



TYPE APPROVAL CERTIFICATE
No. ELE43519PU

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	FREQUENCY CONVERTERS
<i>Type</i>	LSLV-H100 Series
<i>Applicant</i>	LS ELECTRIC CO., LTD. - CHEON AN PLANT 56, Samseong 4-gil, Mokcheon-eup, Dongnam-gu, 31226 Cheonan-si (Chungcheongbuk-do) REPUBLIC OF KOREA
<i>Manufacturer</i>	LS ELECTRIC CO., LTD. - CHEON AN PLANT
<i>Place of manufacture</i>	56, Samseong 4-gil, Mokcheon-eup, Dongnam-gu, 31226 Cheonan-si (Chungcheongbuk-do) REPUBLIC OF KOREA
<i>Reference standards</i>	Rules for the Classification of Ships - Part C - Machinery, Systems and Fire Protection - Chapter 3, Section 6, Table 1

Issued in **BUSAN** *on* **December 23, 2019.** *This Certificate is valid until* **December 22, 2024**




RINA Services S.p.A.
Young-Kwang Kim

This certificate consists of this page and 1 enclosure

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LSLV-H100 Series

Product Description

+ The H-100 Series is a Converter for Fan and Pump Drive Control using Frequency

Main features

- + Control Method : V/F control, Slip Compensation
- + Frequency setting power : Digital command 0.01 Hz, Analogue command 0.06 Hz (60 Hz Standard)
- + Overload Capacity : 0.75~90kW : Rated Current : 120% 1 min. / 110~500kW : Rated Current : 110% 1min.
- + IP degree : IP20(0.75~185kW), IP00(220~500kW)
- + Storage temperature : -20 ~ 65 C Deg.
- + Output Frequency : 0~400 Hz
- + Input Frequency: 3ph : 50~60 Hz / 1ph : 60 Hz
- + Frequency Setting : Analogue type : -10~10V, 0~20mA, Digital type : key pad, pulse train input

Model	Applied Motor(kW)	Rated Capacity(kVA)	Rated Output Current(A) 3ph/1ph	Rated Input Current(A)	Output Voltage(V) 3ph
H100 0008-2	0.75	1.9	5/2.9	4.9	200~240
H100 0015-2	1.5	3.0	8/4.4	8.4	
H100 0022-2	2.2	4.5	12/6.4	12.9	
H100 0037-2	3.7	6.1	16/8.4	17.5	
H100 0055-2	5.5	8.4	22/11	23.7	
H100 0075-2	7.5	11.4	30/16	32.7	
H100 0110-2	11	16	42/23	46.4	
H100 0150-2	15	21.3	56/30	62.3	
H100 0185-2	18.5	26.3	69/37	77.2	
H100 0008-4	0.75	1.9	2.5/1.6	2.4	380~480
H100 0015-4	1.5	3	4/2.4	4.2	
H100 0022-4	2.2	4.5	6/3.5	6.5	
H100 0037-4	3.7	6.1	8/4.6	8.7	
H100 0055-4	5.5	9.1	12/6.8	12.2	
H100 0075-4	7.5	12.2	16/9.2	17.5	
H100 0110-4	11	18.3	24/14	26.5	
H100 0150-4	15	23	30/17	33.4	
H100 0185-4	18.5	29	38/22	42.5	
H100 0220-4	22	34.3	45/26	50.7	
H100 0300-4	30	46.5	61/36	69.1	
H100 0370-4	37	57.1	75/39	69.3	
H100 0450-4	45	69.4	91/47	84.6	
H100 0550-4	55	82	107/55	100.1	
H100 0750-4	75	108.2	142/73	133.6	
H100 0900-4	90	128.8	169/86	160	



H100 1100-4	110	170	223(3ph)	215.1	380~500
H100 1320-4	132	201	264(3ph)	254.6	
H100 1600-4	160	248	325(3ph)	315.3	380~500
H100 1850-4	185	282	370(3ph)	358.9	
H100 2200-4	220	329	432(3ph)	419.1	
H100 2500-4	250	367	481(3ph)	469.3	
H100 3150-4	315	467	613(3ph)	598.1	
H100 3550-4	355	520	683(3ph)	666.4	
H100 4000-4	400	587	770(3ph)	751.3	
H100 5000-4	500	733	962(3ph)	938.6	

* All convertors are to be installed inside enclosed panel

Reference Documents

- + Technical Document: LS ELECTRIC's system Specification for Frequency Converter(Inverter-H100 Series) Ver1.0 in March, 2019
- + Test report: DT&C's Environment Test Reports: Ref. No. DRCREL1911-0859 dated 29/11/2019, EMC Test Report Ref. No. DREETC1911-0222 dated 28/11/2019, DRCREL1911-0867 dated 29/11/2019, DREETC1911-0223 dated 28/11/2019
- + Visual Inspection & Performance Test: LS ELECTRIC's Performance Test Report Ref. No. 2019-MR001-093-0002 Ver.1.0 dated 28/11/2019 attended by RINA Surveyor.
- + Asbestos-Free Declaration (SOLAS II-1/reg.3-5) : LS ELECTRIC's official letter dated 15/05/2019

Note/Remark

- + The product is subject to the compliance with RINA Rules and Standards mentioned on the certificates
- + Type Approval certifies that a representative sample of the product has been found to meet the applicable design criteria
- + Any modification or change shall not be valid until approval is granted by RINA as a result of due assessment
- + Software Type Approval is not included in the scope of this certificate
- + Location : general power distribution zone except bridge and deck zone



BUSAN December 23, 2019

