

Title	Efficiency and Heat Loss	Model	C100, S100, iS7, iP5A, H100
Classification	General Information	Document No.	LSIS-VFD-TI-2018-03

1. Test Condition

- Operation at 60Hz and room temperature
- 100% load (M-G Set load, Corresponding motor to drive)
- Carrier Frequency (Default value)

2. Simulation

- The power consumption of the drive itself considered
- SMPS power loss not included in heat loss

* One unit of each frame is actually tested. The data of the other ratings within the same frame are simulated values as same hardware designs are shared in the same frame.

◆ C100

Voltage	Series	Model Number	Rated Power (kW)	HD Rated output Current (A)	ND Rated output Current (A)	Frame size	Efficiency (%)	Total Losses (W)	Internal Losses (W)	External (Heat) Losses (W)	Heat Losses in (Kcal)
240	C100	LSLV0001C100-1	0.1	0.8	-	A	93.46	7	6.3	0.2	0.2
240	C100	LSLV0002C100-1	0.2	1.4	-	A	94.46	11	6.3	4.8	4.1
240	C100	LSLV0004C100-1	0.4	2.5	-	A	95.46	18	12.6	5.5	4.8
240	C100	LSLV0008C100-1	0.75	5	-	B	96.07	29	12.6	16.8	14.5
240	C100	LSLV0015C100-1	1.5	8	-	B	96.17	57	16.8	40.6	34.9
240	C100	LSLV0022C100-1	2.2	11	-	C	96.28	82	16.8	65.0	55.9
240	C100	LSLV0001C100-2	0.1	0.8	1.1	A	94.82	5	3.8	1.4	1.2
240	C100	LSLV0002C100-2	0.2	1.4	1.8	A	95.82	8	3.8	4.6	3.9
240	C100	LSLV0004C100-2	0.4	2.5	3.1	A	96.82	13	7.6	5.1	4.4
240	C100	LSLV0008C100-2	0.75	5	6	A	96.92	23	7.6	15.5	13.3
240	C100	LSLV0015C100-2	1.5	8	10	B	96.86	47	16.8	30.3	26.0
240	C100	LSLV0022C100-2	2.2	11	12	B	96.96	67	16.8	50.0	43.0
240	C100	LSLV0037C100-2	3.7	16	18	C	97.64	87	19.0	68.4	58.8
240	C100	LSLV0055C100-2	5.5	24	30	D	97.33	147	38.7	108.2	93.0
240	C100	LSLV0075C100-2	7.5	32	40	D	97.30	203	38.7	163.8	140.9
480	C100	LSLV0004C100-4	0.4	1.25	2	A	96.69	13	12.6	0.6	0.5
480	C100	LSLV0008C100-4	0.75	2.5	3.1	A	96.79	24	12.6	11.4	9.8
480	C100	LSLV0015C100-4	1.5	4	5.1	B	98.47	23	16.8	6.1	5.2
480	C100	LSLV0022C100-4	2.2	5.5	6.9	B	98.57	31	16.8	14.6	12.6
480	C100	LSLV0037C100-4	3.7	8	10	C	97.90	78	21.1	56.6	48.7
480	C100	LSLV0055C100-4	5.5	12	16	D	97.28	150	43.0	106.6	91.7
480	C100	LSLV0075C100-4	7.5	16	23	D	97.68	174	43.0	131.0	112.7

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◆ **S100**

Voltage	Series	Model Number	Rated Power (kW)	HD Rated output Current (A)	ND Rated output Current (A)	Frame size	Efficiency (%)	Total Losses (W)	Internal Losses (W)	External (Heat) Losses (W)	Heat Losses in (Kcal)
240	S100	LSLV0004S100-1	0.4	2.5	3.1	A-2	96.50	14	13	1	1
240	S100	LSLV0008S100-1	0.8	5	6	B-1	96.60	27	13	15	13
240	S100	LSLV0015S100-1	1.5	8	9.6	B-2	96.80	48	13	35	30
240	S100	LSLV0022S100-1	2.2	11	12	C	96.90	68	13	56	48
240	S100	LSLV0004S100-2	0.4	2.5	3.1	A-1	97.30	11	13	-2	-2
240	S100	LSLV0008S100-2	0.8	5	6	A-2	96.70	26	13	14	12
240	S100	LSLV0015S100-2	1.5	8	9.6	B-1	96.90	46	17	30	26
240	S100	LSLV0022S100-2	2.2	11	12	B-2	97.00	66	17	49	42
240	S100	LSLV0037S100-2	3.7	16	18	C	97.20	104	19	85	73
240	S100	LSLV0040S100-2	4.0	17	18.0	C	97.30	108	19	89	77
240	S100	LSLV0055S100-2	5.5	24	30	D	97.50	138	39	99	85
240	S100	LSLV0075S100-2	7.5	32	40	D	97.50	188	39	149	128
240	S100	LSLV0110S100-2	11	46	56	E	97.80	242	39	203	175
240	S100	LSLV0150S100-2	15	60	69	F	98.00	300	39	261	225
480	S100	LSLV0004S100-4	0.4	1.25	1.56	A-1	96.70	13	13	1	1
480	S100	LSLV0008S100-4	0.8	2.5	3.1	A-2	96.70	26	13	14	12
480	S100	LSLV0015S100-4	1.5	4	5	B-1	96.90	46	17	30	26
480	S100	LSLV0022S100-4	2.2	5.5	6.9	B-2	97.00	66	17	49	42
480	S100	LSLV0037S100-4	3.7	8	10	C	97.30	100	21	79	68
480	S100	LSLV0040S100-4	4.0	9	10.0	C	97.30	108	21	87	75
480	S100	LSLV0055S100-4	5.5	12	16	D	97.40	143	43	100	86
480	S100	LSLV0075S100-4	7.5	16	23	D	97.50	188	43	145	124
480	S100	LSLV0110S100-4	11	24	30	E	97.50	275	43	232	200
480	S100	LSLV0150S100-4	15	30	38	E	97.50	375	43	332	286
480	S100	LSLV0185S100-4	18.5	39	44	F	97.60	444	43	401	345
480	S100	LSLV0220S100-4	22	45	58	F	97.70	506	43	463	398
480	S100	LSLV0300S100-4	30	61	75	G	97.70	690	107	583	501
480	S100	LSLV0370S100-4	37	75	91	H	97.80	814	107	707	608
480	S100	LSLV0450S100-4	45	91	107	H	97.80	990	107	883	759
480	S100	LSLV0550S100-4	55	110	142	I	98.00	1100	107	993	854
480	S100	LSLV0750S100-4	75	152	169	I	98.00	1500	107	1,393	1198

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◆ **H100**

Voltage	Series	Model Number	Rated Power (kW)	HD Rated output Current (A)	ND Rated output Current (A)	Frame size	Efficiency (%)	Total Losses (W)	Internal Losses (W)	External (Heat) Losses (W)	Heat Losses in (Kcal)
240	H100	LSLV0055H100-2	4	-	22	D	97.5	100	39	61	53
240	H100	LSLV0075H100-2	5.5	-	30	D	97.5	138	39	99	85
240	H100	LSLV0110H100-2	7.5	-	42	D	97.6	180	39	141	122
240	H100	LSLV0150H100-2	11	-	56	D	97.9	231	39	192	165
240	H100	LSLV0185H100-2	15	-	69	F	98	300	39	261	225
480	H100	LSLV0055H100-4	4	-	12	D	97.7	92	43	49	42
480	H100	LSLV0075H100-4	5.5	-	16	D	97.7	127	43	84	72
480	H100	LSLV0110H100-4	7.5	-	24	D	97.7	173	43	130	111
480	H100	LSLV0150H100-4	11	-	30	E	97.9	231	43	188	162
480	H100	LSLV0185H100-4	15	-	38	E	97.9	315	43	272	234
480	H100	LSLV0220H100-4	18.5	-	45	F	98.0	370	43	327	281
480	H100	LSLV0300H100-4	22	-	61	F	98.0	440	107	333	286
480	H100	LSLV0370H100-4	30	-	75	G	98.1	570	107	463	398
480	H100	LSLV0450H100-4	37	-	91	H	98.1	703	107	596	513
480	H100	LSLV0550H100-4	45	-	107	H	98.2	810	107	703	605
480	H100	LSLV0750H100-4	55	-	142	I	98.2	990	107	883	759
480	H100	LSLV0900H100-4	75	-	169	I	98.3	1275	107	1168	1004
480	H100	LSLV1100H100-4	110	-	223	J	96.0	4349	286	4062	3494
480	H100	LSLV1320H100-4	132	-	264	J	98.0	2594	286	2308	1985
480	H100	LSLV1600H100-4	160	-	325	K	98.0	3140	286	2854	2454
480	H100	LSLV1850H100-4	185	-	370	K	97.9	3914	286	3628	3120
480	H100	LSLV2200H100-4	220	-	432	L	97.9	4518	286	4232	3640
480	H100	LSLV2500H100-4	250	-	481	L	97.7	5754	286	5467	4702
480	H100	LSLV3150H100-4	315	-	613	M	98.4	5144	479	4665	4012
480	H100	LSLV3550H100-4	355	-	683	M	98.4	5510	479	5032	4327
480	H100	LSLV4000H100-4	400	-	770	M	98.2	7044	479	6565	5646
480	H100	LSLV5000H100-4	500	-	962	N	98.4	7945	671	7274	6256

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◆ iS7

Voltage	Series	Model Number	Rated Power (kW)	HD Rated output Current (A)	ND Rated output Current (A)	Frame size	Efficiency (%)	Total Losses (W)	Internal Losses (W)	External (Heat) Losses (W)	Heat Losses in (Kcal)
230	IS7	SV0008iS7-2	0.75	5	8	1	96.00	30	12	18	15
230	IS7	SV0015iS7-2	1.5	8	12	1	96.00	60	16	44	38
230	IS7	SV0022iS7-2	2.2	12	16	1	96.10	86	16	70	60
230	IS7	SV0037iS7-2	3.7	16	24	1	96.10	144	16	128	110
230	IS7	SV0055iS7-2	5.5	24	32	2	96.50	193	18	175	150
230	IS7	SV0075iS7-2	7.5	32	46	2	96.60	255	18	237	204
230	IS7	SV0110iS7-2	11	46	60	3	96.60	374	36	338	291
230	IS7	SV0150iS7-2	15	60	74	3	96.70	495	36	459	395
230	IS7	SV0185iS7-2	18.5	74	88	4	96.70	610	36	574	494
230	IS7	SV0220iS7-2	22	88	124	4	96.80	704	36	668	574
230	IS7	SV0300iS7-2	30	116	146	12	96.80	960	182.5	777	669
230	IS7	SV0370iS7-2	37	146	180	13	96.90	1147	182.5	964	829
230	IS7	SV0450iS7-2	45	180	220	13	96.90	1395	182.5	1,212	1043
230	IS7	SV0550iS7-2	55	220	288	14	97.00	1650	182.5	1,467	1262
230	IS7	SV0750iS7-2	75	288	345	14	97.10	2175	182.5	1,992	1714
480	IS7	SV0008iS7-4	0.75	2.5	4	1	96.50	26	12	14	12
480	IS7	SV0015iS7-4	1.5	4	6	1	96.50	53	16	37	31
480	IS7	SV0022iS7-4	2.2	6	8	1	96.70	73	16	57	49
480	IS7	SV0037iS7-4	3.7	8	12	1	96.70	122	16	106	91
480	IS7	SV0055iS7-4	5.5	12	16	2	96.80	176	20	156	134
480	IS7	SV0075iS7-4	7.5	16	24	2	96.80	240	20	220	189
480	IS7	SV0110iS7-4	11	24	30	3	97.00	330	40	290	249
480	IS7	SV0150iS7-4	15	30	39	3	97.00	450	40	410	353
480	IS7	SV0185iS7-4	18.5	39	45	4	97.20	518	40	478	411
480	IS7	SV0220iS7-4	22	45	61	4	97.20	616	40	576	495
480	IS7	SV0300iS7-4	30	61	75	5	97.40	780	100	680	585
480	IS7	SV0370iS7-4	37	75	91	5	97.40	962	100	862	741
480	IS7	SV0450iS7-4	45	91	110	5	97.40	1170	100	1,070	920
480	IS7	SV0550iS7-4	55	110	152	6	97.50	1375	100	1,275	1097
480	IS7	SV0750iS7-4	75	152	183	6	97.00	2250	100	2,150	1849
480	IS7	SV0900iS7-4	90	183	223	7	97.50	2250	193	2,057	1769
480	IS7	SV1100iS7-4	110	223	264	7	98.00	2200	193	2,007	1726
480	IS7	SV1320iS7-4	132	264	325	8	98.10	2508	193	2,315	1991
480	IS7	SV1600iS7-4	160	325	370	8	98.10	3040	193	2,847	2448
480	IS7	SV1850iS7-4	185	370	432	9	98.30	3145	268	2,877	2474
480	IS7	SV2200iS7-4	220	432	547	9	98.30	3740	268	3,472	2986
480	IS7	SV2800iS7-4	280	547	613	10	98.40	4480	268	4,212	3622
480	IS7	SV3150iS7-4	315	613	731	11	98.40	5040	268	4,772	4104
480	IS7	SV3750iS7-4	375	731	877	11	98.50	5625	268	5,357	4607

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◆ **iP5A**

Voltage	Series	Model Number	Rated Power (kW)	HD Rated output Current (A)	ND Rated output Current (A)	Frame size	Efficiency (%)	Total Losses (W)	Internal Losses (W)	External (Heat) Losses (W)	Heat Losses in (Kcal)
230	IP5A	SV0008iP5A-2	0.4	2.5	5	1-A	95.10	20	12	8	7
230	IP5A	SV0015iP5A-2	0.75	5	8	1-A	95.10	37	16	21	18
230	IP5A	SV0022iP5A-2	1.5	8	12	1-A	95.10	74	16	58	49
230	IP5A	SV0037iP5A-2	2.2	12	16	1	95.50	99	18	81	70
230	IP5A	SV0055iP5A-2	3.7	17	24	1	95.50	167	18	149	128
230	IP5A	SV0075iP5A-2	5.5	23	32	2	96.00	220	18	202	174
230	IP5A	SV0110iP5A-2	7.5	33	46	2	96.00	300	18	282	243
230	IP5A	SV0150iP5A-2	11	44	60	3	96.50	385	36	349	300
230	IP5A	SV0185iP5A-2	15	54	74	3	96.50	525	36	489	421
230	IP5A	SV0220iP5A-2	18.5	68	88	4	97.40	481	36	445	383
230	IP5A	SV0300iP5A-2	22	84	115	4	97.60	528	36	492	423
480	IP5A	SV0008iP5A-4	0.4	1.25	2.5	1-A	96.10	16	12	4	3
480	IP5A	SV0015iP5A-4	0.75	2.5	4	1-A	96.10	29	16	13	11
480	IP5A	SV0022iP5A-4	1.5	4	6	1-A	96.20	57	16	41	35
480	IP5A	SV0037iP5A-4	2.2	6	8	1	96.30	81	16	65	56
480	IP5A	SV0055iP5A-4	3.7	8	12	1	96.30	137	20	117	101
480	IP5A	SV0075iP5A-4	5.5	12	16	2	96.30	204	20	184	158
480	IP5A	SV0110iP5A-4	7.5	16	24	2	96.90	232	20	212	183
480	IP5A	SV0150iP5A-4	11	24	30	3	97.50	275	40	235	202
480	IP5A	SV0185iP5A-4	15	30	39	3	97.50	375	40	335	288
480	IP5A	SV0220iP5A-4	18.5	39	45	4	97.60	444	40	404	347
480	IP5A	SV0300iP5A-4	22	45	61	4	97.60	528	40	488	420
480	IP5A	SV0370iP5A-4	30	61	75	5	97.70	690	106	584	502
480	IP5A	SV0450iP5A-4	37	75	91	5	97.70	851	106	745	641
480	IP5A	SV0550iP5A-4	45	91	110	6	97.80	990	106	884	760
480	IP5A	SV0750iP5A-4	55	110	152	7	97.80	1210	106	1,104	949
480	IP5A	SV0900iP5A-4	75	152	183	7	97.80	1650	106	1,544	1328
480	IP5A	SV1100iP5A-4	90	183	223	8	97.90	1890	179	1,711	1471
480	IP5A	SV1320iP5A-4	110	223	264	9	98.00	2200	179	2,021	1738
480	IP5A	SV1600iP5A-4	132	264	325	9	98.00	2640	179	2,461	2116
480	IP5A	SV2200iP5A-4	160	325	432	10	98.10	3040	179	2,861	2460
480	IP5A	SV2800iP5A-4	220	432	547	10	98.10	4180	179	4,001	3441
480	IP5A	SV3150iP5A-4	280	547	613	11	98.20	5040	252	4,788	4118
480	IP5A	SV3750iP5A-4	315	613	731	12	98.30	5355	252	5,103	4389
480	IP5A	SV4500iP5A-4	375	731	877	12	98.30	6375	252	6,123	5266