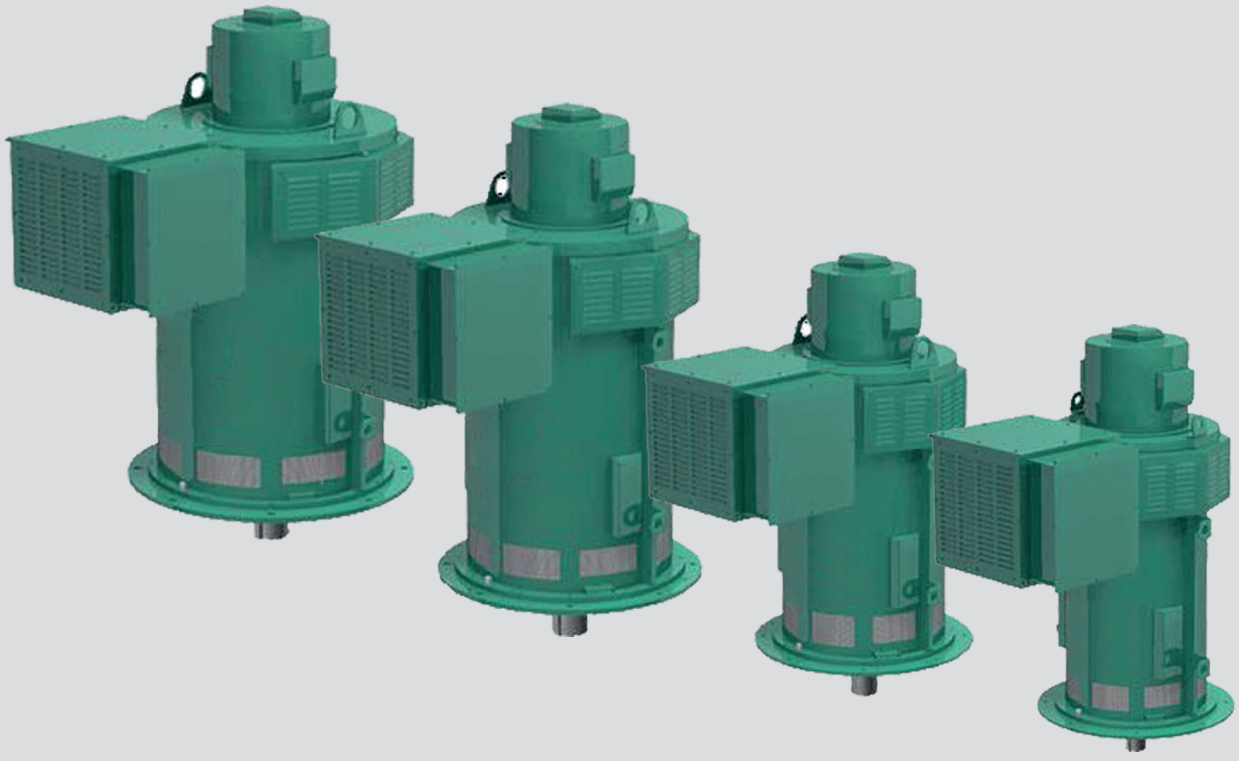


Vertical Tubular Hydro Range
LSA 50 - 52 - 53 - 54

Low Voltage Alternators - 6, 8 & 10 pole

300 to 3300 kVA - 50 Hz
Electrical and mechanical data

LEROY-SOMER™

Nidec
All for dreams

Vertical Tubular Hydro Range LSA 50, 52, 53, 54 - 300 to 3300 kVA - 50 Hz

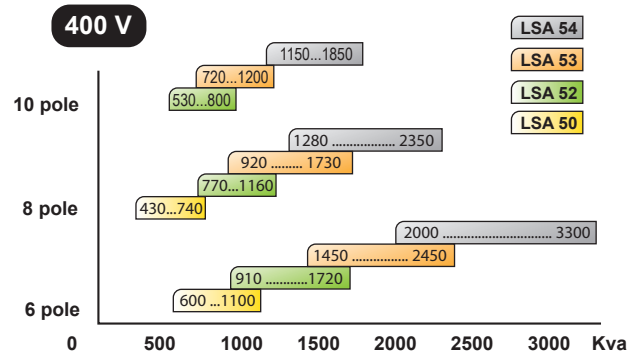
Low Voltage Alternators - 6, 8 & 10 pole

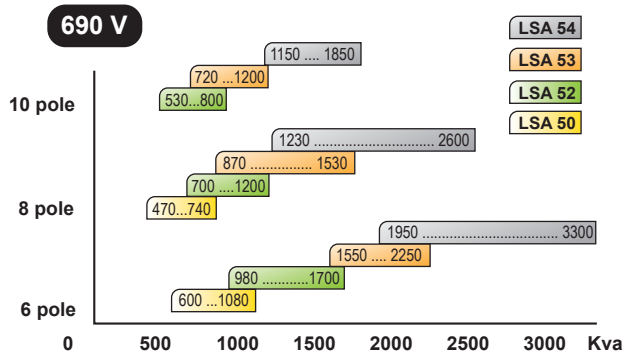
LEROY-SOMER alternators of VTHR range meet the requirements of the hydraulic application in vertical set-up.

Compliant with international standards

The alternators are designed, manufactured and marketed in an ISO 9001 and ISO 14001 environments and comply with major international standards and regulations.

Power ranges at 400V and 690V - 50 Hz





Electrical features

- Class H insulation (more than 20 years for the winding design life time) / class F heat temperature rise
- High performance low voltage winding with 5/6 pitch
- 4 terminal connection (3 phase + 1 neutral)
- High efficiency

Mechanical features

- Design dedicated to vertical operation, stiff structure to avoid reed resonance issue
- Steel made welded construction
- Balancing class G1 according to ISO 1940
- Direction of rotation: clockwise or counter-clockwise
- Regreasable bearings
- Bearing life L10 mh : 100 000h

Excitation and regulation

- Alternator is delivered with a Leroy-Somer D510C Digital AVR located in the auxiliary terminal box, with its power supply taken from stator auxiliary windings (AREP excitation + PMI):
  - CAN and Leroy-Somer proprietary protocol J1939 D500
  - Voltage equalization before synchronization
  - Accurate power regulation (+/- 0.25%) even down to 3% of the rated load
- Options:
  - 3F analog voltage regulator AVR (R449 + R729)
  - External potentiomer for manual voltage adjustment

Compact terminal box

- Easy access to the AVR and to the connections
- Modular design. Various cable exit configurations available (upwards or downwards)

Environment & protection

- IC01 / IP23 standard configuration
- Standard winding protection for clean environments with relative humidity ≤ 95%
- Integrated space heaters

Monitoring

- Temperature sensors (RTD) for stator windings and roller bearings (3 + 3 PT100 for the stator and 1 per bearing)
- Speed sensing with a toothed wheel and an inductive sensor (PnP)

Options

- Cooling IC21, IC31, IC81W
- Protection: IP44 / IP55
- Possibility of shaft extension for turbine runner overhung assembly with consequent hydraulic load withstanding capacity, subject to Leroy-Somer validation
- Current transformers for protection and/or measuring on star point
- Alternative monitoring device: 1 inductive sensor and its monitoring device (Front panel display, 4 - 20 mA output and 2 adjustable thresholds)
- Rotor locking and tilting device, enabling the generator to be transferred from horizontal to vertical position (and vice versa) on site with one unique lifting only one lifting device. Locking the rotor during transportation is mandatory to protect the bearings.

Vertical Tubular Hydro Range LSA 50, 52, 53, 54 - 300 to 3300 kVA - 50 Hz

Low Voltage Alternators - 6, 8 & 10 pole

General characteristics

Insulation class	H	Excitation system	AREP
Temperature rise	F or B	AVR type	D 510C
Winding pitch	5/6	Voltage regulation (*)	± 0.25 %
Connection	3 phases + 1 neutral	Short-circuit current	300% (3 IN) : 10s
Protection	IP 23	Total Harmonic distortion THD (**) in no-load	< 3.5 %
Altitude	≤ 1000 m	Total Harmonic distortion THD (**) on linear load	< 5 %
		Waveform: NEMA = TIF (**)	< 50

((*) Steady state. (**) Total harmonic distortion between phases, at no load or on linear load

Ratings 6 Pole - 400V - 50 Hz

V.T.H.R.	Temperature rise class F			Temperature rise class B			Overspeed
Model	kVA	η P. F. = 0.9	η P.F. = 1	kVA	η P. F. = 0.9	η P. F. = 1	R.P.M.
LSA 50 S40	**600**	95.02%	96.00%	**507**	95.44%	96.27%	2800
LSA 50 M55	**800**	95.50%	96.39%	**676**	95.90%	96.66%	2800
LSA 50 M65	**950**	95.74%	96.60%	**802**	96.12%	96.85%	2800
LSA 50 L85	**1100**	96.06%	96.84%	**929**	96.38%	97.05%	2385
LSA 52 S45	**910**	95.68%	96.53%	**768**	96.02%	96.74%	2800
LSA 52 S50	**1030**	95.96%	96.76%	**870**	96.24%	96.93%	2800
LSA 52 M60	**1230**	96.18%	96.94%	**1039**	96.46%	97.11%	2800
LSA 52 L75	**1550**	96.37%	97.10%	**1309**	96.65%	97.27%	2800
LSA 52 VL85	**1720**	96.22%	96.98%	**1453**	96.54%	97.19%	2800
LSA 53 S50	**1450**	95.79%	96.58%	**1225**	96.14%	96.82%	2700
LSA 53 M60	**1650**	95.99%	96.74%	**1394**	96.34%	96.98%	2700
LSA 53 M65	**1850**	96.44%	97.11%	**1563**	96.73%	97.29%	2700
LSA 53 M75	**2100**	96.27%	96.97%	**1774**	96.61%	97.20%	2700
LSA 53 L90	**2300**	96.70%	97.32%	**1943**	96.96%	97.49%	2434
LSA 53 L95	**2450**	96.65%	97.27%	**2070**	96.89%	97.42%	2430
LSA 54 S55	**2000**	96.59%	97.19%	**1690**	96.84%	97.35%	2400
LSA 54 M65	**2250**	96.58%	97.18%	**1901**	96.85%	97.35%	2400
LSA 54 M75	**2500**	96.86%	97.41%	**2112**	97.08%	97.55%	2400

Ratings 6 Pole - 690V - 50 Hz

V.T.H.R.	Temperature rise class F			Temperature rise class B			Overspeed
Model	kVA	η P. F. = 0.9	η P. F. = 1	kVA	η P. F. = 0.9	η P. F. = 1	R.P.M.
LSA50 S40	**600**	94.67%	95.71%	**507**	95.17%	96.05%	2800
LSA50 S45	**700**	95.11%	96.08%	**591**	95.56%	96.38%	2800
LSA50 M55	**800**	95.50%	96.39%	**676**	95.89%	96.64%	2800
LSA50 L70	**970**	95.83%	96.66%	**819**	96.18%	96.88%	2494
LSA50 L80	**1080**	95.99%	96.79%	**912**	96.31%	96.99%	2406
LSA52 S45	**980**	95.44%	96.35%	**828**	95.85%	96.63%	2800
LSA52 S50	**1150**	95.84%	96.68%	**971**	96.19%	96.91%	2800
LSA52 M60	**1220**	95.99%	96.79%	**1030**	96.32%	97.00%	2800
LSA52 M65	**1350**	96.15%	96.92%	**1140**	96.46%	97.12%	2800
LSA52 L75	**1500**	96.35%	97.08%	**1267**	96.63%	97.26%	2800
LSA52 VL85	**1700**	96.52%	97.22%	**1436**	96.78%	97.37%	2800
LSA53 S55	**1550**	96.23%	96.93%	**1309**	96.51%	97.10%	2700
LSA53 M65	**1750**	96.42%	97.09%	**1478**	96.68%	97.25%	2700
LSA53 M75	**1950**	96.62%	97.25%	**1647**	96.85%	97.38%	2700
LSA53 L90	**2250**	96.82%	97.41%	**1901**	97.03%	97.53%	2434
LSA54 S50	**1950**	96.64%	97.23%	**1647**	96.86%	97.36%	2400
LSA54 M60	**2200**	96.81%	97.37%	**1859**	97.02%	97.49%	2400
LSA54 M70	**2550**	97.02%	97.55%	**2154**	97.20%	97.64%	2400
LSA54 L90	**3000**	97.19%	97.68%	**2535**	97.34%	97.76%	2400
LSA54 VL105	**3300**	97.13%	97.62%	**2788**	97.29%	97.71%	2283

Vertical Tubular Hydro Range LSA 50, 52, 53, 54 - 300 to 3300 kVA - 50 Hz

Low Voltage Alternators - 6, 8 & 10 pole

Rating 8 Pole - 400V - 50 Hz

V.T.H.R.	Temperature rise class F			Temperature rise class B			Overspeed
Model	kVA	η P. F. = 0.9	η P. F. = 1	kVA	η P. F. = 0.9	η P. F. = 1	R.P.M.
LSA50 S40	430	93.76%	95.08%	363	94.39%	95.51%	2900
LSA50 S45	520	94.21%	95.45%	439	94.78%	95.85%	2900
LSA50 M55	600	94.72%	95.84%	507	95.21%	96.18%	2878
LSA50 M65	660	95.04%	96.10%	557	95.48%	96.39%	2758
LSA50 L75	740	95.26%	96.27%	625	95.66%	96.53%	2270
LSA52 S45	770	95.24%	96.21%	650	95.70%	96.52%	2290
LSA52 S50	850	95.52%	96.42%	718	95.94%	96.71%	2290
LSA52 M60	950	95.72%	96.58%	802	96.10%	96.83%	2290
LSA52 L70	1080	96.03%	96.82%	912	96.36%	97.04%	2290
LSA52 VL85	1160	95.99%	96.78%	980	96.35%	97.02%	2290
LSA53 S40	920	95.20%	96.17%	777	95.64%	96.47%	1950
LSA53 S50	1150	95.81%	96.66%	971	96.15%	96.88%	1950
LSA53 M60	1300	96.06%	96.86%	1098	96.35%	97.04%	1950
LSA53 M75	1480	96.33%	97.06%	1250	96.55%	97.18%	1950
LSA53 L85	1550	96.29%	97.00%	1309	96.48%	97.10%	1950
LSA53 VL100	1730	96.61%	97.26%	1461	96.75%	97.31%	1950
LSA54 S40	1280	95.79%	96.62%	1081	96.18%	96.89%	2350
LSA54 S45	1400	96.06%	96.83%	1183	96.40%	97.05%	2350
LSA54 S55	1600	96.31%	97.03%	1352	96.61%	97.22%	2350
LSA54 M70	1850	96.57%	97.23%	1563	96.82%	97.38%	2350
LSA54 M75	1960	96.46%	97.13%	1656	96.72%	97.28%	2350
LSA54 L90	2200	96.80%	97.40%	1859	97.00%	97.51%	2350
LSA54 VL105	2350	96.70%	97.29%	1985	96.88%	97.39%	2203

Rating 8 Pole - 690V - 50 Hz

V.T.H.R.	Temperature rise class F			Temperature rise class B			Overspeed
Model	kVA	η P. F. = 0.9	η P. F. = 1	kVA	η P. F. = 0.9	η P. F. = 1	R.P.M.
LSA50 S40	470	94.00%	95.27%	397	94.57%	95.66%	2900
LSA50 S50	550	94.46%	95.64%	464	94.97%	95.98%	2900
LSA50 M65	620	94.86%	95.94%	523	95.28%	96.21%	2769
LSA50 L70	670	95.08%	96.12%	566	95.48%	96.37%	2336
LSA50 L75	740	95.22%	96.24%	625	95.61%	96.48%	2264
LSA52 S45	700	95.01%	96.00%	591	95.49%	96.33%	2290
LSA52 S50	820	95.38%	96.31%	692	95.81%	96.59%	2290
LSA52 M60	950	95.73%	96.58%	802	96.10%	96.83%	2290
LSA52 L80	1100	96.00%	96.78%	929	96.32%	96.99%	2290
LSA52 VL90	1200	96.19%	96.93%	1014	96.47%	97.11%	2290
LSA53 S40	870	95.13%	96.10%	735	95.54%	96.36%	1950
LSA53 S50	1020	95.60%	96.48%	861	95.94%	96.69%	1950
LSA53 M60	1200	95.94%	96.75%	1014	96.23%	96.92%	1950
LSA53 M65	1270	96.07%	96.85%	1073	96.32%	96.98%	1950
LSA53 M75	1400	96.27%	97.00%	1183	96.48%	97.11%	1950
LSA53 L90	1530	96.41%	97.10%	1292	96.58%	97.17%	1950
LSA53 VL105		96.61%	97.26%	1478	96.74%	97.30%	1950
LSA54 S40	1230	95.71%	96.55%	1039	96.10%	96.81%	2350
LSA54 S50	1450	96.08%	96.85%	1225	96.42%	97.07%	2350
LSA54 S55	1530	96.22%	96.96%	1292	96.54%	97.16%	2350
LSA54 M60	1680	96.38%	97.08%	1419	96.67%	97.27%	2350
LSA54 M70	1850	96.57%	97.23%	1563	96.83%	97.39%	2350
LSA54 L80	2070	96.74%	97.37%	1749	96.97%	97.50%	2350
LSA54 L95	2330	96.90%	97.49%	1968	97.09%	97.59%	2350
LSA54 VL110	2600	97.01%	97.56%	2197	97.12%	97.60%	2210

Vertical Tubular Hydro Range LSA 50, 52, 53, 54 - 300 to 3300 kVA - 50 Hz

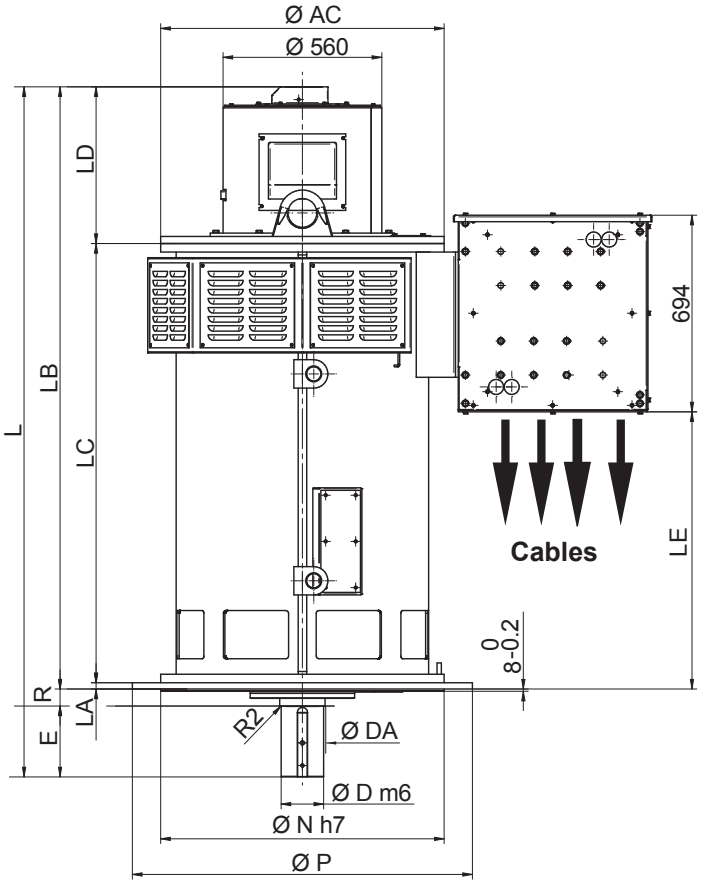
Low Voltage Alternators - 6, 8 & 10 pole

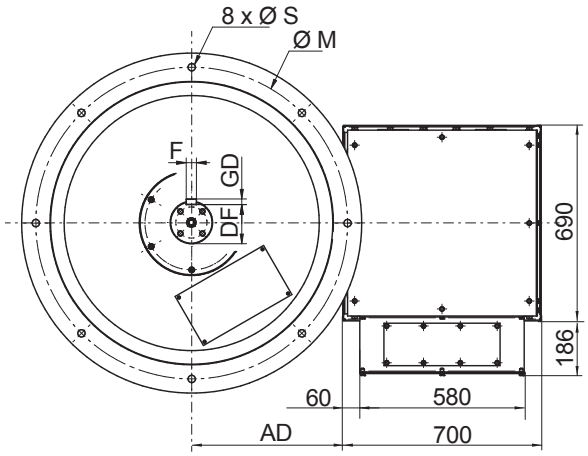
Rating 10 Pole - 400V - 50 Hz

V.T.H.R.	Temperature rise class F			Temperature rise class B			Overspeed
Model	kVA	η P. F. = 0.9	η P. F. = 1	kVA	η P. F. = 0.9	η P. F. = 1	R.P.M.
LSA52 S40	**550**	94.32%	95.56%	**464**	94.99%	96.05%	2653
LSA52 S45	**640**	94.64%	95.81%	**540**	95.26%	96.26%	2653
LSA52 M60	**760**	95.07%	96.13%	**642**	95.57%	96.48%	2653
LSA52 M65	**850**	95.40%	96.40%	**718**	95.84%	96.70%	2653
LSA53 S45	**750**	95.00%	96.10%	**633**	95.42%	96.37%	2275
LSA53 S55	**850**	95.29%	96.32%	**718**	95.65%	96.54%	2275
LSA53 M65	**1000**	95.64%	96.59%	**845**	95.92%	96.74%	2275
LSA53 L90	**1200**	95.94%	96.80%	**1014**	96.13%	96.88%	2275
LSA54 S45	**1100**	95.53%	96.43%	**929**	95.89%	96.67%	1672
LSA54 S50	**1200**	95.67%	96.53%	**1014**	96.00%	96.73%	1672
LSA54 S60	**1300**	95.94%	96.74%	**1098**	96.19%	96.88%	1672
LSA54 M70	**1500**	96.18%	96.93%	**1267**	96.41%	97.05%	1672
LSA54 L85	**1700**	96.38%	97.07%	**1436**	96.54%	97.13%	1672
LSA54 VL100	**1790**	96.34%	97.00%	**1512**	96.47%	97.06%	1672

Rating 10 Pole - 690V - 50 Hz

V.T.H.R.	Temperature rise class F			Temperature rise class B			Overspeed
Model	kVA	η P. F. = 0.9	η P. F. = 1	kVA	η P. F. = 0.9	η P. F. = 1	R.P.M.
LSA52 S40	**530**	94.18%	95.44%	**447**	94.85%	95.92%	2653
LSA52 S50	**650**	94.83%	95.96%	**549**	95.39%	96.35%	2653
LSA52 M55	**700**	95.01%	96.09%	**591**	95.52%	96.44%	2653
LSA52 M65	**800**	95.24%	96.25%	**676**	95.68%	96.55%	2653
LSA53 S45	**720**	94.90%	96.00%	**608**	95.29%	96.25%	2275
LSA53 S55	**850**	95.35%	96.35%	**718**	95.64%	96.52%	2275
LSA53 M65	**950**	95.52%	96.48%	**802**	95.78%	96.62%	2275
LSA53 M75	**1050**	95.66%	96.58%	**887**	95.89%	96.69%	2275
LSA53 L90	**1200**	95.86%	96.73%	**1014**	96.03%	96.79%	2249
LSA54 S50	**1150**	95.69%	96.55%	**971**	96.00%	96.73%	1672
LSA54 M60	**1330**	95.96%	96.76%	**1123**	96.23%	96.91%	1672
LSA54 M65	**1410**	96.11%	96.87%	**1191**	96.34%	96.99%	1672
LSA54 M75	**1520**	96.23%	96.95%	**1284**	96.42%	97.04%	1672
LSA54 L85	**1650**	96.37%	97.05%	**1394**	96.54%	97.13%	1672
LSA54 VL100	**1850**	96.48%	97.14%	**1563**	96.61%	97.18%	1672





Bottom view

Outline drawing LSA 50

Dimensions (mm)

Type	L	LA	LB	LC	LD	LE	AC	D	E	R	DA	DF	GD	F	N	P	S	M	AD
40	2228	20	1968	1400	548	826	900	120	210	50	124	109	18	32	900	1100	22	1000	463
45	2228	20	1968	1400	548	826	900	120	210	50	124	109	18	32	900	1100	22	1000	463
50	2228	20	1968	1400	548	826	900	120	210	50	124	109	18	32	900	1100	22	1000	463
55	2378	20	2118	1550	548	976	900	120	210	50	124	109	18	32	900	1100	22	1000	463
65	2378	20	2118	1550	548	976	900	120	210	50	124	109	18	32	900	1100	22	1000	463
70	2528	20	2268	1700	548	1126	900	120	210	50	124	109	18	32	900	1100	22	1000	463
75	2528	20	2268	1700	548	1126	900	120	210	50	124	109	18	32	900	1100	22	1000	463
80	2528	20	2268	1700	548	1126	900	120	210	50	124	109	18	32	900	1100	22	1000	463
85	2528	20	2268	1700	548	1126	900	120	210	50	124	109	18	32	900	1100	22	1000	463

Outline drawing LSA 52

Dimensions (mm)

Type	L	LA	LB	LC	LD	LE	AC	D	E	R	DA	DF	GD	F	N	P	S	M	AD
40	2285	22	1975	1400	553	828	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
45	2285	22	1975	1400	553	828	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
50	2285	22	1975	1400	553	828	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
55	2435	22	2125	1550	553	978	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
60	2435	22	2125	1550	553	978	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
65	2435	22	2125	1550	553	978	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
70	2585	22	2275	1700	553	1128	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
75	2585	22	2275	1700	553	1128	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
85	2735	22	2425	1850	553	1278	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533
90	2735	22	2425	1850	553	1278	1000	150	250	60	160	138	20	36	1000	1200	26	1100	533

NOTE : Dimensions are for information only and may be subject to modifications. Contractual 2D drawings can be downloaded from the Leroy-Somer site, 3D drawing files are available upon request.

Outline drawing LSA 53

Dimensions (mm)

Type	L	LA	LB	LC	LD	LE	AC	D	E	R	DA	DF	GD	F	N	P	S	M	AD
40	2408	30	2088	1500	558	931	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
45	2408	30	2088	1500	558	931	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
50	2408	30	2088	1500	558	931	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
55	2408	30	2088	1500	558	931	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
60	2408	30	2088	1500	558	931	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
65	2608	30	2288	1700	558	1131	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
75	2608	30	2288	1700	558	1131	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
85	2808	30	2488	1900	558	1331	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
90	2808	30	2488	1900	558	1331	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
95	2808	30	2488	1900	558	1331	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583
100	2808	30	2488	1900	558	1331	1130	180	250	70	220	165	25	45	1100	1300	33	1200	583

Outline drawing LSA 54

Dimensions (mm)

Type	L	LA	LB	LC	LD	LE	AC	D	E	R	DA	DF	GD	F	N	P	S	M	AD
40	2408	30	2088	1500	558	936	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
45	2408	30	2088	1500	558	936	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
50	2408	30	2088	1500	558	936	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
55	2408	30	2088	1500	558	936	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
60	2608	30	2288	1700	558	1136	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
65	2608	30	2288	1700	558	1136	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
70	2608	30	2288	1700	558	1136	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
75	2608	30	2288	1700	558	1136	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
80	2808	30	2488	1900	558	1336	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
85	2808	30	2488	1900	558	1336	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
90	2808	30	2488	1900	558	1336	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
95	2808	30	2488	1900	558	1336	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
100	3008	30	2688	2100	558	1536	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
105	3008	30	2688	2100	558	1536	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633
110	3008	30	2688	2100	558	1536	1200	180	250	70	220	165	25	45	1200	1400	39	1300	633

Weight and inertia (J = m.r²)

LSA 50 - Weight : kg / Inertia : kg.m²

Type	6 pole		8 pole	
	Weight	*Inertia*	*Weight*	*Inertia*
40	2603	23	2599	31
45	2764	25	2680	31
50	-	-	2680	34
55	3078	29	3057	38
65	3294	32	3282	42
70	3515	35	3461	45
75	-	-	3650	48
80	3757	38	-	-
85	3837	39	-	-

LSA 53 - Weight : kg / Inertia : kg.m²

Type	6 pole		8 pole		10 pole	
	Weight	*Inertia*	*Weight*	*Inertia*	*Weight*	*Inertia*
40	-	-	4247	85	-	-
45	-	-	-	-	4437	99
50	4582	77	4731	102	-	-
55	4936	86	-	-	4916	117
60	5112	90	5128	115	-	-
65	5512	99	5438	123	5441	134
75	5954	110	5922	140	5834	149
85	-	-	6453	156	-	-
90	6618	126	6496	157	6577	174
95	6884	133	-	-	-	-
100	-	-	7069	177	-	-

The torsional analysis of the transmission is imperative.
All values are available upon request.

LSA 52 - Weight : kg / Inertia : kg.m²

Type	6 pole		8 pole		10 pole	
	Weight	*Inertia*	*Weight*	*Inertia*	*Weight*	*Inertia*
40	-	-	-	-	3250	58
45	3404	46	3373	58	3488	66
50	3677	52	3602	65	3591	69
55	-	-	-	-	3908	77
60	4028	58	4007	75	3941	78
65	4233	63	-	-	4247	88
70	-	-	4413	84	-	-
75	4619	70	-	-	-	-
85	5106	79	4916	97	-	-
90	-	-	5047	101	-	-

LSA 54 - Weight : kg / Inertia : kg.m²

Type	6 pole		8 pole		10 pole	
	Weight	*Inertia*	*Weight*	*Inertia*	*Weight*	*Inertia*
40	-	-	4520	111	-	-
45	-	-	4813	124	5066	145
50	5402	120	4910	128	5405	161
55	5564	126	5251	142	-	-
60	6038	138	5539	154	6015	188
65	6091	140	-	-	6461	207
70	6579	156	6027	173	6630	215
75	6632	158	6416	190	6969	231
80	-	-	6608	197	-	-
85	-	-	-	-	7686	260
90	7755	193	7193	220	-	-
95	-	-	7388	228	-	-
100	-	-	-	-	8572	298
105	8607	218	8018	252	-	-
110	-	-	8213	261	-	-

LEROY-SOMER™

www.leroy-somer.com/epg

Linkedin.com/company/Leroy-Somer
Twitter.com/Leroy_Somer_en
Facebook.com/LeroySomer.Nidec.en
YouTube.com/LeroySomerOfficiel

Nidec
All for dreams

Moteurs Leroy-Somer SAS. Siège : Bd Marcellin Leroy, CS 10015, 16915 Angoulême Cedex 9, France.
Capital social : 65 800 512 €, RCS Angoulême 338 567 258.

5022 en - 2017.09 / c