SPECIAL SEISMIC CERTIFICATION COMPLIANCE REPORT – 17101CR1.0

MANUFACTURER

LS ELECTRIC CO., LTD.

LS Tower, 127, LS-ro, Dongan-gu, Anyang-si, Gyeonggi-Do, 14119, Republic of Korea

Contact: Namki Lee - +82-41-550-8585 - nlee@ls-electric.com

PRODUCTS

H100 VFD & SP100 VFD BYPASS

This certification covers a range of the above-referenced products. See Attachment 1 for a detailed listing of the certified products, including their mounting, construction, and limitations.

CERTIFICATION

This certification meets the requirements of the following codes (and their prior versions): 2021 International Building Code, 2022 California Building Code, and ASCE 7-16. See Attachments 1 & 2 for seismic enhancements.

This certification covers the following seismic parameters:
I_P=1.5; S_{DS}=2.00g for z/h=1 (rooftop); S_{DS}=2.50g for z/h=0 (at grade).

This certification is only valid for the following mounting: RIGID OR FLEXIBLE WALL MOUNTED.

The basis of this certification is shake table testing in accordance with ICC-ES AC156.

CERTIFICATION COMPANY

MANWILL ENGINEERING LLC

Certifying Engineer: Derek Manwill, SE

California License Number: S6266

Date Signed: 07/09/2023

MANWILL ENGINEERING

LS ELECTRIC

ATTACHMENT 1: CERTIFIED COMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 1

DOCUMENT NO.: 17101CR1.0

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
H100 VFD						
LSLV0008H100-2CENN	7.1	6.3	10.5	7.3	0.75kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0008H100-2CENN+FL	7.1	6.3	10.5	7.3	0.75kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0008H100-2CONN	7.1	6.3	9.1	7.3	0.75kW, 200Vac, Open	EXTRAP
LSLV0008H100-2CONN+FL	7.1	6.3	9.1	7.3	0.75kW, 200Vac, Open, Flange	EXTRAP
LSLV0008H100-4CEFN	7.1	6.3	10.5	7.3	0.75kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0008H100-4CEFN+FL	7.1	6.3	10.5	7.3	0.75kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0008H100-4COFN	7.1	6.3	9.1	7.3	0.75kW, 400Vac, Open	EXTRAP
LSLV0008H100-4COFN+FL	7.1	6.3	9.1	7.3	0.75kW, 400Vac, Open, Flange	EXTRAP
LSLV0015H100-2CENN	7.1	6.3	10.5	7.3	1.5kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0015H100-2CENN+FL	7.1	6.3	10.5	7.3	1.5kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0015H100-2CONN	7.1	6.3	9.1	7.3	1.5kW, 200Vac, Open	EXTRAP
LSLV0015H100-2CONN+FL	7.1	6.3	9.1	7.3	1.5kW, 200Vac, Open, Flange	EXTRAP
LSLV0015H100-4CEFN	7.1	6.3	10.5	7.3	1.5kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0015H100-4CEFN+FL	7.1	6.3	10.5	7.3	1.5kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0015H100-4COFN	7.1	6.3	9.1	7.3	1.5kW, 400Vac, Open	EXTRAP
LSLV0015H100-4COFN+FL	7.1	6.3	9.1	7.3	1.5kW, 400Vac, Open, Flange	EXTRAP
LSLV0022H100-2CENN	7.1	6.3	10.5	7.3	2.2kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0022H100-2CENN+FL	7.1	6.3	10.5	7.3	2.2kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0022H100-2CONN	7.1	6.3	9.1	7.3	2.2kW, 200Vac, Open	EXTRAP
LSLV0022H100-2CONN+FL	7.1	6.3	9.1	7.3	2.2kW, 200Vac, Open, Flange	EXTRAP
LSLV0022H100-4CEFN	7.1	6.3	10.5	7.3	2.2kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0022H100-4CEFN+FL	7.1	6.3	10.5	7.3	2.2kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0022H100-4COFN	7.1	6.3	9.1	7.3	2.2kW, 400Vac, Open	EXTRAP
LSLV0022H100-4COFN+FL	7.1	6.3	9.1	7.3	2.2kW, 400Vac, Open, Flange	EXTRAP
LSLV0037H100-2CENN	7.1	6.3	10.5	7.3	3.7kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0037H100-2CENN+FL	7.1	6.3	10.5	7.3	3.7kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0037H100-2CONN	7.1	6.3	9.1	7.3	3.7kW, 200Vac, Open	EXTRAP
LSLV0037H100-2CONN+FL	7.1	6.3	9.1	7.3	3.7kW, 200Vac, Open, Flange	EXTRAP
LSLV0037H100-4CEFN	7.1	6.3	10.5	7.3	3.7kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0037H100-4CEFN+FL	7.1	6.3	10.5	7.3	3.7kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0037H100-4COFN	7.1	6.3	9.1	7.3	3.7kW, 400Vac, Open	EXTRAP
LSLV0037H100-4COFN+FL	7.1	6.3	9.1	7.3	3.7kW, 400Vac, Open, Flange	EXTRAP
LSLV0055H100-2CENN	7.1	6.3	10.5	7.3	5.5kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0055H100-2CENN+FL	7.1	6.3	10.5	7.3	5.5kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0055H100-2CONN	7.1	6.3	9.1	7.3	5.5kW, 200Vac, Open	EXTRAP
LSLV0055H100-2CONN+FL	7.1	6.3	9.1	7.3	5.5kW, 200Vac, Open, Flange	EXTRAP
LSLV0055H100-4CEFN	7.1	6.3	10.5	7.3	5.5kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0055H100-4CEFN+FL	7.1	6.3	10.5	7.3	5.5kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0055H100-4COFN	7.1	6.3	9.1	7.3	5.5kW, 400Vac, Open	EXTRAP
LSLV0055H100-4COFN+FL	7.1	6.3	9.1	7.3	5.5kW, 400Vac, Open, Flange	EXTRAP
LSLV0075H100-2CENN	7.1	6.3	10.5	7.3	7.5kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0075H100-2CENN+FL	7.1	6.3	10.5	7.3	7.5kW, 200Vac, Type 1, Flange	EXTRAP

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
H100 VFD (continued)						
LSLV0075H100-2CONN	7.1	6.3	9.1	7.3	7.5kW, 200Vac, Open	EXTRAP
LSLV0075H100-2CONN+FL	7.1	6.3	9.1	7.3	7.5kW, 200Vac, Open, Flange	EXTRAP
LSLV0075H100-4CEFN	7.1	6.3	10.5	7.3	7.5kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0075H100-4CEFN+FL	7.1	6.3	10.5	7.3	7.5kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0075H100-4COFN	7.1	6.3	9.1	7.3	7.5kW, 400Vac, Open	EXTRAP
LSLV0075H100-4COFN+FL	7.1	6.3	9.1	7.3	7.5kW, 400Vac, Open, Flange	EXTRAP
LSLV0110H100-2CENN	7.1	6.3	10.5	7.5	11kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0110H100-2CENN+FL	7.1	6.3	10.5	7.5	11kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0110H100-2CONN	7.1	6.3	9.1	7.5	11kW, 200Vac, Open	EXTRAP
LSLV0110H100-2CONN+FL	7.1	6.3	9.1	7.5	11kW, 200Vac, Open, Flange	EXTRAP
LSLV0110H100-4CEFN	7.1	6.3	10.5	7.5	11kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0110H100-4CEFN+FL	7.1	6.3	10.5	7.5	11kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0110H100-4COFN	7.1	6.3	9.1	7.5	11kW, 400Vac, Open	EXTRAP
LSLV0110H100-4COFN+FL	7.1	6.3	9.1	7.5	11kW, 400Vac, Open, Flange	EXTRAP
LSLV0150H100-2CENN	8.1	7.1	12.8	10.1	15kW, 200Vac, Type 1 Conduit	EXTRAP
LSLV0150H100-2CENN+FL	8.1	7.1	12.8	10.1	15kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0150H100-2CONN	8.1	7.1	11.4	10.1	15kW, 200Vac, Open	EXTRAP
LSLV0150H100-2CONN+FL	8.1	7.1	11.4	10.1	15kW, 200Vac, Open, Flange	EXTRAP
LSLV0150H100-4CEFN	8.1	7.1	12.8	10.1	15kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0150H100-4CEFN+FL	8.1	7.1	12.8	10.1	15kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0150H100-4COFN	8.1	7.1	11.4	10.1	15kW, 400Vac, Open	EXTRAP
LSLV0150H100-4COFN+FL	8.1	7.1	11.4	10.1	15kW, 400Vac, Open, Flange	EXTRAP
LSLV0185H100-4CEFN	8.1	7.1	12.8	10.6	18.5kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0185H100-4CEFN+FL	8.1	7.1	12.8	10.6	18.5kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0185H100-4COFN	8.1	7.1	11.4	10.6	18.5kW, 400Vac, Open	EXTRAP
LSLV0185H100-4COFN+FL	8.1	7.1	11.4	10.6	18.5kW, 400Vac, Open, Flange	EXTRAP
LSLV0008H100-2CENN+DI	8.1	6.3	18.8	12.0	0.75kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0015H100-2CENN+DI	8.1	6.3	18.8	12.0	1.5kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0022H100-2CENN+DI	8.1	6.3	18.8	12.0	2.2kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0037H100-2CENN+DI	8.1	6.3	18.8	12.0	3.7kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0055H100-2CENN+DI	8.1	6.3	18.8	12.0	5.5kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0075H100-2CENN+DI	8.1	6.3	18.8	12.0	7.5kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0110H100-2CENN+DI	8.1	6.3	18.8	12.0	11kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0008H100-4CEFN+DI	9.2	6.3	22.3	13.0	0.75kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0015H100-4CEFN+DI	9.2	6.3	22.3	13.0	1.5kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0022H100-4CEFN+DI	9.2	6.3	22.3	13.0	2.2kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0037H100-4CEFN+DI	9.2	6.3	22.3	13.0	3.7kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0055H100-4CEFN+DI	9.2	6.3	22.3	13.0	5.5kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0075H100-4CEFN+DI	9.2	6.3	22.3	13.0	7.5kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0110H100-4CEFN+DI	9.2	6.3	22.3	13.0	11kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0150H100-2CENN+DI	9.2	7.1	23.0	15.0	15kW, 200Vac, Type 1 Disconnect	EXTRAP
LSLV0185H100-2CENN	8.8	8.7	15.1	15.7	18.5kW, 200Vac, Type 1 Conduit	EXTRAP

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
H100 VFD (continued)						
LSLV0185H100-2CENN+FL	8.8	8.7	15.1	15.7	18.5kW, 200Vac, Type 1, Flange	EXTRAP
LSLV0185H100-2CONN	8.8	8.7	13.8	15.7	18.5kW, 200Vac, Open	EXTRAP
LSLV0185H100-2CONN+FL	8.8	8.7	13.8	15.7	18.5kW, 200Vac, Open, Flange	EXTRAP
LSLV0185H100-4CEFN+DI	9.2	7.1	24.6	16.0	18.5kW, 400Vac, Type 1 Disconnect	EXTRAP
LSLV0220H100-4COFN	8.8	8.7	13.8	16.5	22kW, 400Vac, Open	EXTRAP
LSLV0220H100-4COFN+FL	8.8	8.7	13.8	16.5	22kW, 400Vac, Open, Flange	EXTRAP
LSLV0300H100-4COFN	8.8	8.7	13.8	16.5	30kW, 400Vac, Open	EXTRAP
LSLV0300H100-4COFN+FL	8.8	8.7	13.8	16.5	30kW, 400Vac, Open, Flange	EXTRAP
LSLV0220H100-4CEFN	8.8	8.7	15.1	17.0	22kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0220H100-4CEFN+FL	8.8	8.7	15.1	17.0	22kW, 400Vac, Type 1, Flange	EXTRAP
LSLV0300H100-4CEFN	8.8	8.7	15.1	17.0	30kW, 400Vac, Type 1 Conduit	EXTRAP
LSLV0300H100-4CEFN+FL	8.8	8.7	15.1	21.0	30kW, 400Vac, Type 1, Flange	**UUT 5**
LSLV0220H100-4CEFN+DI	9.2	8.7	28.3	22.0	22kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0300H100-4CEFN+DI	9.2	8.7	28.3	22.0	30kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0150H100-4CEFN+DI	9.2	7.1	24.6	24.0	15kW, 400Vac, Type 1 Disconnect	**UUT 2**
LSLV0185H100-2CENN+DI	9.2	8.7	23.0	30.0	18.5kW, 200Vac, Type 1 Disconnect	**UUT 3**
LSLV0370H100-4COFD+FL	11.2	10.8	17.7	57.3	37kW, 400Vac, Open, Flange	INTERP
LSLV0370H100-4COND+FL	11.2	10.8	17.7	57.3	37kW, 400Vac, Open, Flange	INTERP
LSLV0370H100-4COFD	11.2	10.8	17.7	57.3	37kW, 400Vac, Open	INTERP
LSLV0370H100-4COND	11.2	10.8	17.7	57.3	37kW, 400Vac, Open	INTERP
LSLV0370H100-4CEFD	11.2	10.8	20.5	60.0	37kW, 400Vac, Type 1 Conduit	**UUT 6**
LSLV0370H100-4CEND	11.2	10.8	20.5	63.0	37kW, 400Vac, Type 1 Conduit	INTERP
LSLV0370H100-4CEFD+DI	11.2	10.8	32.7	70.0	37kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0370H100-4CEND+DI	11.2	10.8	32.7	70.0	37kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0450H100-4COFD	11.2	12.1	20.1	75.0	45kW, 400Vac, Open	**UUT 7**
LSLV0450H100-4CEFD	11.2	12.1	23.6	85.0	45kW, 400Vac, Type 1 Conduit	INTERP
LSLV0450H100-4CEND	11.2	12.1	23.6	85.0	45kW, 400Vac, Type 1 Conduit	INTERP
LSLV0550H100-4CEFD	11.2	12.1	23.6	85.0	55kW, 400Vac, Type 1 Conduit	INTERP
LSLV0550H100-4CEND	11.2	12.1	23.6	85.0	55kW, 400Vac, Type 1 Conduit	INTERP
LSLV0750H100-4COND+FL	12.8	12.1	21.7	92.0	75kW, 400Vac, Open, Flange	**UUT 9**
LSLV0450H100-4COFD+FL	11.2	12.1	20.1	94.8	45kW, 400Vac, Open, Flange	INTERP
LSLV0450H100-4COND	11.2	12.1	20.1	94.8	45kW, 400Vac, Open	INTERP
LSLV0450H100-4COND+FL	11.2	12.1	20.1	94.8	45kW, 400Vac, Open, Flange	INTERP
LSLV0550H100-4COFD	11.2	12.1	20.1	94.8	55kW, 400Vac, Open	INTERP
LSLV0550H100-4COFD+FL	11.2	12.1	20.1	94.8	55kW, 400Vac, Open, Flange	INTERP
LSLV0550H100-4COND	11.2	12.1	20.1	94.8	55kW, 400Vac, Open	INTERP
LSLV0550H100-4COND+FL	11.2	12.1	20.1	94.8	55kW, 400Vac, Open, Flange	INTERP
LSLV0750H100-4COND	12.8	12.1	21.7	94.8	75kW, 400Vac, Open	INTERP
LSLV0900H100-4COND	12.8	12.1	21.7	94.8	90kW, 400Vac, Open	INTERP
LSLV0900H100-4COND+FL	12.8	12.1	21.7	94.8	90kW, 400Vac, Open, Flange	INTERP
LSLV0450H100-4CEFD+DI	11.2	12.1	35.9	95.0	45kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0450H100-4CEND+DI	11.2	12.1	35.9	95.0	45kW, 400Vac, Type 1 Disconnect	INTERP

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
H100 VFD (continued)						
LSLV0550H100-4CEFD+DI	11.2	12.1	35.9	95.0	55kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0550H100-4CEND+DI	11.2	12.1	35.9	95.0	55kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0750H100-4CEND	12.8	12.1	27.0	104.0	75kW, 400Vac, Type 1 Conduit	INTERP
LSLV0900H100-4CEND	12.8	12.1	27.0	104.0	90kW, 400Vac, Type 1 Conduit	**UUT 10**
LSLV0750H100-4CEND+DI	12.2	12.1	38.6	120.0	75kW, 400Vac, Type 1 Disconnect	INTERP
LSLV0900H100-4CEND+DI	12.2	12.1	38.6	121.0	90kW, 400Vac, Type 1 Disconnect	**UUT 11**
SP100 VFD Bypass						
LSLV0075SP100-2CEND3	7.1	6.2	29.5	34.0	7.5kW, 200Vac	**UUT 1**
LSLV0055SP100-2CEND3	7.1	6.2	29.5	38.0	5.5kW, 200Vac	INTERP
LSLV0055SP100-4CEFD3	7.1	6.2	29.5	38.0	5.5kW, 400Vac	INTERP
LSLV0075SP100-4CEFD3	7.1	6.2	29.5	38.0	7.5kW, 400Vac	INTERP
LSLV0110SP100-4CEFD3	7.1	6.2	29.5	38.0	11kW, 400Vac	INTERP
LSLV0110SP100-2CEND3	8.9	7.8	39.3	78.0	11kW, 200Vac	INTERP
LSLV0150SP100-2CEND3	8.9	7.8	39.3	78.0	15kW, 200Vac	INTERP
LSLV0150SP100-4CEFD3	8.9	7.8	39.3	78.0	15kW, 400Vac	INTERP
LSLV0185SP100-4CEFD3	8.9	7.8	39.3	78.0	18.5kWp, 400Vac	INTERP
LSLV0185SP100-2CEND3	10.0	9.4	44.6	93.0	18.5kWp, 200Vac	INTERP
LSLV0220SP100-4CEFD3	10.0	9.4	44.6	93.0	22kW, 400Vac	INTERP
LSLV0300SP100-4CEFD3	10.0	9.4	44.6	107.0	30kW, 400Vac	**UUT 4**
LSLV0370SP100-4CEND3	12.0	12.9	57.5	159.0	37kW, 400Vac	INTERP
LSLV0450SP100-4CEND3	12.0	12.9	57.5	182.0	45kW, 400Vac	INTERP
LSLV0550SP100-4CEND3	12.0	12.9	57.5	182.0	55kW, 400Vac	**UUT 8**

MOUNTING: Rigid mounted to rigid or vibration isolation mounted wall.	**SEISMIC LEVELS:**	S_{DS} = 2.0g for z/h = 1 S_{DS} = 2.5g for z/h = 0	I_P = 1.5

NOTES:

Product Construction: IP20/UL Open or UL Type 1 enclosure (Type 1 is achieved with conduit, disconnect, or bypass).

Options/Subcomponents: Voltage: 208/230V (nominal 200V) or 460V (nominal 400V). Available subcomponents are listed in Table 2.

Nomenclature: See Attachment 3 for nomenclature description.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MANUFACTURER AND MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
LS Electric - Disconnect Modules						
64160028	6.2	9.8	9.7	7.3	0.75kW-2, HFR1-H100	EXTRAP
64160029	6.2	9.8	9.7	7.3	1.5kW-2, HFR2-H100	EXTRAP
64160030	6.2	9.8	9.7	7.3	2.2kW-2, HFR3-H100	EXTRAP
64160031	6.2	9.8	9.7	7.3	3.7kW-2, HFR4-H100	EXTRAP
64160032	6.2	9.8	9.7	7.3	5.5kW-2, HFR5-H100	EXTRAP
64160033	6.2	9.8	9.7	7.3	7.5kW-2, HFR6-H100	EXTRAP
64160034	6.2	9.8	9.7	8.8	11kW-2, HFR7-H100	EXTRAP
64160037	6.2	11.4	13.2	12.4	0.75kW-4, HFRA-H100	EXTRAP
64160038	6.2	11.4	13.2	12.4	1.5kW-4, HFRB-H100	EXTRAP
64160039	6.2	11.4	13.2	12.4	2.2kW-4, HFRC-H100	EXTRAP
64160040	6.2	11.4	13.2	12.4	3.7kW-4, HFRD-H100	EXTRAP
64160041	6.2	11.4	13.2	12.4	5.5kW-4, HFRE-H100	EXTRAP
64160042	6.2	11.4	13.2	12.4	7.5kW-4, HFRF-H100	EXTRAP
64160043	6.2	11.4	13.2	12.4	11kW-4, HFRG-H100	EXTRAP
64160044	6.2	11.4	13.2	13.0	15kW-4, HFRH-H100	**UUT 2**
64160045	6.2	11.4	13.2	13.0	18.5kW-4, HFRl-H100	INTERP
64160035	7.0	9.8	11.6	13.5	15kW-2, HFR8-H100	INTERP
64160036	8.5	10.9	12.3	15.0	18.5kW-2, HFR9-H100	**UUT 3**
64160046	8.5	11.4	14.5	15.0	22kW-4, HFRJ-H100	INTERP
64160047	8.5	11.4	14.5	15.0	30kW-4, HFRK-H100	INTERP
64160048	10.7	13.4	15.0	20.9	37kW-4, HFRL-H100	INTERP
64160049	12.6	13.4	15.8	23.6	45kW-4, HFRM-H100	INTERP
64160050	12.6	13.4	15.8	23.6	55kW-4, HFRN-H100	INTERP
64160051	12.6	14.4	16.9	26.9	75kW-4, HFRO-H100	INTERP
64160052	12.6	14.4	16.9	26.9	90kW-4, HFRP-H100	**UUT 11**
LS Electric - Capacitor PCB						
10120003822	3.5	5.8		<1	LSLV-S100,055-4	EXTRAP
10120003824	3.5	5.8		<1	LSLV-S100,075-4	EXTRAP
10120003821	3.5	5.8		1.1	LSLV-S100,055-2	**UUT 1**
10120003823	3.5	5.8		1.1	LSLV-S100,075-2	INTERP
10120003825	3.5	5.8		1.1	LSLV-S100,110-2	INTERP
10120003826	3.5	5.8		1.5	LSLV-S100,110-4	**UUT 2**
10120003827	3.9	6.6		1.8	LSLV-S100,150-2	**UUT 3**
10120003828	3.9	6.6		2.1	LSLV-S100,150-4	INTERP
10120003830	3.9	6.6		2.1	LSLV-S100,185-4	INTERP
10120003831	4.7	7.9		3.0	LSLV-S100,220-4	**UUT 4,5**
Metasol - Contactor						
13370032	3.5	2.7	3.3	1.2	MC-40a AC24V 60Hz SCREW	**UUT 1**
13390032	4.7	3.1	4.2	2.3	MC-65a AC24V 60Hz SCREW	INTERP
13620002	5.1	4.7	6.2	5.3	MC-130a AC24V 50/60Hz SCREW	**UUT 4**
13640002	5.1	4.7	6.2	5.3	MC-150a AC24V 50/60Hz SCREW	**UUT 8**

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MANUFACTURER AND MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Kosed - DC Reactors						
22910000872	2.8	2.6	2.3	2.5	26.3A, 0.81mH, 055SP100-2	EXTRAP
22910000873	2.8	2.6	2.3	2.5	13.2A, 3.7mH, 055SP100-4	EXTRAP
22910000875	3.1	3.0	2.6	3.6	16.9A, 3.2mH, 075SP100-4	EXTRAP
22910000876	3.1	3.0	2.6	3.6	52A, 0.6mH, 110SP100-2	EXTRAP
22910000874	3.1	3.0	2.6	3.9	34.9A, 0.79mH, 075SP100-2	**UUT 1**
22910000877	3.1	3.0	2.6	4.1	27.6A, 2.4mH, 110SP100-4	INTERP
22910000882	3.0	5.3	2.6	5.6	32A, 1.4mH , 150SP100-4	INTERP
22910000881	3.0	5.3	2.6	6.1	64A, 0.44mH, 150SP100-2	INTERP
22910000883	3.0	5.3	2.6	6.2	40.7A, 1.15mH, 185SP100-4	INTERP
22910000888	3.0	5.3	2.6	6.3	49A, 1mH, 220SP100-4	INTERP
22910000887	3.0	5.3	2.6	6.7	83.8A, 0.35mH, 185SP100-2	INTERP
22910000889	3.0	6.7	2.6	9.2	62.2A, 0.6mH, 300SP100-4	**UUT 4**
22910000751	3.8	5.1	3.3	9.6	LSLV0300S100-4,92A,0.51mH	**UUT 6**
22910000752	3.8	6.3	3.3	16.0	LSLV0370S100-4,115A,0.42mH	**UUT 7**
22910000753	3.8	6.3	3.3	16.0	LSLV0450S100-4,135A,0.35mH	**UUT 8**
22910000754	3.8	6.3	3.7	18.0	LSLV0550S100-4,185A,0.26mH	**UUT 9**
22910000755	3.8	7.5	3.7	23.0	LSLV0750S100-4,218A,0.22mH	**UUT 10,11**
Huawei - Main Capacitor						
08810002699	5.1	3.0	3.1	4.1	400V,6800UF	**UUT 7**
08810002700	5.1	3.0	3.1	4.1	400V,5600UF	**UUT 6**
08810002701	5.1	3.0	3.1	4.1	400V,8200UF	**UUT 8**
08810002699	5.1	3.0	3.1	8.3	400V,6800UF	**UUT 10,11**
08810002700	5.1	3.0	3.1	8.3	400V,5600UF	**UUT 9**
LS Electric - Manual Motor Starter						
7051044	3.9	1.8	3.9	<1	MMS-32H 8A	EXTRAP
7051046	3.9	1.8	3.9	<1	MMS-32H 13A	EXTRAP
7051047	3.9	1.8	3.9	<1	MMS-32H 17A	EXTRAP
7051048	3.9	1.8	3.9	<1	MMS-32H 22A	EXTRAP
7051050	3.9	1.8	3.9	<1	MMS-32H 32A	EXTRAP
7051051	3.9	1.8	3.9	<1	MMS-32H 40A	**UUT 1**
7061018	5.5	2.2	5.7	2.2	MMS-63H 50A	INTERP
7071018	6.5	2.8	6.7	4.9	MMS-32H 75A	INTERP
7070019	6.5	2.8	6.7	4.9	MMS-100H 90A	**UUT 3**
LS Electric - Circuit Breakers						
02070354UL	6.5	4.1	4.4	3.7	UTS150L MCP 40A 3P UL	**UUT 2**
02070355UL	6.5	4.1	4.4	3.7	UTS150L MCP 50A 3P UL	INTERP
02070356UL	6.5	4.1	4.4	3.7	UTS150L MCP 60A 3P UL	INTERP
02070358UL	6.5	4.1	4.4	3.7	UTS150L MCP 80A 3P UL	INTERP
02070368UL	6.5	4.1	4.4	3.7	UTS150L MCP 100A 3P UL	**UUT 4**
02070369UL	6.5	4.1	4.4	3.7	UTS150L MCP 150A 3P UL	**UUT 8**
02070459UL	6.5	4.1	4.4	3.7	UTS150L MCP 125A 3P UL	INTERP
02090226UL	6.5	4.1	4.4	3.7	UTS150L MCP 175A 3P UL	INTERP

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

TABLE 2 - SUBCOMPONENTS (continued)

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MANUFACTURER AND MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
LS Electric - Circuit Breakers (continued)						
02090228UL	6.5	4.1	4.4	3.7	UTS150L MCP 225A 3P UL	**UUT 11**
Wabash - Transformers						
73016296006	3.1	3.8	2.2	4.2	Power trans, CL100K05-000-VXC	**UUT 1,4,8**
LS Electric - EMC Filter						
9710000540	3.7	8.2		1.6	LSLV0300S100-4,42UH	**UUT 6**
9710000541	3.9	8.4		2.2	LSLV0370/0450S100-4,34UH	**UUT 7**
LS Electric - Power PCB						
10120004346	5.9	4.9		<1	LSLV-S100,0300-4	**UUT 6**
10120004553	8.3	6.1		1.7	LSLV-H100,0055-2	INTERP
10120004554	8.3	6.1		1.7	LSLV-H100,0075-2	**UUT 1**
10120004555	8.3	6.1		1.7	LSLV-H100,0110-2	INTERP
10120004556	10.6	6.9		1.7	LSLV-H100,0150-2	INTERP
10120004558	8.3	6.1		1.7	LSLV-H100,0055-4	INTERP
10120004559	8.3	6.1		1.7	LSLV-H100,0075-4	INTERP
10120004560	8.3	6.1		1.7	LSLV-H100,0110-4	INTERP
10120004561	10.6	6.9		2.1	LSLV-H100,0150-4	**UUT 2**
10120004562	10.6	6.9		2.1	LSLV-H100,0185-4	INTERP
10120004557	12.7	8.4		2.4	LSLV-H100,0185-2	**UUT 3**
10120004563	12.7	8.4		2.5	LSLV-H100,0220-4	INTERP
10120004564	12.7	8.4		2.5	LSLV-H100,0300-4	**UUT 4,5**
LS Electric - OL Detectors						
38060132	2.6	2.8	3.0	<1	GMP60-T 6A 220V 1c[N]	**UUT 4,8**
38060133	2.6	2.8	3.0	<1	GMP60-T 30A 220V 1c[N]	INTERP
38060134	2.6	2.8	3.0	<1	GMP60-T 60A 220V 1c[N]	**UUT 1**
Honeywell - Thermal Overload Devices						
6110000126	2.9	1.4	2.6	<1	GCB PART,GCP-32ANM5A	**UUT 1,4,8**
Osada - Terminal Blocks						
10060001237	2.0	4.9	1.4	<1	OK-060-6P,6P	**UUT 1,4**
10060002056	2.4	7.4	1.6	<1	OK-0100S-6P,6P	**UUT 8**
LS Electric - Auxiliary Contact						
83361634001	0.5	2.8	2.7	<1	UA-1,1A1B	**UUT 1,4,8**
LS Electric - Interlock Unit						
83411634001	0.5	3.3	3.2	<1	UR-02,MC-6aR~150aR	**UUT 1,4,8**
Infineon - PIM/IGBT						
08910000855	1.8	4.2	0.8	<1	PIM,FP35R12KT4,1200V,35A,B	EXTRAP
08910000856	1.8	4.2	0.8	<1	PIM,FP50R12KT4,1200V,50A,B	**UUT 2**
08910000858	2.4	4.8	0.8	<1	PIM,FP100R12KT4,1200V,100A,B	**UUT 4,5**
Fuji - PIM/IGBT						
8910000851	1.8	4.2	0.8	<1	PIM,7MBR75VP060-50,600V	**UUT 1**
8910000852	1.8	4.2	0.8	<1	PIM,7MBR100VP060-50,600V	INTERP
8910000853	2.4	4.8	0.8	<1	PIM,7MBR150VR060-50,600V	**UUT 3**
8910001102	2.4	4.8	0.7	<1	IGBT,6MBI150VB-120-50-M,1200V	**UUT 6**

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MANUFACTURER AND MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Fuji - PIM/IGBT (continued)						
8910001101	2.4	5.9	0.7	<1	IGBT,2MBI225VN-120-50-M,1200V	**UUT 8,9**
8910001100	2.4	5.9	0.7	<1	IGBT,2MBI300VN-120-50-M,1200V	**UUT 10,11**
LS Electric - Main Power Assembly						
10120004553	8.3	6.1		<1	LSLV0008~0055H100-2	EXTRAP
10120004554	8.3	6.1		<1	LSLV0075H100-2	**UUT 1**
10120004555	8.3	6.1		<1	LSLV0110H100-2	INTERP
10120004556	10.6	6.9		<1	LSLV0150H100-2	INTERP
10120004557	12.7	8.4		<1	LSLV0185H100-2	**UUT 3**
10120004558	8.3	6.1		<1	LSLV0008~0055H100-4	INTERP
10120004559	8.3	6.1		<1	LSLV0075H100-4	INTERP
10120004560	8.3	6.1		<1	LSLV0110H100-4	INTERP
10120004561	10.6	6.9		<1	LSLV0150H100-4	**UUT 2**
10120004562	10.6	6.9		<1	LSLV0185H100-4	INTERP
10120004563	12.7	8.4		<1	LSLV0220H100-4	INTERP
10120004564	12.7	8.4		<1	LSLV0300H100-4	**UUT 4,5**
LS Electric - Control PCB						
10120004581	3.1	2.3		<1	LSLV-H100,0370~0900-4	**UUT 6-11**
LS Electric - Main PCB						
10120004566	7.5	5.4		<1	LSLV-H100,0370-4	**UUT 6**
10120004567	5.8	5.4		<1	LSLV-H100,0450-4	**UUT 7**
10120004568	5.8	5.4		<1	LSLV-H100,0550-4	**UUT 8**
10120004569	6.1	5.8		<1	LSLV-H100,0750-4	**UUT 9**
10120004580	6.1	5.8		<1	LSLV-H100,0900-4	**UUT 10,11**
LS Electric - Gate Drive						
10120006332	2.4	3.9		<1	LSLV-H100,0450~0750-4	**UUT 7-9**
10120006333	2.4	3.9		<1	LSLV-H100,0900-4	**UUT 10,11**
LS Electric - Input PCB						
10120003803	1.9	6.0		<1	LSLV-S100,055/075-2	**UUT 1**
10120003804	2.0	6.8		<1	LSLV-S100,110-2	INTERP
10120003805	3.0	8.2		<1	LSLV-S100,150-2	**UUT 3**
10120003806	3.3	4.5		<1	LSLV-S100,055/075-4	INTERP
10120003807	3.9	5.6		<1	LSLV-S100,110/150-4	**UUT 2**
10120003808	4.1	6.2		<1	LSLV-S100,185/220-4	**UUT 4,5**
LS Electric - CT PCB						
10120004349	1.9	5.4	1.1	<1	LSLV-S100,0370-4	**UUT 7**
10120004361	1.9	5.4	1.1	<1	LSLV-S100,0450-4	**UUT 8**
LS Electric - Snubber PCB						
10120004347	1.7	2.1	1.2	<1	LSLV-S100,0300~0450-4	**UUT 6-8**
10120004353	1.3	4.2	1.2	<1	LSLV-S100,0550/0750-4	**UUT 9-11**
LS Electric - Fan SMPS						
10120004352	2.4	6.3		<1	-S100,0550/0750-4	**UUT 9-11**

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MANUFACTURER AND MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Sanrex - Diode Module						
08960001321	1.0	3.7	1.2	<1	DD100KB160,1600V,100A,B	**UUT 9-11**
08960001322	2.0	4.3	0.7	<1	DF150AC160,1600V,150A,B	**UUT 6,7**
08960001323	2.0	4.3	0.7	<1	DF200AC160,1600V,200A,B	**UUT 8**
LS Electric - I/O CPU						
10120004549	4.0	4.5		<1	SV-H100,5.5~30kW	**UUT 1-5**
10120004550	4.7	5.1		<1	SV-H100,37~90kW	**UUT 6-11**
LS Electric - I/O TB						
10120004551	1.9	3.9		<1	SV-H100,5.5~90kW	**UUT 1-11**
LS Electric - Cover Power						
64626294114	3.5	6.3	2.0	<1	055/075/110H100-2/4	**UUT 1**
64626294117	5.3	7.0	2.0	<1	150H100-2/4, 185H100-4	**UUT 2**
64626294120	7.3	8.6	2.0	<1	185H100-2, 220/300H100-4	**UUT 3-5**
64626294123	7.6	10.7	1.5	<1	370H100-4,VF7929012	**UUT 6**
64626294126	9.4	12.7	1.5	<1	450/550H100-4,VF7929015	**UUT 7,8**
64626294129	10.8	12.8	1.5	<1	750/900H100-4,VF7929018	**UUT 9-11**
LS Electric - Terminal Block						
62776224001	1.6	10.6	2.4	1.7	LSLV0300S100-4	**UUT 6**
62776224002	2.2	12.4	1.6	2.1	LSLV0370/0450S100-4	**UUT 8**
62776224004	2.2	12.4	1.6	2.1	LSLV0370/0450S100-4	**UUT 7**
62776224003	3.1	12.4	1.7	2.5	LSLV0550S100-4	**UUT 9**
62776224005	3.1	12.4	1.7	2.5	LSLV0750S100-4	**UUT 10,11**
DCC - Fan						
7760000244	2.4	2.4	1.0	<1	F6025X24B0-AH-PC,DC24V	**UUT 1**
Nidec - Fans						
7760000172	3.6	3.6	1.5	<1	V35131-51LS,DC24V,92SQ*38MM	**UUT 3-8**
7760000299	2.8	2.8	1.0	<1	D08A-24TS2 15(K),DC24V	**UUT 2**
NMB - Fan						
7760000272	4.7	4.7	1.5	<1	12038VA-24P-EL-01,DC24V	**UUT 9-11**
Shizuki - Snubber Capacitor						
8810002338	1.8	1.9	1.5	<1	UB12X185JM5XSA,DC1200V	**UUT 6-11**
LS Electric - Capacitor Bank						
50826224001	6.1	8.9	5.1	6.2	LSLV0300S100-4,VF8073049	**UUT 6**
50826224002	6.1	10.9	5.2	6.3	LSLV0370S100-4,VF8073050	**UUT 7**
50826224004	6.1	10.9	5.2	6.4	LSLV0450S100-4,VF8073087	**UUT 8**
50826224003	6.1	10.9	7.8	11.4	LSLV0550S100-4,VF8073051	**UUT 9**
50826224005	6.1	10.9	7.8	12.2	LSLV0750S100-4,VF8073088	**UUT 10,11**
LS Electric - Busbar						
70226225012	3.3	4.6	3.3	<1	IGBT,LSLV0300S100-4	**UUT 6**
70226224037	1.5	12.1	2.9	<1	P1P2,LSLV0300S100-4,	**UUT 6**
70226224038	2.7	11.0	8.8	<1	LSLV0370/0450S100-4	**UUT 7,8**
70226224039	1.6	13.6	4.1	<1	P1P2,LSLV0370/0450S100-4	**UUT 7,8**
70226224036	3.5	9.3	3.4	<1	RST,LSLV0300S100-4	INTERP

NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.

MANUFACTURER: LS ELECTRIC CO., LTD.

PRODUCT FAMILY: H100 VFD & SP100 VFD BYPASS

MANUFACTURER AND MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
LS Electric - Busbar (continued)						
70226224035	2.3	5.4	7.9	1.0	LSLV0300S100-4	**UUT 6**
70226224040	3.9	11.8	15.3	2.0	LSLV0550/0750S100-4	**UUT 9-11**
LS Electric - Busbar Diode						
70216225048	1.4	0.5	2.3	<1	LSLV0300~0450S100-4	**UUT 6,7**
LS Electric - LED Bar						
63466295001	0.9	0.5	0.2	<1	055~900H100,VF7925601	**UUT 1-11**
LS Electric - Noise Filter Circuit Assembly						
77026236100	23.0	12.0	6.0	<1	Z-TRAP/N-FILTER 400V	**UUT 6-11**
LS Electric - LCD Keypad						
11040002604	2.6	4.1		<1		**UUT 1-11**
MOUNTING: Mounted within unit.				**SEISMIC LEVELS:**	S_{DS} = 2.0g for z/h = 1 S_{DS} = 2.5g for z/h = 0	I_P = 1.5

NOTES: Construction/Options: Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.

TEST UNITS

UUT	MODEL NUMBER	DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)			TEST RUNS
		DEPTH	WIDTH	HEIGHT		F-B	S-S	V	
UUT 1	LSLV0075SP100-2CEND3	7.1	6.2	29.5	34	N/A	N/A	N/A	1 & 2
UUT 2	LSLV0150H100-4CEFN+DI	9.2	7.1	24.6	24	N/A	N/A	N/A	1 & 2
UUT 3	LSLV0185H100-2CENN+DI	9.2	8.7	23.0	30	N/A	N/A	N/A	1 & 2
UUT 4	LSLV0300SP100-4CEFD3	10.0	9.4	44.6	107	N/A	N/A	N/A	1 & 2
UUT 5	LSLV0300H100-4CEFN+FL	8.8	8.7	15.1	21	N/A	N/A	N/A	1 & 2
UUT 6	LSLV0370H100-4CEFD	11.2	10.8	20.5	60	N/A	N/A	N/A	1 & 2
UUT 7	LSLV0450H100-4COFD	11.2	12.1	20.1	75	N/A	N/A	N/A	1 & 2
UUT 8	LSLV0550SP100-4CEND3	12.0	12.9	57.5	182	N/A	N/A	N/A	1 & 2
UUT 9	LSLV0750H100-4COND+FL	12.8	12.1	21.7	92	N/A	N/A	N/A	1 & 2
UUT 10	LSLV0900H100-4CEND	12.8	12.1	27.0	104	N/A	N/A	N/A	1 & 2
UUT 11	LSLV0900H100-4CEND+DI	12.2	12.1	38.6	121	N/A	N/A	N/A	1 & 2

TEST RUNS

RUN DESCRIPTION: RUN 1 - RIGID
TESTED UNITS: UUT 1 - UUT 11 (listed with 'a' in summaries)
CODE & CRITERIA: 2022 CBC, ICC-ES AC156
TEST LABORATORY: ENVIRONMENTAL TESTING LABORATORY
REPORT: 17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

MOUNTING & NOTES:
Test fixture was rigid mounted to the table. All UUTs were rigid wall mounted to the fixture (see individual UUT Summaries for details).

RUN DESCRIPTION: RUN 2 - ISOLATED
TESTED UNITS: UUT 1 - UUT 11 (listed with 'b' in summaries)
CODE & CRITERIA: 2022 CBC, ICC-ES AC156
TEST LABORATORY: ENVIRONMENTAL TESTING LABORATORY
REPORT: 17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

MOUNTING & NOTES:
Test fixture was mounted to table using (4) Mason SSLFHC spring isolators. All UUTs were rigid wall mounted to the fixture (see individual UUT Summaries for details).

UUT 1a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0075SP100-2CEND3
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
7.1	6.2	29.5	34	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) #10 wood screws. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	LS Electric - H100 Open VFD (LSLV0075H100-2CONN), LS Electric - capacitor PCB (10120003821), Metasol - contactor (13370032), Kosed - DC reactors (22910000874), LS Electric - manual motor starter (7051051), Wabash - transformer (73016296006), LS Electric - power PCB (10120004554), LS Electric - OL detector (38060134), Honeywell - thermal overload device (6110000126), Osada - terminal block (10060001237), LS Electric - auxiliary contact (83361634001), LS Electric - interlock unit (83411634001), Fuji - PIM/IGBT (8910000851), LS Electric - main power assembly (10120004554), LS Electric - input PCB (10120003803), LS Electric - I/O CPU (10120004549), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294114), DCC - fan (7760000244), LS Electric - LED bar (63466295001), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 1b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0075SP100-2CEND3
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
7.1	6.2	29.5	34	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) #10 wood screws. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 1a. Only fixture mounting varies.

UUT 2a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0150H100-4CEFN+DI
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
9.2	7.1	24.6	24	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (6) #10 wood screws. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	LS Electric - disconnect modules (64160044), LS Electric - capacitor PCB (10120003826), LS Electric - circuit breaker (02070354UL), LS Electric - power PCB (10120004561), Infineon - PIM/IGBT (08910000856), LS Electric - main power assembly (10120004561), LS Electric - input PCB (10120003807), LS Electric - I/O CPU (10120004549), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294117), Nidec - fan (7760000299), LS Electric - LED bar (63466295001), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 2b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0150H100-4CEFN+DI
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

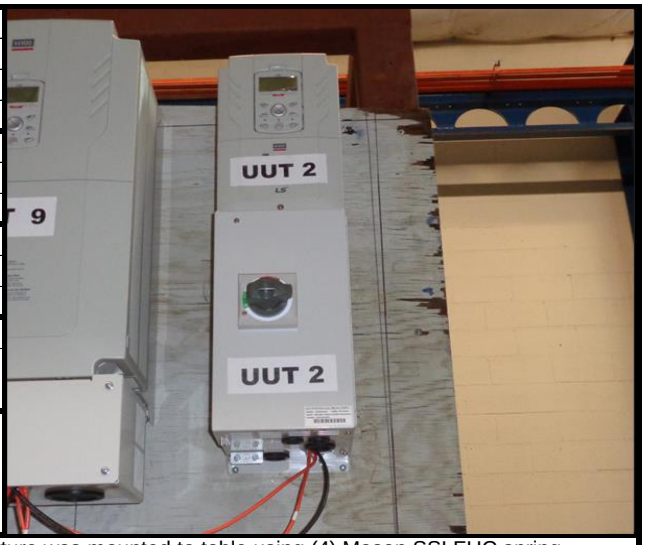
DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
9.2	7.1	24.6	24	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.



MOUNTING:	Wall mounted using (6) #10 wood screws. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 2a. Only fixture mounting varies.

UUT 3a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0185H100-2CENN+DI
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
9.2	8.7	23.0	30	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (6) #10 wood screws. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	LS Electric - disconnect modules (64160036), LS Electric - capacitor PCB (10120003827), LS Electric - manual motor starter (7070019), LS Electric - power PCB (10120004557), Fuji - PIM/IGBT (8910000853), LS Electric - main power assembly (10120004557), LS Electric - input PCB (10120003805), LS Electric - I/O CPU (10120004549), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294120), Nidec - fan (7760000172), LS Electric - LED bar (63466295001), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 3b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0185H100-2CENN+DI
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
9.2	8.7	23.0	30	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (6) #10 wood screws. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 3a. Only fixture mounting varies.

UUT 4a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0300SP100-4CEFD3
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
10.0	9.4	44.6	107	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) #10 wood screws. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	LS Electric - H100 Open VFD (LSLV0300H100-4COFN), LS Electric - capacitor PCB (10120003831), Metasol - contactor (13620002), Kosed - DC reactors (22910000889), LS Electric - circuit breaker (02070368UL), Wabash - transformer (73016296006), LS Electric - power PCB (10120004564), LS Electric - OL detector (38060132), Honeywell - thermal overload device (6110000126), Osada - terminal block (10060001237), LS Electric - auxiliary contact (83361634001), LS Electric - interlock unit (83411634001), Infineon - PIM/IGBT (08910000858), LS Electric - main power assembly (10120004564), LS Electric - input PCB (10120003808), LS Electric - I/O CPU (10120004549), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294120), Nidec - fan (7760000172), LS Electric - LED bar (63466295001), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 4b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0300SP100-4CEFD3
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
10.0	9.4	44.6	107	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) #10 wood screws. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 4a. Only fixture mounting varies.

UUT 5a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0300H100-4CEFN+FL
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

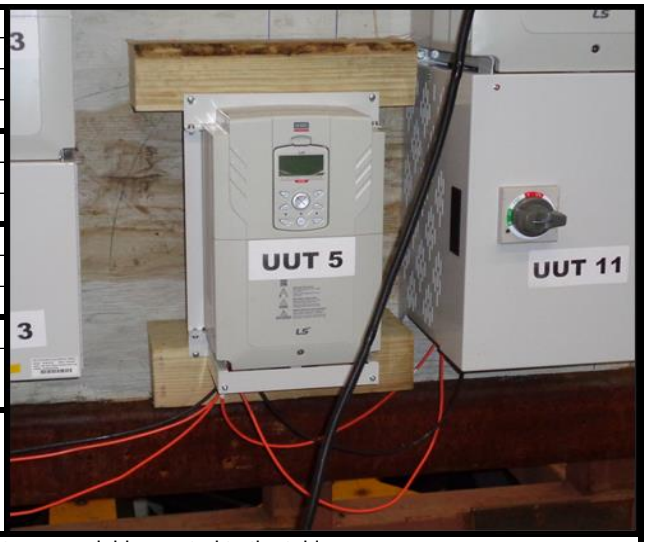
DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
8.8	8.7	15.1	21	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.



MOUNTING:	Wall mounted using (4) #10 wood screws. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	LS Electric - capacitor PCB (10120003831), LS Electric - power PCB (10120004564), Infineon - PIM/IGBT (08910000858), LS Electric - main power assembly (11040002616), LS Electric - input PCB (10120003808), LS Electric - I/O CPU (10120004549), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294120), Nidec - fan (7760000172), LS Electric - LED bar (63466295001), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 5b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0300H100-4CEFN+FL
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

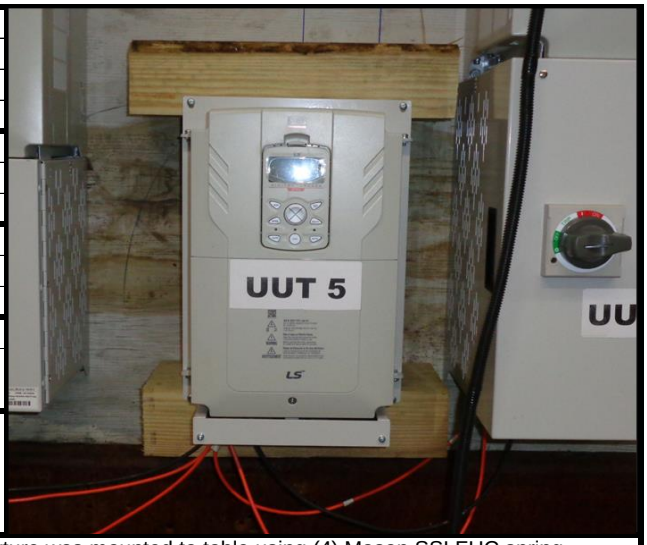
DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
8.8	8.7	15.1	21	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.



MOUNTING:	Wall mounted using (4) #10 wood screws. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 5a. Only fixture mounting varies.

UUT 6a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0370H100-4CEFD
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
11.2	10.8	20.5	60	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 1/4-in lag bolts. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	Kosed - DC reactors (22910000751), Huawei - main capacitor (08810002700), LS Electric - EMC filter (9710000540), LS Electric - power PCB (10120004346), Fuji - PIM/IGBT (8910001102), LS Electric - control PCB (10120004581), LS Electric - main PCB (10120004566), LS Electric - snubber PCB (10120004347), Sanrex - diode module (08960001322), LS Electric - I/O CPU (10120004550), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294123), LS Electric - terminal block (62776224001), Nidec - fan (7760000172), Shizuki - snubber capacitor (8810002338), LS Electric - capacitor bank (50826224001), LS Electric - busbar (70226224035, 70226224037, 70226225012), LS Electric - busbar diode (70216225048), LS Electric - LED bar (63466295001), LS Electric - noise filter circuit assembly (77026236100), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 6b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0370H100-4CEFD
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
11.2	10.8	20.5	60	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 1/4-in lag bolts. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 6a. Only fixture mounting varies.

UUT 7a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0450H100-4COFD
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
11.2	12.1	20.1	75	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 1/4-in lag bolts. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	Kosed - DC reactors (22910000752), Huawei - main capacitor (08810002699), LS Electric - EMC filter (9710000541), LS Electric - control PCB (10120004581), LS Electric - main PCB (10120004567), LS Electric - gate drive (10120006332), LS Electric - CT PCB (10120004349), LS Electric - snubber PCB (10120004347), Sanrex - diode module (08960001322), LS Electric - I/O CPU (10120004550), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294126), LS Electric - terminal block (62776224004), Nidec - fan (7760000172), Shizuki - snubber capacitor (8810002338), LS Electric - capacitor bank (50826224002), LS Electric - busbar (70226224038, 70226224039), LS Electric - busbar diode (70216225048), LS Electric - LED bar (63466295001), LS Electric - noise filter circuit assembly (77026236100), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 7b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0450H100-4COFD
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
11.2	12.1	20.1	75	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 1/4-in lag bolts. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 7a. Only fixture mounting varies.

UUT 8a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0550SP100-4CEND3
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.0	12.9	57.5	182	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 5/16-in lag bolts. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	LS Electric - H100 Open VFD (LSLV0550H100-4COND), Metasol - contactor (13640002), Kosed - DC reactors (22910000753), Huawei - main capacitor (08810002701), LS Electric - circuit breaker (02070369UL), Wabash - transformer (73016296006), LS Electric - OL detector (38060132), Honeywell - thermal overload device (6110000126), Osada - terminal block (10060002056), LS Electric - auxiliary contact (83361634001), LS Electric - interlock unit (83411634001), Fuji - PIM/IGBT (8910001101), LS Electric - control PCB (10120004581), LS Electric - main PCB (10120004568), LS Electric - gate drive (10120006332), LS Electric - CT PCB (10120004361), LS Electric - snubber PCB (10120004347), Sanrex - diode module (08960001323), LS Electric - I/O CPU (10120004550), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294126), LS Electric - terminal block (62776224002), Nidec - fan (7760000172), Shizuki - snubber capacitor (8810002338), LS Electric - capacitor bank (50826224004), LS Electric - busbar (70226224038, 70226224039), LS Electric - LED bar (63466295001), LS Electric - noise filter circuit assembly (77026236100), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 8b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0550SP100-4CEND3
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.0	12.9	57.5	182	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 5/16-in lag bolts. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 8a. Only fixture mounting varies.

UUT 9a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0750H100-4COND+FL
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.8	12.1	21.7	92	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 5/16-in lag bolts. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	Kosed - DC reactors (22910000754), Huawei - main capacitor (08810002700), Fuji - PIM/IGBT (8910001101), LS Electric - control PCB (10120004581), LS Electric - main PCB (10120004569), LS Electric - gate drive (10120006332), LS Electric - snubber PCB (10120004353), LS Electric - fan SMPS (10120004352), Sanrex - diode module (08960001321), LS Electric - I/O CPU (10120004550), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294129), LS Electric - terminal block (62776224003), NMB - fan (7760000272), Shizuki - snubber capacitor (8810002338), LS Electric - capacitor bank (50826224003), LS Electric - busbar (70226224040), LS Electric - LED bar (63466295001), LS Electric - noise filter circuit assembly (77026236100), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 9b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0750H100-4COND+FL
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.8	12.1	21.7	92	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 5/16-in lag bolts. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 9a. Only fixture mounting varies.

UUT 10a - RIGID

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0900H100-4CEND
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

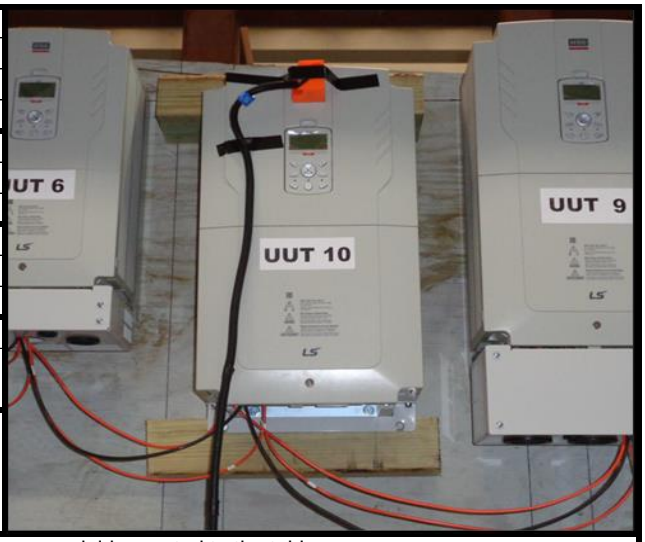
DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.8	12.1	27.0	104	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.



MOUNTING:	Wall mounted using (4) 5/16-in lag bolts. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	Kosed - DC reactors (22910000755), Huawei - main capacitor (08810002699), Fuji - PIM/IGBT (8910001100), LS Electric - control PCB (10120004581), LS Electric - main PCB (10120004580), LS Electric - gate drive (10120006333), LS Electric - snubber PCB (10120004353), LS Electric - fan SMPS (10120004352), Sanrex - diode module (08960001321), LS Electric - I/O CPU (10120004550), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294129), LS Electric - terminal block (62776224005), NMB - fan (7760000272), Shizuki - snubber capacitor (8810002338), LS Electric - capacitor bank (50826224005), LS Electric - busbar (70226224040), LS Electric - LED bar (63466295001), LS Electric - noise filter circuit assembly (77026236100), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 10b - ISOLATED

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0900H100-4CEND
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.8	12.1	27.0	104	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (4) 5/16-in lag bolts. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 10a. Only fixture mounting varies.

UUT 11a - RIGID

DOCUMENT NO.: 17101CR1.0

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0900H100-4CEND+DI
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.2	12.1	38.6	121	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (6) 5/16-in lag bolts. Test fixture was rigid mounted to the table.
CONSTRUCTION:	Carbon steel and plastic construction.
SUBCOMPONENTS:	LS Electric - disconnect modules (64160052), Kosed - DC reactors (22910000755), Huawei - main capacitor (08810002699), LS Electric - circuit breaker (02090228UL), Fuji - PIM/IGBT (8910001100), LS Electric - control PCB (10120004581), LS Electric - main PCB (10120004580), LS Electric - gate drive (10120006333), LS Electric - snubber PCB (10120004353), LS Electric - fan SMPS (10120004352), Sanrex - diode module (08960001321), LS Electric - I/O CPU (10120004550), LS Electric - I/O TB (10120004551), LS Electric - cover power (64626294129), LS Electric - terminal block (62776224005), NMB - fan (7760000272), Shizuki - snubber capacitor (8810002338), LS Electric - capacitor bank (50826224005), LS Electric - busbar (70226224040), LS Electric - LED bar (63466295001), LS Electric - noise filter circuit assembly (77026236100), LS Electric - LCD keypad (11040002604)
TESTING NOTES:	N/A

UUT 11b - ISOLATED

DOCUMENT NO.: 17101CR1.0

MANUFACTURER:	LS ELECTRIC CO., LTD.
MODEL NUMBER:	LSLV0900H100-4CEND+DI
UNIT FUNCTION:	VARIABLE FREQUENCY DRIVE
SERIAL NUMBER:	N/A

DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
12.2	12.1	38.6	121	N/A	N/A	N/A

CODE & CRITERIA:	2022 CBC, ICC-ES AC156
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
REPORT:	17101TR1.0, Rev. 0 (dated 06/23/23), tested on 12/11/2019

S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)
2.0	1	3.20	2.40	1.68	0.68
2.5	0				

IMPORTANCE FACTOR, I_P = 1.5

Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.

MOUNTING:	Wall mounted using (6) 5/16-in lag bolts. Test fixture was mounted to table using (4) Mason SSLFHC spring isolators.
TESTING NOTES:	UUT is the same physical unit as the rigid mounted UUT 11a. Only fixture mounting varies.

MANWILL ENGINEERING

LS ELECTRIC

ATTACHMENT 3: MODEL NOMENCLATURE

SPECIAL SEISMIC CERTIFICATION

H100 VFD

DOCUMENT NO.: 17101CR1.0

DIGIT:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	-	-	-	-	-	-	-	-
SAMPLE:	L	S	L	V	0	9	0	0	H	1	0	0	-	4	C	E	N	D	+	D	I	-	-	-	-	-	-	-	-

DIGIT	DIGIT DESCRIPTION	CODES	DEFINITIONS
1-4	Product Type Prefix	LSLV	
5-8	Power Rating	0008	0.75kW (1hp)
		0015	1.5kW (2hp)
		0022	2.2kW (3hp)
		0037	3.7kW (5hp)
		0055	5.5kW (7.5hp)
		0075	7.5kW (10hp)
		0110	11kW (15hp)
		0150	15kW (20hp)
		0185	18.5kW (25hp)
		0220	22kW (30hp)
		0300	30kW (40hp)
		0370	37kW (50hp)
		0450	45kW (60hp)
		0550	55kW (75hp)
		0750	75kW (100hp)
		0900	90kW (125hp)
9-13	Series Name	H100-	
14	Input Voltage	2	200Vac (nominal), 3-Phase, 60Hz
		4	400Vac (nominal), 3-Phase, 60Hz
15	LCD Keypad	C	
16	UL Type	O	UL Open
		E	UL Type 1 (conduit option unless '+DI' is present at end)
17	EMC Filter	F	Built-in EMC Filter (only available for 460Vac up to 55kW)
		N	No EMC filter (only option for 200Vac, 400Vac 37kW - 90kW)
18	Reactor Type	D	Built-in dc Reactor (only available for 400Vac, 37kW - 90kW)
		N	Non dc Reactor
19-21	Additional Options	[blank]	No additional options if blank
		+DI	Disconnect module
		+FL	Flange mount

DIGIT:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	-	-	-	-	-	-	-	-	-
SAMPLE:	L	S	L	V	0	5	5	0	S	P	1	0	0	-	4	C	E	N	D	3	-	-	-	-	-	-	-	-	-

DIGIT	DIGIT DESCRIPTION	CODES	DEFINITIONS
1-4	Product Type Prefix	LSLV	
5-8	Power Rating	0055	5.5kW (7.5hp)
		0075	7.5kW (10hp)
		0110	11kW (15hp)
		0150	15kW (20hp)
		0185	18.5kW (25hp)
		0220	22kW (30hp)
		0300	30kW (40hp)
		0370	37kW (50hp)
		0450	45kW (60hp)
		0550	55kW (75hp)
9-14	Series Name	SP100-	
15	Input Voltage	2	200Vac (nominal), 3-Phase, 60Hz
		4	400Vac (nominal), 3-Phase, 60Hz
16	LCD Keypad	C	
17	Enclosure	E	UL Type 1
18	EMC Filter	F	Built-in EMC Filter (only available for 400Vac up to 30kW)
		N	No EMC filter
19	Reactor Type	D	DC Link Reactor
20	Communication Options	3	3 Contactor Type