP / J: SHUNT or SHUNT + PMG)
- 6/4 : winding number / number of poles.

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Voltage reconnections

8 - CONNECTIONS 50 Hz

4 POLE	50 Hz - 1500 R.P.M.						
Phase - Code	3 ph - D	3 ph - F	3 ph - D	3 ph - F	3 ph - A	1 ph - FF	1 ph - G
Connections							
	star	delta	star	delta	parallel star	double delta	open delta
Number of wire	6	6	12	12	12	12	12
Standard Winding 6	380-400-415V (page 7/9)	220 - 240V (page 7/9)	380-400-415V (page 7/9)	220 - 240V (page 7/9)	190 - 208V (page 7/9)	220 - 240V (page 15)	220 - 240V (page 15)
Standard Winding 6	440 V (page 8)	-	440 V (page 8)	-	220 V (page 8)	-	-
Specific Winding 7 (upon request)	415 - 440 V (page 9/10)	240 - 254 V (page 9/10)	415 - 440 V (page 9/10)	240 - 254 V (page 9/10)	208 - 220 V (page 9/10)	240 - 254 V (consult factory)	240 - 254 V (consult factory)
Specific Winding 9 or 22 (upon request)	500 - 525 V (page 11)	-	500 - 525 V (page 11)	-	-	-	-
Specific Winding 22 or 23 (upon request)	550 V (page 12) 600 V (page 13)	-	550 V (page 12) 600 V (page 13)	-	-	-	-
Specific Winding 10 or 52 (upon request)	660 - 690 V (page 14)	-	660 - 690 V (page 14)	-	-	-	-
Specific Winding M, dedicated 1 phase (upon request)			 230 V (page 15)		 115 V (page 15)		
			SE (serie)		PA (parallel)		



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1500 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 50 Hz



Star
(6 or 12 wires)



Parallel Star
(12 wires only)



Delta
(6 or 12 wires)

380 - 400 - 415 V

190 - 200 - 208 V

220 - 230 - 240 V

8.1 - Standard winding 6

Excitation					kVA : 190V. 220/380 V				kVA : 200V. 230/400 V				kVA : 208V. 240/415 V			
					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H:125 K	F:105 K	H: 150 K	H: 163 K	H:125 K	F:105 K	H: 150 K	H: 163 K	H:125 K	F:105 K	H: 150 K	H: 163 K
LSA 40 VS1	J6/4	C6/4	-	12	10	9	10.5	11	10	9	10.5	11	10	9	10.5	11
LSA 40 VS2	J6/4	C6/4	-	12	12.5	11.5	13.5	14	12.5	11.5	13.5	14	12.5	11.5	13.5	14
LSA 40 S3	J6/4	C6/4	-	12	15	14	16	16.5	15	14	16	16.5	15	14	16	16.5
LSA 40 S4	J6/4	C6/4	-	12	17.5	16	19	20	17.5	16	19	20	17.5	16	19	20
LSA 40 M5	J6/4	C6/4	-	12	20	18.5	21.5	22	20	18.5	21.5	22	20	18.5	21.5	22
LSA 42.3 VS1	J6/4	C6/4	Option	12	25	22.8	26.5	27.5	25	22.8	26.5	27.5	25	22.8	26.5	27.5
LSA 42.3 VS2	J6/4	C6/4	Option	12	27	24.6	28.9	30	27	24.6	28.9	30	27	24.6	28.9	30
LSA 42.3 VS3	J6/4	C6/4	Option	12	32	29.1	34	35.2	32	29.1	34	35.2	32	29.1	34	35.2
LSA 42.3 S4	J6/4	C6/4	Option	12	35	32	37.1	38.5	35	32	37.1	38.5	35	32	37.1	38.5
LSA 42.3 S5	J6/4	C6/4	Option	12	40	36.4	42.4	45	40	36.4	42.4	45	40	36.4	42.4	45
LSA 42.3 M7	J6/4	C6/4	Option	12	45	41	48.2	50	45	41	48.2	50	45	41	48.2	50
LSA 42.3 M8	J6/4	C6/4	Option	12	50	45.5	53	55	50	45.5	53	55	50	45.5	53	55
LSA 42.3 L9	J6/4	C6/4	Option	12	60	54.6	63.6	66	60	54.6	63.6	66	60	54.6	63.6	66
LSA 44.3 S2	J6/4	C6/4	Option	12	70	64	74	77	70	64	74	77	70	64	74	77
LSA 44.3 S3	J6/4	C6/4	Option	12	80	73	84	88	80	73	84	88	80	73	84	88
LSA 44.3 S4	J6/4	C6/4	Option	12	90	82	95	100	90	82	95	100	90	82	95	100
LSA 44.3 S5	J6/4	C6/4	Option	12	100	91	105	110	100	91	105	110	100	91	105	110
LSA 44.3 M6*	J6/4	C6/4	Option	12	125	114	131	138	125	114	131	138	125	114	131	138
LSA 44.3 M8	J6/4	C6/4	Option	12	135	123	142	149	135	123	142	149	135	123	142	149
LSA 44.3 L10*	J6/4	C6/4	Option	12	150	137	158	165	150	137	158	165	150	137	158	165
LSA 46.3 S2	J6/4	C6/4	Option	12	180	164	191	200	180	164	191	200	180	164	191	200
LSA 46.3 S3*	J6/4	C6/4	Option	12	200	182	212	220	200	182	212	220	200	182	212	220
LSA 46.3 S4	J6/4	C6/4	Option	12	230	209	244	253	230	209	244	253	230	209	244	253
LSA 46.3 S5	J6/4	C6/4	Option	12	240	218	254	264	250	228	265	275	250	228	265	275
LSA 46.3 M7*	J6/4	C6/4	Option	12	275	250	292	303	275	250	292	303	275	250	292	303
LSA 46.3 M8*	J6/4	C6/4	Option	12	290	264	307	319	300	273	318	330	300	273	318	330
LSA 46.3 L10	J6/4	C6/4	Option	12	325	300	345	358	325	300	345	358	325	300	345	358
LSA 46.3 L11	J6/4	C6/4	Option	12	350	319	371	385	365	332	387	400	365	332	387	400
LSA 47.2 S4*	J6/4	C6/4	Option	12	410	370	430	450	410	370	430	450	410	370	430	450
LSA 47.2 S5*	J6/4	C6/4	Option	12	455	405	471	500	455	405	471	500	455	405	471	500
LSA 47.2 M7	J6/4	C6/4	Option	12	500	465	545	570	500	465	550	570	500	465	545	570
LSA 47.2 M8	J6/4	C6/4	Option	12	550	500	575	600	550	500	575	600	550	500	575	600
LSA 47.2 L9	J6/4	C6/4	Option	12	600	535	630	660	600	535	630	660	600	535	630	660
LSA 47.2 L9**	-	C6S/4	Option	6	600	535	630	660	600	535	630	660	600	535	630	660
LSA 49.3 S4	-	C6S/4	Option	6	660	595	725	745	660	595	725	745	660	595	725	745
LSA 49.3 M6	-	C6S/4	Option	6	730	660	780	810	730	660	780	810	730	660	780	810
LSA 49.3 M8	-	C6S/4	Option	6	820	760	910	945	820	760	910	945	820	760	910	945
LSA 49.3 L9	-	C6S/4	Option	6	910	820	1000	1020	910	820	1000	1020	910	820	1000	1020
LSA 49.3 L10	-	C6S/4	Option	6	1000	900	1085	1130	1000	900	1085	1130	1000	900	1085	1130
LSA 50.2 M6	-	C6S/4	Option	6	1250	1125	1315	1375	1250	1125	1315	1375	1250	1125	1315	1375
LSA 50.2 L7***	-	C6S/4	Option	6	1350	1215	1420	1485	1350	1215	1420	1485	1350	1215	1420	1485
LSA 50.2 L8	-	C6S/4	Option	6	1450	1320	1520	1595	1500	1350	1575	1650	1500	1350	1575	1650
LSA 50.2 VL10	-	C6S/4	Option	6	1600	1455	1680	1760	1640	1475	1720	1800	1600	1455	1680	1760
LSA 52.3 S5	-	C6S/4	Option	6	1860	1696	1972	2046	1860	1696	1972	2046	1860	1696	1972	2046
LSA 52.3 S6	-	C6S/4	Option	6	2000	1824	2120	2200	2000	1824	2120	2200	2000	1824	2120	2200
LSA 52.3 S7	-	C6S/4	Option	6	2200	2006	2332	2420	2200	2006	2332	2420	2200	2006	2332	2420
LSA 52.3 L9	-	C6S/4	Option	6	2360	2152	2502	2596	2360	2152	2502	2596	2360	2152	2502	2596
LSA 52.3 L12	-	C6S/4	Option	6	2500	2280	2650	2750	2500	2280	2650	2750	2500	2280	2650	2750
LSA 53.2 M9	-	C6S/4	Option	6	3000	2736	3180	3300	3000	2736	3180	3300	3000	2736	3180	3300
LSA 53.2 M12	-	C6S/4	Option	6	3300	3010	3498	3630	3300	3010	3498	3630	3300	3010	3498	3630

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.

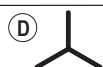
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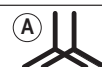


1500 R.P.M. - 3 Phase - P.F. 0.8

RATINGS 50 Hz



Star (6 or 12 wires)



Parallel Star
(12 wires only)

440 V (maximum voltage)

220 V (maximum voltage)

(1) Use winding 7 for parallel operation with the main.

8.2 - Standard winding 6

					kVA : 220 V. 440 V ⁽¹⁾			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 40 VS1	J6/4	C6/4	-	12	9	8	9	10
LSA 40 VS2	J6/4	C6/4	-	12	11	10	12	12.5
LSA 40 S3	J6/4	C6/4	-	12	13	12	14	15
LSA 40 S4	J6/4	C6/4	-	12	16	14	16.5	17
LSA 40 M5	J6/4	C6/4	-	12	18	16	19	20
LSA 42.3 VS1	J6/4	C6/4	Option	12	24.5	22.3	26	27
LSA 42.3 VS2	J6/4	C6/4	Option	12	26	23.6	27.6	28
LSA 42.3 VS3	J6/4	C6/4	Option	12	30	27.3	31.8	33
LSA 42.3 S4	J6/4	C6/4	Option	12	30.6	27.9	32.5	33.7
LSA 42.3 S5	J6/4	C6/4	Option	12	35	31.9	37.1	38.5
LSA 42.3 M7	J6/4	C6/4	Option	12	39	35.5	41.3	42.9
LSA 42.3 M8	J6/4	C6/4	Option	12	43	39.1	45.6	47.3
LSA 42.3 L9	J6/4	C6/4	Option	12	51.6	47	54.7	56.8
LSA 44.3 S2	J6/4	C6/4	Option	12	63	57	66	69
LSA 44.3 S3	J6/4	C6/4	Option	12	72	66	76	79
LSA 44.3 S4	J6/4	C6/4	Option	12	81	74	85	89
LSA 44.3 S5	J6/4	C6/4	Option	12	90	82	95	99
LSA 44.3 M6*	J6/4	C6/4	Option	12	113	102	118	124
LSA 44.3 M8	J6/4	C6/4	Option	12	122	111	128	134
LSA 44.3 L10*	J6/4	C6/4	Option	12	135	123	142	149
LSA 46.3 S2	J6/4	C6/4	Option	12	171	156	181	188
LSA 46.3 S3*	J6/4	C6/4	Option	12	190	173	201	209
LSA 46.3 S4	J6/4	C6/4	Option	12	219	200	232	240
LSA 46.3 S5	J6/4	C6/4	Option	12	238	216	252	261
LSA 46.3 M7*	J6/4	C6/4	Option	12	261	238	277	287
LSA 46.3 M8*	J6/4	C6/4	Option	12	285	259	302	313
LSA 46.3 L10	J6/4	C6/4	Option	12	309	281	327	340
LSA 46.3 L11	J6/4	C6/4	Option	12	347	316	368	380
LSA 47.2 S4*	J6/4	C6/4	Option	12	387	357	410	425
LSA 47.2 S5*	J6/4	C6/4	Option	12	430	391	455	473
LSA 47.2 M7	J6/4	C6/4	Option	12	460	419	487	506
LSA 47.2 M8	J6/4	C6/4	Option	12	535	487	567	589
LSA 47.2 L9	J6/4	C6/4	Option	12	570	519	604	627
LSA 47.2 L9**	-	C6S/4	Option	6	570	519	604	627
LSA 49.3 S4	-	C6S/4	Option	6	620	560	685	715
LSA 49.3 M6	-	C6S/4	Option	6	665	600	730	765
LSA 49.3 M8	-	C6S/4	Option	6	810	710	885	925
LSA 49.3 L9	-	C6S/4	Option	6	820	740	920	965
LSA 49.3 L10	-	C6S/4	Option	6	950	840	1030	1080
LSA 50.2 M6	-	C6S/4	Option	6	1190	1095	1275	1330
LSA 50.2 L7***	-	C6S/4	Option	6	1260	1150	1365	1425
LSA 50.2 L8	-	C6S/4	Option	6	1440	1320	1555	1625
LSA 50.2 VL10	-	C6S/4	Option	6	1545	1420	1670	1730
LSA 52.3 S5	-	C6S/4	Option	6	1691	1542	1793	1860
LSA 52.3 S6	-	C6S/4	Option	6	1818	1658	1927	2000
LSA 52.3 S7	-	C6S/4	Option	6	2000	1824	2120	2200
LSA 52.3 L9	-	C6S/4	Option	6	2145	1956	2275	2360
LSA 52.3 L12	-	C6S/4	Option	6	2273	2073	2409	2500
LSA 53.2 M9	-	C6S/4	Option	6	2727	2487	2891	3000
LSA 53.2 M12	-	C6S/4	Option	6	3000	2736	3180	3300

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.




Low Voltage Alternators

4 pole

1500 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 50 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)	(F)  Delta (6 or 12 wires)
380 - 400 - 415 V	190 - 200 - 208 V	220 - 230 - 240 V

8.3 - Standard winding 6

					kVA : 190V. 220/380 V				kVA : 200V. 230 /400 V				kVA : 208V. 240/415 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H:125 K	F:105 K	H: 150 K	H: 163 K	H:125 K	F:105 K	H: 150 K	H: 163 K	H:125 K	F:105 K	H: 150 K	H: 163 K



OPTION : 12 wires

LSA 49.3 S4	-	C6/4	Option	12	660	595	725	745	660	595	725	745	660	595	725	745
LSA 49.3 M6	-	C6/4	Option	12	730	660	780	810	730	660	780	810	730	660	780	810
LSA 49.3 M8	-	C6/4	Option	12	820	760	910	945	820	760	910	945	820	760	910	945
LSA 49.3 L9	-	C6/4	Option	12	910	820	1000	1020	910	820	1000	1020	910	820	1000	1020
LSA 49.3 L10	-	C6/4	Option	12	1000	900	1085	1130	1000	900	1085	1130	1000	900	1085	1130
LSA 50.2 M6	-	C6/4	Option	12	1045	940	1045	1045	1100	990	1100	1100	1140	1026	1140	1140
LSA 50.2 L8	-	C6/4	Option	12	1250	1125	1250	1250	1300	1170	1300	1300	1350	1215	1350	1350



1500 R.P.M. - 3 Phase - P.F. 0.8

RATINGS 50 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)
440 V (maximum voltage)	220 V (maximum voltage)

(1) Use winding 7 for parallel operation with the main.

8.4 - Standard winding 6

					kVA : 220 V. 440 V (1)			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K




OPTION : 12 wires

LSA 49.3 S4	-	C6/4	Option	12	620	560	685	715
LSA 49.3 M6	-	C6/4	Option	12	665	600	730	765
LSA 49.3 M8	-	C6/4	Option	12	810	710	885	925
LSA 49.3 L9	-	C6/4	Option	12	820	740	920	965
LSA 49.3 L10	-	C6/4	Option	12	950	840	1030	1080
LSA 50.2 M6	-	C6/4	Option	12	1210	1089	1210	1210
LSA 50.2 L8	-	C6/4	Option	12	1430	1287	1430	1430



1500 R.P.M. - 3 Phase - P.F. 0.8

RATINGS 50 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)	(F)  Delta (6 or 12 wires)
415 ... 440 V	208 ... 220 V	240 ... 254 V

8.5 - Specific winding 7

					kVA : 208V. 240/415 V				kVA : 220V. 254/440 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H: 150 K	H: 163 K	H :125 K	F :105 K	H: 150 K	H: 163 K

OPTION : 12 wires

LSA 49.3 M6	-	C7/4	Option	12	730	664	774	803	730	664	774	803
LSA 49.3 M8	-	C7/4	Option	12	785	714	832	864	820	746	869	902
LSA 49.3 L9	-	C7/4	Option	12	850	774	901	935	910	828	965	1001
LSA 49.3 L10	-	C7/4	Option	12	910	828	965	1001	955	869	1012	1051




Low Voltage Alternators

4 pole



1500 R.P.M. - 3 Phase - P.F. 0.8

RATINGS 50 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)	(F)  Delta (6 or 12 wires)
415 ... 440 V	208 ... 220 V	240 ... 254 V

8.6 - Specific winding 7

Excitation					kVA : 208V. 240/415 V				kVA : 220V. 254/440 V			
					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K
LSA 40 VS1*	J7/4	C7/4	-	12	10	9	10.6	11	10	9	10.6	11
LSA 40 VS2	J7/4	C7/4	-	12	12.5	11.4	13.5	14	12.5	11.4	13.5	14
LSA 40 S3	J7/4	C7/4	-	12	15	13.7	16	16.5	15	13.7	16	16.5
LSA 40 S4	J7/4	C7/4	-	12	17.5	16	18.6	19.5	17.5	16	18.6	19.5
LSA 40 M5	J7/4	C7/4	-	12	20	18.2	21.2	22	20	18.2	21.2	22
LSA 42.3 VS1	J7/4	C7/4	Option	12	25	22.8	26.5	27.5	25	22.8	26.5	27.5
LSA 42.3 VS2	J7/4	C7/4	Option	12	27	24.6	28.6	29.7	27	24.6	28.6	29.7
LSA 42.3 VS3	J7/4	C7/4	Option	12	30.4	27.7	32.2	33.4	32	29.1	33.9	35.2
LSA 42.3 S4	J7/4	C7/4	Option	12	33.3	30.3	35.3	36.6	35	31.9	37.1	38.5
LSA 42.3 S5	J7/4	C7/4	Option	12	38	34.6	40.3	41.8	40	36.4	42.4	44
LSA 42.3 M7	J7/4	C7/4	Option	12	42.8	38.9	45.4	47.1	45	41	47.7	49.5
LSA 42.3 M8	J7/4	C7/4	Option	12	47.5	43.2	50.4	52.3	50	45.5	53	55
LSA 42.3 L9	J7/4	C7/4	Option	12	57	51.9	60.4	62.7	60	54.6	63.6	66
LSA 44.3 S2	J7/4	C7/4	Option	12	70	64	74	77	70	64	74	77
LSA 44.3 S3	J7/4	C7/4	Option	12	80	73	85	88	80	73	85	88
LSA 44.3 S4*	J7/4	C7/4	Option	12	90	82	95	99	90	82	95	99
LSA 44.3 S5*	J7/4	C7/4	Option	12	100	91	106	110	100	91	106	110
LSA 44.3 M6	J7/4	C7/4	Option	12	121	110	128	133	125	114	133	138
LSA 44.3 M8*	J7/4	C7/4	Option	12	134	122	142	147	135	123	143	149
LSA 44.3 L10	J7/4	C7/4	Option	12	149	136	158	164	150	137	159	165
LSA 46.3 S2*	J7/4	C7/4	Option	12	180	164	191	198	180	164	191	198
LSA 46.3 S3	J7/4	C7/4	Option	12	195	177	207	215	200	182	212	220
LSA 46.3 S4*	J7/4	C7/4	Option	12	215	196	228	237	225	205	239	248
LSA 46.3 S5*	J7/4	C7/4	Option	12	230	209	244	253	240	218	254	264
LSA 46.3 M7	J7/4	C7/4	Option	12	245	223	260	270	260	237	276	286
LSA 46.3 M8	J7/4	C7/4	Option	12	265	241	281	292	280	255	297	308
LSA 46.3 L10*	J7/4	C7/4	Option	12	285	259	302	314	300	273	318	330
LSA 46.3 L11*	J7/4	C7/4	Option	12	310	282	329	341	325	296	345	358
LSA 47.2 VS2	J7/4	C7/4	Option	12	370	345	400	415	370	345	400	415
LSA 47.2 S4***	-	C7S/4	Option	6	400	365	425	440	400	365	425	440
LSA 47.2 S5***	-	C7S/4	Option	6	440	400	465	482	440	400	465	482
LSA 47.2 M7***	-	C7TS/4	Option	6	500	460	530	560	500	460	530	560
LSA 47.2 M8***	-	C7S/4	Option	6	530	490	565	585	530	490	565	585
LSA 47.2 L9	J7/4	C7/4	Option	12	570	525	605	625	570	525	605	625
LSA 49.3 S4	-	C7S/4	Option	6	600	546	636	660	620	564	657	682
LSA 49.3 M6	-	C7S/4	Option	6	730	664	774	803	730	664	774	803
LSA 49.3 M8	-	C7S/4	Option	6	785	714	832	864	820	746	869	902
LSA 49.3 L9	-	C7S/4	Option	6	850	774	901	935	910	828	965	1001
LSA 49.3 L10	-	C7S/4	Option	6	900	819	954	990	960	874	1018	1056
LSA 50.2 S4	-	C7S/4	Option	6	960	864	1008	1056	1010	910	1060	1110
LSA 50.2 M6	-	C7+S/4	Option	6	1120	1008	1176	1235	1150	1035	1207	1265
LSA 50.2 L7	-	C7S/4	Option	6	1325	1193	1391	1460	1325	1193	1391	1460
LSA 50.2 L8***	-	C7S/4	Option	6	1370	1233	1440	1510	1370	1233	1440	1510
LSA 50.2 VL10	-	C7S/4	Option	6	1520	1368	1596	1672	1520	1368	1596	1672

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole

1500 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 50 Hz



500 - 525 V

8.7 - Specific winding 9 or 22 TS					kVA : 500 V				kVA : 525 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K
LSA 40 VS1	-	C9/4	-	12	10	9	10.5	11	10	9	10.5	11
LSA 40 VS2	-	C9/4	-	12	12.5	11.5	13.5	14	12.5	11.5	13.5	14
LSA 40 S3	-	C9/4	-	12	15	14	16	16.5	15	14	16	16.5
LSA 40 S4	-	C9/4	-	12	17.5	16	18.5	19.5	17.5	16	18.5	19.5
LSA 40 M5*	-	C9/4	-	12	20	18	21	22	20	18	21	22
LSA 42.3 VS1	-	C9/4	Option	12	25	22.8	26.5	27.5	25	22.8	26.5	27.5
LSA 42.3 VS2	-	C9/4	Option	12	27	24.6	28.6	29.7	27	24.6	28.6	29.7
LSA 42.3 VS3	-	C9/4	Option	12	32	29.1	33.9	35.2	30.4	27.7	32.2	33.4
LSA 42.3 S4	-	C9/4	Option	12	35	31.9	37.1	38.5	33.3	30.3	35.3	36.6
LSA 42.3 S5	-	C9/4	Option	12	40	36.4	42.4	44	38	34.6	40.3	41.8
LSA 42.3 M7	-	C9/4	Option	12	45	41	47.7	49.5	42.8	38.9	45.4	47.1
LSA 42.3 M8	-	C9/4	Option	12	50	45.5	53	55	47.5	43.2	50.4	52.3
LSA 42.3 L9	-	C9/4	Option	12	60	54.6	63.6	66	57	51.9	60.4	62.7
LSA 44.3 S2*	-	C9/4	Option	12	70	64	74	77	70	64	74	77
LSA 44.3 S3*	-	C9/4	Option	12	80	73	85	88	80	73	85	88
LSA 44.3 S4*	-	C9/4	Option	12	90	82	95	99	90	82	95	99
LSA 44.3 S5*	-	C9/4	Option	12	100	91	106	110	100	91	106	110
LSA 44.3 M6	-	C9/4	Option	12	125	114	133	138	125	114	133	138
LSA 44.3 M8	-	C9/4	Option	12	135	123	143	149	135	123	143	149
LSA 44.3 L10*	-	C9/4	Option	12	150	137	159	165	150	137	159	165
LSA 46.3 S2	-	C9/4	Option	12	180	164	191	198	180	164	191	198
LSA 46.3 S3	-	C9S/4	Option	6	196	178	208	216	196	178	208	216
LSA 46.3 S4	-	C9S/4	Option	6	225	205	239	248	235	214	249	259
LSA 46.3 S5	-	C9S/4	Option	6	235	214	249	259	245	223	260	270
LSA 46.3 M7	-	C9/4	Option	12	275	250	292	303	275	250	292	303
LSA 46.3 M8	-	C9/4	Option	12	300	273	318	330	300	273	318	330
LSA 46.3 L10	-	C9S/4	Option	6	320	291	339	352	325	296	345	358
LSA 46.3 L11	-	C9S/4	Option	6	355	323	376	391	365	332	387	402
LSA 47.2 VS2	-	C9S/4	Option	6	373	340	395	410	350	315	368	385
LSA 47.2 S4	-	C9/4	Option	12	405	365	425	450	390	350	410	430
LSA 47.2 S5	-	C9/4	Option	12	440	400	465	490	425	382	445	467
LSA 47.2 M7*	-	C9/4	Option	12	500	450	530	550	460	415	485	506
LSA 47.2 M8*	-	C9+/4	Option	12	537	483	570	600	537	483	565	590
LSA 47.2 L9	-	C9+S/4	Option	6	575	520	605	635	575	520	605	632
LSA 49.3 S4	-	C9S/4	Option	6	630	573	668	693	625	569	663	688
LSA 49.3 M6	-	C9S/4	Option	6	730	664	774	803	730	664	774	803
LSA 49.3 M8	-	C9S/4	Option	6	770	701	816	847	775	705	822	853
LSA 49.3 L9	-	C9S/4	Option	6	850	774	901	935	850	774	901	935
LSA 49.3 L10	-	C9S/4	Option	6	910	828	965	1001	910	828	965	1001
LSA 50.2 M6	-	C9TS/4	Option	6	1100	990	1144	1210	1100	990	1144	1210
LSA 50.2 L7	-	C9+S/4	Option	6	1150	1035	1210	1265	1240	1115	1305	1364
LSA 50.2 L8	-	C9S/4	Option	6	1335	1200	1400	1465	1380	1245	1450	1520
LSA 50.2 VL10***	-	C9S/4	Option	6	1500	1350	1575	1650	1545	1390	1625	1700

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole



1500 R.P.M. - 3 Phase - P.F. 0.8

RATINGS 50 Hz



550 V

8.8 - Specific winding 22 or 23

					kVA : 550 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 42.3 VS1	-	C22T/4	Option	12	21.3	19.4	22.6	23.4
LSA 42.3 VS2	-	C22T/4	Option	12	23	20.9	24.4	25.3
LSA 42.3 VS3	-	C22T/4	Option	12	27.2	24.8	28.8	29.9
LSA 42.3 S4	-	C22T/4	Option	12	29.8	27.1	31.6	32.8
LSA 42.3 S5	-	C22T/4	Option	12	34	30.9	36	37.4
LSA 42.3 M7	-	C22T/4	Option	12	38.3	34.9	40.6	42.1
LSA 42.3 M8	-	C22T/4	Option	12	42.5	38.7	45.1	46.8
LSA 42.3 L9	-	C22T/4	Option	12	51	46.4	54.1	56.1
LSA 44.3 S2	-	C22TS/4	Option	6	67	61	71	74
LSA 44.3 S3	-	C22TS/4	Option	6	76	69	81	84
LSA 44.3 S4	-	C22T/4	Option	12	85	77	90	94
LSA 44.3 S5	-	C22T/4	Option	12	94	86	100	103
LSA 44.3 M6	-	C22T/4	Option	12	105	96	111	116
LSA 44.3 M8	-	C22TS/4	Option	6	110	100	117	121
LSA 44.3 L10	-	C22T/4	Option	12	128	116	136	141
LSA 46.3 S2	-	C23/4	Option	12	155	141	164	171
LSA 46.3 S3	-	C22T/4	Option	12	178	162	189	196
LSA 46.3 S4	-	C22T/4	Option	12	210	191	223	231
LSA 46.3 S5	-	C22T/4	Option	12	224	204	237	246
LSA 46.3 M7	-	C22TS/4	Option	6	230	209	244	253
LSA 46.3 M8	-	C22TS/4	Option	6	250	228	265	275
LSA 46.3 L10	-	C22T/4	Option	12	260	237	276	286
LSA 46.3 L11	-	C22T/4	Option	12	290	264	307	319
LSA 47.2 VS2***	-	C22S/4	Option	6	360	325	380	395
LSA 47.2 S4	-	C23S/4	Option	6	380	345	400	420
LSA 47.2 S5	-	C23S/4	Option	6	400	360	420	440
LSA 47.2 M7***	-	C22TS/4	Option	6	483	435	507	530
LSA 47.2 L9	-	C23S/4	Option	6	525	475	550	580
LSA 49.3 S4	-	C22TS/4	Option	6	600	546	636	660
LSA 49.3 M6	-	C22TS/4	Option	6	650	592	689	715
LSA 49.3 M8	-	C22TS/4	Option	6	720	655	763	792
LSA 49.3 L9	-	C22TS/4	Option	6	860	783	912	946
LSA 50.2 S4	-	C22S/4	Option	6	950	855	1000	1045
LSA 50.2 M6	-	C22S/4	Option	6	1080	975	1135	1190
LSA 50.2 L8	-	C23S/4	Option	6	1230	1110	1290	1355
LSA 50.2 VL10	-	C22S/4	Option	6	1410	1270	1480	1550

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole

1500 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 50 Hz



600 V

8.9 - Specific winding 22 or 23

					kVA : 600 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 42.3 VS1	-	C23/4	Option	12	21.3	19.4	22.6	23.4
LSA 42.3 VS2	-	C23/4	Option	12	23	20.9	24.4	25.3
LSA 42.3 VS3	-	C23/4	Option	12	27	24.6	28.6	29.7
LSA 42.3 S4	-	C23/4	Option	12	29.8	27.1	31.6	32.8
LSA 42.3 S5	-	C23/4	Option	12	34	30.9	36	37.4
LSA 42.3 M7	-	C23/4	Option	12	38.3	34.9	40.6	42.1
LSA 42.3 M8	-	C23/4	Option	12	42.5	38.7	45.1	46.8
LSA 42.3 L9	-	C23/4	Option	12	51	46.4	54.1	56.1
LSA 44.3 S2	-	C23/4	Option	12	70	64	74	77
LSA 44.3 S3	-	C23/4	Option	12	77	70	82	85
LSA 44.3 S4*	-	C23/4	Option	12	82	75	87	90
LSA 44.3 S5*	-	C23/4	Option	12	91	83	96	100
LSA 44.3 M6	-	C23/4	Option	12	100	91	106	110
LSA 44.3 M8	-	C23/4	Option	12	115	105	122	127
LSA 44.3 L10*	-	C23/4	Option	12	120	109	127	132
LSA 46.3 S2	-	C23/4	Option	12	168	153	178	185
LSA 46.3 S3	-	C23/4	Option	12	193	176	205	212
LSA 46.3 S4	-	C23S/4	Option	6	205	187	217	226
LSA 46.3 S5	-	C23S/4	Option	6	215	196	228	237
LSA 46.3 M7	-	C23S/4	Option	6	225	205	239	248
LSA 46.3 M8	-	C23S/4	Option	6	240	218	254	264
LSA 46.3 L10	-	C23/4	Option	12	280	255	297	308
LSA 46.3 L11	-	C23/4	Option	12	315	287	334	347
LSA 47.2 VS2	-	C23S/4	Option	6	365	330	385	400
LSA 47.2 S4	-	C23S/4	Option	6	390	350	415	430
LSA 47.2 S5	-	C23S/4	Option	6	420	380	445	465
LSA 47.2 M7	-	C23S/4	Option	6	483	440	512	530
LSA 47.2 L9	-	C23S/4	Option	6	550	500	580	605
LSA 49.3 S4	-	C23S/4	Option	6	585	532	620	644
LSA 49.3 M6	-	C23S/4	Option	6	700	637	742	770
LSA 49.3 M8	-	C23S/4	Option	6	750	683	795	825
LSA 49.3 L9	-	C23S/4	Option	6	800	728	848	880
LSA 49.3 L10	-	C23S/4	Option	6	870	792	922	957
LSA 50.2 S4	-	C23S/4	Option	6	980	880	1030	1080
LSA 50.2 M6	-	C23S/4	Option	6	1140	1026	1197	1254
LSA 50.2 L7	-	C23S/4	Option	6	1210	1089	1271	1331
LSA 50.2 L8	-	C23S/4	Option	6	1350	1215	1418	1485
LSA 50.2 VL10	-	C22S/4	Option	6	1500	1350	1575	1650
LSA 52.3 S6	-	C6S/4	Option	6	1700	1550	1802	1870
LSA 52.3 S7	-	C6S/4	Option	6	1900	1733	2014	2090
LSA 52.3 L9	-	C6S/4	Option	6	2000	1824	2120	2200
LSA 52.3 L12	-	C6S/4	Option	6	2150	1961	2279	2365

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole

1500 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 50 Hz



660 - 690 V

8.10 - Specific winding 10 or 52

Excitation				kVA : 660 V				kVA : 690 V			
				40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K
LSA 42.3 VS1	C10/4	Option	12	21.3	19.4	22.6	23.4	21.3	19.4	22.6	23.4
LSA 42.3 VS2	C10/4	Option	12	23	20.9	24.4	25.3	23	20.9	24.4	25.3
LSA 42.3 VS3	C10/4	Option	12	27.2	24.8	28.8	29.9	27.2	24.8	28.8	29.9
LSA 42.3 S4	C10/4	Option	12	29.8	27.1	31.6	32.8	29.8	27.1	31.6	32.8
LSA 42.3 S5	C10/4	Option	12	34	30.9	36	37.4	34	30.9	36	37.4
LSA 42.3 M7	C10/4	Option	12	38.3	34.9	40.6	42.1	38.3	34.9	40.6	42.1
LSA 42.3 M8	C10/4	Option	12	42.5	38.7	45.1	46.8	42.5	38.7	45.1	46.8
LSA 42.3 L9	C10/4	Option	12	51	46.4	54.1	56.1	51	46.4	54.1	56.1
LSA 44.3 S2	C10/4	Option	12	70	64	74	77	70	64	74	77
LSA 44.3 S3	C10/4	Option	12	80	73	85	88	80	73	85	88
LSA 44.3 S4	C52/4	Option	12	85	77	90	94	85	77	90	94
LSA 44.3 S5	C52/4	Option	12	90	82	95	99	92	84	98	101
LSA 44.3 M6	C52/4	Option	12	95	86	101	105	100	91	106	110
LSA 44.3 M8	C52/4	Option	12	111	101	118	122	115	105	122	127
LSA 44.3 L10	C52/4	Option	12	127	116	135	140	132	120	140	145
LSA 46.3 S2	C10S/4	Option	6	165	150	175	182	170	155	180	187
LSA 46.3 S3	C52/4	Option	12	175	159	186	193	180	164	191	198
LSA 46.3 S4	C10/4	Option	12	208	189	220	229	215	196	228	237
LSA 46.3 S5	C10/4	Option	12	220	200	233	242	228	207	242	251
LSA 46.3 M7	C10/4	Option	12	244	222	259	268	253	230	268	278
LSA 46.3 M8	C10/4	Option	12	265	241	281	292	275	250	292	303
LSA 46.3 L10	C52S/4	Option	6	275	250	292	303	285	259	302	314
LSA 46.3 L11	C52S/4	Option	6	295	268	313	325	305	278	323	336
LSA 47.2 VS2	C52S/4	Option	6	360	330	380	395	352	320	375	390
LSA 47.2 S4	C52S/4	Option	6	370	342	390	405	375	338	400	415
LSA 47.2 S5	C52S/4	Option	6	410	380	435	450	415	375	440	460
LSA 47.2 M7	C52S/4	Option	6	463	425	485	510	477	440	505	530
LSA 47.2 L9	C52S/4	Option	6	512	470	540	565	532	490	565	585
LSA 49.3 S4	C10S/4	Option	6	600	546	636	660	625	569	663	688
LSA 49.3 M6	C10S/4	Option	6	650	592	689	715	680	619	721	748
LSA 49.3 M8	C10S/4	Option	6	700	637	742	770	730	664	774	803
LSA 49.3 L9	C10S/4	Option	6	775	705	822	853	800	728	848	880
LSA 49.3 L10	C10S/4	Option	6	825	751	875	908	850	774	901	935
LSA 50.2 S4	C52S/4	Option	6	935	845	985	1030	980	880	1030	1080
LSA 50.2 M6	C52S/4	Option	6	1056	950	1110	1160	1100	990	1155	1210
LSA 50.2 L7	C52S/4	Option	6	1165	1045	1220	1280	1210	1040	1270	1330
LSA 50.2 L8	C52S/4	Option	6	1265	1145	1325	1390	1340	1210	1405	1475
LSA 50.2 VL10	C52S/4	Option	6	1420	1280	1490	1555	1500	1350	1575	1650
LSA 52.3 S6	C52S/4	Option	6	1700	1550	1802	1870	1700	1550	1802	1870
LSA 52.3 S7	C52S/4	Option	6	1900	1733	2014	2090	1900	1733	2014	2090
LSA 52.3 L9	C52S/4	Option	6	2100	1915	2226	2310	2100	1915	2226	2310
LSA 52.3 L12	C52S/4	Option	6	2200	2006	2332	2420	2200	2006	2332	2420
LSA 53.2 M9	C52S/4	C6S/4	6	2470	2252	2618	2717	2600	2371	2756	2860
LSA 53.2 M11	C52S/4	C6S/4	6	2736	2496	2900	3010	2880	2627	3053	3168

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.



*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole

1500 R.P.M. - 1 Phase - P.F. 0.8





RATINGS 50 Hz	
 double Delta (12 wires)	 open Delta (12 wires)
220 - 240 V	220 - 240 V

8.11 - Standard winding 6

Excitation					kVA : 230 V			
					40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 40 VS1	J6/4	C6/4	-	12	7	6.5	7.5	8
LSA 40 VS2	J6/4	C6/4	-	12	9	8	9.5	10
LSA 40 S3	J6/4	C6/4	-	12	10.5	10	11.5	12
LSA 40 S4	J6/4	C6/4	-	12	12.5	11.5	13.5	14
LSA 40 M5	J6/4	C6/4	-	12	14	13	15	15.5
LSA 42.3 VS2	J6/4	C6/4	Option	12	16.2	14.7	17.3	18
LSA 42.3 VS3	J6/4	C6/4	Option	12	19.2	17.5	20.4	21.1
LSA 42.3 S4	J6/4	C6/4	Option	12	22	20	23.3	24.2
LSA 42.3 S5	J6/4	C6/4	Option	12	25	22.8	26.5	28.1
LSA 42.3 M7	J6/4	C6/4	Option	12	27	24.6	28.9	30
LSA 42.3 M8	J6/4	C6/4	Option	12	30	27.3	31.8	33
LSA 42.3 L9	J6/4	C6/4	Option	12	36	32.8	38.2	40
LSA 44.3 S2	J6/4	C6/4	Option	12	42	38	44	46
LSA 44.3 S3	J6/4	C6/4	Option	12	48	44	50	53
LSA 44.3 S4	J6/4	C6/4	Option	12	54	49	57	59
LSA 44.3 S5	J6/4	C6/4	Option	12	60	55	63	66
LSA 44.3 M6	J6/4	C6/4	Option	12	67	61	71	74
LSA 44.3 M8	J6/4	C6/4	Option	12	73	66	77	80
LSA 44.3 L10	J6/4	C6/4	Option	12	80	73	84	88
LSA 46.3 S2	J6/4	C6/4	Option	12	108	98	114	120
LSA 46.3 S3	J6/4	C6/4	Option	12	120	109	127	132
LSA 46.3 S4	J6/4	C6/4	Option	12	138	126	146	152
LSA 46.3 S5	J6/4	C6/4	Option	12	150	137	159	165
LSA 46.3 M7	J6/4	C6/4	Option	12	165	150	175	182
LSA 46.3 M8	J6/4	C6/4	Option	12	180	164	191	200
LSA 46.3 L10	J6/4	C6/4	Option	12	195	177	207	215
LSA 46.3 L11	J6/4	C6/4	Option	12	210	191	225	231



RATINGS 50 Hz	
 SE series (4 wires)	 PA parallel (4 wires)
230 V	115 V

1500 R.P.M. - 1 Phase - P.F. 1

8.12 - Dedicated winding M








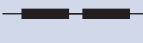

Excitation					kW / kVA : 115/230 V			
					40 °C cont.		40 °C St.by	27 °C St.by
TYPE		SHUNT		wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 40 VS1	-	JM/4	-	4	10.5	9.5	11	11.4
LSA 40 VS2	-	JM/4	-	4	12	11	12.7	13.2
LSA 40 S3	-	JM/4	-	4	13.2	12	14	14.5
LSA 40 S4	-	JM/4	-	4	14.5	13.2	15.4	16
LSA 40 M5	-	JM/4	-	4	16	14.6	17	17.6
LSA 42.3 VS1	-	JM/4	-	4	18.2	16.6	19.3	20
LSA 42.3 VS2	-	JM/4	-	4	20.3	18.5	21.5	22.3
LSA 42.3 VS3	-	JM/4	-	4	22.4	20.4	23.7	24.6
LSA 42.3 S4	-	JM/4	-	4	25	22.8	26.5	27.5
LSA 42.3 S5	-	JM/4	-	4	28	25.5	29.7	30.8
LSA 42.3 M7	-	JM/4	-	4	31.5	28.7	33.4	34.7
LSA 42.3 M8	-	JM/4	-	4	35	31.9	37.1	38.5
LSA 42.3 L9	-	JM/4	-	4	42	38.2	44.5	46.2
LSA 44.3 S3	-	JM/4	-	4	57	51	60	63
LSA 44.3 S5	-	JM/4	-	4	69	62	73	76
LSA 44.3 M8	-	JM/4	-	4	82	74	87	90

Low Voltage Alternators

4 pole

Voltage reconnections

9 - CONNECTIONS 60 Hz

4 POLE	60 Hz - 1800 R.P.M.						
Phase - Code	3 ph - D	3 ph - F	3 ph - D	3 ph - F	3 ph - A	1 ph - FF	1 ph - G
Connections							
	star	delta	star	delta	parallel star	double delta	open delta
Number of wire	6	6	12	12	12	12	12
Standard Winding 6	380 - 480 V (pages 17 to 19)	220 - 277 V (pages 17 to 19)	380 - 480 V (pages 17 to 19)	220 - 277 V (pages 17 to 19)	190 - 240 V (pages 17 to 19)	220 - 240 V (page 23)	220 - 240 V (page 23)
Specific Winding 7 (upon request)	-	-	-	-	-	-	-
Specific Winding 8 (upon request)	380 - 416 V (page 20)	220 - 240 V (page 20)	380 - 416 V (page 20)	220 - 240 V (page 20)	190 - 208 V (page 20)	220 - 240 V (consult factory)	220 - 240 V (consult factory)
Specific Winding 9 (upon request)	600 V (page 21)	347 V (page 21)	600 V (page 21)	347 V (page 21)	-	-	-
Specific Winding 22 or 23 (upon request)	660 - 690 V (page 22)	-	660 - 690 V (page 22)	-	-	-	-
Specific Winding M or M1, dedicated 1 phase (upon request)			 240 V (page 23) SE (serie)		 120 V (page 23) PA (parallel)		



Low Voltage Alternators

4 pole

1800 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 60 Hz		
Star (6 or 12 wires)	Parallel Star (12 wires only)	Delta (6 or 12 wires)
380 - 416 V	190 - 208 V	220 - 240 V

(1) Use winding 8 for parallel operation with the main.

9.1 - Standard winding 6					kVA : 190V. 220/380 V ⁽¹⁾				kVA : 208V. 240/416 V ⁽¹⁾			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K
LSA 40 VS1	J6/4	C6/4	-	12	10	9.5	11	11.5	11	10.5	11.5	12
LSA 40 VS2	J6/4	C6/4	-	12	12.5	11.5	13.5	14	13.5	12.5	14.5	15
LSA 40 S3	J6/4	C6/4	-	12	15	14	16	17	16.5	15.5	18	18.5
LSA 40 S4	J6/4	C6/4	-	12	17.5	16.5	19	19.5	19	18	20.5	21
LSA 40 M5	J6/4	C6/4	-	12	20	18.5	21.5	22	22	20.5	23.5	24.5
LSA 42.3 VS1	J6/4	C6/4	Option	12	29.1	26.5	30.8	32	31.3	28.4	33.1	34.4
LSA 42.3 VS2	J6/4	C6/4	Option	12	29.9	26.9	31.4	32.5	31.9	29	33.8	35.1
LSA 42.3 VS3	J6/4	C6/4	Option	12	34.5	31.4	36.6	38	38	34.6	40.3	41.8
LSA 42.3 S4	J6/4	C6/4	Option	12	37.5	33.4	39	40.4	40.3	36.6	42.7	44.3
LSA 42.3 S5	J6/4	C6/4	Option	12	42	38.2	44.5	46.2	46	41.9	50	50.6
LSA 42.3 M7	J6/4	C6/4	Option	12	46	41.9	48.8	50.6	50	45.5	53	55
LSA 42.3 M8	J6/4	C6/4	Option	12	51.5	46.9	54.6	56.7	56.5	51.4	60	62.5
LSA 42.3 L9	J6/4	C6/4	Option	12	59	53.7	62.5	64.9	65	59.2	68.9	71.5
LSA 44.3 S2	J6/4	C6/4	Option	12	69	63	73	76	76	69	80	83
LSA 44.3 S3	J6/4	C6/4	Option	12	79	72	83	87	87	79	91	95
LSA 44.3 S4	J6/4	C6/4	Option	12	89	81	94	98	98	89	102	107
LSA 44.3 S5	J6/4	C6/4	Option	12	99	90	104	109	108	99	114	119
LSA 44.3 M6*	J6/4	C6/4	Option	12	124	113	130	136	135	123	142	149
LSA 44.3 M8	J6/4	C6/4	Option	12	134	122	140	147	146	133	154	161
LSA 44.3 L10*	J6/4	C6/4	Option	12	148	135	156	163	163	148	171	179
LSA 46.3 S2	J6/4	C6/4	Option	12	180	164	191	200	195	177	207	215
LSA 46.3 S3*	J6/4	C6/4	Option	12	200	182	212	220	215	196	228	237
LSA 46.3 S4	J6/4	C6/4	Option	12	226	206	240	250	249	227	264	274
LSA 46.3 S5	J6/4	C6/4	Option	12	245	223	260	270	265	241	281	292
LSA 46.3 M7*	J6/4	C6/4	Option	12	275	250	292	303	300	273	318	330
LSA 46.3 M8*	J6/4	C6/4	Option	12	290	264	307	319	315	287	334	347
LSA 46.3 L10	J6/4	C6/4	Option	12	315	287	334	347	345	314	366	380
LSA 46.3 L11	J6/4	C6/4	Option	12	345	314	366	380	375	341	398	413
LSA 47.2 VS2	J6/4	C6/4	Option	12	424	394	451	469	454	410	483	500
LSA 47.2 S4*	J6/4	C6/4	Option	12	450	396	475	500	480	442	513	530
LSA 47.2 S5*	J6/4	C6/4	Option	12	475	441	503	527	510	473	543	562
LSA 47.2 M7	J6/4	C6/4	Option	12	562	523	600	625	610	566	651	668
LSA 47.2 M8	J6/4	C6/4	Option	12	562	523	600	625	610	566	651	671
LSA 47.2 L9	J6/4	C6/4	Option	12	602	556	643	667	661	609	707	728
LSA 47.2 L9**	-	C6S/4	Option	6	602	556	643	667	661	609	707	728
LSA 49.3 S4	-	C6S/4	Option	6	653	588	693	718	715	644	758	787
LSA 49.3 M6	-	C6S/4	Option	6	725	655	770	800	795	715	845	875
LSA 49.3 M8	-	C6S/4	Option	6	815	735	865	895	890	805	945	980
LSA 49.3 L9	-	C6S/4	Option	6	905	815	960	1000	990	895	1050	1090
LSA 49.3 L10	-	C6S/4	Option	6	990	891	1049	1089	1083	975	1150	1192
LSA 50.2 M6	-	C6S/4	Option	6	1285	1155	1350	1410	1405	1265	1475	1545
LSA 50.2 L7***	-	C6S/4	Option	6	1375	1240	1440	1510	1500	1350	1575	1650
LSA 50.2 L8	-	C6S/4	Option	6	1485	1335	1560	1630	1625	1460	1705	1785
LSA 50.2 VL10	-	C6S/4	Option	6	1635	1470	1715	1800	1785	1605	1875	1965
LSA 52.3 S5	-	C6S/4	Option	6	1860	1697	1972	2046	1934	1765	2051	2128
LSA 52.3 S6	-	C6S/4	Option	6	2000	1824	2120	2200	2080	1897	2205	2288
LSA 52.3 S7	-	C6S/4	Option	6	2200	2007	2332	2420	2288	2087	2425	2517
LSA 52.3 L9	-	C6S/4	Option	6	2360	2153	2502	2596	2454	2239	2602	2700
LSA 52.3 L12	-	C6S/4	Option	6	2500	2280	2650	2750	2600	2371	2756	2860
LSA 53.2 M9	-	C6S/4	Option	6	3000	2736	3180	3300	3120	2845	3307	3432
LSA 53.2 M12	-	C6S/4	Option	6	3250	2964	3445	3575	3380	3083	3583	3718

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.




Low Voltage Alternators

4 pole

1800 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 60 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)	(F)  Delta (6 or 12 wires)
440 - 480 V	220 - 240 V	254 - 277 V

9.2 - Standard winding 6

Excitation					kVA : 220V. 254/440 V				kVA : 240V. 277/480 V			
					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K
LSA 40 VS1	J6/4	C6/4	-	12	11.5	10.5	12.5	13	12.5	11.5	13.5	14
LSA 40 VS2	J6/4	C6/4	-	12	14.5	13.5	15.5	16	15.5	14.5	16.5	17
LSA 40 S3	J6/4	C6/4	-	12	17.5	16.5	19	19.5	19	17.5	20	21
LSA 40 S4	J6/4	C6/4	-	12	20	19	21.5	22	22	20.5	23.5	24.5
LSA 40 M5	J6/4	C6/4	-	12	23	21.5	25	26	25	23	27	27.5
LSA 42.3 VS1	J6/4	C6/4	Option	12	31.5	28.7	33.4	34.7	31.5	28.7	33.4	34.7
LSA 42.3 VS2	J6/4	C6/4	Option	12	33.8	30.7	35.8	37.5	33.8	30.7	35.8	37.5
LSA 42.3 VS3	J6/4	C6/4	Option	12	40	36.4	42.4	44	40	36.4	42.4	44
LSA 42.3 S4	J6/4	C6/4	Option	12	42.9	39	45.4	47.2	43.8	39.8	46.4	48.1
LSA 42.3 S5	J6/4	C6/4	Option	12	49	44.6	51.9	53.9	50	45.5	53	55
LSA 42.3 M7	J6/4	C6/4	Option	12	53.5	48.7	56.7	58.9	56.5	51.4	59.9	62.5
LSA 42.3 M8	J6/4	C6/4	Option	12	59.5	54.1	63.1	65.5	62.5	57	66.3	68.8
LSA 42.3 L9	J6/4	C6/4	Option	12	69	62.8	73.1	75.9	75	68.3	79.5	82.5
LSA 44.3 S2	J6/4	C6/4	Option	12	80	73	84	88	88	80	92	96
LSA 44.3 S3	J6/4	C6/4	Option	12	92	83	96	101	100	91	105	110
LSA 44.3 S4	J6/4	C6/4	Option	12	103	94	108	113	113	102	118	124
LSA 44.3 S5	J6/4	C6/4	Option	12	115	104	120	126	125	114	131	138
LSA 44.3 M6*	J6/4	C6/4	Option	12	143	130	150	158	156	142	164	172
LSA 44.3 M8	J6/4	C6/4	Option	12	155	141	162	170	169	154	177	186
LSA 44.3 L10*	J6/4	C6/4	Option	12	172	156	181	189	188	171	197	206
LSA 46.3 S2	J6/4	C6/4	Option	12	210	191	223	229	225	205	239	250
LSA 46.3 S3*	J6/4	C6/4	Option	12	230	209	244	253	250	228	265	275
LSA 46.3 S4	J6/4	C6/4	Option	12	262	238	278	288	288	262	305	316
LSA 46.3 S5	J6/4	C6/4	Option	12	280	255	297	308	313	284	331	344
LSA 46.3 M7*	J6/4	C6/4	Option	12	315	287	334	347	344	313	364	378
LSA 46.3 M8*	J6/4	C6/4	Option	12	340	309	360	374	360	328	382	400
LSA 46.3 L10	J6/4	C6/4	Option	12	365	332	387	402	406	370	431	447
LSA 46.3 L11	J6/4	C6/4	Option	12	400	364	424	440	435	396	461	480
LSA 47.2 VS2	J6/4	C6/4	Option	12	456	410	500	518	456	410	511	530
LSA 47.2 S4*	J6/4	C6/4	Option	12	500	442	533	550	512	465	550	581
LSA 47.2 S5*	J6/4	C6/4	Option	12	531	493	566	585	570	518	592	625
LSA 47.2 M7	J6/4	C6/4	Option	12	625	581	669	690	625	590	680	700
LSA 47.2 M8	J6/4	C6/4	Option	12	630	587	672	705	690	632	729	750
LSA 47.2 L9	J6/4	C6/4	Option	12	685	634	734	763	750	675	780	825
LSA 47.2 L9**	-	C6S/4	Option	6	685	634	734	763	750	675	780	825
LSA 49.3 S4	-	C6S/4	Option	6	756	681	802	832	825	743	875	908
LSA 49.3 M6	-	C6S/4	Option	6	840	760	890	925	915	825	970	1005
LSA 49.3 M8	-	C6S/4	Option	6	940	850	1000	1040	1025	925	1090	1130
LSA 49.3 L9	-	C6S/4	Option	6	1045	940	1110	1155	1140	1025	1210	1255
LSA 49.3 L10	-	C6S/4	Option	6	1146	1031	1215	1260	1250	1125	1325	1375
LSA 50.2 M6	-	C6S/4	Option	6	1455	1310	1530	1600	1560	1405	1640	1720
LSA 50.2 L7***	-	C6S/4	Option	6	1555	1400	1630	1710	1680	1510	1765	1850
LSA 50.2 L8	-	C6S/4	Option	6	1720	1550	1805	1890	1875	1685	1965	2060
LSA 50.2 VL10	-	C6S/4	Option	6	1860	1675	1950	2050	2000	1800	2100	2200
LSA 52.3 S5	-	C6S/4	Option	6	2046	1866	2169	2250	2232	2036	2366	2455
LSA 52.3 S6	-	C6S/4	Option	6	2200	2007	2332	2420	2400	2189	2544	2640
LSA 52.3 S7	-	C6S/4	Option	6	2420	2207	2565	2662	2640	2408	2798	2904
LSA 52.3 L9	-	C6S/4	Option	6	2596	2368	2752	2855	2832	2583	3002	3115
LSA 52.3 L12	-	C6S/4	Option	6	2750	2508	2915	3025	3000	2736	3180	3300
LSA 53.2 M9	-	C6S/4	Option	6	3300	3009	3498	3630	3600	3283	3816	3960
LSA 53.2 M12	-	C6S/4	Option	6	3575	3261	3790	3933	3900	3557	4134	4290

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.




Low Voltage Alternators

4 pole

1800 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 60 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)	(F)  Delta (6 or 12 wires)
380 - 416 V	190 - 208 V	220 - 240 V

(1) Use winding 8 for parallel operation with the main.

9.3 - Standard winding 6

Excitation					kVA : 190V. 220/380 V ⁽¹⁾				kVA : 208V. 240/416 V ⁽¹⁾			
					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K




OPTION : 12 wires

LSA 49.3 S4	-	C6/4	Option	12	653	588	693	718	715	644	758	787
LSA 49.3 M6	-	C6/4	Option	12	725	655	770	800	795	715	845	875
LSA 49.3 M8	-	C6/4	Option	12	815	735	865	895	890	805	945	980
LSA 49.3 L9	-	C6/4	Option	12	905	815	960	1000	990	895	1050	1090
LSA 49.3 L10	-	C6/4	Option	12	990	891	1049	1089	1083	975	1148	1192
LSA 50.2 S4	-	C6/4	Option	12	990	891	990	990	1080	972	1080	1080
LSA 50.2 M6	-	C6/4	Option	12	1210	1089	1210	1210	1320	1188	1320	1320
LSA 50.2 L8	-	C6/4	Option	12	1430	1287	1430	1430	1565	1409	1565	1565

1800 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 60 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)	(F)  Delta (6 or 12 wires)
440 - 480 V	220 - 240 V	254 - 277 V

9.4 - Standard winding 6

Excitation					kVA : 220V. 254/440 V				kVA : 240V. 277/480 V			
					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K

OPTION : 12 wires

LSA 49.3 S4	-	C6/4	Option	12	756	681	802	832	825	743	875	908
LSA 49.3 M6	-	C6/4	Option	12	840	760	890	925	915	825	970	1005
LSA 49.3 M8	-	C6/4	Option	12	940	850	1000	1040	1025	925	1090	1130
LSA 49.3 L9	-	C6/4	Option	12	1045	940	1110	1155	1140	1025	1210	1255
LSA 49.3 L10	-	C6/4	Option	12	1146	1031	1215	1260	1250	1125	1325	1375
LSA 50.2 S4	-	C6/4	Option	12	1145	1030	1145	1145	1250	1125	1250	1250
LSA 50.2 M6	-	C6/4	Option	12	1400	1260	1400	1400	1525	1372	1525	1525
LSA 50.2 L8	-	C6/4	Option	12	1655	1490	1655	1655	1800	1620	1800	1800




Low Voltage Alternators

4 pole

1800 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 60 Hz

(D)  Star (6 or 12 wires)	(A)  Parallel Star (12 wires only)	(F)  Delta (6 or 12 wires)
380 - 416 V	190 - 208 V	220 - 240 V

9.5 - Specific winding 8

Système d'excitation					kVA : 190*V.220**/380 V				kVA : 208*V.240**/416 V			
					40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K
LSA 40 VS1	J8/4	C8/4	-	12	11.5	10.5	12	12.7	12.5	11.5	13.5	14
LSA 40 VS2*	J8/4	C8/4	-	12	14.5	13.2	15.5	16	15.5	14	16.5	17
LSA 40 S3*	J8/4	C8/4	-	12	17.5	16	18.5	19.5	19	17.5	20	21
LSA 40 S4	J8/4	C8/4	-	12	20	18	21	22	22	20	23.5	24
LSA 40 M5	J8/4	C8/4	-	12	23	21	24.5	25.5	25	23	26.5	27.5
LSA 42.3 VS1	J8/4	C8/4	Option	12	29.9	27.2	31.7	32.9	29.9	27.2	31.7	32.9
LSA 42.3 VS2	J8/4	C8/4	Option	12	32.1	29.2	34	35.3	32.1	29.2	34	35.3
LSA 42.3 VS3	J8/4	C8/4	Option	12	38	34.6	40.3	41.8	38	34.6	40.3	41.8
LSA 42.3 S4	J8/4	C8/4	Option	12	40.8	37.1	43.2	44.9	41.6	37.9	44.1	45.8
LSA 42.3 S5	J8/4	C8/4	Option	12	46.6	42.4	49.4	51.3	47.5	43.2	50.4	52.3
LSA 42.3 M7	J8/4	C8/4	Option	12	50.8	46.2	53.8	55.9	53.7	48.9	56.9	59.1
LSA 42.3 M8	J8/4	C8/4	Option	12	56.5	51.4	59.9	62.2	59.4	54.1	63	65.3
LSA 42.3 L9	J8/4	C8/4	Option	12	65.6	59.7	69.5	72.2	71.3	64.9	75.6	78.4
LSA 44.3 S2	J8/4	C8/4	Option	12	80	73	85	88	88	80	93	97
LSA 44.3 S3	J8/4	C8/4	Option	12	90	82	95	99	100	91	106	110
LSA 44.3 S4*	J8/4	C8/4	Option	12	103	94	109	113	113	103	120	124
LSA 44.3 S5*	J8/4	C8/4	Option	12	115	105	122	127	125	114	133	138
LSA 44.3 M6	J8/4	C8/4	Option	12	140	127	148	154	159	139	162	168
LSA 44.3 M8*	J8/4	C8/4	Option	12	155	141	164	171	169	154	179	186
LSA 44.3 L10	J8/4	C8/4	Option	12	172	157	182	189	188	171	199	207
LSA 46.3 S2*	J8/4	C8/4	Option	12	215	196	228	237	227	207	241	250
LSA 46.3 S3	J8/4	C8/4	Option	12	235	214	249	259	250	228	265	275
LSA 46.3 S4*	J8/4	C8/4	Option	12	265	241	281	292	290	264	307	319
LSA 46.3 S5*	J8/4	C8/4	Option	12	285	259	302	314	315	287	334	347
LSA 46.3 M7	J8/4	C8/4	Option	12	320	291	339	352	330	300	350	363
LSA 46.3 M8	J8/4	C8/4	Option	12	355	323	376	391	360	328	382	396
LSA 46.3 L10*	J8T/4	C8T/4	Option	12	375	341	398	413	-	-	-	-
LSA 46.3 L11*	J8T/4	C8T/4	Option	12	440	400	466	484	-	-	-	-
LSA 47.2 VS3*	J8/4	C8/4	Option	12	493	458	525	545	493	458	525	545
LSA 47.2 S4	-	C8TS/4	Option	6	520	485	555	575	-	-	-	-
LSA 47.2 S5	-	C8TS/4	Option	6	550	510	585	605	-	-	-	-
LSA 47.2 M7***	-	C8S/4	Option	6	645	590	685	710	645	590	685	710
LSA 47.2 L9*	J8/4	C8/4	Option	12	705	645	750	785	705	645	750	785
LSA 49.3 S4	-	C8S/4	Option	6	715	651	758	787	775	705	822	853
LSA 49.3 M6	-	C8S/4	Option	6	840	764	890	924	915	833	970	1007
LSA 49.3 M8	-	C8S/4	Option	6	940	855	996	1034	1025	933	1087	1128
LSA 49.3 L9***	-	C8S/4	Option	6	1045	951	1108	1150	1140	1037	1208	1254
LSA 49.3 L10***	-	C8S/4	Option	6	1120	1019	1187	1232	1210	1101	1283	1331
LSA 50.2 S4	-	C8S/4	Option	6	1200	1080	1260	1320	1260	1135	1325	1390
LSA 50.2 M6	-	C8TS/4	Option	6	1450	1305	1520	1595	1450	1305	1520	1595
LSA 50.2 L7	-	C8TS/4	Option	6	1550	1400	1628	1705	1550	1400	1628	1705
LSA 50.2 L8	-	C8S/4	Option	6	1640	1475	1725	1805	1750	1575	1840	1925
LSA 50.2 VL10	-	C8S/4	Option	6	1800	1620	1890	1980	1900	1710	1995	2090

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.



*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole

1800 R.P.M. - 3 Phase - P.F. 0.8



RATINGS 60 Hz	
(D)  Star (6 or 12 wires)	(F)  Delta (6 or 12 wires)
600 V	347 V

9.6 - Specific winding 9					kVA : 347/600 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 40 VS1	-	C9/4	-	12	12.5	11.4	13.5	14
LSA 40 VS2	-	C9/4	-	12	15.5	14	16.5	17
LSA 40 S3	-	C9/4	-	12	19	17.5	20	21
LSA 40 S4	-	C9/4	-	12	22	20	23.5	25
LSA 40 M5*	-	C9/4	-	12	25	23	26.5	27.5
LSA 42.3 VS1	-	C9/4	Option	12	29.9	27.2	31.7	32.9
LSA 42.3 VS2	-	C9/4	Option	12	32.1	29.2	34	35.3
LSA 42.3 VS3	-	C9/4	Option	12	38	34.6	40.3	41.8
LSA 42.3 S4	-	C9/4	Option	12	41.6	37.9	44.1	45.8
LSA 42.3 S5	-	C9/4	Option	12	47.5	43.2	50.4	52.3
LSA 42.3 M7	-	C9/4	Option	12	53.7	48.9	56.9	59.1
LSA 42.3 M8	-	C9/4	Option	12	59.4	54.1	63	65.3
LSA 42.3 L9	-	C9/4	Option	12	71.3	64.9	75.6	78.4
LSA 44.3 S2*	-	C9/4	Option	12	88	80	93	97
LSA 44.3 S3*	-	C9/4	Option	12	100	91	106	110
LSA 44.3 S4*	-	C9/4	Option	12	113	103	120	124
LSA 44.3 S5*	-	C9/4	Option	12	125	114	133	138
LSA 44.3 M6	-	C9/4	Option	12	156	142	165	172
LSA 44.3 M8	-	C9/4	Option	12	169	154	179	186
LSA 44.3 L10*	-	C9/4	Option	12	188	171	199	207
LSA 46.3 S2	-	C9/4	Option	12	235	214	249	259
LSA 46.3 S3	-	C9S/4	Option	6	250	228	265	275
LSA 46.3 S4	-	C9S/4	Option	6	273	248	289	300
LSA 46.3 S5	-	C9S/4	Option	6	290	264	307	319
LSA 46.3 M7	-	C9/4	Option	12	342	311	363	376
LSA 46.3 M8	-	C9/4	Option	12	372	339	394	409
LSA 46.3 L10	-	C9S/4	Option	6	390	355	413	429
LSA 46.3 L11	-	C9S/4	Option	6	425	387	451	468
LSA 47.2 VS2	-	C9S/4	Option	6	475	430	503	525
LSA 47.2 S4	-	C9/4	Option	12	520	470	550	580
LSA 47.2 S5	-	C9/4	Option	12	560	515	600	620
LSA 47.2 M7*	-	C9/4	Option	12	635	575	675	700
LSA 47.2 M8*	-	C9+/4	Option	12	685	620	725	755
LSA 47.2 L9	-	C9+S/4	Option	6	725	660	770	800
LSA 49.3 S4	-	C9S/4	Option	6	760	692	806	836
LSA 49.3 M6	-	C9S/4	Option	6	875	796	928	963
LSA 49.3 M8	-	C9S/4	Option	6	955	869	1012	1051
LSA 49.3 L9	-	C9S/4	Option	6	1000	910	1060	1100
LSA 49.3 L10	-	C9S/4	Option	6	1100	1001	1166	1210
LSA 50.2 M6	-	C9TS/4	Option	6	1420	1278	1490	1562
LSA 50.2 L8	-	C9S/4	Option	6	1600	1440	1680	1760
LSA 50.2 VL10***	-	C9S/4	Option	6	1765	1590	1853	1940
LSA 52.3 S6	-	C9S/4	Option	6	2100	1915	2226	2310
LSA 52.3 S7	-	C9S/4	Option	6	2250	2052	2385	2475
LSA 52.3 L9	-	C9S/4	Option	6	2355	2148	2496	2591
LSA 52.3 L11	-	C9S/4	Option	6	2500	2280	2650	2750

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole



1800 R.P.M. - 3 Phase - P.F. 0.8

RATINGS 60 Hz



660 - 690 V

9.7 - Specific winding 22 or 23				kVA : 660 V				kVA : 690 V			
Excitation				40 °C cont.		40 °C St.by	27 °C St.by	40 °C cont.		40 °C St.by	27 °C St.by
TYPE	AREP	PMG	wires	H :125 K	F :105 K	H : 150 K	H : 163 K	H :125 K	F :105 K	H : 150 K	H : 163 K
LSA 42.3 VS1	C22T/4	Option	12	27	25	29	30	28	25	30	31
LSA 42.3 VS2	C22T/4	Option	12	28	25	30	31	30	27	32	33
LSA 42.3 VS3	C22T/4	Option	12	34	31	36	37	35	32	37	39
LSA 42.3 S4	C22T/4	Option	12	40	36	42	44	40	36	42	44
LSA 42.3 S5	C22T/4	Option	12	42	38	45	46	45	41	48	50
LSA 42.3 M7	C22T/4	Option	12	45	41	48	50	48	44	51	53
LSA 42.3 M8	C22T/4	Option	12	51	46	54	56	53	48	56	58
LSA 42.3 L9	C22T/4	Option	12	60	55	64	66	61	56	65	67
LSA 44.3 S2	C22TS/4	Option	6	74	67	78	81	75	68	80	83
LSA 44.3 S3	C22TS/4	Option	6	88	80	93	97	94	86	100	103
LSA 44.3 S4	C22T/4	Option	12	95	86	101	105	98	89	104	108
LSA 44.3 S5	C22T/4	Option	12	110	100	117	121	115	105	122	127
LSA 44.3 M6	C22T/4	Option	12	120	109	127	132	130	118	138	143
LSA 44.3 M8	C22TS/4	Option	6	130	118	138	143	135	123	143	150
LSA 44.3 L10	C22T/4	Option	12	150	137	159	165	160	146	170	176
LSA 46.3 S2	C23/4	Option	12	190	173	201	209	195	177	207	215
LSA 46.3 S3	C22T/4	Option	12	215	196	228	237	225	205	239	248
LSA 46.3 S4	C22T/4	Option	12	255	232	270	281	263	239	279	289
LSA 46.3 S5	C22T/4	Option	12	270	246	286	297	278	253	295	306
LSA 46.3 M7	C22TS/4	Option	6	280	255	297	308	290	264	307	319
LSA 46.3 M8	C22TS/4	Option	6	305	278	323	336	315	287	334	347
LSA 46.3 L10	C22T/4	Option	12	325	296	345	358	330	300	350	363
LSA 46.3 L11	C22T/4	Option	12	345	314	366	380	360	328	382	396
LSA 47.2 VS2***	C22S/4	Option	6	380	346	403	418	460	419	488	506
LSA 47.2 S4	C23S/4	Option	6	450	410	477	495	480	437	509	528
LSA 47.2 S5	C23S/4	Option	6	480	437	509	528	500	455	530	550
LSA 47.2 M7***	C22TS/4	Option	6	570	519	604	627	580	528	615	638
LSA 47.2 L9	C23S/4	Option	6	610	555	647	671	640	582	678	704
LSA 49.3 S4	C22TS/4	Option	6	740	673	784	814	770	701	816	847
LSA 49.3 M6	C22TS/4	Option	6	800	728	848	880	850	774	901	935
LSA 49.3 M8	C22TS/4	Option	6	885	805	938	974	940	855	996	1034
LSA 49.3 L9	C22TS/4	Option	6	1045	951	1108	1150	1045	951	1108	1150
LSA 50.2 M6	C22S/4	Option	6	1200	1092	1272	1320	1300	1183	1378	1430
LSA 50.2 L8	C23S/4	Option	6	1400	1274	1484	1540	1500	1365	1590	1650
LSA 50.2 VL10	C22S/4	Option	6	1600	1456	1696	1760	1700	1547	1802	1870
LSA 52.3 S6	C22S/4	Option	6	1940	1769	2056	2134	1940	1769	2056	2134
LSA 52.3 S7	C22S/4	Option	6	2250	2052	2385	2475	2250	2052	2385	2475
LSA 52.3 L9	C22S/4	Option	6	2300	2098	2438	2530	2300	2098	2438	2530
LSA 52.3 L12	C22S/4	Option	6	2500	2280	2650	2750	2500	2280	2650	2750
LSA 53.2 M9	C22S/4	Option	6	2850	2599	3021	3135	3000	2736	3180	3300
LSA 53.2 M11	C22S/4	Option	6	3230	2946	3424	3553	3400	3101	3604	3740

* Paralleling, select the 6 wire configuration.

** Paralleling, select the 12 wire configuration.

*** Paralleling, consult Leroy Somer.

Low Voltage Alternators

4 pole

1800 R.P.M. - 1 Phase - P.F. 0.8



RATINGS 60 Hz	
double Delta (12 wires)	open Delta (12 wires)
220 - 240 V	220 - 240 V

9.8 - Standard winding 6

					kVA : 240 V			
Excitation					40 °C cont.		40 °C St.by	27 °C St.by
TYPE	SHUNT	AREP	PMG	wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 40 VS1	J6/4	C6/4	-	12	9	8.5	9.5	10
LSA 40 VS2	J6/4	C6/4	-	12	11.5	10.5	12	12.5
LSA 40 S3	J6/4	C6/4	-	12	13	12	13.5	14
LSA 40 S4	J6/4	C6/4	-	12	14.5	13	15	15.5
LSA 40 M5	J6/4	C6/4	-	12	16	15	17	17.5
LSA 42.3 VS1	J6/4	C6/4	Option	12	18.9	17.2	19.8	20.8
LSA 42.3 VS2	J6/4	C6/4	Option	12	19.2	17.5	20.2	21.1
LSA 42.3 VS3	J6/4	C6/4	Option	12	22.8	20.7	23.9	25.1
LSA 42.3 S4	J6/4	C6/4	Option	12	24.2	22	25.4	26.6
LSA 42.3 S5	J6/4	C6/4	Option	12	27.6	25.1	29	30.4
LSA 42.3 M7	J6/4	C6/4	Option	12	30	27.3	31.5	33
LSA 42.3 M8	J6/4	C6/4	Option	12	33.9	30.8	35.6	37.3
LSA 42.3 L9	J6/4	C6/4	Option	12	39	35.5	41	42.9
LSA 44.3 S2	J6/4	C6/4	Option	12	46	41	48	50
LSA 44.3 S3	J6/4	C6/4	Option	12	52	47	55	57
LSA 44.3 S4	J6/4	C6/4	Option	12	59	53	61	64
LSA 44.3 S5	J6/4	C6/4	Option	12	65	59	68	72
LSA 44.3 M6	J6/4	C6/4	Option	12	76	69	80	83
LSA 44.3 M8	J6/4	C6/4	Option	12	81	73	85	89
LSA 44.3 L10	J6/4	C6/4	Option	12	95	86	100	105
LSA 46.3 S2	J6/4	C6/4	Option	12	120	108	126	131
LSA 46.3 S3	J6/4	C6/4	Option	12	132	120	140	145
LSA 46.3 S4	J6/4	C6/4	Option	12	152	138	161	167
LSA 46.3 S5	J6/4	C6/4	Option	12	165	150	175	182
LSA 46.3 M7	J6/4	C6/4	Option	12	182	165	192	200
LSA 46.3 M8	J6/4	C6/4	Option	12	200	180	210	218
LSA 46.3 L10	J6/4	C6/4	Option	12	215	195	227	236
LSA 46.3 L11	J6/4	C6/4	Option	12	231	210	250	254



RATINGS 60 Hz	
SE series (4 wires)	PA parallel (4 wires)
240 V	120 V

1800 R.P.M. - 1 Phase - P.F. 1

9.9 - Dedicated winding M / M1

					kVA / kW : 120/240 V			
					40 °C cont.		40 °C St.by	27 °C St.by
TYPE		SHUNT		wires	H : 125 K	F : 105 K	H : 150 K	H : 163 K
LSA 40 VS1	-	JM/4	-	4	11,5	10,5	12	13
LSA 40 VS2	-	JM/4	-	4	13,5	12,5	14,5	15
LSA 40 S3	-	JM/4	-	4	14,5	13	15,5	16
LSA 40 S4	-	JM/4	-	4	16	14,5	17	17,5
LSA 40 M5	-	JM/4	-	4	17,5	16	19	19,5
LSA 42.3 VS1	-	JM1/4	-	4	23	20.9	24.4	25.3
LSA 42.3 VS2	-	JM1/4	-	4	26	23.7	27.6	28.6
LSA 42.3 VS3	-	JM1/4	-	4	28.8	26.2	30.5	31.6
LSA 42.3 S4	-	JM1/4	-	4	31.5	28.7	33.4	34.7
LSA 42.3 S5	-	JM1/4	-	4	36	32.8	38.2	39.6
LSA 42.3 M7	-	JM1/4	-	4	40	36.4	42.4	44
LSA 42.3 M8	-	JM1/4	-	4	47.2	43	50	51.9
LSA 42.3 L9	-	JM1/4	-	4	53	48.2	56.2	58.3
LSA 44.3 S3	-	JM1/4	-	4	80	73	85	88
LSA 44.3 S5	-	JM1/4	-	4	100	91	106	110
LSA 44.3 M6	-	JM1/4	-	4	115	105	122	127
LSA 44.3 L10	-	JM1/4	-	4	125	114	133	138

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