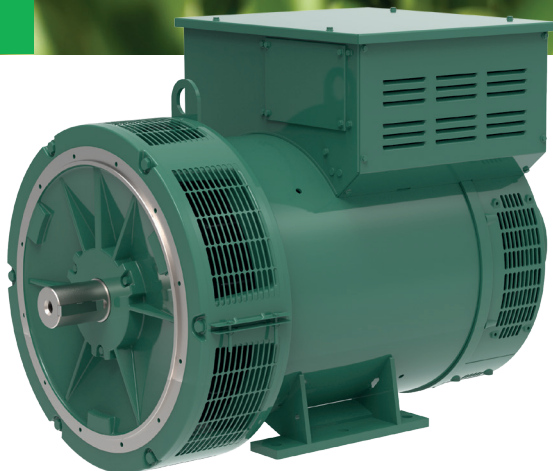




Cogeneration Alternators



High Efficiency & Reliability LSAC Class F Alternators

9 to 1475 kVA - 50 Hz
11.5 to 1800 kVA - 60 Hz

LEROY-SOMER™

Nidec
All for dreams

Products Features & Options

Long-lasting Performance

Over the last few years, distributed power generation has grown fast, especially in areas such as cogeneration, combined heat & power, biomass, biogas or waste-to-energy. This new, decentralized approach to power generation has put new requirements on small-size alternators. They are now more and more expected to operate 24/7, with an ever increasing level of reliability and efficiency.

These new requirements also include a solid capability of living within smart grids and to cope with all the constraints of mains paralleling.

At Leroy-Somer, we designed a complete offering to address these new challenges. Drawing from our long expertise and strong product lineup, we selected the best solution to fit power plants requirements.

Reliability

Our alternators are Class H insulated. Best materials are sourced from certified suppliers to guarantee a product with superior heat resistance.

Lifespan

LSAC alternators are Class F specified. They are optimized for continuous operation and specially sized to operate for 9 years (80 000 hours) or more.

Performance

Class F also ensures that you benefit from the best available efficiency at full load.

Standard Configuration

Optimized for cogeneration and prime power generation

- Class H insulation
- Class F temperature rise
- AREP excitation
- D510C digital regulator
- C.T. for alternators paralleling
- 3 x PT100 sensors on stator
- Single bearing

Options

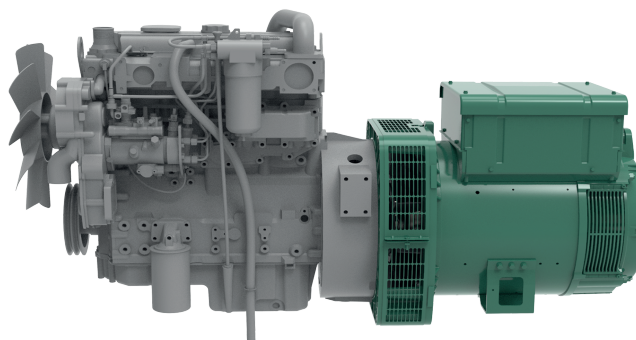
- PMG excitation (not available on LSA 40)
- Remote voltage potentiometer
- Remote P.F. potentiometer
- Temperature sensors for bearings PT100
- Regreasable bearings
- Double bearing
- Space heaters
- Filters on air inlet (5% derating)
- IP 44 enclosure on air inlet and air outlet (10% derating)
- Protection for harsh environments and relative humidity above 95%

Leroy-Somer alternators are manufactured in an ISO 9001 - 2000 environment. They comply with major international standards, including IEC 60034, NEMA MG 1.32 - 33, NF C51-111, VDE-AR-N 4105:201108 & BDEW, BS 5000, Italian CEI O-16 & O-21, UL 1446 and CSA C22.2 n°100-14. CE & EAC marking.

TYPICAL COGENERATION CONFIGURATION

11%
Losses

100%
Fuel / Gas



42%
Electric power

47%
Heat

Ratings & Efficiency - Class F

Model		400 V - 50 Hz - 1500 R.P.M.										480 V - 60 Hz - 1800 R.P.M.									
		Efficiency										Efficiency									
Excitation		Ratings		P.F. = 0.8				P.F. = 1				Ratings		P.F. = 0.8				P.F. = 1			
AREP		kVA	kWe	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4	kVA	kWe	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4
LSAC 40VS1	C6/4	9	7.2	77.1	83.4	84.7	84.5	79.4	86.9	88.9	89.4	11.5	9.2	76.4	83.4	85.1	85.1	78.4	86.4	88.8	89.5
LSAC 40VS2	C6/4	11.5	9.2	79.3	85.1	86.1	85.8	81.5	88.2	90	90.4	14.5	11.6	78.6	85	86.4	86.4	80.4	87.7	89.8	90.4
LSAC 40S3	C6/4	14	11.2	81.3	86.2	86.8	86.2	83.5	89.3	90.6	90.7	17.5	14	80.5	86.2	87.2	86.9	82.3	88.8	90.5	90.9
LSAC 40S4	C6/4	16	12.8	82.2	86.9	87.5	87.1	84.2	89.8	91.1	91.2	20.5	16.4	81.6	87	87.9	87.6	83.3	89.4	91	91.3
LSAC 40M5	C6/4	18.5	14.8	83.1	87.7	88.4	87.9	84.9	90.3	91.6	91.8	23	18.4	82.2	87.6	88.7	88.6	83.7	89.8	91.5	91.9
LSAC 42.3 VS1	C6/4	22.8	18.2	84.7	88.4	88.6	87.7	86.6	91.2	92.1	92	28.7	23	84	88.4	89	88.5	85.6	90.7	92	92.1
LSAC 42.3 VS2	C6/4	24.6	19.7	85.7	89	89.1	88.2	87.5	91.6	92.4	92.2	30.7	24.6	84.9	89	89.5	88.9	86.4	91.2	92.3	92.4
LSAC 42.3 VS3	C6/4	29.1	23.3	86.8	89.8	89.7	88.8	88.5	92.3	92.9	92.6	36.4	29.1	86.1	89.8	90.1	89.5	87.5	91.9	92.8	92.8
LSAC 42.3 S4	C6/4	32	25.6	87.2	90.7	91	90.5	88.5	92.6	93.5	93.5	39.8	31.8	86.3	90.5	91.2	90.9	87.4	92.1	93.4	93.6
LSAC 42.3 S5	C6/4	36.4	29.1	88.1	90.9	90.8	90.1	89.6	93	93.6	93.4	45.5	36.4	87.4	90.8	91.1	90.6	88.6	92.7	93.5	93.5
LSAC 42.3 M7	C6/4	41	32.8	89	91.4	91.3	90.4	90.4	93.5	93.9	93.6	51.4	41.1	88.3	91.4	91.5	90.9	89.5	93.1	93.8	93.8
LSAC 42.3 M8	C6/4	45.5	36.4	88.6	91.3	91.3	90.5	90	93.3	93.9	93.7	57	45.6	88	91.3	91.5	91	89.1	93	93.8	93.8
LSAC 42.3 L9	C6/4	54.6	43.7	89.4	91.8	91.7	90.8	90.8	93.8	94.2	94	68.3	55	88.8	91.8	92	91.4	90	93.5	94.2	94.1
LSAC 44.3 S2	C6/4	64	51	85.6	90.6	91.7	91.9	86.6	92	93.6	94.1	80	64	84.1	89.9	91.5	91.9	84.9	91.1	93.1	93.9
LSAC 44.3 S3	C6/4	73	58	86.9	91.1	91.9	91.8	88	92.6	93.9	94.2	91	73	85.5	90.5	91.8	91.9	86.4	91.9	93.5	94
LSAC 44.3 S4	C6/4	82	66	87.3	91.5	92.4	92.4	88.3	92.9	94.2	94.6	102	82	85.9	90.9	92.2	92.5	86.7	92.1	93.8	94.4
LSAC 44.3 S5	C6/4	91	73	88.1	91.8	92.5	92.3	89.2	93.3	94.4	94.7	114	91	87	91.4	92.4	92.4	87.8	92.7	94.1	94.5
LSAC 44.3 M6	C6/4	114	91	90	92.8	93	92.6	91	94.3	95	95	142	114	89	92.5	93.1	92.9	89.8	93.7	94.7	94.9
LSAC 44.3 M8	C6/4	123	98	90.5	93.2	93.4	93	91.4	94.5	95.2	95.3	154	123	89.5	92.9	93.4	93.3	90.2	94	95	95.2
LSAC 44.3 L10	C6/4	137	110	90.1	93.1	93.5	93.2	91	94.4	95.2	95.4	171	137	89.1	92.8	93.5	93.4	89.9	93.9	95	95.3
LSAC 44.3 L12	C6/4	150	120	90.6	93.2	93.4	93	91.5	94.6	95.3	95.3	187	150	89.6	92.9	93.4	93.2	90.4	94.1	95	95.2
LSAC 46.3 S2	C6/4	164	131	90.5	93	93	92.5	91.4	94.3	94.8	94.7	205	164	89.2	92.4	92.9	92.6	89.9	93.6	94.5	94.6
LSAC 46.3 S3	C6/4	182	146	90.5	93.2	93.4	93	91.4	94.4	95.1	95	228	182	89.3	92.7	93.3	93.1	90	93.8	94.7	94.9
LSAC 46.3 S4	C6/4	209	167	91.1	93.6	93.8	93.4	91.9	94.8	95.4	95.3	262	210	89.9	93.1	93.7	93.5	90.6	94.2	95.1	95.2
LSAC 46.3 S5	C6/4	228	182	91.6	93.7	93.7	93.2	92.4	95	95.4	95.3	284	227	90.5	93.3	93.7	93.4	91.2	94.4	95.1	95.2
LSAC 46.3 M7	C6/4	250	200	91	93.7	94	93.7	91.8	94.8	95.5	95.6	313	250	90	93.3	93.9	93.8	90.6	94.3	95.2	95.5
LSAC 46.3 M8	C6/4	273	218	91.5	93.8	94	93.6	92.3	95	95.6	95.5	337	270	90.5	93.5	93.9	93.8	91.2	94.5	95.3	95.5
LSAC 46.3 L10	C6/4	300	240	91.9	94.4	94.7	94.4	92.6	95.4	96	96	370	296	90.9	93.9	94.5	94.5	91.4	94.8	95.7	95.9
LSAC 46.3 L11	C6/4	332	266	92.5	94.5	94.6	94.2	93.2	95.6	96	95.9	415	332	91.6	94.2	94.6	94.3	92.2	95.1	95.8	95.9
LSAC 47.2 VS2	C6/4	330	264	91.6	94	94.2	93.8	92.3	95.1	95.7	95.7	410	328	90.1	93.4	94	93.8	90.8	94.4	95.3	95.5
LSAC 47.2 S4	C6/4	370	296	92.2	94.5	94.8	94.5	92.9	95.5	96.1	96.1	465	372	90.9	94	94.6	94.5	91.5	94.8	95.7	95.9
LSAC 47.2 S5	C6/4	405	324	92.7	94.7	94.8	94.4	93.4	95.7	96.1	96.1	518	414	91.6	94.2	94.6	94.4	92.2	95.1	95.8	95.9
LSAC 47.2 M7	C6/4	465	372	92.8	94.9	95.1	94.9	93.4	95.9	96.4	96.4	590	472	91.7	94.5	95	94.9	92.3	95.3	96.1	96.2
LSAC 47.2 M8	C6/4	500	400	93.5	95.2	95.2	94.8	94.1	96.2	96.5	96.4	632	506	92.5	94.8	95.1	94.8	93.1	95.7	96.2	96.3
LSAC 47.2 L9	C6/4	535	428	93.4	95.2	95.3	95	94	96.1	96.6	96.5	675	540	92.4	94.8	95.2	95	92.9	95.6	96.3	96.4
LSAC 49.3 S4	C6S/4	595	476	92.8	94.8	94.9	94.6	93.5	95.8	96.3	96.3	743	594	91.7	94.4	94.8	94.6	92.3	95.3	96	96.1
LSAC 49.3 M6	C6S/4	660	528	92.2	94.6	94.9	94.7	92.8	95.6	96.2	96.3	825	660	91	94.1	94.7	94.7	91.6	95	95.9	96.1
LSAC 49.3 M8	C6S/4	760	608	93.6	95.3	95.4	95	94.2	96.2	96.6	96.5	925	740	92.5	94.9	95.2	95.1	93	95.7	96.3	96.4
LSAC 49.3 L9	C6S/4	820	656	93.1	95.3	95.7	95.5	93.7	96.1	96.7	96.8	1025	820	92.1	94.9	95.5	95.5	92.6	95.6	96.4	96.7
LSAC 49.3 L10	C6S/4	900	720	94	95.7	95.9	95.6	94.5	96.5	96.9	96.9	1125	900	93.1	95.4	95.7	95.6	93.6	96.1	96.7	96.8
LSAC 50.2 M6	C6S/4	1125	900	93.6	95.5	95.7	95.4	94.1	96.3	96.7	96.7	1405	1124	92.5	95	95.4	95.3	92.9	95.7	96.4	96.5
LSAC 50.2 L7	C6S/4	1215	972	93.7	95.6	95.8	95.6	94.1	96.3	96.8	96.8	1510	1208	92.5	95.1	95.6	95.5	92.9	95.7	96.4	96.6
LSAC 50.2 L8	C6S/4	1350	1080	94.2	95.9	96	95.8	94.6	96.6	97	97	1685	1348	93.1	95.4	95.8	95.7	93.5	96	96.6	96.8
LSAC 50.2 VL10	C6S/4	1475	1180	94.3	96	96.2	96	94.7	96.7	97.1	97.1	1800	1440	93.2	95.5	96	95.9	93.5	96.1	96.8	96.9

LEROY-SOMERTM

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