

LSN



Atmospheres containing explosive GAS totally enclosed three-phase asynchronous motors

General information

**CATEGORY 3
ZONE 2**



Non-sparking totally enclosed three-phase asynchronous motors, LSN series, according to IEC 60034, 60072, IEC 60079-1 and 60079-15.

- Single speed: power 0.75 to 90 kW¹, frame size 80 to 280 mm, 2, 4, 6, 8 poles ; 230/400 V or 400 V Δ, 50 Hz.
- Two speed: on request.

IP 55 protection
(or IP 65 for GD application)

Motors for variable speed operation:

- fitted with thermal probes in winding (obligatory) and bearing probes for frame sizes ≥ 160 mm;
- on consultation (for selection).

Finish: aluminium casing

Assembled with protected screws.
Finishing paint **RAL 2004 (orange)**.
Protection of the flange and shaft end against atmospheric corrosion.
Individual anti-shock packaging.

Mains supply

- Standard construction according to IEC 60038:
- 230/400 V +10% -10% at 50 Hz ;
- 400 V Δ +10% -10% at 50 Hz.

1. Other powers: consult us.

Motors in accordance with the European Directive 94/9/CE.



**II 3G Ex nA IIT3
(Ex tD A21 T125)**

Description of the LSN aluminium three-phase motors

Component	Materials	Remarks
Finned housing	Aluminium alloy	- with bolt-on or cast foot, or without foot • 4 or 6 mounting holes for the foot housings • lifting rings for frame size ≥ 132 M, in option for 132 S and 112 - earth terminal optional
Stator	Insulated low carbon magnetic steel laminations Enameled electrolytic copper	- the low carbon content guarantees long term stability of the characteristics - assembled lamination pack - semi-enclosed slots - insulation system class F
Rotor	Insulated low carbon magnetic steel laminations Aluminium	- inclined slots - squirrel cage pressure die cast in aluminium (or alloy for special applications) - keyed or mounted on shaft by heat shrinking - dynamically balanced rotor class A - 1/2 key
Shaft	Steel	- for frame size < 132: • shaft end fitted with screw and washer • closed keyway - for frame size ≥ 132: • tapped centre hole • open key
End shields	Aluminium alloy	- frame size 80 - 90 rear
	Cast iron	- frame size 80 - 90 front (optional for 80 and 90 rear) - frame size ≥ 100
Bearings		- ball bearings - rear preloaded bearings
Labyrinth seals Lipseals	Technopolymer or steel Synthetic rubber	- lipseals sealing - front or rear jet deflector or labyrinth seals
Fan	Composite material or aluminium alloy	- 2 directions of rotation: straight blades
Fan cover	Sheet steel	- on request, fitted with a drip cover for operation in vertical position, shaft facing down
Terminal box	Aluminium alloy	- IP 55 or IP 65 for «GD» application - rotatable, opposite position to the foot - fitted with 6 stud safety certified terminal board Ex e - supplied fitted with Ex e safety certified fitted cable glands - 1 earth terminal in all terminal boxes (2 from LSN 160)

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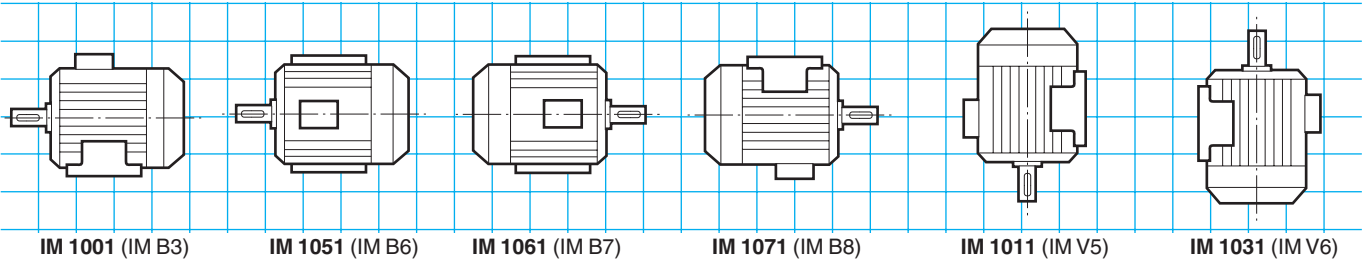


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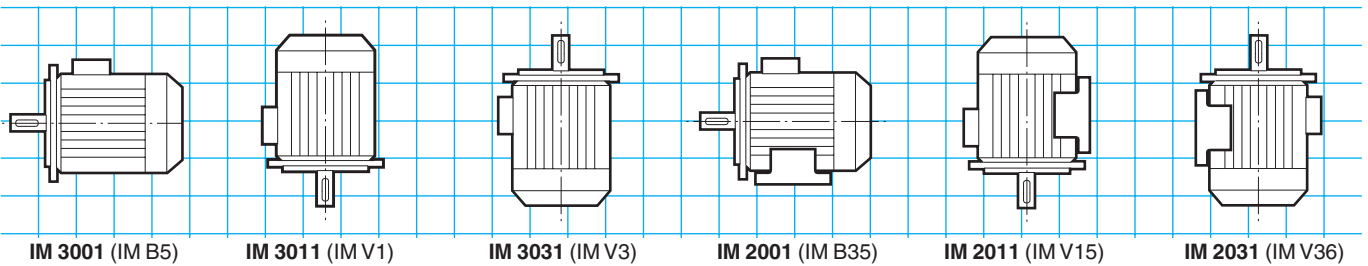
Mounting positions

Foot mounted motors



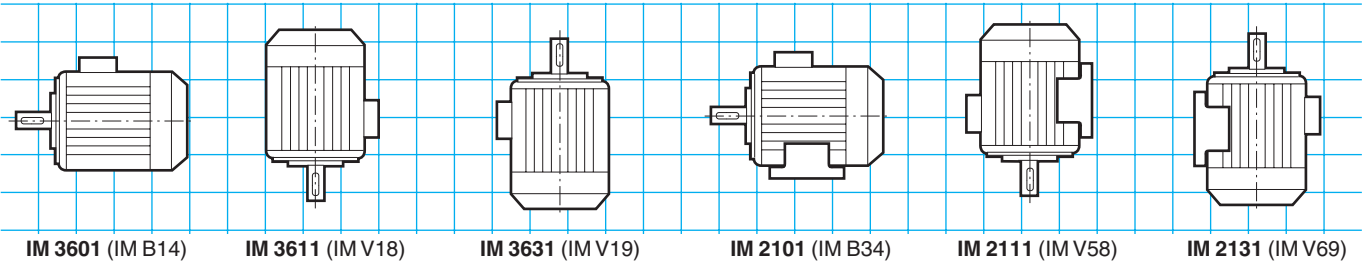
(FF) plain hole flange mounted motors

• Possible position IM 3001 (IM B5) up to 225 frame size inclusive

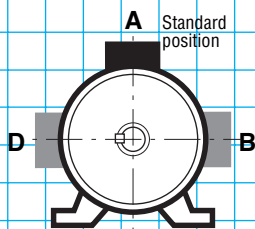


(FT) tapped hole flange mounted motors

• Possible positions up to 132 frame size inclusive

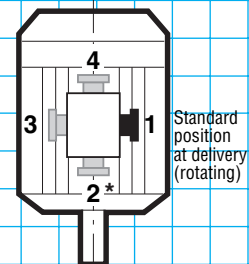


Terminal box position in relation to the motor shaft end



A: standard

Cable gland position in relation to the motor shaft end



1: standard

* Position 2 not recommended and not feasible on standard flange motor with plain holes (FF)



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Adaptation possibilities

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ZONE 2

Leroy-Somer offers, for use with the LSN totally enclosed three-phase asynchronous motors, many options which meet the needs of highly diverse applications. They are described below and in the chapters relating to gearboxes and to speed variation.
For other variants or any special adaptation, consult the technical specialists at Leroy-Somer.

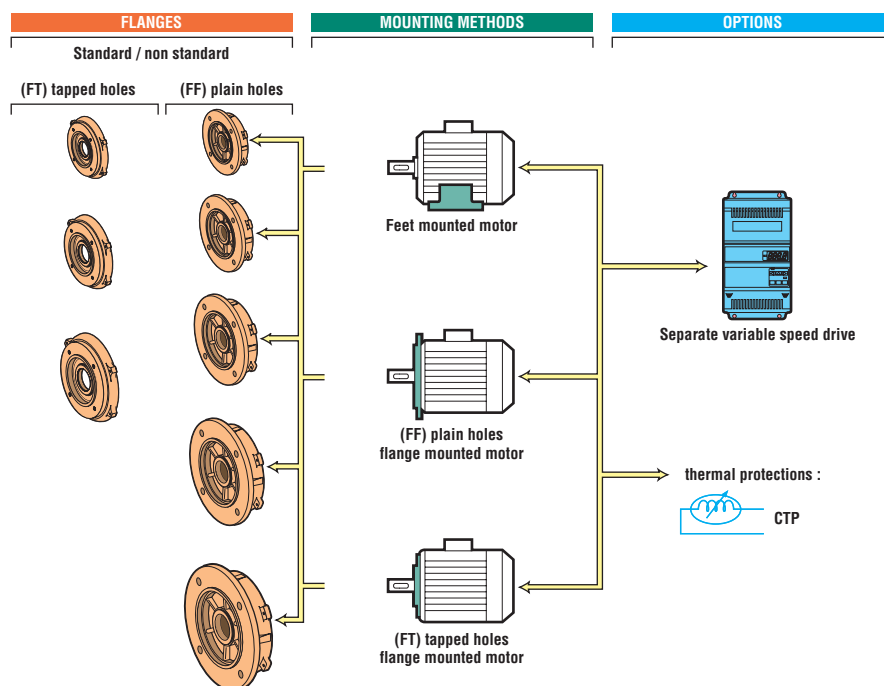
The LSN three-phase motors may be associated to:

- gearboxes
- electronic variable speed drives (1)

The options (2):

- thermal protections
- non standard flanges

(1) Conforming to the regulations of use as indicated by the standard IEC 34-17.
(2) Other options: consult us.



Designation / Codification

ATEX II 3G T1... T3	4P 1500 min ⁻¹	LSN	180	MT	18.5 kW	IM 1001 (IM B3)	400 V Δ	50 Hz	IP 55
Specific application	Speed polarity	Motor type	IEC 60072-1 frame size	Housing designation and builder index	Rated power	IEC 60034-7 mounting position	Power supply voltage	Power supply frequency	IEC 60034-5 protection

Codification example:

LSN three-phase motor, 1500 min⁻¹,
18.5 kW IM 1001 (IM B3), 400 V

Designation **Code**
4P LSN 180 MT 18.5 kW -
IM 1001 (IM B3) 400 V

The table above is an example.

It allows the creation of the designation for the required product.

This designation corresponds to a product code.

The product codes that are present in the selection grids can be used directly.

They simplify the ordering process.

The codification table is incorporated in the price list with the designations list.

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Selection

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ZONE 2**

IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 3G - Ex nA II T3

**2
poles
3000 min⁻¹**

	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting current/ Rated current	Starting torque/ Rated torque	Maximum torque/ Rated torque	Moment of inertia	Weight	Noise
	P _N	N _N	M _N	I _{N (400V)}	Cos Phi			η			I _d / I _n	M _d /M _n	M _M /M _n	J	IM B3	LP
Type	kW	min-1	Nm	A	4/4	3/4	2/4	4/4	3/4	2/4				kg.m2	kg	db(A)
LSN 80 L	0.75	2840	2.5	1.64	0.87	0.8	0.68	76	76.5	74	5.9	2.4	2.2	0.0007	8.2	61
LSN 80 L	1.1	2837	3.7	2.4	0.84	0.77	0.65	78	78.5	76.6	5.8	2.7	2.4	0.0009	9.7	61
LSN 80 L	1.5	2859	5.01	3.2	0.83	0.76	0.62	80.3	80.4	78	7.0	3.2	2.8	0.0011	11.3	61
LSN 90 S	1.5	2870	4.99	3.4	0.81	0.72	0.58	79.6	78.9	75.1	8.0	3.9	4.0	0.0014	12	64
LSN 90 L	1.8	2865	6	3.6	0.86	0.8	0.69	83.1	83.4	81.7	8.0	3.6	3.6	0.0017	14	64
LSN 90 L	2.2	2862	7.34	4.3	0.88	0.83	0.73	83.6	84	82.9	7.7	3.7	3.3	0.0021	16	64
LSN 100 L	3	2868	9.99	6.3	0.81	0.73	0.59	83.9	83.8	80.8	7.5	3.8	3.9	0.0022	20	66
LSN 112 M	4	2877	13.3	7.9	0.85	0.78	0.65	86	86.1	84.4	7.8	2.9	2.9	0.0029	24.4	66
LSN 112 MG	5.5	2916	18	10.5	0.88	0.81	0.71	86.6	87.2	85.6	9.0	3.1	3.5	0.0076	33	66
LSN 132 S	5.5	2916	18	10.5	0.88	0.81	0.71	86.6	87.2	85.6	9.0	3.1	3.5	0.0076	34.4	72
LSN 132 S	7.5	2905	24.5	14.7	0.85	0.78	0.63	86.5	86.4	84.5	8.7	3.4	3.6	0.0088	39	72
LSN 132 M	9	2910	29.5	17.3	0.85	0.8	0.71	88.1	88.4	87.5	8.6	2.5	3.5	0.016	49	72
LSN 132 M	11	2944	35.7	20.7	0.86	0.81	0.69	89.4	89.4	87.7	7.5	2.7	3.4	0.018	54	72
LSN 160 MP	11	2944	35.7	20.7	0.86	0.81	0.69	89.4	89.4	87.7	7.5	2.7	3.4	0.019	62	72
LSN 160 MP	15	2935	48.8	28.4	0.85	0.79	0.71	90	90.1	85.1	8.1	3.0	3.5	0.023	72	72
LSN 160 L	18.5	2934	60.2	33.7	0.87	0.83	0.75	91	91.2	90.4	8.0	3.0	3.3	0.044	88	72
LSN 180 MT	22	2938	71.5	39.9	0.87	0.84	0.76	91.5	91.8	91.2	8.1	3.1	3.1	0.052	99	72
LSN 200 LT	30	2946	97.2	52.1	0.9	0.87	0.82	92.4	92.7	92.1	8.6	2.7	3.4	0.089	154	73
LSN 200 L	37	2950	120	64.6	0.89	0.87	0.82	92.9	93	92.2	7.4	2.6	3.0	0.12	180	73
LSN 225 MT	45	2950	146	78	0.9	0.87	0.82	93.3	93.4	93.1	7.5	2.8	3.1	0.14	200	73
LSN 250 MZ	55	2956	178	95.2	0.89	0.86	0.8	93.7	93.7	93.1	8.3	3.1	3.4	0.173	235	78
LSN 280 SC	75	2968	241	127	0.9	0.87	0.82	94.4	94.4	93.8	8.5	2.6	3.4	0.39	330	79
LSN 280 MC	90	2968	290	152	0.9	0.88	0.83	94.7	94.7	94.1	8.4	2.6	3.3	0.47	375	79

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**CATEGORY 3
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IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
 II - 3G - Ex nA II T3

**2
poles
3000 min⁻¹**

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
		Code	Qty	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LSN 80 L	0.75		-		-		-		-		-
LSN 80 L	1.1		-		-		-		-		-
LSN 80 L	1.5		-		-		-		-		-
LSN 90 S	1.5		-		-		-		-		-
LSN 90 L	1.8		-		-		-		-		-
LSN 90 L	2.2		-		-		-		-		-
LSN 100 L	3		-		-		-		-		-
LSN 112 M	4		-		-		-		-		-
LSN 112 MG	5.5		-		-		-		-		-
LSN 132 S	5.5		-		-		-		-		-
LSN 132 S	7.5		-		-		-		-		-
LSN 132 M	9		-		-		-		-		-
LSN 132 M	11		-		-		-		-		-
LSN 160 MP	11		-		-		-		-		-
LSN 160 MP	15		-		-		-		-		-
LSN 160 L	18.5		-		-		-		-		-
LSN 180 MT	22		-		-		-		-		-
LSN 200 LT	30		-		-		-		-		-
LSN 200 L	37		-		-		-		-		-
LSN 225 MT	45		-		-		-		-		-
LSN 250 MZ	55		-		-		-		-		-
LSN 280 SC	75		-		-		-		-		-
LSN 280 MC	90		-		-		-		-		-

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Selection

CATEGORY 3
ZONE 2

IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 3G - Ex nA II T3

4
poles
1500 min⁻¹

	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting current/ Rated current	Starting torque/ Rated torque	Maximum torque/ Rated torque	Moment of inertia	Weight	Noise
Type	P _N kW	N _N min-1	M _N Nm	I _{N (400V)} A	Cos Phi			η			I _d / I _n	M _d /M _n	M _m /M _n	J kg.m2	IM B3 kg	LP db(A)
LSN 80 L	0.55	1410	3.72	1.42	0.76	0.68	0.55	73.4	69.3	62	4.5	2.0	2.3	0.0013	8.2	47
LSN 80 L	0.75	1400	5.12	2.01	0.77	0.71	0.59	70	70	66	4.5	2.0	2.2	0.018	9.3	47
LSN 80 L	0.9	1425	6.03	2.44	0.73	0.67	0.54	73	73	70	5.8	3.0	3.0	0.0024	10.9	47
LSN 90 S	1.1	1429	7.35	2.5	0.84	0.77	0.64	76.8	78.4	77.1	4.8	1.6	2.0	0.0026	11.5	48
LSN 90 L	1.5	1428	10	3.4	0.82	0.74	0.6	78.5	79.4	77.5	5.3	1.8	2.3	0.0032	13.5	48
LSN 90 L	1.8	1438	12	4	0.82	0.75	0.61	80.1	80.8	79	6.0	2.1	3.2	0.0037	15.2	48
LSN 100 L	2.2	1436	14.6	4.8	0.81	0.73	0.59	81	81.5	79.8	5.9	2.1	2.5	0.0043	20	48
LSN 100 L	3	1437	19.9	6.5	0.81	0.72	0.59	82.6	82.6	80.8	6.0	2.5	2.8	0.0055	22.5	48
LSN 112 M	4	1438	26.6	8.3	0.83	0.76	0.57	84.2	84.2	83.4	7.1	2.5	3.0	0.0067	24.9	49
LSN 132 S	5.5	1447	36.7	11.1	0.83	0.79	0.67	85.7	86.4	85.8	6.3	2.4	2.8	0.014	36.5	62
LSN 132 M	7.5	1451	49.4	15.2	0.82	0.74	0.61	87	86.4	84.9	7.0	2.4	2.9	0.019	54.7	62
LSN 132 M	9	1455	59.1	18.1	0.82	0.74	0.62	87.7	87.6	86.2	6.9	2.2	3.1	0.023	59.9	62
LSN 160 MP	11	1454	72.2	21	0.86	0.79	0.67	88.4	88.6	87.4	7.7	2.3	3.2	0.03	70	62
LSN 160 LR	15	1453	98.6	28.8	0.84	0.78	0.69	89.4	89.8	88.4	7.5	2.9	3.6	0.036	86	62
LSN 180 MT	18.5	1456	121	35.2	0.84	0.79	0.67	90.3	90.8	90.3	7.6	2.7	3.2	0.085	100	64
LSN 180 LR	22	1456	144	41.7	0.84	0.79	0.68	90.7	91.2	90.9	7.9	3.0	3.3	0.096	112	64
LSN 200 LT	30	1460	196	56.3	0.84	0.8	0.69	91.5	92	91.5	6.6	2.9	2.9	0.151	165	64
LSN 225 ST	37	1468	241	68.7	0.84	0.8	0.7	92.5	93.1	92.9	6.3	2.7	2.6	0.24	205	64
LSN 225 MR	45	1468	293	83.3	0.84	0.8	0.7	92.8	93.3	93	6.3	2.7	2.6	0.29	235	64
LSN 250 ME	55	1478	355	101	0.84	0.8	0.71	93.6	93.8	93.2	7.0	2.7	2.8	0.63	320	66
LSN 280 SC	75	1478	485	137	0.84	0.8	0.71	94.2	94.4	93.8	7.2	2.8	2.9	0.83	380	69
LSN 280 MD	90	1478	582	164	0.84	0.8	0.71	94.4	94.5	93.8	7.6	3.0	3.0	1.03	450	69

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Selection

**CATEGORY 3
ZONE 2**

IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 3G - Ex nA II T3

**4
poles
1500 min⁻¹**

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
		Code	Qty	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LSN 80 L	0.55		-		-		-		-		-
LSN 80 L	0.75		-		-		-		-		-
LSN 80 L	0.9		-		-		-		-		-
LSN 90 S	1.1		-		-		-		-		-
LSN 90 L	1.5		-		-		-		-		-
LSN 90 L	1.8		-		-		-		-		-
LSN 100 L	2.2		-		-		-		-		-
LSN 100 L	3		-		-		-		-		-
LSN 112 M	4		-		-		-		-		-
LSN 132 S	5.5		-		-		-		-		-
LSN 132 M	7.5		-		-		-		-		-
LSN 132 M	9		-		-		-		-		-
LSN 160 MP	11		-		-		-		-		-
LSN 160 LR	15		-		-		-		-		-
LSN 180 MT	18.5		-		-		-		-		-
LSN 180 LR	22		-		-		-		-		-
LSN 200 LT	30		-		-		-		-		-
LSN 225 ST	37		-		-		-		-		-
LSN 225 MR	45		-		-		-		-		-
LSN 250 ME	55		-		-		-		-		-
LSN 280 SC	75		-		-		-		-		-
LSN 280 MD	90		-		-		-		-		-

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**CATEGORY 3
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IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 3G - Ex nA II T3

**6
poles
1000 min⁻¹**

	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting current/ Rated current	Starting torque/ Rated torque	Maximum torque/ Rated torque	Moment of inertia	Weight	Noise
Type	P _N kW	N _N min ⁻¹	M _N Nm	I _{N (400V)} A	Cos Phi			η			I _d / I _n	M _d /M _n	M _M /M _n	J kg.m ²	IM B3 kg	LP db(A)
LSN 80 L	0.25	955	2.5	0.85	0.67	0.64	0.48	63.1	63	56	3.9	1.6	1.8	0.0024	8.4	41
LSN 80 L	0.37	950	3.72	1.1	0.72	0.67	0.57	66	61	59	4.3	1.7	2.2	0.0032	9.7	41
LSN 80 L	0.55	950	5.53	1.8	0.64	0.6	0.47	68	63	55	4.9	2.1	2.6	0.0042	11	41
LSN 90 S	0.75	930	7.7	2.1	0.77	0.66	0.54	68.5	65	60	4.2	2.4	2.6	0.0039	13.5	51
LSN 90 L	1.1	915	11.5	3	0.76	0.67	0.55	70	70	66	4.7	2.4	2.5	0.0048	15.2	51
LSN 100 L	1.5	905	15.8	4.2	0.74	0.62	0.52	69	69	65	4.5	2.5	2.7	0.0058	20	50
LSN 112 M	2.2	905	23.2	5.8	0.76	0.66	0.53	72	72	68	5.6	2.8	2.7	0.0087	24.2	51
LSN 132 M	3	957	30.3	6.8	0.75	0.66	0.53	81.1	78	75	6.0	2.0	2.6	0.018	38.3	51
LSN 132 M	4	961	39.7	9.3	0.75	0.66	0.56	83.6	83	78	5.9	2.5	2.9	0.034	53.3	55
LSN 132 M	5.5	960	54.7	13.3	0.71	0.65	0.52	84.1	83.5	80	5.5	2.5	2.8	0.039	59.4	55
LSN 160 M	7.5	969	73.9	16.3	0.79	0.74	0.63	85.2	84.8	82.6	5.2	1.7	2.5	0.089	77	56
LSN 160 L	11	968	109	23.4	0.78	0.71	0.64	86.3	86.5	85	5.3	1.8	2.6	0.105	85	56
LSN 180 L	15	972	147	30.1	0.81	0.76	0.65	87.1	87.3	86.1	6.8	2.3	2.8	0.192	135	60
LSN 200 LT	18.5	970	182	37	0.81	0.76	0.65	89	89.3	88.1	6.4	2.4	2.8	0.236	160	62
LSN 200 L	22	972	216	43.6	0.81	0.76	0.65	89.9	90.1	89	6.0	2.0	2.7	0.295	190	62
LSN 225 MR	30	968	296	59.5	0.81	0.79	0.72	89.9	90.3	89.2	6.0	2.2	2.5	0.39	235	63
LSN 250 ME	37	978	361	71.1	0.81	0.79	0.69	92.7	93.2	92.9	6.2	2.3	2.5	0.85	305	65
LSN 280 SC	45	978	439	86.5	0.81	0.79	0.69	92.7	93.2	92.9	6.2	2.3	2.5	0.99	340	65
LSN 280 MC	55	978	537	106	0.81	0.79	0.72	92.6	93.3	93.1	6.0	2.4	2.5	1.19	385	65

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Selection

CATEGORY 3
ZONE 2

IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 3G - Ex nA II T3

6
poles
1000 min⁻¹

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
		Code	Qty	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LSN 80 L	0.25		-		-		-		-		-
LSN 80 L	0.37		-		-		-		-		-
LSN 80 L	0.55		-		-		-		-		-
LSN 90 S	0.75		-		-		-		-		-
LSN 90 L	1.1		-		-		-		-		-
LSN 100 L	1.5		-		-		-		-		-
LSN 112 M	2.2		-		-		-		-		-
LSN 132 M	3		-		-		-		-		-
LSN 132 M	4		-		-		-		-		-
LSN 132 M	5.5		-		-		-		-		-
LSN 160 M	7.5		-		-		-		-		-
LSN 160 L	11		-		-		-		-		-
LSN 180 L	15		-		-		-		-		-
LSN 200 LT	18.5		-		-		-		-		-
LSN 200 L	22		-		-		-		-		-
LSN 225 MR	30		-		-		-		-		-
LSN 250 ME	37		-		-		-		-		-
LSN 280 SC	45		-		-		-		-		-
LSN 280 MC	55		-		-		-		-		-

LSN



Atmospheres containing explosive GAS totally enclosed three-phase asynchronous motors

Selection

**CATEGORY 3
ZONE 2**

IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 3G - Ex nA II T3

**8
poles
750 min⁻¹**

	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting current/ Rated current	Starting torque/ Rated torque	Maximum torque/ Rated torque	Moment of inertia	Weight	Noise
Type	P _N kW	N _N min-1	M _N Nm	I _{N (400V)} A	Cos Phi			η			Id / In	Md/Mn	M _M /Mn	J kg.m2	IM B3 kg	LP db(A)
LSN 80 L	0.18	705	2.44	0.79	0.63	0.54	0.45	52	48	43	2.9	1.5	1.9	0.0031	9.7	41
LSN 80 L	0.25	700	3.41	0.98	0.68	0.6	0.51	54	52	45	2.8	1.7	1.9	0.0041	11.3	41
LSN 90 L	0.37	685	5.16	1.2	0.72	0.63	0.52	62	62	56	3.8	1.7	1.8	0.0038	13.5	43
LSN 90 S	0.37	685	5.16	1.2	0.72	0.63	0.52	62	62	56	3.8	1.7	1.8	0.0038	13.5	43
LSN 90 L	0.55	670	7.84	1.7	0.72	0.61	0.52	63.5	62	59	3.5	1.7	1.7	0.0047	15.2	43
LSN 100 L	0.75	670	10.7	2.4	0.71	0.58	0.47	63.5	61.5	55	3.5	1.8	2.2	0.0047	18	43
LSN 100 L	1.1	670	15.7	3.7	0.68	0.6	0.49	63	62.5	58	3.7	2.0	2.2	0.0068	21.8	43
LSN 112 MG	1.5	710	20.2	4.7	0.64	0.55	0.43	72	69	62.5	3.8	2.0	2.1	0.015	24	49
LSN 132 SM	2.2	713	29.5	6.1	0.68	0.56	0.45	77.1	77.5	71	4.0	1.7	2.0	0.025	45.6	54
LSN 132 M	3	712	40.2	8	0.65	0.56	0.45	79.8	82.9	79	4.3	1.9	2.2	0.033	53.9	54
LSN 160 M	4	718	53.2	11	0.63	0.55	0.43	83.3	83.4	81.3	3.9	1.7	2.3	0.068	84	66
LSN 160 M	5.5	716	73.4	15.1	0.63	0.55	0.43	83.3	83.5	81.8	3.9	1.7	2.3	0.071	89	66
LSN 160 L	7.5	714	100	20.6	0.63	0.55	0.43	83.4	84	82.6	3.9	1.9	2.3	0.09	101	66
LSN 180 L	11	720	146	25.6	0.72	0.68	0.57	86	86.3	84.2	3.8	1.4	1.9	0.205	140	68
LSN 200 L	15	725	198	32.9	0.75	0.7	0.57	87.7	87.9	86.3	4.4	1.6	2.1	0.27	185	65
LSN 225 ST	18.5	725	244	42.4	0.72	0.66	0.54	87.5	87.7	86.2	4.2	1.6	2.1	0.33	210	65
LSN 225 MR	22	725	290	51.9	0.7	0.63	0.51	87.4	87.2	85.1	4.4	1.9	2.3	0.4	240	65
LSN 250 ME	30	730	392	60.3	0.79	0.73	0.63	90.9	91.2	90.1	5.8	1.9	2.7	0.99	330	65
LSN 280 SC	37	730	484	74.3	0.79	0.73	0.63	91	91.4	90.7	5.6	1.8	2.6	1.19	370	65
LSN 280 MD	45	728	590	91.4	0.78	0.73	0.63	91.1	91.7	91.1	5.4	1.8	2.6	1.39	430	65

LSN



Atmospheres containing explosive GAS totally enclosed three-phase asynchronous motors

Selection

CATEGORY 3
ZONE 2

IP 55 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 3G - Ex nA II T3

8
poles
750 min⁻¹

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
		Code	Qty	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LSN 80 L	0.18		-		-		-		-		-
LSN 80 L	0.25		-		-		-		-		-
LSN 90 L	0.37		-		-		-		-		-
LSN 90 S	0.37										
LSN 90 L	0.55		-		-		-		-		-
LSN 100 L	0.75		-		-		-		-		-
LSN 100 L	1.1		-		-		-		-		-
LSN 112 MG	1.5		-		-		-		-		-
LSN 132 SM	2.2		-		-		-		-		-
LSN 132 M	3		-		-		-		-		-
LSN 160 M	4		-		-		-		-		-
LSN 160 M	5.5		-		-		-		-		-
LSN 160 L	7.5		-		-		-				
LSN 180 L	11		-		-		-				
LSN 200 L	15		-		-		-				
LSN 225 ST	18.5		-		-		-				
LSN 225 MR	22		-		-		-				
LSN 250 ME	30		-				-				
LSN 280 SC	37		-				-				
LSN 280 MD	45		-				-				



LSN

Atmospheres containing explosive GAS

totally enclosed three-phase asynchronous motors

Dimensions

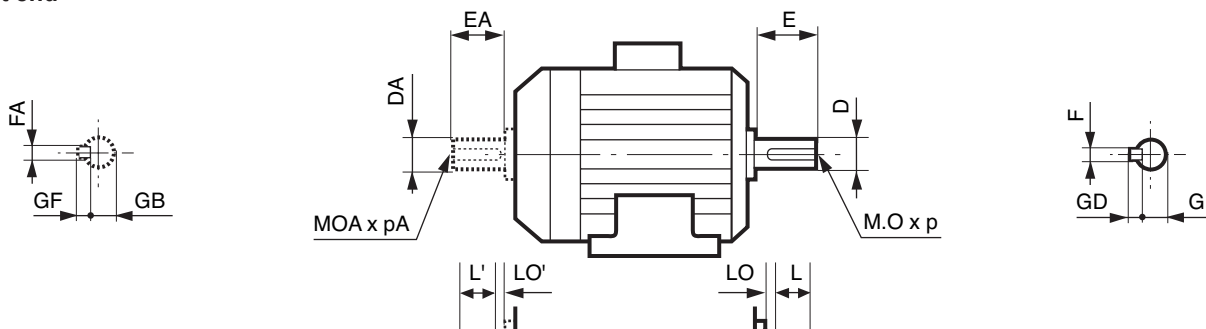
CATEGORY 3
ZONE 2

Dimensions of the LSN totally enclosed three-phase asynchronous motors - IP 55

Cage rotor

Dimensions in millimetres

– shaft end



Type	Main shaft end																	
	4, 6 and 8 poles									2 poles								
	F	GD	D	G	E	O	p	L	LO	F	GD	D	G	E	O	p	L	LO
LSN 80 L	6	6	19j6	15.5	40	6	16	30	6	6	6	19j6	15.5	40	6	16	30	6
LSN 90 S/SL/L/LU	8	7	24j6	20	50	8	19	40	6	8	7	24j6	20	50	8	19	40	6
LSN 100 L	8	7	28j6	24	60	10	22	50	6	8	7	28j6	24	60	10	22	50	6
LSN 112 M/MG/MU	8	7	28j6	24	60	10	22	50	6	8	7	28j6	24	60	10	22	50	6
LSN 132 S/SM/M	10	8	38k6	33	80	12	28	63	10	10	8	38k6	33	80	12	28	63	10
LSN 160 M/MP/L/LR/LU	12	8	42k6	37	110	16	36	100	6	12	8	42k6	37	110	16	36	100	6
LSN 180 MT/L/LR/LU	14	9	48k6	42.5	110	16	36	98	12	14	9	48k6	42.5	110	16	36	98	12
LSN 200 L/LT/LU	16	10	55m6	49	110	20	42	97	13	16	10	55m6	49	110	20	42	97	13
LSN 225 SR/ST/MG/MR/MT	18	11	60m6	53	140	20	42	126	14	16	10	55m6	49	110	20	42	97	13
LSN 250 ME/MF/MZ	18	11	65m6	58	140	20	42	126	14	18	11	60m6	53	140	20	42	126	14
LSN 280 SC/SD/MC/MD	20	12	75m6	67.5	140	20	42	125	15	18	11	65m6	58	140	20	42	125	14
LSN 280 SK/MK	20	12	75m6	67.5	140	20	42	125	15	18	11	65m6	58	140	20	42	126	14

Type	Secondary shaft end																	
	4, 6 and 8 poles									2 poles								
	FA	GF	DA	GB	EA	OA	pA	L'	LO'	FA	GF	DA	GB	EA	OA	pA	L'	LO'
LSN 80 L	5	5	14j6	11	30	5	15	25	3.5	5	5	14j6	11	30	5	15	25	3.5
LSN 90 S/SL/L/LU	6	6	19j6	15.5	40	6	16	30	6	6	6	19j6	15.5	40	6	16	30	6
LSN 100 L	8	7	24j6	20	50	8	19	40	6	8	7	24j6	20	50	8	19	40	6
LSN 112 M/MG/MU	8	7	24j6	20	50	8	19	40	6	8	7	24j6	20	50	8	19	40	6
LSN 132 S/SM/M	8	7	28k6	24	60	10	22	50	6	8	7	28k6	24	60	10	22	50	6
LSN 160 M/MP/L/LR/LU	12	8	38k6	37	80	16	36	100	6	12	8	38k6	37	80	16	36	100	6
LSN 180 MT/L/LR/LU	14	9	48k6	42.5	110	16	36	98	12	14	9	48k6	42.5	110	16	36	98	12
LSN 200 L/LT/LU	16	10	55m6	49	110	20	42	97	13	16	10	55m6	49	110	20	42	97	13
LSN 225 SR/ST/MG/MR/MT	18	11	60m6	53	140	20	42	126	14	16	10	55m6	49	110	20	42	97	13
LSN 250 ME/MF/MZ	18	11	60m6	53	140	20	42	126	14	18	11	60m6	53	140	20	42	126	14
LSN 280 SC/SD/MC/MD	18	11	65m6	58	140	20	42	126	14	18	11	65m6	58	140	20	42	126	14
LSN 280 SK/MK	20	12	75m6	67.5	140	20	42	125	15	18	11	65m6	58	140	20	42	126	14

LSN



Atmospheres containing explosive GAS totally enclosed three-phase asynchronous motors

Dimensions

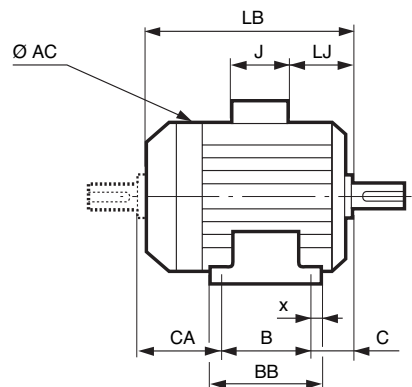
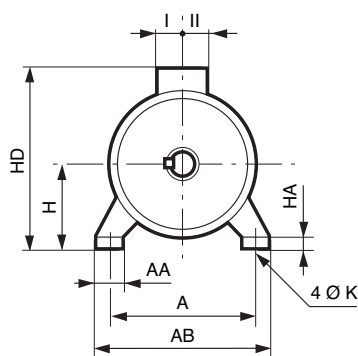
**CATEGORY 3
ZONE 2**

Dimensions of the LSN totally enclosed three-phase asynchronous motors - IP 55

Cage rotor

Dimensions in millimetres

– foot mounted



Type	Main dimensions																	
	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LJ	J	I	II	CA
LSN 80 L	125	157	100	120	50	10	29	9	10	80	170	203	215	26	86	43	43	68
LSN 80 LU	125	157	100	120	50	10	29	9	10	80	170	203	267	26	86	43	43	120
LSN 90 S	140	172	100	120	56	10	37	10	11	90	190	223	218	26	86	43	43	68
LSN 90 SL/L	140	172	125	162	56	28	37	10	11	90	190	223	245	26	86	43	43	68
LSN 90 LU	140	172	125	162	56	28	37	10	11	90	190	223	265	26	86	43	43	88
LSN 100 L	160	196	140	165	63	12	40	12	13	100	200	238	290	26	86	43	43	93
LSN 112 M	190	220	140	165	70	12	45	12	14	112	200	250	290	26	86	43	43	86
LSN 112 MG	190	220	140	165	70	12	52	12	14	112	235	260	315	36	86	43	43	110
LSN 112 MU	190	220	140	165	70	12	52	12	14	112	235	260	334	36	86	43	43	130
LSN 132 S	216	250	140	170	89	16	50	12	15	132	235	280	350	53	86	43	43	128
LSN 132 SM/M	216	250	178	208	89	16	59	12	18	132	280	307	387	25	110	57	73	126
LSN 132 MU	216	250	178	208	89	16	59	12	18	132	280	307	410	25	110	57	73	148
LSN 160 MP	254	294	210	294	108	20	64	14.5	25	160	315	368	468	44	134	92	63	154
LSN 160 M	254	294	210	294	108	20	60	14.5	25	160	316	395	495	44	134	92	63	182
LSN 160 LR	254	294	254	294	108	20	64	14.5	25	160	315	368	495	44	134	92	63	138
LSN 160 L	254	294	254	294	108	20	60	14.5	25	160	316	395	495	44	134	92	63	138
LSN 160 LU	254	294	254	294	108	20	60	14.5	25	160	316	395	510	44	134	92	63	153
LSN 180 MT	279	324	241	316	121	20	79	14.5	28	180	316	428	495	55	186	112	98	138
LSN 180 LR	279	324	279	316	121	20	79	14.5	28	180	316	428	520	55	186	112	98	125
LSN 180 L	279	339	279	329	121	25	86	14.5	25	180	350	435	552	64	186	112	98	159
LSN 180 LU	279	339	279	329	121	25	86	14.5	25	180	350	435	593	64	186	112	98	199
LSN 200 LT	318	378	305	365	133	30	108	18.5	30	200	350	455	599	70	186	112	98	167
LSN 200 L	318	388	305	375	133	35	103	18.5	36	200	390	475	621	77	186	112	98	194
LSN 200 LU	318	388	305	375	133	35	103	18.5	36	200	390	475	669	77	186	112	98	244
LSN 225 ST	356	431	286	386	149	50	127	18.5	36	225	390	500	627	84	186	112	98	203
LSN 225 SR	356	431	286	386	149	50	127	18.5	36	225	390	500	676	84	186	112	98	253
LSN 225 MT	356	431	311	386	149	50	127	18.5	36	225	390	500	627	84	186	112	98	178
LSN 225 MR	356	431	311	386	149	50	127	18.5	36	225	390	500	676	84	186	112	98	228
LSN 225 MG	356	420	311	375	149	30	65	18.5	30	225	479	629	810	68	292	148	180	360
LSN 250 MZ	406	470	349	449	168	70	150	24	47	250	390	550	676	68	217	103	145	171
LSN 250 ME	406	470	349	420	168	35	90	24	36	250	479	655	810	68	292	148	180	303
LSN 250 MF	406	470	349	420	168	35	90	24	36	250	479	655	870	68	292	148	180	363
LSN 280 SC	457	520	368	478	190	35	90	24	35	280	479	685	810	68	292	148	180	262
LSN 280 SD	457	520	368	478	190	35	90	24	35	280	479	685	870	68	292	148	180	322
LSN 280 SK	457	533	368	495	190	40	85	24	35	280	586	746	921	99	292	148	180	379
LSN 280 MC	457	520	419	478	190	35	90	24	35	280	479	685	810	68	292	148	180	211
LSN 280 MD	457	520	419	478	190	35	90	24	35	280	479	685	870	68	292	148	180	271
LSN 280 MK	457	533	419	495	190	40	85	24	35	280	586	746	921	99	292	148	180	328



LSN

Atmospheres containing explosive GAS

totally enclosed three-phase asynchronous motors

CATEGORY 3
ZONE 2

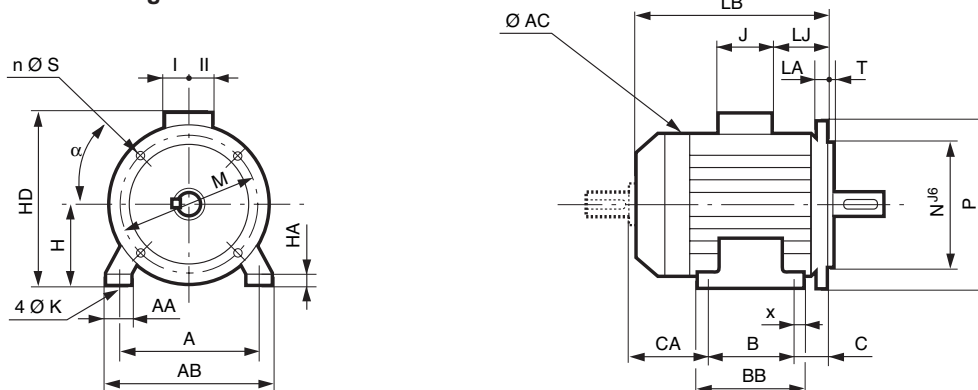
Dimensions

Dimensions of the LSN totally enclosed three-phase asynchronous motors - IP 55

Cage rotor

Dimensions in millimetres

– (FF) foot and plain hole flange mounted



Type	Main dimensions																		Sym.
	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LJ	J	I	II	CA	
LSN 80 L	125	157	100	120	50	10	29	9	10	80	170	203	215	26	86	43	43	68	FF165
LSN 80 LU	125	157	100	120	50	10	29	9	10	80	170	203	267	26	86	43	43	120	FF165
LSN 90 S	140	172	100	120	56	10	37	10	11	90	190	223	218	26	86	43	43	66	FF165
LSN 90 SL/L	140	172	125	162	56	28	37	10	11	90	190	223	245	26	86	43	43	68	FF165
LSN 90 LU	140	172	125	162	56	28	37	10	11	90	190	223	265	26	86	43	43	88	FF165
LSN 100 L	160	196	140	165	63	12	40	12	13	100	200	238	290	26	86	43	43	93	FF215
LSN 112 M	190	220	140	165	70	12	45	12	14	112	200	250	290	26	86	43	43	86	FF215
LSN 112 MG	190	220	140	165	70	12	52	12	14	112	235	260	315	36	86	43	43	110	FF215
LSN 112 MU	190	220	140	165	70	12	52	12	14	112	235	260	334	36	86	43	43	130	FF215
LSN 132 S	216	250	140	170	89	16	50	12	15	132	235	280	350	53	86	43	43	128	FF265
LSN 132 SM/M	216	250	178	208	89	16	59	12	18	132	280	307	387	25	110	57	73	126	FF265
LSN 132 MU	216	250	178	208	89	16	59	12	18	132	280	307	410	25	110	57	73	148	FF265
LSN 160 MP	254	294	210	294	108	20	64	14.5	25	160	315	368	468	44	134	92	63	154	FF300
LSN 160 M	254	294	210	294	108	20	60	14.5	25	160	316	395	495	44	134	92	63	182	FF300
LSN 160 LR	254	294	254	294	108	20	64	14.5	25	160	315	368	495	44	134	92	63	138	FF300
LSN 160 L	254	294	254	294	108	20	60	14.5	25	160	316	395	495	44	134	92	63	138	FF300
LSN 160 LU	254	294	254	294	108	20	60	14.5	25	160	316	395	510	44	134	92	63	153	FF300
LSN 180 MT	279	324	241	316	121	20	79	14.5	28	180	316	428	495	55	186	112	98	138	FF300
LSN 180 LR	279	324	279	316	121	20	79	14.5	28	180	316	428	520	55	186	112	98	125	FF300
LSN 180 L	279	339	279	329	121	25	86	14.5	25	180	350	435	552	64	186	112	98	159	FF300
LSN 180 LU	279	339	279	329	121	25	86	14.5	25	180	350	435	593	64	186	112	98	199	FF300
LSN 200 LT	318	378	305	365	133	30	108	18.5	30	200	350	455	599	70	186	112	98	167	FF350
LSN 200 L	318	388	305	375	133	35	103	18.5	36	200	390	475	621	77	186	112	98	194	FF350
LSN 200 LU	318	388	305	375	133	35	103	18.5	36	200	390	475	669	77	186	112	98	244	FF350
LSN 225 ST	356	431	286	386	149	50	127	18.5	36	225	390	500	627	84	186	112	98	203	FF400
LSN 225 SR	356	431	286	386	149	50	127	18.5	36	225	390	500	676	84	186	112	98	253	FF400
LSN 225 MT	356	431	311	386	149	50	127	18.5	36	225	390	500	627	84	186	112	98	178	FF400
LSN 225 MR	356	431	311	386	149	50	127	18.5	36	225	390	500	676	84	186	112	98	228	FF400
LSN 225 MG	356	420	311	375	149	30	65	18.5	30	225	479	629	810	68	292	148	180	360	FF400
LSN 250 MZ	406	470	349	449	168	70	150	24	47	250	390	550	676	68	217	103	145	171	FF500
LSN 250 ME	406	470	349	420	168	35	90	24	36	250	479	655	810	68	292	148	180	303	FF500
LSN 250 MF	406	470	349	420	168	35	90	24	36	250	479	655	870	68	292	148	180	363	FF500
LSN 280 SC	457	520	368	478	190	35	90	24	35	280	479	685	810	68	292	148	180	262	FF500
LSN 280 SD	457	520	368	478	190	35	90	24	35	280	479	685	870	68	292	148	180	322	FF500
LSN 280 SK	457	533	368	495	190	40	85	24	35	280	586	746	921	99	292	148	180	379	FF500
LSN 280 MC	457	520	419	478	190	35	90	24	35	280	479	685	810	68	292	148	180	211	FF500
LSN 280 MD	457	520	419	478	190	35	90	24	35	280	479	685	870	68	292	148	180	271	FF500
LSN 280 MK	457	533	419	495	190	40	85	24	35	280	586	746	921	99	292	148	180	328	FF500

CA dimension and shaft end dimensions identical to those of the foot mounted motors.

LSN



Atmospheres containing explosive GAS totally enclosed three-phase asynchronous motors

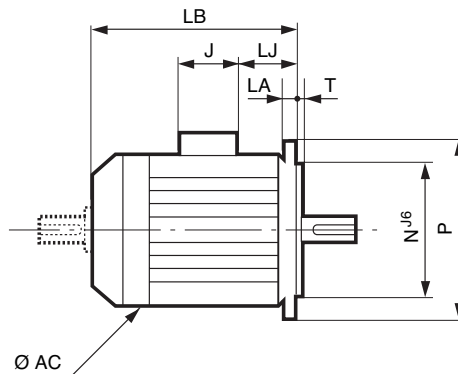
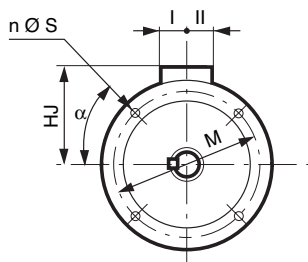
Dimensions

**CATEGORY 3
ZONE 2**

Dimensions of the LSN totally enclosed three-phase asynchronous motors - IP 55
Cage rotor

Dimensions in millimetres

– (FF) plain hole flange mounted



IEC symbol	Flange dimensions							
	M	N	P	T	n	α°	S	LA
FF 165	165	130	200	3.5	4	45	12	10
FF 165	165	130	200	3.5	4	45	12	10
FF 165	165	130	200	3.5	4	45	12	10
FF 165	165	130	200	3.5	4	45	12	10
FF 215	215	180	250	4	4	45	14.5	12
FF 215	215	180	250	4	4	45	14.5	11
FF 215	215	180	250	4	4	45	14.5	11
FF 215	215	180	250	4	4	45	14.5	11
FF 265	265	230	300	4	4	45	14.5	12
FF 265	265	230	300	4	4	45	14.5	12
FF 265	265	230	300	4	4	45	14.5	12
FF 300	300	250	350	5	4	45	18.5	14
FF 300	300	250	350	5	4	45	18.5	14
FF 300	300	250	350	5	4	45	18.5	14
FF 300	300	250	350	5	4	45	18.5	14
FF 300	300	250	350	5	4	45	18.5	14
FF 300	300	250	350	5	4	45	18.5	14
FF 300	300	250	350	5	4	45	18.5	14
FF 350	350	300	400	5	4	45	18.5	15
FF 350	350	300	400	5	4	45	18.5	15
FF 350	350	300	400	5	4	45	18.5	15
FF 400	400	350	450	5	8	22.5	18.5	16
FF 400	400	350	450	5	8	22.5	18.5	16
FF 400	400	350	450	5	8	22.5	18.5	16
FF 400	400	350	450	5	8	22.5	18.5	16
FF 400	400	350	450	5	8	22.5	18.5	16
FF 500	500	450	550	5	8	22.5	18.5	18
FF 500	500	450	550	5	8	22.5	18.5	18
FF 500	500	450	550	5	8	22.5	18.5	18
FF 500	500	450	550	5	8	22.5	18.5	18
FF 500	500	450	550	5	8	22.5	18.5	18
FF 500	500	450	550	5	8	22.5	18.5	18
FF 500	500	450	550	5	8	22.5	18.5	18
FF 500	500	450	550	5	8	22.5	18.5	18

Type	Main dimensions						
	AC	LB	HJ	LJ	J	I	II
LSN 80 L	170	215	123	26	86	43	43
LSN 80 LU	170	267	123	26	86	43	43
LSN 90 S	190	218	133	26	86	43	43
LSN 90 SL/L	190	245	133	26	86	43	43
LSN 90 LU	190	265	133	26	86	43	43
LSN 100 L	200	290	138	26	86	43	43
LSN 112 M	200	290	138	26	86	43	43
LSN 112 MG	235	315	148	36	86	43	43
LSN 112 MU	235	334	148	36	86	43	43
LSN 132 S	235	350	148	53	86	43	43
LSN 132 SM/M	280	387	175	25	110	57	73
LSN 132 MU	280	410	175	25	110	57	73
LSN 160 MP	315	468	208	44	134	92	63
LSN 160 M	316	495	235	44	134	92	63
LSN 160 LR	315	495	208	44	134	92	63
LSN 160 L	316	495	235	44	134	92	63
LSN 160 LU	316	510	235	44	134	92	63
LSN 180 MT	316	495	248	55	186	112	98
LSN 180 LR	316	520	248	55	186	112	98
LSN 180 L	350	552	255	64	186	112	98
LSN 180 LU	350	593	255	64	186	112	98
LSN 200 LT	350	599	255	70	186	112	98
LSN 200 L	390	621	275	77	186	112	98
LSN 200 LU	390	669	275	77	186	112	98
LSN 225 ST	390	627	275	84	186	112	98
LSN 225 SR	390	676	275	84	186	112	98
LSN 225 MT	390	627	275	84	186	112	98
LSN 225 MR	390	676	275	84	186	112	98
LSN 225 MG	479	810	405	68	292	148	180
LSN 250 MZ	390	676	300	68	217	103	145
LSN 250 ME	479	810	405	68	292	148	180
LSN 250 MF	479	870	405	68	292	148	180
LSN 280 SC	479	810	405	68	292	148	180
LSN 280 SD	479	870	405	68	292	148	180
LSN 280 SK	586	921	466	99	292	148	180
LSN 280 MC	479	810	405	68	292	148	180
LSN 280 MD	479	870	405	68	292	148	180
LSN 280 MK	586	921	466	99	292	148	180

For IM 3001 use, for frame size ≥ 250 mm, consult us.
Shaft end dimensions identical to those of foot mounted motors.

LSN



Atmospheres containing explosive GAS totally enclosed three-phase asynchronous motors

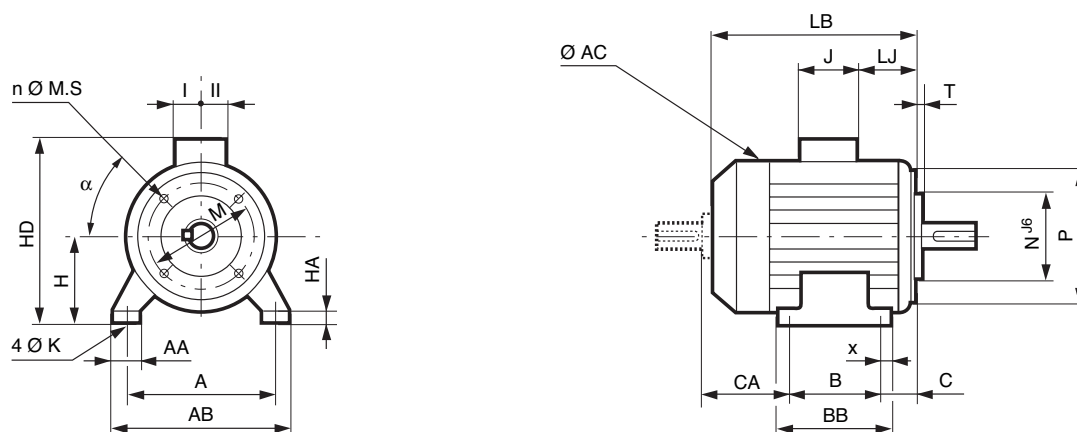
Dimensions

**CATEGORY 3
ZONE 2**

**Dimensions of the LSN totally enclosed three-phase asynchronous motors - IP 55
Cage rotor**

Dimensions in millimetres

– (FT) foot and tapped hole flange mounted



Type	Main dimensions																		Sym.
	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LJ	J	I	II	CA	
LSN 80 L	125	157	100	120	50	10	29	9	10	80	170	203	215	26	86	43	43	68	FT100
LSN 80 LU	125	157	100	120	50	10	29	9	10	80	170	203	267	26	86	43	43	120	FT100
LSN 90 S	140	172	100	120	56	10	37	10	11	90	190	223	218	26	86	43	43	66	FT115
LSN 90 SL/L	140	172	125	162	56	28	37	10	11	90	190	223	245	26	86	43	43	68	FT115
LSN 90 LU	140	172	125	162	56	28	37	10	11	90	190	223	265	26	86	43	43	88	FT115
LSN 100 L	160	196	140	165	63	12	40	12	13	100	200	238	290	26	86	43	43	93	FT130
LSN 112 M	190	220	140	165	70	12	45	12	14	112	200	250	290	26	86	43	43	86	FT130
LSN 112 MG	190	220	140	165	70	12	52	12	14	112	235	260	315	36	86	43	43	110	FT130
LSN 112 MU	190	220	140	165	70	12	52	12	14	112	235	260	334	36	86	43	43	130	FT130
LSN 132 S	216	250	140	170	89	16	50	12	15	132	235	280	350	53	86	43	43	128	FT215
LSN 132 SM/M	216	250	178	208	89	16	59	12	18	132	280	307	387	25	110	57	73	126	FT215
LSN 132 MU	216	250	178	208	89	16	59	12	18	132	280	307	410	25	110	57	73	148	FT215
LSN 160 MP	254	294	210	294	108	20	64	14.5	25	160	315	368	468	44	134	92	63	154	FT215
LSN 160 LR	254	294	254	294	108	20	64	14.5	28	160	315	368	495	44	134	92	63	138	FT215

LSN



Atmospheres containing explosive GAS totally enclosed three-phase asynchronous motors

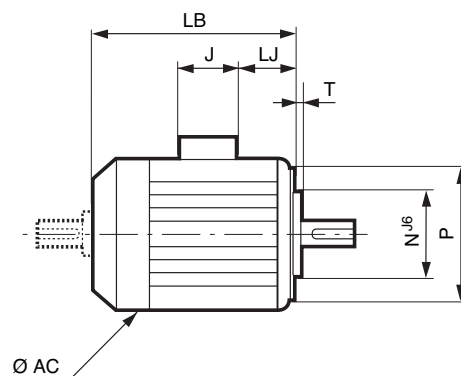
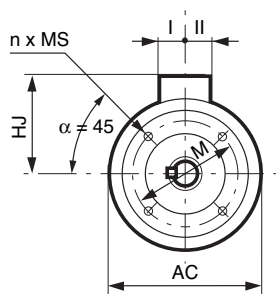
**CATEGORY 3
ZONE 2**

Dimensions

Dimensions of the LSN totally enclosed three-phase asynchronous motors - IP 55
Cage rotor

Dimensions in millimetres

– (FT) tapped hole flange mounted



IEC symbol	Flange dimensions					
	M	N	P	T	n	MS
FT 100	100	80	120	3	4	M6
FT 100	100	80	120	3	4	M6
FT 115	115	95	140	3	4	M8
FT 115	115	95	140	3	4	M8
FT 115	115	95	140	3	4	M8
FT 130	130	110	160	3.5	4	M8
FT 130	130	110	160	3.5	4	M8
FT 130	130	110	160	3.5	4	M8
FT 215	215	180	250	4	4	M12
FT 215	215	180	250	4	4	M12
FT 215	215	180	250	4	4	M12
FT 215	215	180	250	4	4	M12
FT 215	215	180	250	4	4	M12

Type	Main dimensions					
	AC	LB	LJ	J	I	II
LSN 80L	170	215	26	86	43	43
LSN 80 LU	170	267	26	86	43	43
LSN 90 S	190	218	26	86	43	43
LSN 90 SL/L	190	245	26	86	43	43
LSN 90 LU	190	265	26	86	43	43
LSN 100 L	200	290	26	86	43	43
LSN 112 M	200	290	26	86	43	43
LSN 112 MG	235	315	36	86	43	43
LSN 112 MU	235	334	36	86	43	43
LSN 132 S	235	350	53	86	43	43
LSN 132 SM/M	280	387	25	110	57	73
LSN 132 MU	280	410	25	110	57	73
LSN 160 MP	315	468	44	134	92	63
LSN 160 LR	315	495	44	134	92	63

Shaft end dimensions identical to those of the foot mounted motors.

