



Lloyd's
Register

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

This certificate is issued to:

PRODUCER

Leroy-Somer
Site de Sillac
Bld Marcellin Leroy
16015 Angouleme
France

**PLACES OF
PRODUCTION**

Site de Sillac
Bld Marcellin Leroy
16015 Angouleme
France

Leroy-Somer Holic
Spol s.r.o.
Sladkovskeho 43
Olomouc 77204
Czech Republic

DESCRIPTION

Electric alternator

TYPE

LSAM 40 series: VS1, VS2, S3, S4, M5, L7
LSAM 42,2 series: S4, S5, M6, M7, L9
LSAM 42,3 series: VS3, S4, S5, M7, M8, L9

Certificate No.

18/30009

Issue Date


14 March 2018

Expiry Date

26 May 2023

Sheet

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Ing. G.J. Vromans
Rotterdam Type Approval
Lloyd's Register EMEA



Lloyd's Register EMEA , Rotterdam Techonology Support Office, K.P.v.d.Mandelelaan 41a,3062 MB Rotterdam, The Netherlands

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LSAM 44,2 series: VS3, VS45, S7, S75, M95, L12
 LSAM 44.3 series: S2, S3, S4, S5, M6, M8, L10
 LSAM 46,2 series: M3, M5, L6, L9, VL12
 LSAM 46.3 series: S2, S3, S4, M7, M8, L10, L11
 LSAM 47,2 series: VS2, S4, S5, M7, L9
 LSAM 49,1 series: S4, M5, M6, M75, L8, L9
 LSAM 49.3 series: S4, M6, M8, L9, L10
 LSAM 50,2 series: S4, M6, M7, L8, VL10
 LSAM 51,2 series: S55, M60, L70, VL80, VL85
 LSAM 52.3 series: S6, S7, L9, L12

Also brand labelled for FG Wilson under LL-series and
 Caterpillar under LC-series.

APPLICATION

Marine and industrial application

STANDARD

IEC 60034, Rules and Regulations of ships 2017

RATINGS

LS Type / LL Type/ LC Type	Power in kVA					
	Class F			Class H		
	380V / 50Hz	450V / 60Hz	690V / 60Hz	380V / 50Hz	450V / 60Hz	690V / 60Hz
LSAM 40 VS1	7	8	-	7	8	-
LSAM 40 VS2	10	11.5	-	10	11.5	-
LSAM 40 S3	13	15	-	13	15	-
LSAM 40 S4	16	19	-	17	19	-
LSAM 40 M5	18.5	21.5	-	20	23	-
LSAM 40 L7	20	24	-	23	25.5	-
LSAM 42,3 VS3	22.5	26	29	27	31	32.5

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LSAM 42,3 S4	27	31	34	35	40.5	35.5
LSAM 42,3 S5	32	39	37.5	37	42	41.5
LSAM 42,3 M7	35	41.5	40.5	41	47	45
LSAM 42,3 M8	38	45	43.5	46	54	49
LSAM 42,3 L9	47.5	54.5	51	53	60	57.5
LSAM 42,2 S4 / NA / NA	15	21	-	17.5	22	-
LSAM 42,2 S5 / LL10#4N / LC10#4N	18	24	-	20	26	-
LSAM 42,2 M6 / NA / NA	21	26	-	23	30	-
LSAM 42,2 M7 / LL10#4Q / LC10#4Q	23	29	-	25	32	-
LSAM 42,2 L9 / LL10#4S / LC10#4Q	25	32	-	28	35	-
LSAM 44.2 VS3 / NA / NA	80	100	90	90	110	100
LSAM 44.2 VS45 / LL30#4B / LC30#4B	90	110	100	100	120	110
LSAM 44.2 S7 / LL30#4D / LC30#4D	105	125	110	115	135	123
LSAM 44.2 S75 / NA / NA	110	132	-	121	145	-
LSAM 44.2 M95 / LL30#4F / LC30#4F	127	154	126	140	165	145
LSAM 44.2 L12 / LL30#4H / LC30#4H	135	158	135	150	175	150
LSAM 44.3 S2	64	80	-	70	88	-
LSAM 44.3 S3	73	91	-	80	100	-
LSAM 44.3 S4	82	102	-	90	113	-
LSAM 44.3 S5	91	114	-	100	125	-
LSAM 44.3 M6	108	128	-	118	141	-
LSAM 44.3 M8	120	142	-	132	157	-
LSAM 44.3 L10	135	161	-	147	177	-
LSAM 46.2 M3 / LL50#4D / LC50#4D	160	188	165	170	205	185
LSAM 46.2 M5 / LL50#4F / LC50#4F	170	200	180	187	220	200
LSAM 46.2 L6 / LL50#4H / LC50#4H	210	250	225	230	280	250
LSAM 46.2 L9 / LL50#4J / LC50#4J	240	290	255	260	320	285
LSAM 46.2 VL12 / LL50#4L / LC50#4L	270	320	270	295	355	305
LSAM 46.3 S2	160	191	-	172	207	-
LSAM 46.3 S3	175	205	-	188	221	-
LSAM 46.3 S4	198	233	-	212	252	-
LSAM 46.3 S5	210	246	-	222	267	-
LSAM 46.3 M7	235	271	-	251	285	-

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LSAM 46.3 M8	246	288	-	265	311	--
LSAM 46.3 L10	270	305	-	275	365	-
LSAM 46.3 L11	300	347	-	321	376	-
LSAM 47.2 VS2 / LL61#4B / LC61#4B	320	406	402	355	450	443
LSAM 47.2 S4 / LL61#4D / LC61#4D	350	425	415	380	475	456
LSAM 47.2 S5 / LL61#4D / LC61#4D	370	442	437	405	500	480
LSAM 47.2 M7 / LL61#4F / LC61#4F	435	545	520	476	602	580
LSAM 47.2 L9 / LL61#4K / LC61#4K	485	567	540	535	630	605
LSAM 49.1 S4 / LL70#4H / LC70#4H	545	695	620	600	740	690
LSAM 49.1 M5 / LL70#4J / LC70#4J	-	-	660	-	-	732
LSAM 49.1 M6 / LL70#4L / LC70#4L	600	760	710	660	800	786
LSAM 49.1 M75 / LL70#4L / LC70#4L	635	815	760	710	855	840
LSAM 49.1 L8 / NA / NA	42	49.5	830	-	-	934
LSAM 49.1 L9 / LL70#4P / LC70#4P	715	890	-	800	1000	-
LSAM 49.3 S4	565	681	-	620	723	-
LSAM 49.3 M6	635	760	-	710	840	-
LSAM 49.3 M8	750	850	-	800	940	-
LSAM 49.3 L9	820	940	-	910	1045	-
LSAM 49.3 L10	870	1031	-	940	1126	-
LSAM 50.2 S4 / LL82#4B / NA	900	1025	970	990	1125	1080
LSAM 50.2 M6 / LL82#4H / NA	1055	1200	1090	1140	1380	1220
LSAM 50.2 L7 / LL82#4L / NA	1145	1285	-	1255	1480	-
LSAM 50.2 L8 / LL82#4N / NA	1230	1400	1290	1355	1600	1440
LSAM 50.2 VL10 / LL82#4P / NA	1365	1545	1450	1495	1760	1625
LSAM 51.2 S55 / LL91#4F / NA	1555	1750	1835	1670	1925	2045
LSAM 51.2 M60 / LL91#4H / NA	1725	1945	2035	1895	2135	2270
LSAM 51.2 L70 / LL91#4L / NA	1855	2090	2120	2035	2290	2365
LSAM 51.2 VL80 / NA / NA	-	-	2250	-	-	2505
LSAM 51.2 VL85 / LL91#4P / NA	1940	2245	-	2130	2460	-
LSAM 52.3 S6	1640	1965	-	1795	2155	-
LSAM 52.3 S7	1925	2310	-	2110	2535	-
LSAM 52.3 L9	2085	2505	-	2305	2770	-
LSAM 52.3 L12	2210	2655	-	2445	2930	-

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Remarks:

- For generators => 100 kW to be surveyed by LR surveyors in the factory.
- Generators used for propulsion to be provided with embedded temperature measurement. Part 6 chapter 2 section 9.1.10.
- When for IP44 extra white filters are installed inside the machine on all ventilation openings and above mentioned power ratings are to be reduced by 10%.
- generators above 1500 kVA need to be provided with differential current transformers and avr with remote controlled voltage de-excite contact. Part 6 chapter 2 section 6.8.5.
- generators with forced lubrication to be provided with high bearing temperature alarm and second stage high temperature safe shutdown to prevent damage. Part 6 chapter 2 section 9.1.11.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

"LR TA "When Rules and Standards and specifications mentioned in this certificate are changed within the validity of this certificate, than this certificate becomes no longer valid."

The Design Appraisal Document No. nts17001002 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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