

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

General information



Totally enclosed three-phase asynchronous motors, LSPX series, according to IEC 60034, 60072, EN 50281.

- Single speed: power 0.09 to 90 kW¹, frame size 63 to 280 mm, 2, 4, 6, 8 poles; 230/400 V or 400 V Δ, 50 Hz.
- Two speed: (on request) power 0.09 to 37 kW*, frame size 80 to 280 mm in 2/4, 4/6, 4/8, 6/8, 6/12 poles centrifugal or general use, PAM or Dahlander ; 400 V Y or Δ, 50 Hz.

IP 65 protection

Motors for variable speed operation:

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

Finish: aluminium casing

Assembled with protected screws.
Finishing paint **RAL 1007 (yellow)**.
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.

Description of the LSPX aluminium three-phase motors



II 2DT 125 °C

Component	Materials	Remarks
Finned housing	Aluminium alloy	- with bolt-on or cast foot, or without foot - pressure die casting for frame size ≤ 180 - gravity casting for frame size ≥ 200 <ul style="list-style-type: none"> • 4 or 6 mounting holes for the foot housings • lifting rings frame size ≥ 160, option in 132 and 112 - optional earth terminal
Stator	Insulated low carbon magnetic steel laminations Electrolytic copper	- the low carbon content guarantees long term stability of the characteristics - assembled lamination stack - semi-enclosed slots - insulation system class F
Rotor	Insulated low carbon magnetic steel laminations Aluminium (A5L)	- inclined slots - squirrel cage pressure die cast in aluminium (or alloy for special applications) - mounted on the shaft by heat shrinking - dynamically balanced rotor class A - 1/2 key
Shaft	Steel	- for frame size ≤ 132: <ul style="list-style-type: none"> • shaft end fitted with screw and washer • closed key - for frame size ≥ 160: <ul style="list-style-type: none"> • tapped centre hole • open key
End shields	Aluminium alloy Cast iron	- LS 56 - 63 - 71 front and rear - for frame size ≥ 80 (optional for LS 71)
Bearings and lubrication		- 2RS type lubricated for life for frame size 56 - 63 - 71 - ball bearings - ZZ types lubricated for life up to 200 inclusive - open or semi-protected types for frame sizes 225 and 280 - rear preloaded bearings
Lipseals	Synthetic rubber	- front and rear lipseals for IP 65 sealing at shaft level
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 65 - rotatable in 4 directions, the opposite position to the foot - fitted with a terminal board with 6 steel studs and lock nuts - with fitted CMDL type cable glands - 1 earth terminal in all terminal boxes
Paint		- system Ia - resistance to saline mist: 72 h (according to NFX 41002)

LSPX

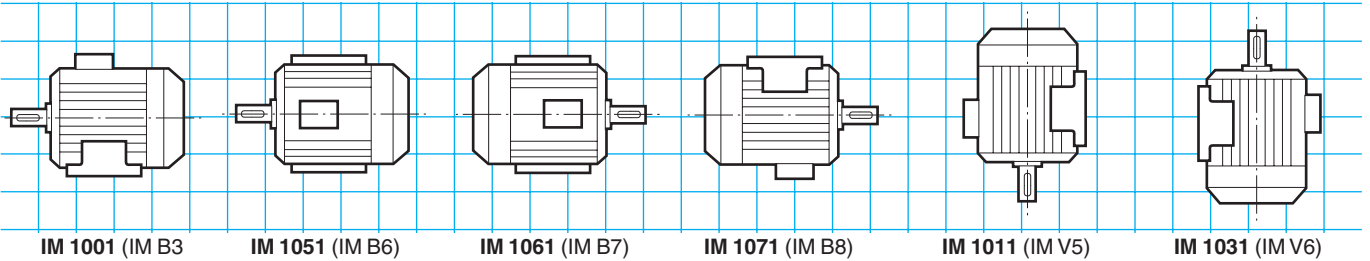
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ZONE 21**

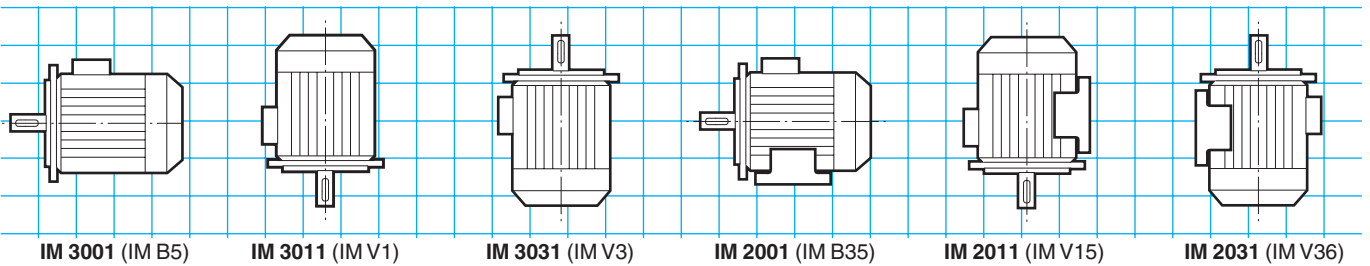
Mounting positions

Foot mounted motors



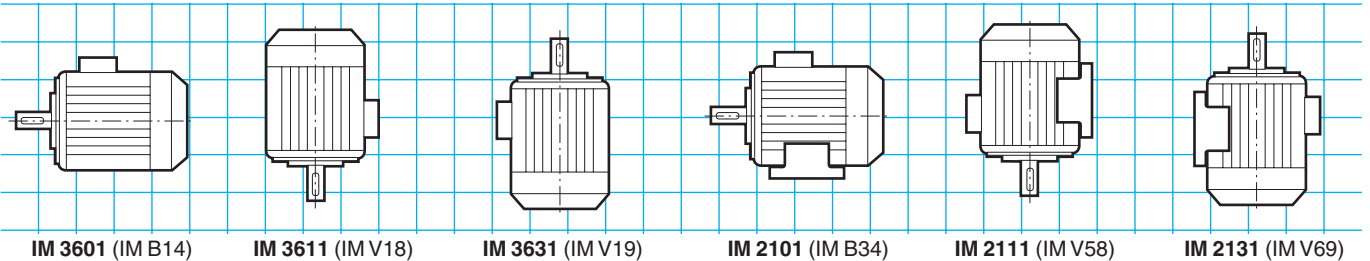
(FF) plain hole flange mounted motors

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

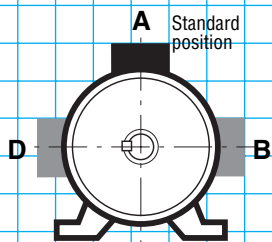


(FT) tapped hole flange mounted motors

• Possible position up to 132 frame size inclusive

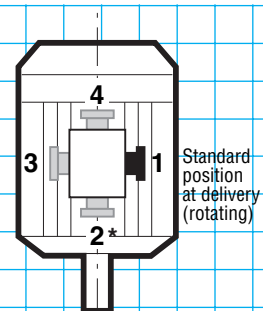


Position of terminal box in relation to the motor shaft end



A: standard

Position of the cable gland in relation to the motor shaft end



1: standard

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

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**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y - S1
II - 2D - T_{MAX} 125 °C

**2
poles
3000 min⁻¹**

A

Type	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting torque/ Rated torque	Starting moment/ Rated moment	Maximum moment/ Rated moment	Moment of inertia	Weight	Noise
	P _N kW	N _N min ⁻¹	M _N Nm	I _{N(400V)} A	Cos Phi			η			Id / In	Md/Mn	M _M /M _N	J kg.m ²	IM B3 kg	LP db(A)
					4/4	3/4	2/4	4/4	3/4	2/4						
LSPX 63 M	0.18	2790	0.62	0.52	0.75	0.65	0.55	67	66	59	5.0	3.3	2.9	0.000	4.8	57
LSPX 63 M	0.25	2800	0.85	0.71	0.75	0.65	0.55	68	67	59	5.4	3.2	2.9	0.000	6	57
LSPX 71 L	0.37	2800	1.26	0.98	0.80	0.70	0.60	68	67	63	5.2	3.3	3.9	0.000	6.4	62
LSPX 71 L	0.55	2800	1.88	1.32	0.80	0.70	0.55	75	75	71	6.0	3.2	3.1	0.000	7.3	62
LSPX 71 L	0.75	2780	2.58	1.7	0.85	0.75	0.65	75	75	73	6.0	3.3	2.9	0.001	8.3	62
LSPX 80 L	0.75	2840	2.52	1.64	0.87	0.80	0.68	76	76.5	74	5.9	2.4	2.2	0.001	8.2	61
LSPX 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	0.001	9.7	61
LSPX 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	0.001	11.3	61
LSPX 90 L	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	0.001	12	64
LSPX 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	0.001	12	64
LSPX 90 L	1.8	2865	6	3.6	0.86	0.80	0.69	83.1	83.4	81.7	8.0	3.6	3.6	0.002	14	64
LSPX 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	0.002	16	64
LSPX 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	0.002	20	66
LSPX 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	0.003	24.4	66
LSPX 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	0.008	33	66
LSPX 132 M	9	2910	29.5	17.3	0.85	0.80	0.71	88.1	88.4	87.5	8.6	2.5	3.5	0.016	49	72
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 200 LT	30	2946	97.2	52.1	0.90	0.87	0.82	92.4	92.7	92.1	8.6	2.7	3.4	0.089	154	73
LSPX 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
LSPX 225 MR	45	2950	146	77.4	0.90	0.87	0.82	93.3	93.4	93.1	7.5	2.8	3.1	0.14	200	73
LSPX 250 MZ	55	2956	178	95.2	0.89	0.86	0.80	93.7	93.7	93.1	8.3	3.1	3.4	0.173	235	78
LSPX 280 SC	75	2968	241	127	0.90	0.87	0.82	94.4	94.4	93.8	8.5	2.6	3.4	0.39	330	79
LSPX 280 MC	90	2968	290	152	0.90	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 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - $\Delta T 80 K$ - 230 V Δ / 400 V Y - S1
 II - 2D - T_{MAX} 125 °C

**2
poles
3000 min⁻¹**

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)	
		Code	Qty	Code	Qty
LSPX 63 M	0.18		-		-
LSPX 63 M	0.25		-		-
LSPX 71 M	0.37		-		-
LSPX 71 L	0.37		-		-
LSPX 71 M	0.55		-		-
LSPX 71 L	0.55		-		-
LSPX 71 M	0.75		-		-
LSPX 71 L	0.75		-		-
LSPX 80 L	0.75	XA2 75 133	5	XA2 75 135	2
LSPX 80 L	1.1	XA2 11 233	5	XA2 11 235	2
LSPX 80 L	1.5		-		-
LSPX 90 S	1.5	XA2 15 233	5	XA2 15 235	2
LSPX 90 L	1.8	XA2 18 213	5	XA2 18 215	2
LSPX 90 L	2.2	XA2 22 219	5	XA2 22 221	2
LSPX 100 L	3	XA2 30 201	5	XA2 30 203	2
LSPX 112 M	4	XA2 40 201	5	XA2 40 203	2
LSPX 112 MG	4		-		-
LSPX 112 MG	5.5	XA2 55 201	5	XA2 55 203	2
LSPX 132 S	5.5	XA2 55 207	3	XA2 55 209	1
LSPX 132 S	7.5	XA2 75 201	3	XA2 75 203	1
LSPX 132 M	9	XA2 90 201	3	XA2 90 203	1
LSPX 132 M	11	XA2 11 340	3	XA2 11 342	1
LSPX 160 MP	11	XA2 11 301	2	XA2 11 303	1
LSPX 160 MP	15	XA2 15 301	2	XA2 15 303	1
LSPX 160 L	18.5		-		-
LSPX 180 MT	22		-		-
LSPX 200 LT	30		-		-
LSPX 200 L	37		-		-
LSPX 225 MR	45		-		-
LSPX 250 MZ	55		-		-
LSPX 280 SC	75		-		-
LSPX 280 MC	90		-		-

Selection example:

Speed:	3000 min ⁻¹ - 2 poles
Power:	2.2 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	230/400 V
Application:	ATEX zone 21

Designation:

**2P LSPX 90 L 2.2 kW IM 1001 (IM B3)
230/400 V**

Code: XA2 22 219

LSPX

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**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y - S1
II - 2D - T_{MAX} 125 °C

**4
poles
1500 min⁻¹**

A

Type	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting torque/ Rated torque	Starting moment/ Rated moment	Maximum moment/ Rated moment	Moment of inertia	Weight	Noise
	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)
					4/4	3/4	2/4	4/4	3/4	2/4						
LSPX 63 M	0.12	1380	0.83	0.44	0.7	0.58	0.47	56	54	46.8	3.2	2.4	2.3	0.000	4.8	49
LSPX 63 M	0.18	1390	1.24	0.64	0.65	0.55	0.44	62	58	51	3.8	2.6	2.6	0.000	5	49
LSPX 71 M	0.25	1425	1.68	0.8	0.65	0.55	0.44	69	67	60	4.6	2.7	2.9	0.001	6.4	49
LSPX 71 M	0.37	1420	2.49	1.06	0.7	0.59	0.47	72	72	66	4.9	2.4	2.8	0.001	7.3	49
LSPX 71 L	0.55	1400	3.75	1.62	0.7	0.62	0.49	70	70	65	4.8	2.3	2.5	0.001	8.3	49
LSPX 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	0.001	8.2	47
LSPX 80 L	0.75	1400	5.12	2.01	0.77	0.71	0.59	70	70	66	4.5	2.0	2.2	0.002	9.3	47
LSPX 80 L	0.9	1425	6.03	2.44	0.73	0.67	0.54	73	73	70	5.8	3.0	3.0	0.002	10.9	47
LSPX 90 L	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	0.003	11.5	48
LSPX 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	0.003	11.5	48
LSPX 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	0.003	13.5	48
LSPX 90 L	1.8	1438	12	4	0.82	0.75	0.61	80.1	80.8	79	6.0	2.1	3.2	0.004	15.2	48
LSPX 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	0.004	20	48
LSPX 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	0.006	22.5	48
LSPX 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	0.007	24.9	49
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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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ZONE 21**

Selection

IP 65 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1
II - 2D - T_{MAX} 125 °C

**4
poles
1500 min⁻¹**

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)	
		Code	Qty	Code	Qty
LSPX 63 M	0.12		-		-
LSPX 63 M	0.18		-		-
LSPX 71 L	0.18		-		-
LSPX 71 M	0.25		-		-
LSPX 71 L	0.25		-		-
LSPX 71 M	0.37		-		-
LSPX 71 L	0.37		-		-
LSPX 71 M	0.55		-		-
LSPX 71 L	0.55		-		-
LSPX 80 L	0.55	XA4 55 113	5	XA4 55 115	2
LSPX 80 L	0.75	XA4 75 119	5	XA4 75 121	2
LSPX 80 L	0.9	XA4 90 107	5	XA4 90 109	2
LSPX 90 S	1.1	XA4 11 219	5	XA4 11 221	2
LSPX 90 L	1.1		-		-
LSPX 90 L	1.5	XA4 15 207	5	XA4 15 209	2
LSPX 90 L	1.8	XA4 18 207	5	XA4 18 209	2
LSPX 100 L	2.2	XA4 22 207	5	XA4 22 209	2
LSPX 100 L	3	XA4 30 207	5	XA4 30 209	2
LSPX 112 M	4	XA4 40 201	5	XA4 40 203	2
LSPX 112 MG	4		-		-
LSPX 132 S	5.5	XA4 55 207	3	XA4 55 209	1
LSPX 132 M	7.5	XA4 75 207	3	XA4 75 209	1
LSPX 132 M	9	XA4 90 201	3	XA4 90 203	1
LSPX 160 MP	11	XA4 11 301	2	XA4 11 303	1
LSPX 160 LR	15	XA4 15 301	2	XA4 15 303	1
LSPX 180 MT	18.5		-		-
LSPX 180 LR	22		-		-
LSPX 200 LT	30		-		-
LSPX 225 ST	37		-		-
LSPX 225 MR	45		-		-
LSPX 250 ME	55		-		-
LSPX 280 SC	75		-		-
LSPX 280 MD	90		-		-

Selection example:

Speed:	1500 min ⁻¹ - 4 poles
Power:	15 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	230/400 V
Application:	ATEX zone 21

Designation:

**4P LSPX 160 LR 15 kW IM 1001 (IM B3)
230/400 V**

Code: XA4 15 301

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**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 2D - T_{MAX} 125 °C

6
poles
1000 min⁻¹

A

Type	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting torque/ Rated torque	Starting moment/ Rated moment	Maximum moment/ Rated moment	Moment of inertia	Weight	Noise
	P _N kW	N _N min-1	M _N Nm	I _{N(400V)} A	Cos Phi			η			Id / In	Md/Mn	M _M /M _N	J kg.m2	IM B3 kg	LP db(A)
LSPX 63 M	0.09	860	1.02	0.46	0.8	0.7	0.63	35	32	26	2.1	1.6	1.6	0.001	5.5	48
LSPX 71 M	0.12	920	1.25	0.64	0.55	0.48	0.4	49	45	36	3.0	2.6	2.7	0.001	6.5	52
LSPX 71 M	0.18	895	1.92	0.81	0.62	0.53	0.43	52	50	43	2.7	1.8	1.9	0.001	7.6	52
LSPX 71 L	0.25	840	2.84	1	0.7	0.59	0.48	50	52	47	2.5	1.6	1.6	0.001	7.9	52
LSPX 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	0.002	8.4	41
LSPX 80 L	0.37	950	3.72	1.1	0.72	0.67	0.57	66	61	59	4.3	1.7	2.2	0.003	9.7	41
LSPX 80 L	0.55	950	5.53	1.8	0.64	0.6	0.47	68	63	55	4.9	2.1	2.6	0.004	11	41
LSPX 90 L	0.75	930	7.7	2.1	0.77	0.66	0.54	68.5	65	60	4.2	2.4	2.6	0.004	13.5	51
LSPX 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	0.004	13.5	51
LSPX 90 L	1.1	915	11.5	3	0.76	0.67	0.55	70	70	66	4.7	2.4	2.5	0.005	15.2	51
LSPX 100 L	1.5	905	15.8	4.2	0.74	0.62	0.52	69	69	65	4.5	2.5	2.7	0.006	20	50
LSPX 112 M	2.2	905	23.2	5.8	0.76	0.66	0.53	72	72	68	5.6	2.8	2.7	0.009	24.2	51
LSPX 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
LSPX 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
LSPX 160 M	7.5	969	73.9	16.3	0.77	0.7		86.5	86.8		5.2	1.7	2.5	0.089	77	56
LSPX 160 L	11	968	109	23.4	0.78	0.71		86.9	86.9		5.3	1.8	2.6	0.105	85	56
LSPX 180 L	15	972	147	30.1	0.81	0.76	0.65	88.7	88.6	87.2	6.8	2.3	2.8	0.192	135	60
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - $\Delta T 80 K$ - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 2D - T_{MAX} 125 °C

6
poles
1000 min⁻¹

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)	
		Code	Qty	Code	Qty
LSPX 63 M	0.09		-		-
LSPX 71 M	0.12		-		-
LSPX 71 L	0.12		-		-
LSPX 71 M	0.18		-		-
LSPX 71 L	0.18		-		-
LSPX 71 M	0.25		-		-
LSPX 71 L	0.25		-		-
LSPX 80 L	0.25		-		-
LSPX 80 L	0.37		-		-
LSPX 80 L	0.55		-		-
LSPX 90 S	0.75		-		-
LSPX 90 L	0.75		-		-
LSPX 90 L	1.1		-		-
LSPX 100 L	1.5		-		-
LSPX 112 M	2.2		-		-
LSPX 112 MG	2.2		-		-
LSPX 132 S	3		-		-
LSPX 132 M	4		-		-
LSPX 132 M	5.5		-		-
LSPX 160 M	7.5		-		-
LSPX 160 L	11		-		-
LSPX 180 L	15		-		-
LSPX 200 LT	18.5		-		-
LSPX 200 L	22		-		-
LSPX 225 MR	30		-		-
LSPX 250 ME	37		-		-
LSPX 280 SC	45		-		-
LSPX 280 MC	55		-		-

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 2D - T_{MAX} 125 °C

**8
poles
750 min⁻¹**

A

Type	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting torque/ Rated torque	Starting moment/ Rated moment	Maximum moment/ Rated moment	Moment of inertia	Weight	Noise
	P _N kW	N _N min-1	M _N Nm	I _{N(400V)} A	Cos Phi			η			Id / In	Md/Mn	M _M /M _N	J kg.m2	IM B3 kg	LP db(A)
LSPX 71 L	0.12	650	1.76	0.72	0.55	0.45	0.4	44	42	36	2.08	1.3	1.4	0.001	8	40
LSPX 80 L	0.18	705	2.44	0.79	0.63	0.54	0.45	52	48	43	2.91	1.5	1.9	0.003	9.7	41
LSPX 80 L	0.25	700	3.41	0.98	0.68	0.6	0.51	54	52	45	2.76	1.7	1.9	0.004	11.3	41
LSPX 90 L	0.37	685	5.16	1.2	0.72	0.63	0.52	62	62	56	3.83	1.7	1.8	0.004	13.5	43
LSPX 90 S	0.37	685	5.16	1.2	0.72	0.63	0.52	62	62	56	3.83	1.7	1.8	0.004	13.5	43
LSPX 90 L	0.55	670	7.84	1.7	0.72	0.61	0.52	63.5	62	59	3.53	1.7	1.7	0.005	15.2	43
LSPX 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	0.005	18	43
LSPX 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	0.007	21.8	43
LSPX 112 MG	1.5	710	20.2	4.7	0.64	0.55	0.43	72	69	62.5	3.81	2.0	2.1	0.015	24	49
LSPX 132 SM	2.2	713	29.5	6.1	0.68	0.56	0.45	77.1	77.5	71	4	1.7	2.0	0.025	45.6	54
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 200 L	15	725	198	32.9	0.75	0.7	0.57	87.7	87.9	86.3	4.41	1.6	2.1	0.27	185	65
LSPX 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
LSPX 225 MR	22	725	290	51.9	0.7	0.63	0.51	87.4	87.2	85.1	4.39	1.9	2.3	0.4	240	65
LSPX 250 ME	30	732	391	60.7	0.78	0.74		91.5	92.2		5.21	1.6	2.4	0.86	312	65
LSPX 280 SC	37	731	483	73.8	0.79			91.6			5.2	1.6	2.4	0.92	334	65
LSPX 280 MC	45	730	589	88.5	0.8	0.76		91.7	92.6		5.2	1.6	2.3	1.13	378	65

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 230 V Δ / 400 V Y or 400 V Δ - S1
II - 2D - T_{MAX} 125 °C

**8
poles
750 min⁻¹**

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)	
		Code	Qty	Code	Qty
LSPX 71 M	0.12		-		-
LSPX 71 L	0.12		-		-
LSPX 80 L	0.18		-		-
LSPX 80 L	0.25		-		-
LSPX 90 S	0.37		-		-
LSPX 90 L	0.37		-		-
LSPX 90 L	0.55		-		-
LSPX 100 L	0.75		-		-
LSPX 100 L	1.1		-		-
LSPX 112 MG	1.5		-		-
LSPX 132 SM	2.2		-		-
LSPX 132 M	3		-		-
LSPX 160 M	4		-		-
LSPX 160 M	5.5		-		-
LSPX 160 L	7.5		-		-
LSPX 180 L	11		-		-
LSPX 200 L	15		-		-
LSPX 225 ST	18.5		-		-
LSPX 225 MR	22		-		-
LSPX 250 ME	30		-		-
LSPX 280 SC	37		-		-
LSPX 280 MD	45		-		-

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 400 V Δ - S1
II - 2D - T_{MAX} 125 °C

**2
poles
3000 min⁻¹**

A

Type	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting torque/ Rated torque	Starting moment/ Rated moment	Maximum moment/ Rated moment	Moment of inertia	Weight	Noise
	P _N kW	N _N min-1	M _N Nm	I _{N(400V)} A	Cos Phi			η			Id / In	Md/Mn	M _M /M _N	J kg.m2	IM B3 kg	LP db(A)
LSPX 63 M	0.18	2790	0.62	0.52	0.75	0.65	0.55	67	66	59	5.0	3.3	2.9	0.000	4.8	57
LSPX 63 M	0.25	2800	0.85	0.71	0.75	0.65	0.55	68	67	59	5.4	3.2	2.9	0.000	6	57
LSPX 71 L	0.37	2800	1.26	0.98	0.80	0.70	0.60	68	67	63	5.2	3.3	3.9	0.000	6.4	62
LSPX 71 L	0.55	2800	1.88	1.32	0.80	0.70	0.55	75	75	71	6.0	3.2	3.1	0.000	7.3	62
LSPX 71 L	0.75	2780	2.58	1.7	0.85	0.75	0.65	75	75	73	6.0	3.3	2.9	0.001	8.3	62
LSPX 80 L	0.75	2840	2.52	1.64	0.87	0.80	0.68	76	76.5	74	5.9	2.4	2.2	0.001	8.2	61
LSPX 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	0.001	9.7	61
LSPX 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	0.001	11.3	61
LSPX 90 L	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	0.001	12	64
LSPX 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	0.001	12	64
LSPX 90 L	1.8	2865	6	3.6	0.86	0.80	0.69	83.1	83.4	81.7	8.0	3.6	3.6	0.002	14	64
LSPX 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	0.002	16	64
LSPX 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	0.002	20	66
LSPX 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	0.003	24.4	66
LSPX 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	0.008	33	66
LSPX 132 M	9	2910	29.5	17.3	0.85	0.80	0.71	88.1	88.4	87.5	8.6	2.5	3.5	0.016	49	72
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 200 LT	30	2946	97.2	52.1	0.90	0.87	0.82	92.4	92.7	92.1	8.6	2.7	3.4	0.089	154	73
LSPX 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
LSPX 225 MR	45	2950	146	77.4	0.90	0.87	0.82	93.3	93.4	93.1	7.5	2.8	3.1	0.14	200	73
LSPX 250 MZ	55	2956	178	95.2	0.89	0.86	0.80	93.7	93.7	93.1	8.3	3.1	3.4	0.173	235	78
LSPX 280 SC	75	2968	241	127	0.90	0.87	0.82	94.4	94.4	93.8	8.5	2.6	3.4	0.39	330	79
LSPX 280 MC	90	2968	290	152	0.90	0.88	0.83	94.7	94.7	94.1	8.4	2.6	3.3	0.47	375	79

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 400 V Δ - S1
 II - 2D - T_{MAX} 125 °C

**2
poles
3000 min⁻¹**

A

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3)		IM 3001 (IM B5)	
		Code	Qty	Code	Qty
LSPX 100 L	3	XA2 30 202	5	XA2 30 204	2
LSPX 112 M	4	XA2 40 202	5	XA2 40 204	2
LSPX 112 MG	5.5	XA2 55 202	5	XA2 55 204	2
LSPX 132 S	5.5	XA2 55 508	3	XA2 55 210	1
LSPX 132 S	7.5	XA2 75 202	3	XA2 75 204	1
LSPX 132 M	9	XA2 90 202	3	XA2 90 204	1
LSPX 132 M	11	XA2 11 344	3	XA2 11 345	1
LSPX 160 MP	11	XA2 11 302	2	XA2 11 304	1
LSPX 160 MP	15	XA2 15 302	2	XA2 15 304	1
LSPX 160 L	18.5	XA2 18 302	2	XA2 18 304	1
LSPX 180 MT	22	XA2 22 302	2	XA2 22 304	1
LSPX 200 LT	30	XA2 30 302	2	XA2 30 304	1
LSPX 200 L	37	XA2 37 302	2	XA2 37 304	1
LSPX 225 MR	45	XA2 45 302	1	XA2 45 304	1
LSPX 250 MZ	55	XA2 55 302	1		
LSPX 280 SC	75	XA2 75 302	1		
LSPX 280 MC	90	XA2 90 302	1		

Selection example:

Speed:	3000 min ⁻¹ - 2 poles
Power:	7.5 kW
Mounting and position:	IM 3001 (IM B5)
Mains supply voltage:	400 V
Application:	ATEX zone 21

Designation:

**2P LSPX 132 S 7.5 kW IM 3001 (IM B5)
400 V**

Code: XA2 75 204

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1
II - 2D - T_{MAX} 125 °C

**4
poles
1500 min⁻¹**

A

Type	Rated power	Rated speed	Rated moment	Rated current	Power factor			Efficiency IEC 60034-2; 1996			Starting torque/ Rated torque	Starting moment/ Rated moment	Maximum moment/ Rated moment	Moment of inertia	Weight	Noise
	P _N kW	N _N min ⁻¹	M _N Nm	I _{N(400V)} A	Cos Phi			η			Id / In	Md/Mn	M _M /M _N	J kg.m ²	IM B3 kg	LP db(A)
					4/4	3/4	2/4	4/4	3/4	2/4						
LSPX 63 M	0.12	1380	0.83	0.44	0.7	0.58	0.47	56	54	46.8	3.2	2.4	2.3	0.000	4.8	49
LSPX 63 M	0.18	1390	1.24	0.64	0.65	0.55	0.44	62	58	51	3.8	2.6	2.6	0.000	5	49
LSPX 71 M	0.25	1425	1.68	0.8	0.65	0.55	0.44	69	67	60	4.6	2.7	2.9	0.001	6.4	49
LSPX 71 M	0.37	1420	2.49	1.06	0.7	0.59	0.47	72	72	66	4.9	2.4	2.8	0.001	7.3	49
LSPX 71 L	0.55	1400	3.75	1.62	0.7	0.62	0.49	70	70	65	4.8	2.3	2.5	0.001	8.3	49
LSPX 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	0.001	8.2	47
LSPX 80 L	0.75	1400	5.12	2.01	0.77	0.71	0.59	70	70	66	4.5	2.0	2.2	0.002	9.3	47
LSPX 80 L	0.9	1425	6.03	2.44	0.73	0.67	0.54	73	73	70	5.8	3.0	3.0	0.002	10.9	47
LSPX 90 L	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	0.003	11.5	48
LSPX 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	0.003	11.5	48
LSPX 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	0.003	13.5	48
LSPX 90 L	1.8	1438	12	4	0.82	0.75	0.61	80.1	80.8	79	6.0	2.1	3.2	0.004	15.2	48
LSPX 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	0.004	20	48
LSPX 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	0.006	22.5	48
LSPX 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	0.007	24.9	49
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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
LSPX 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

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



**CATEGORY 2
ZONE 21**

Selection

IP 65 - 50 Hz - Class F - Δ T 80 K - 400 V Δ - S1
 II - 2D - T_{MAX} 125 °C

**4
poles
1500 min⁻¹**

A

Type	Rated power at 50 Hz P _N kW	IM 1001 (IM B3)		IM 3001 (IM B5)	
		Code	Qty	Code	Qty
LSPX 100 L	3	XA4 30 208	5	XA4 30 210	2
LSPX 112 M	4	XA4 40 202	5	XA4 40 204	2
LSPX 132 S	5.5	XA4 55 508	3	XA4 55 210	1
LSPX 132 M	7.5	XA4 75 208	3	XA4 75 210	1
LSPX 132 M	9	XA4 90 202	3	XA4 90 204	1
LSPX 160 MP	11	XA4 11 302	2	XA4 11 304	1
LSPX 160 LR	15	XA4 15 302	2	XA4 15 304	1
LSPX 180 MT	18.5	XA4 18 302	2	XA4 18 304	2
LSPX 180 LR	22	XA4 22 302	2	XA4 22 304	2
LSPX 200 LT	30	XA4 30 302	2	XA4 30 304	2
LSPX 225 ST	37	XA4 37 302	1	XA4 37 304	1
LSPX 225 MR	45	XA4 45 302	1	XA4 45 304	1
LSPX 250 ME	55	XA4 55 302	1		
LSPX 280 SC	75	XA4 75 302	1		
LSPX 280 MD	90	XA4 90 302	1		

Selection example:

Speed:	1500 min ⁻¹ - 4 poles
Power:	4 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	400 V
Application:	ATEX zone 21

Designation:

**4P LSPX 112 M 4 kW IM 1001 (IM B3)
400 V**

Code: XA4 40 202

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



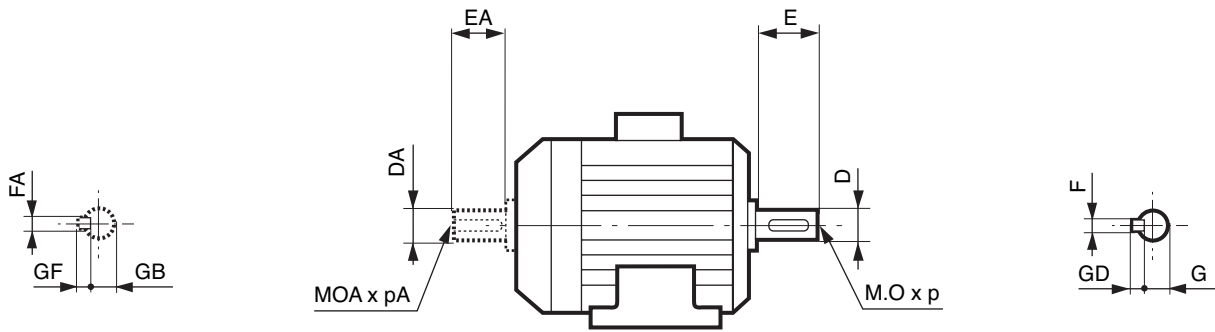
**CATEGORY 2
ZONE 21**

Dimensions

Dimensions of the LSPX totally enclosed three-phase asynchronous motors - IP 65
Cage rotor

Dimensions in millimetres

- shaft end



Main shaft end

Type	4. 6 and 8 poles							2 poles						
	F	GD	D	G	E	O	p	F	GD	D	G	E	O	p
LSPX 63	4	4	11j6	8.5	23	4	10	4	4	11j6	8.5	23	4	10
LSPX 71	5	5	14j6	11	30	5	15	5	5	14j6	11	30	5	15
LSPX 80 L	6	6	19j6	15.5	40	6	16	6	6	19j6	15.5	40	6	16
LSPX 90 S/L	8	7	24j6	20	50	8	19	8	7	24j6	20	50	8	19
LSPX 100 L	8	7	28j6	24	60	10	22	8	7	28j6	24	60	10	22
LSPX 112 M/MG/MU	8	7	28j6	24	60	10	22	8	7	28j6	24	60	10	22
LSPX 132 S/M	10	8	38k6	33	80	12	28	10	8	38k6	33	80	12	28
LSPX 160 M/L/MP/LR/LU	12	8	42k6	37	110	16	36	12	8	42k6	37	110	16	36
LSPX 180 MT/LR/L/LU	14	9	48k6	42.5	110	16	36	14	9	48k6	42.5	110	16	36
LSPX 200 LT/L/LU	16	10	55m6	49	110	20	42	16	10	55m6	49	110	20	42
LSPX 225 ST/MR/SR	18	11	60m6	53	140	20	42	18	11	60m6	53	140	20	42
LSPX 250 MZ/ME	18	11	65m6	58	140	20	42	18	11	65m6	58	140	20	42
LSPX 280 SC/MC/MD	20	12	75m6	67.5	140	20	42	18	11	65m6	58	140	20	42

Secondary shaft end

Type	4. 6 and 8 poles							2 poles						
	FA	GF	DA	GB	EA	OA	pA	FA	GF	DA	GB	EA	OA	pA
LSPX 63	4	4	11j6	8.5	23	4	10	4	4	11j6	8.5	23	4	10
LSPX 71	5	5	14j6	11	30	5	15	5	5	14j6	11	30	5	15
LSPX 80 L	5	5	14j6	11	30	5	15	5	5	14j6	11	30	5	15
LSPX 90 S/L	6	6	19j6	15.5	40	6	16	6	6	19j6	15.5	40	6	16
LSPX 100 L	8	7	24j6	20	50	8	19	8	7	24j6	20	50	8	19
LSPX 112 M/MG/MU	8	7	24j6	20	50	8	19	8	7	24j6	20	50	8	19
LSPX 132 S/M	8	7	28j6	24	60	10	22	8	7	28j6	24	60	10	22
LSPX 160 MP/LR	10	8	38k6	33	80	12	28	10	8	38k6	33	80	12	28
LSPX 160 M/L/LU	12	8	42k6	37	110	16	36	12	8	42k6	37	110	16	36
LSPX 180 MT/LR/L/LU	14	9	48k6	42.5	110	16	36	14	9	48k6	42.5	110	16	36
LSPX 200 LT/L/LU	16	10	55m6	49	110	20	42	16	10	55m6	49	110	20	42
LSPX 225 ST/MR/SR	18	11	60m6	53	140	20	42	18	11	60m6	53	140	20	42
LSPX 250 MZ/ME	18	11	60m6	53	140	20	42	18	11	60m6	53	140	20	42
LSPX 280 SC/MC/MD	18	11	65m6	58	140	20	42	18	11	65m6	58	140	20	42

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



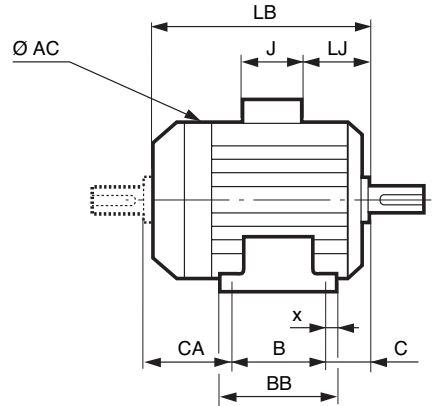
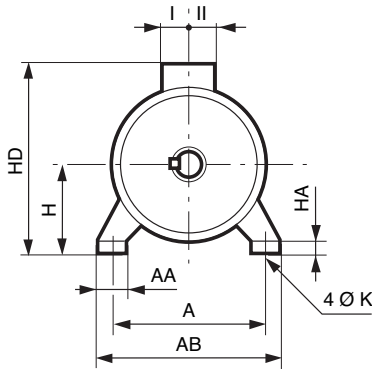
**CATEGORY 2
ZONE 21**

Dimensions

Dimensions of the LSPX totally enclosed three-phase asynchronous motors - IP 65
Cage rotor

Dimensions in millimetres

- foot mounted



Main dimensions

Type	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LJ	J	I	II	CA
LSPX 63	100	115	80	96	40	8	26	7	9	63	124	152	172	26	86	43	43	55
LSPX 71	112	126	90	106	45	7.5	24	7	9	71	140	170	185	26	86	43	43	53
LSPX 80 L	125	157	100	120	50	10	29	9	10	80	170	226	215	13.5	160	55	55	68
LSPX 90 L	140	172	125	162	56	28	37	10	11	90	190	246	245	13.5	160	55	55	68
LSPX 90 S	140	172	100	120	56	10	37	10	11	90	190	246	218	13.5	160	55	55	66
LSPX 100 L	160	196	140	165	63	12	40	12	13	100	200	261	290	14	160	55	55	93
LSPX 112 M	190	220	140	165	70	12	45	12	14	112	200	276	290	41	160	55	55	86
LSPX 112 MG	190	220	140	165	70	12	52	12	14	112	235	276	315	41	160	55	55	110
LSPX 132 M	216	250	178	208	89	16	59	12	18	132	280	307	387	25	160	55	55	126
LSPX 132 S	216	250	140	170	89	16	50	12	15	132	235	284	350	41	160	55	55	128
LSPX 132 SM	216	250	178	208	89	16	59	12	18	132	280	307	387	25	160	55	55	126
LSPX 160 L	254	294	254	294	108	20	60	14.5	25	160	310	395	495	44	134	92	63	138
LSPX 160 LR	254	294	254	294	108	20	64	14.5	25	160	280	368	495	55.5	160	55	55	138
LSPX 160 M	254	294	210	294	108	20	60	14.5	25	160	310	395	495	44	134	92	63	182
LSPX 160 MP	254	294	210	294	108	20	64	14.5	25	160	280	368	468	55.5	160	55	55	154
LSPX 180 L	279	339	279	329	121	25	86	14.5	25	180	350	435	552	54	205	100	95	159
LSPX 180 LR	279	324	279	316	121	20	79	14.5	28	180	316	428	520	45	205	100	95	125
LSPX 180 MT	279	324	241	316	121	20	79	14.5	28	180	316	428	495	45	205	100	95	138
LSPX 200 L	318	388	305	375	133	35	103	18.5	36	200	390	475	621	68	205	100	95	194
LSPX 200 LT	318	378	305	365	133	30	108	18.5	32	200	350	455	599	60	205	100	95	167
LSPX 225 MR	356	431	311	386	149	50	127	18.5	36	225	390	500	676	74	205	100	95	228
LSPX 225 ST	356	431	286	386	149	50	127	18.5	36	225	390	500	627	74	205	100	95	203
LSPX 250 MZ	406	470	349	449	168	70	150	24	47	250	390	550	676	68	217	103	145	172
LSPX 250 ME	406	470	349	420	168	35	90	24	36	250	479	654	810	68	292	148	180	293
LSPX 280 SC	457	520	368	478	190	35	90	24	35	280	479	684	810	68	292	148	180	252
LSPX 280 MC	457	520	419	478	190	35	90	24	35	280	479	684	810	68	292	148	180	201
LSPX 280 MD	457	520	419	478	190	35	90	24	35	280	479	684	870	68	292	148	180	261

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



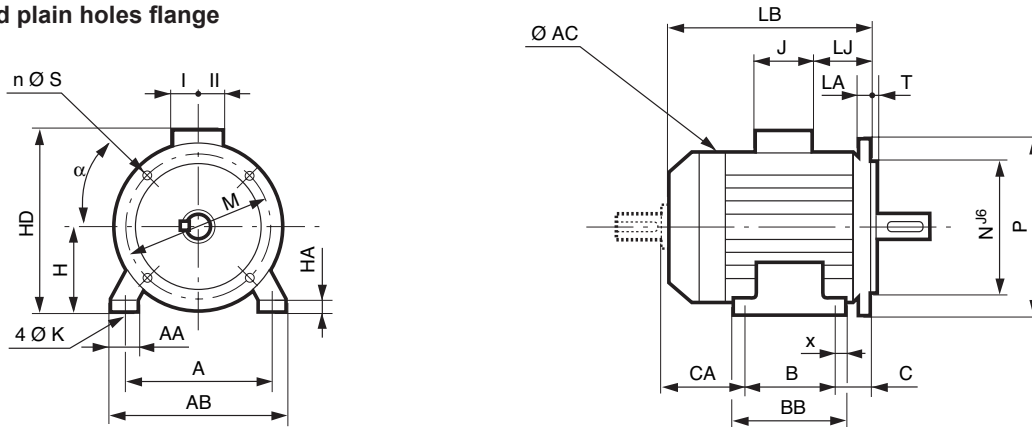
**CATEGORY 2
ZONE 21**

Dimensions

Dimensions of the LSPX totally enclosed three-phase asynchronous motors - IP 65 Cage rotor

Dimensions in millimetres

– (FF) foot and plain holes flange



Main dimensions

Type	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LJ	J	I	II	Sym.
LSPX 63	100	115	80	96	40	8	26	7	9	63	124	152	172	26	86	43	43	FF115
LSPX 71	112	126	90	106	45	7.5	24	7	9	71	140	170	185	26	86	43	43	FF130
LSPX 80 L	125	157	100	120	50	10	29	9	10	80	170	226	215	13.5	160	55	55	FF165
LSPX 90 L	140	172	125	162	56	28	37	10	11	90	190	246	245	13.5	160	55	55	FF165
LSPX 90 S	140	172	100	120	56	10	37	10	11	90	190	246	218	13.5	160	55	55	FF165
LSPX 100 L	160	196	140	165	63	12	40	12	13	100	200	261	290	14	160	55	55	FF215
LSPX 112 M	190	220	140	165	70	12	45	12	14	112	200	276	290	41	160	55	55	FF215
LSPX 112 MG	190	220	140	165	70	12	52	12	14	112	235	276	315	41	160	55	55	FF215
LSPX 132 M	216	250	178	208	89	16	59	12	18	132	280	307	387	25	160	55	55	FF265
LSPX 132 S	216	250	140	170	89	16	50	12	15	132	235	284	350	41	160	55	55	FF265
LSPX 132 SM	216	250	178	208	89	16	59	12	18	132	280	307	387	25	160	55	55	FF265
LSPX 160 L	254	294	254	294	108	20	60	14.5	25	160	310	395	495	44	134	92	63	FF300
LSPX 160 LR	254	294	254	294	108	20	64	14.5	25	160	280	368	495	55.5	160	55	55	FF300
LSPX 160 M	254	294	210	294	108	20	60	14.5	25	160	310	395	495	44	134	92	63	FF300
LSPX 160 MP	254	294	210	294	108	20	64	14.5	25	160	280	368	468	55.5	160	55	55	FF300
LSPX 180 L	279	339	279	329	121	25	86	14.5	25	180	350	435	552	54	205	100	95	FF300
LSPX 180 LR	279	324	279	316	121	20	79	14.5	28	180	316	428	520	45	205	100	95	FF300
LSPX 180 MT	279	324	241	316	121	20	79	14.5	28	180	316	428	495	45	205	100	95	FF300
LSPX 200 L	318	388	305	375	133	35	103	18.5	36	200	390	475	621	68	205	100	95	FF350
LSPX 200 LT	318	378	305	365	133	30	108	18.5	32	200	350	455	599	60	205	100	95	FF350
LSPX 225 MR	356	431	311	386	149	50	127	18.5	36	225	390	500	676	74	205	100	95	FF400
LSPX 225 ST	356	431	286	386	149	50	127	18.5	36	225	390	500	627	74	205	100	95	FF400
LSPX 250 MZ	406	470	349	449	168	70	150	24	47	250	390	550	676	68	217	103	145	FF500
LSPX 250 ME	406	470	349	420	168	35	90	24	36	250	479	654	810	68	217	103	145	FF500
LSPX 280 SC	457	520	368	478	190	35	90	24	35	280	479	684	810	68	292	148	180	FF500
LSPX 280 MC	457	520	419	478	190	35	90	24	35	280	479	684	810	68	292	148	180	FF500
LSPX 280 MD	457	520	419	478	190	35	90	24	35	280	479	684	870	68	292	148	180	FF500

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

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



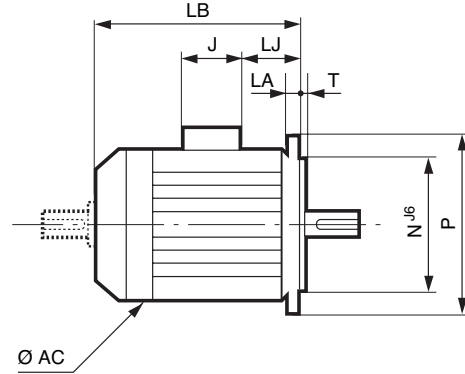
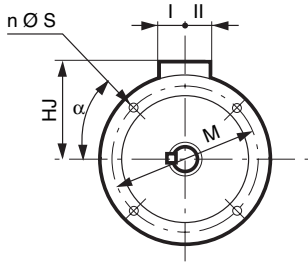
**CATEGORY 2
ZONE 21**

Dimensions

Dimensions of the LSPX totally enclosed three-phase asynchronous motors - IP 65
Cage rotor

Dimensions in millimetres

– (FF) plain hole flange mounted



IEC symbol	Flange dimensions							
	M	N	P	T	n	α	S	LA
FF 115	115	95	140	3	4	45	10	10
FF 130	130	110	160	3.5	4	45	10	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	12
FF 215	215	180	250	4	4	45	14.5	12
FF 265	265	230	300	4	4	45	14.5	14
FF 265	265	230	300	4	4	45	14.5	14
FF 265	265	230	300	4	4	45	14.5	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 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 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

Type	Main dimensions						
	AC	LB	HJ	LJ	J	I	II
LSPX 63	124	172	89	26	86	43	43
LSPX 71	140	185	99	26	86	43	43
LSPX 80 L	170	215	140	13.5	160	55	55
LSPX 90 L	190	265	133	33.5	160	55	55
LSPX 90 S	190	238	133	33.5	160	55	55
LSPX 100 L	200	290	161	14	160	55	55
LSPX 112 M	200	290	164	41	160	55	55
LSPX 112 MG	235	315	164	41	160	55	55
LSPX 132 M	280	387	175	25	160	55	55
LSPX 132 S	235	350	164	41	160	55	55
LSPX 132 SM	280	387	175	25	160	55	55
LSPX 160 L	310	495	235	44	134	92	63
LSPX 160 LR	280	495	208	55.5	160	55	55
LSPX 160 M	310	495	235	44	134	92	63
LSPX 160 MP	280	468	208	55.5	160	55	55
LSPX 180 L	350	552	255	54	205	100	95
LSPX 180 LR	316	520	248	45	205	100	95
LSPX 180 MT	316	495	248	45	205	100	95
LSPX 200 L	390	621	275	68	205	100	95
LSPX 200 LT	350	599	255	60	205	100	95
LSPX 225 MR	390	676	275	74	205	100	95
LSPX 225 ST	390	627	275	74	205	100	95
LSPX 250 MZ	390	676	300	68	217	103	145
LSPX 250 ME	479	810	404	68	292	148	180
LSPX 280 SC	479	810	404	68	292	148	180
LSPX 280 MC	479	810	404	68	292	148	180
LSPX 280 MD	479	870	404	68	292	148	180

Shaft end dimensions identical to those of foot mounted motors.

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



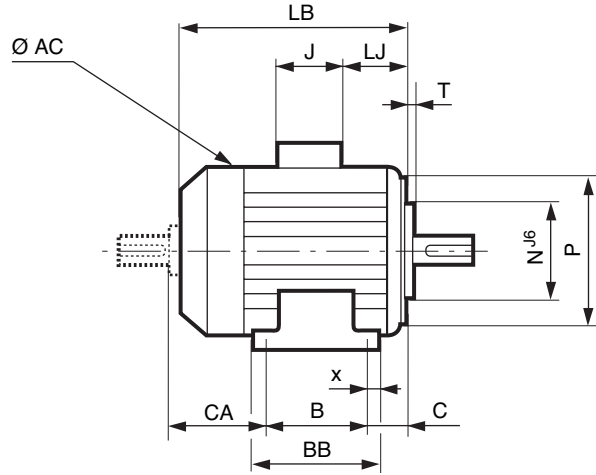
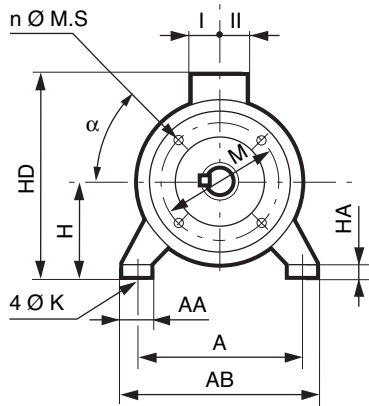
**CATEGORY 2
ZONE 21**

Dimensions

Dimensions of the LSPX totally enclosed three-phase asynchronous motors - IP 65
Cage rotor

Dimensions in millimetres

- (FT) foot and tapped hole flange mounted



Main dimensions

Type	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LJ	J	I	II	Sym.
LSPX 63	100	115	80	96	40	8	26	7	9	63	124	152	172	26	86	43	43	FT75
LSPX 71	112	126	90	106	45	7.5	24	7	9	71	140	170	185	26	86	43	43	FT85
LSPX 80 L	125	157	100	120	50	10	29	9	10	80	170	226	215	13.5	160	55	55	FT100
LSPX 90 L	140	172	125	162	56	28	37	10	11	90	190	246	245	13.5	160	55	55	FT115
LSPX 90 S	140	172	100	120	56	10	37	10	11	90	190	246	218	13.5	160	55	55	FT115
LSPX 100 L	160	196	140	165	63	12	40	12	13	100	200	261	290	14	160	55	55	FT130
LSPX 112 M	190	220	140	165	70	12	45	12	14	112	200	276	290	41	160	55	55	FT130
LSPX 112 MG	190	220	140	165	70	12	52	12	14	112	235	276	315	41	160	55	55	FT130
LSPX 132 M	216	250	178	208	89	16	59	12	18	132	280	307	387	25	160	55	55	FT215
LSPX 132 S	216	250	140	170	89	16	50	12	15	132	235	284	350	41	160	55	55	FT215
LSPX 132 SM	216	250	178	208	89	16	59	12	18	132	280	307	387	25	160	55	55	FT215
LSPX 160 MP	254	294	254	294	108	20	60	14.5	25	160	310	395	495	44	134	92	63	FT265
LSPX 160 LR	254	294	254	294	108	20	64	14.5	25	160	280	368	495	55.5	160	55	55	FT265

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

LSPX

Atmospheres containing explosive dust totally enclosed three-phase asynchronous motors



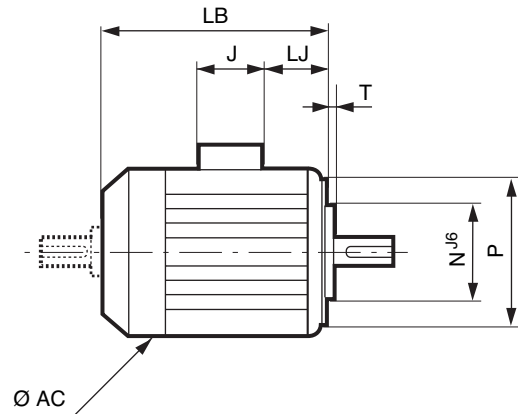
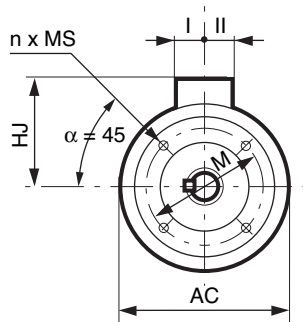
**CATEGORY 2
ZONE 21**

Dimensions

Dimensions of the LSPX totally enclosed three-phase asynchronous motors - IP 65
Cage rotor

Dimensions in millimetres

- (FT) tapped hole flange mounted



IEC symbol	Flange dimensions					
	M	N	P	T	n	MS
FT 75	75	60	90	2.5	4	M5
FT 85	85	70	105	2.5	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 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 265	265	230	300	4	4	M12
FT 265	265	230	300	4	4	M12

Type	Main dimensions						
	AC	LB	HJ	LJ	J	I	II
LSPX 63	124	172	89	26	86	43	43
LSPX 71	140	185	99	26	86	43	43
LSPX 80 L	170	215	146	13.5	160	55	55
LSPX 90 L	190	245	156	13.5	160	55	55
LSPX 90 S	190	218	156	13.5	160	55	55
LSPX 100 L	200	290	161	14	160	55	55
LSPX 112 M	200	290	164	41	160	55	55
LSPX 112 MG	235	315	164	41	160	55	55
LSPX 132 M	280	387	175	25	160	55	55
LSPX 132 S	235	350	-20	41	160	55	55
LSPX 132 SM	280	387	175	25	160	55	55
LSPX 160 LR	280	495	208	55.5	160	55	55
LSPX 160 MP	280	468	208	55.5	160	55	55

Shaft ends dimensions identical to those of foot mounted motors.

