

LSIS USA VFD Bulletin

Fuse, Circuit Breaker, and MMS Sizing for C100, S100, H100, and iS7

Purpose

This document is a supplement to the user manual, where the manuals do not provide detail in the fuse, CB, and manual motor starter (MMS) sizing. This document shows the exact fuses, circuit breakers, and MMS to use on LSIS VFDs. Equivalent fuses and circuit breakers manufactures can be used. LS has obtained the UL Type E ratings with the MMS units listed for each drive (other manufactures cannot be used). The fuses used must be fast acting; Class J and Class T are shown in the table. The VFDs covered in this document are the C100, S100, H100 and iS7.

C100

Table 1. C100 Fuse, CB, and MMS Sizes

Model Number	HP	HD Amps	ND Amps	UL Amp Rating	Bussmann Class J	Bussmann Class T	Circuit Breaker LSIS MCCB	LSIS MMS
1 Ph 200-240V								
LSLV0001C100-1xx	1/8	0.8	-	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-2.5
LSLV0002C100-1xx	1/4	1.4	-	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-4
LSLV0004C100-1xx	1/2	2.5	-	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-6
LSLV0008C100-1xx	1	5.0	-	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-13
LSLV0015C100-1xx	2	8.0	-	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-17
LSLV0022C100-1xx	3	11.0	-	20	JKS-20	JJN-20	UTE100x-xxx-20	MMS-32H-32
3 Ph 200-240V								
LSLV0004C100-2xx	1/2	2.5	3.1	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-4
LSLV0008C100-2xx	1	5.0	6.3	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-10
LSLV0015C100-2xx	2	8.0	10	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-17
LSLV0022C100-2xx	3	11.0	12	20	JKS-20	JJN-20	UTE100x-xxx-20	MMS-32H-26
LSLV0037C100-2xx	5	16.0	18	25	JKS-25	JJN-20	UTE100x-xxx-25	MMS-32H-32
LSLV0055C100-2xx	7.5	24.0	30	40	JKS-40	JJN-40	UTE100x-xxx-40	MMS-63H-50
LSLV0075C100-2xx	10	32.0	40	50	JKS-50	JJN-50	UTE100x-xxx-50	MMS-63H-50
3 Ph 380-480V								
LSLV0004C100-4xx	1/2	1.3	2	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-2.5
LSLV0008C100-4xx	1	2.5	3.1	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-6
LSLV0015C100-4xx	2	4.0	5.1	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-10
LSLV0022C100-4xx	3	5.5	6.9	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-13
LSLV0037C100-4xx	5	8.0	10	20	JKS-20	JJN-20	UTE100x-xxx-20	MMS-63H-17
LSLV0055C100-4xx	7.5	12.0	16	25	JKS-25	JJN-25	UTE100x-xxx-25	MMS-63H-26
LSLV0075C100-4xx	10	16.0	23	35	JKS-35	JJN-35	UTE100x-xxx-40	MMS-63H-32

Note: Equivalent fuses can be used.

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S100

Table 2. S100 Fuse, CB and MMS Sizes

Model Number	HP	HD Amps	ND Amps	UL Amp Rating	Bussmann Class J	Bussmann Class T	Circuit Breaker LSIS MCCB	LSIS MMS
1 Ph 200-240V								
LSLV0004S100-1xxxxx	1/2	2.5	3.1	15	JKS-10	JJN-10	UTE100x-xxx-15	MMS-32H-8
LSLV0008S100-1xxxxx	1	5	6	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-17
LSLV0015S100-1xxxxx	2	8	10	15	JKS-30	JJN-30	UTE100x-xxx-15	MMS-32H-32
LSLV0022S100-1xxxxx	3	11	12	20	JKS-30	JJN-30	UTE100x-xxx-20	MMS-32H-40
3 Ph 200-240V								
LSLV0004S100-2xxxxx	1/2	2.5	3.1	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-4
LSLV0008S100-2xxxxx	1	5	6	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-10
LSLV0015S100-2xxxxx	2	8	10	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-17
LSLV0022S100-2xxxxx	3	11	12	20	JKS-20	JJN-20	UTE100x-xxx-20	MMS-32H-26
LSLV0037S100-2xxxxx	5	16	18	25	JKS-25	JJN-25	UTE100x-xxx-25	MMS-32H-32
LSLV0055S100-2xxxxx	7.5	24	30	40	JKS-40	JJN-40	UTE100x-xxx-40	MMS-63H-50
LSLV0075S100-2xxxxx	10	32	40	60	JKS-60	JJS-60	UTE100x-xxx-60	MMS-63H-63
LSLV0110S100-2xxxxx	15	46	56	80	JKS-80	JJS-80	UTE100x-xxx-80	MMS-63H-75
LSLV0150S100-2xxxxx	20	60	69	100	JKS-100	JJS-100	UTE100x-xxx-100	MMS-100H-100
3 Ph 380-480V								
LSLV0004S100-4xxxxx	1/2	1.3	2.0	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-2.5
LSLV0008S100-4xxxxx	1	2.5	3.1	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-6
LSLV0015S100-4xxxxx	2	4	5.1	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-10
LSLV0022S100-4xxxxx	3	5.5	6.9	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-13
LSLV0037S100-4xxxxx	5	8	10.0	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-63H-17
LSLV0055S100-4xxxxx	7.5	12	16	25	JKS-25	JJN-25	UTE100x-xxx-25	MMS-63H-26
LSLV0075S100-4xxxxx	10	16	23	30	JKS-30	JJN-30	UTE100x-xxx-30	MMS-63H-32
LSLV0110S100-4xxxxx	15	24	30	40	JKS-40	JJN-40	UTE100x-xxx-40	MMS-63H-50
LSLV0150S100-4xxxxx	20	30	38	50	JKS-50	JJS-50	UTE100x-xxx-50	MMS-100H-63
LSLV0185S100-4xxxxx	25	39	44	60	JKS-60	JJS-60	UTE100x-xxx-60	MMS-100H-63
LSLV0220S100-4xxxxx	30	45	58	80	JKS-80	JJS-80	UTE100x-xxx-80	MMS-100H-100
LSLV0300S100-4xxxxx	40	61	75	100	JKS-100	JJS-100	UTE100x-xxx-100	MMS-100H-100
LSLV0370S100-4xxxxx	50	75	91	125	JKS-125	JJS-125	UTS150x-xxx-125	-
LSLV0450S100-4xxxxx	60	91	107	150	JKS-150	JJS-150	UTS150x-xxx-150	-
LSLV0550S100-4xxxxx	75	110	142	200	JKS-200	JJS-200	UTS250x-xxx-200	-
LSLV0750S100-4xxxxx	100	152	169	250	JKS-250	JJS-250	UTS250x-xxx-250	-

Note: Equivalent fuses can be used.

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H100

Table 3. Fuse, CB and MMS Sizes

Model Number	HP	ND Amps	UL Amp Rating	Bussmann Class J	Bussmann Class T	Circuit Breaker LSIS MCCB	LSIS MMS
3 Ph 200-240V							
LSLV0008H100-2xxxx	1	5	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-6
LSLV0015H100-2xxxx	2	8	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-10
LSLV0022H100-2xxxx	3	12	20	JKS-20	JJN-20	UTE100x-xxx-20	MMS-32H-17
LSLV0037H100-2xxxx	5	16	25	JKS-25	JJN-25	UTE100x-xxx-25	MMS-32H-26
LSLV0055H100-2xxxx	7.5	22	30	JKS-30	JJN-30	UTE100x-xxx-30	MMS-32H-32
LSLV0075H100-2xxxx	10	30	40	JKS-40	JJN-40	UTE100x-xxx-40	MMS-63H-40
LSLV0110H100-2xxxx	15	42	60	JKS-60	JJS-60	UTE100x-xxx-60	MMS-100H-63
LSLV0150H100-2xxxx	20	56	80	JKS-80	JJS-80	UTE100x-xxx-80	MMS-100H-75
LSLV0185H100-2xxxx	25	69	100	JKS-100	JJS-100	UTE100x-xxx-100	MMS-100H-90
3 Ph 380-480V							
LSLV0008H100-4xxxx	1	2.5	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-4
LSLV0015H100-4xxxx	2	4	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-6
LSLV0022H100-4xxxx	3	6	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-10
LSLV0037H100-4xxxx	5	8	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-13
LSLV0055H100-4xxxx	7.5	12	20	JKS-20	JJN-20	UTE100x-xxx-20	MMS-63H-17
LSLV0075H100-4xxxx	10	16	25	JKS-25	JJN-25	UTE100x-xxx-25	MMS-63H-22
LSLV0110H100-4xxxx	15	24	35	JKS-35	JJN-35	UTE100x-xxx-40	MMS-63H-32
LSLV0150H100-4xxxx	20	30	40	JKS-40	JJN-40	UTE100x-xxx-40	MMS-63H-40
LSLV0185H100-4xxxx	25	38	50	JKS-50	JJS-50	UTE100x-xxx-50	MMS-100H-63
LSLV0220H100-4xxxx	30	45	60	JKS-60	JJS-60	UTE100x-xxx-60	MMS-100H-63
LSLV0300H100-4xxxx	40	61	80	JKS-80	JJS-80	UTE100x-xxx-80	MMS-100H-90
LSLV0370H100-4xxxx	50	75	100	JKS-100	JJS-100	UTS150x-xxx-100	MMS-100H-90
LSLV0450H100-4xxxx	60	91	125	JKS-125	JJS-125	UTS150x-xxx-125	-
LSLV0550H100-4xxxx	75	107	150	JKS-150	JJS-150	UTS150x-xxx-150	-
LSLV0750H100-4xxxx	100	142	200	JKS-200	JJS-200	UTS250x-xxx-200	-
LSLV0900H100-4xxxx	120	169	225	JKS-225	JJS-225	UTS250x-xxx-225	-

Note: Equivalent fuses can be used.

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iS7

Table 4. iS7 Fuse, CB and MMS Sizes (200-240V)

Model Number	HP	HD Amps	ND Amps	Fuse Size	Bussmann Class J	Bussmann Class T	Circuit Breaker LSIS MCCB	MMS
3 Ph 200-240V								
SV0008IS7-2xxxx	1	5	8	15	JKS-15	JJN-15	UTE100x-xxx-15	MMS-32H-10
SV0015IS7-2xxxx	2	8	12	20	JKS-20	JJN-20	UTE100x-xxx-20	MMS-32H-17
SV0022IS7-2xxxx	3	12	16	25	JKS-25	JJN-25	UTE100x-xxx-25	MMS-32H-26
SV0037IS7-2xxxx	5	16	24	35	JKS-35	JJN-35	UTE100x-xxx-40	MMS-32H-32
SV0055IS7-2xxxx	7.5	24	32	45	JKS-45	JJN-45	UTE100x-xxx-50	MMS-32H-40
SV0075IS7-2xxxx	10	32	46	70	JKS-70	JJN-70	UTE100x-xxx-70	MMS-63H-50
SV0110IS7-2xxxx	15	46	60	80	JKS-80	JJN-80	UTE100x-xxx-80	MMS-100H-75
SV0150IS7-2xxxx	20	60	74	100	JKS-100	JJN-100	UTE100x-xxx-100	MMS-100H-100
SV0185IS7-2xxxx	25	74	88	125	JKS-125	JJN-125	UTS150x-xxx-125	-
SV0220IS7-2xxxx	30	88	124	175	JKS-175	JJN-175	UTS250x-xxx-175	-
SV0300IS7-2xxxx	40	116	146	200	JKS-200	JJN-200	UTS250x-xxx-200	-
SV0370IS7-2xxxx	50	146	180	250	JKS-250	JJN-250	UTS250x-xxx-250	-
SV0450IS7-2xxxx	60	180	220	350	JKS-350	JJN-350	UTS400x-xxx-350	-
SV0550IS7-2xxxx	75	220	288	400	JKS-400	JJN-400	UTS400x-xxx-400	-
SV0750IS7-2xxxx	100	288	345	450	JKS-450	JJN-450	UTS600x-xxx-450	-

Note: Equivalent fuses can be used.

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Fuse, Circuit Breaker, and MMS Sizing for C100, S100, H100, and iS7

Table 5. iS7 Fuse, CB and MMS Sizes (380-480V)

Model Number	HP	HD Amps	ND Amps	Fuse Size	Bussmann Class J	Bussmann Class T	Circuit Breaker LSIS MCCB	LSIS MMS
3 Ph 380-480V								
SV0008IS7-4xxxx	1	2.5	4	15	JKS-15	JJS-15	UTE100x-xxx-15	MMS-32H-6
SV0015IS7-4xxxx	2	4	6	15	JKS-15	JJS-15	UTE100x-xxx-15	MMS-32H-10
SV0022IS7-4xxxx	3	6	8	15	JKS-15	JJS-15	UTE100x-xxx-15	MMS-32H-13
SV0037IS7-4xxxx	5	8	12	15	JKS-15	JJS-15	UTE100x-xxx-15	MMS-63H-17
SV0055IS7-4xxxx	7.5	12	16	25	JKS-25	JJS-25	UTE100x-xxx-25	MMS-63H-26
SV0075IS7-4xxxx	10	16	24	40	JKS-40	JJS-40	UTE100x-xxx-40	MMS-63H-32
SV0110IS7-4xxxx	15	24	30	40	JKS-40	JJS-40	UTE100x-xxx-40	MMS-63H-50
SV0150IS7-4xxxx	20	30	39	50	JKS-50	JJS-50	UTE100x-xxx-50	MMS-63H-50
SV0185IS7-4xxxx	25	39	45	60	JKS-60	JJS-60	UTE100x-xxx-60	MMS-100H-63
SV0220IS7-4xxxx	30	45	61	80	JKS-80	JJS-80	UTE100x-xxx-80	MMS-100H-75
SV0300IS7-4xxxx	40	61	75	100	JKS-100	JJS-100	UTS150x-xxx-150	MMS-100H-100
SV0370IS7-4xxxx	50	75	91	125	JKS-125	JJS-125	UTS150x-xxx-125	-
SV0450IS7-4xxxx	60	91	110	150	JKS-150	JJS-150	UTS150x-xxx-150	-
SV0550IS7-4xxxx	75	110	152	200	JKS-200	JJS-200	UTS250x-xxx-200	-
SV0750IS7-4xxxx	100	152	183	250	JKS-250	JJS-250	UTS250x-xxx-250	-
SV0900IS7-4xxxx	125	183	223	350	JKS-350	JJS-350	UTS400x-xxx-350	-
SV1100IS7-4xxxx	150	223	264	400	JKS-400	JJS-400	UTS400x-xxx-400	-
SV1320IS7-4xxxx	200	264	325	450	JKS-450	JJS-450	UTS600x-xxx-500	-
SV1600IS7-4xxxx	250	325	370	500	JKS-500	JJS-500	UTS600x-xxx-500	-
SV1850IS7-4xxxx	300	370	432	600	JKS-800	JJS-800	UTS600x-xxx-600	-
SV2200IS7-4xxxx	350	432	547	800	JKS-800	JJS-800	UTS800x-xxx-800	-
SV2800IS7-4xxxx	400	547	613	800	JKS-1000	*	UTS800x-xxx-800	-
SV3150IS7-4xxxx	500	613	731	1000	JKS-1200	*	UTS1200x-xxx-1200	-
SV3750IS7-4xxxx	600	731	877	1200	JKS-1200	*	UTS1200x-xxx-1200	-

Note: Equivalent fuses can be used.