

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.

Manufacturer	MOTEURS LEROY SOMER
Address	Boulevard Marcellin Leroy, CS 10015, 16915, Angoulême Cedex 9, France
Place of Production	MOTEURS LEROY SOMER Nidec Moteurs Leroy-Somer OLO1 Holice Spol s.r.o., Sladkovskeho 43, Olomouc, 77900, Czech Republic
Place of Production	MOTEURS LEROY SOMER Nidec Moteurs Leroy-Somer OLO2 & 3 M.L.S. Holice Spol s.r.o., Prumyslova 5/740, Olomouc, 77900, Czech Republic
Place of Production	MOTEURS LEROY SOMER Moteurs Leroy Somer Sillac, Boulevard Marcellin Leroy, CS10015, Angoulême Cedex 9, 16915, France
Type	Alternators
Description	Types: See Appendix
Trade Name	Electric alternator, also brand labelled for FG Wilson under LL-series and Caterpillar under LC-series.
Application	Marine and industrial application

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Specified Standard	IEC60034, Rules and Regulations of ships 2017	
Ratings	Insulation class F:	7 till 2210 kVA for 380V/50 Hz, 8 till 2655 kVA for 450V/60Hz, 29 till 2255 kVA for 690V/60Hz
	Insulation class H:	7 till 2445 kVA for 380V/50Hz, 8 till 2930 kVA for 450V/60Hz, 32.5 till 2505 kVA for 690V/60Hz
Other Conditions	<ul style="list-style-type: none">• 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.	

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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.

Previous Version: 18/30009

The Design Appraisal Document PRJ111002620171 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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