LS
totally enclosed three-phase asynchronous motors

General information

Efficiency class IE1

Totally enclosed three-phase asynchronous motors, LS series, according IEC 60034, 60038, 60072 powers of 0.09 to 200 kW, frame sizes 56 to 315 mm.
• Single speed: 2, 4, 6 and 8 poles; 230/400V or 400V Δ, 50Hz.
• Two speed: 2/4, 4/6, 4/8, 6/8, 6/12 poles; centrifugal or general use; PAM, Dahlander or separate coils; 400V Y or Δ, 50Hz.

The selection tables for motors in this catalogue allow for:
• Direct on line starting on the mains supplies 230V or 400V operating in:
- delta connection (Δ) at 230V,
- star connection (Y) at 400V.
• The star/delta start (Y/Δ) on mains supply 400V with:
- star connection (Y) during initial starting,
- delta connection (Δ) on 400V duty.

Finition
Assembled with protected screws.
RAL 6000 finishing paint (green).

Protection of the flange and shaft end against atmospheric corrosion.
Individual anti-shock packaging.
Conception multipositions en version B5/V1-B14/V18 version.

Mains supply
• Standard according to the IEC 60038:
- 230/400 V +10% -10% at 50Hz.
Standard construction suitable for the following power supplies:
- 220/380V +5% -5% at 50Hz,
- 230/400V +10% -10% at 50Hz,
- 240/415V +5% -5% at 50Hz,
- 265/460V +5% -5% at 60Hz.
Voltages for the powers equal or greater than 3kW:
- 380V Δ +5% -5% at 50Hz,
- 400V Δ +10% -10% at 50Hz,
- 415V Δ +5% -5% at 50Hz,
- 460V Δ +5% -5% at 60Hz.
Construction suitable for Y/Δ starting.

Description of the LS 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, option in 132 S 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 laminated pack - 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, 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 keyway
End shields	Aluminium alloy	- LS 56 - 63 - 71 front and rear - LS 80 - 90 rear
	Cast iron	- LS 80 - 90 front (optional for LS 80 and 90 rear) - LS 100 to 315 front and rear
Bearing and lubrication		- ball bearings - 2RS type lubricated for life from LS 56 to LS 71 included - ZZ types lubricated for life from LS 80 to LS 180 included - semi-protected or open types for frame size 200 - regreasable open types from 225 upwards - rear preloaded bearings
Labyrinth seals Lipseals	Technopolymer or steel Synthetic rubber	- lipseal or front jet deflector for all flange motors - lipseal, jet deflector or labyrinth seals for foot motor
Fan	Composite material or aluminium alloy	- 2 directions of rotation: straight blades
Fan cover	Composite material or steel sheet metal	- on request, fitted with a drip cover for operation in vertical position, shaft facing down
Terminal box	Composite material or aluminium alloy	- IP 55 - rotatable, mounted opposite position to the feet - fitted with a 6 steel stud standard terminal board (brass as an optional extra) - terminal box delivered fitted with cable glands (optionally without cable glands) - 1 earth terminal in all terminal boxes

LS
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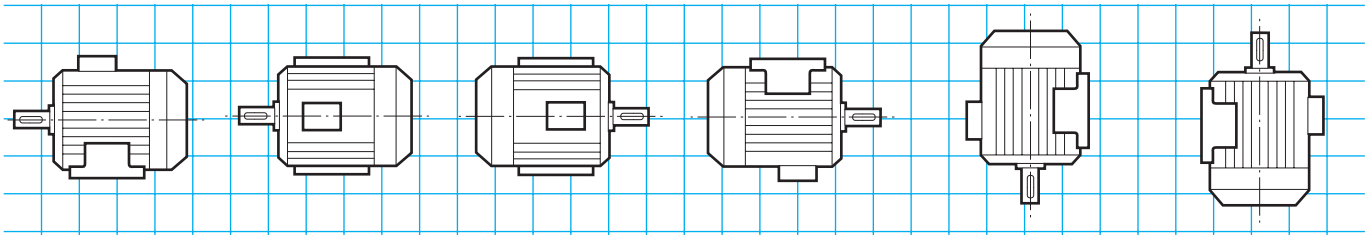
Mounting positions

A

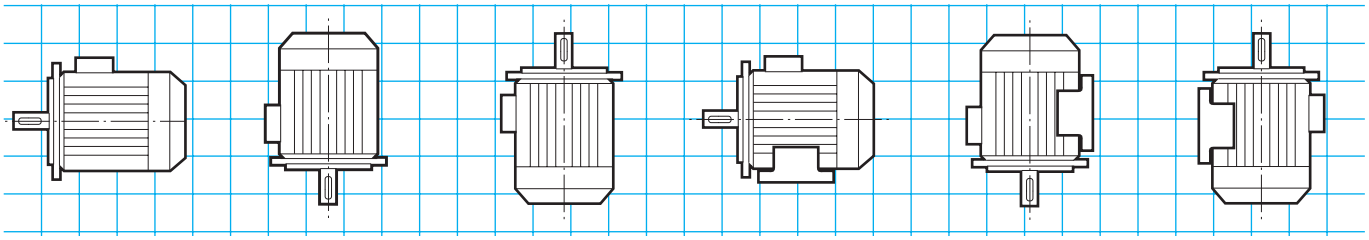
Foot mounted motors



IM 1001 (IM B3) **IM 1051** (IM B6) **IM 1061** (IM B7) **IM 1071** (IM B8) **IM 1011** (IM V5) **IM 1031** (IM V6)

(FF) flange with plain holes mounted motors

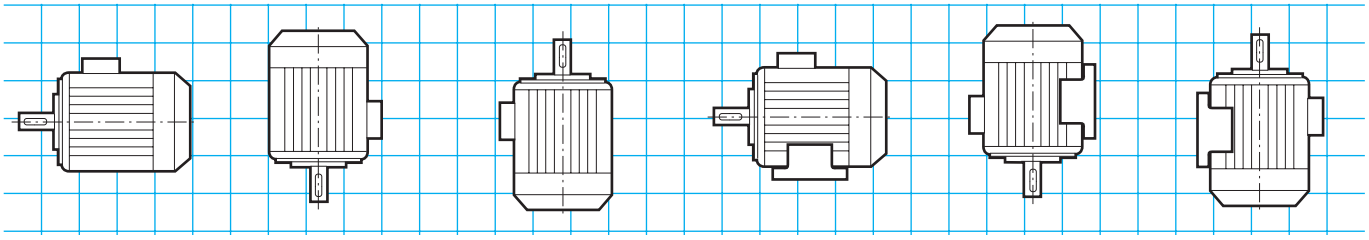
• Possible position IM 3001 (IM B5) up to 225 frame size inclusive



IM 3001 (IM B5) **IM 3011** (IM V1) **IM 3031** (IM V3) **IM 2001** (IM B35) **IM 2011** (IM V15) **IM 2031** (IM V36)

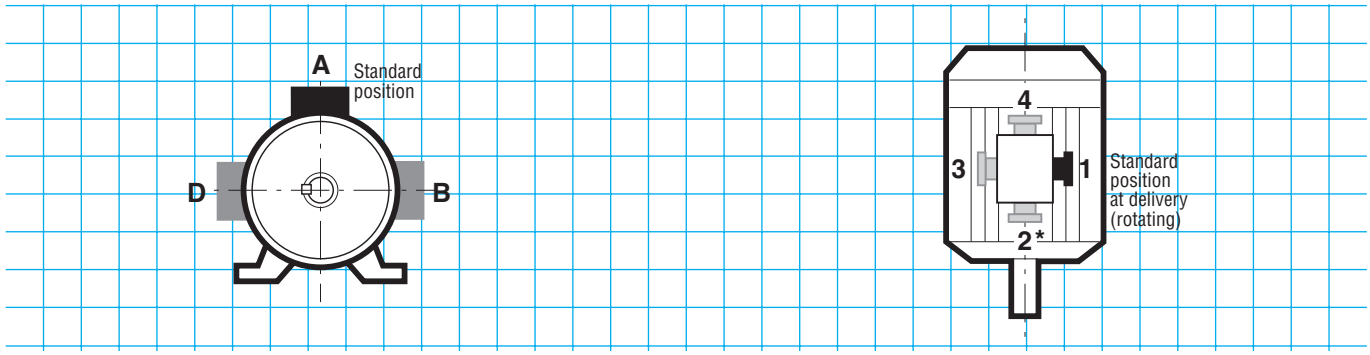
(FT) flange with tapped holes mounted motors

• Possible positions up to 132 frame size inclusive



IM 3601 (IM B14) **IM 3611** (IM V18) **IM 3631** (IM V19) **IM 2101** (IM B34) **IM 2111** (IM V58) **IM 2131** (IM V69)

Terminal box positions in relation to the motor shaft end



A : standard

Cable gland positions in relation to the motor shaft end

1 : standard

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

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Adaptation possibilities

Leroy-Somer offers, for use with the LS 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 specific adaptation, consult the technical specialists at Leroy-Somer.

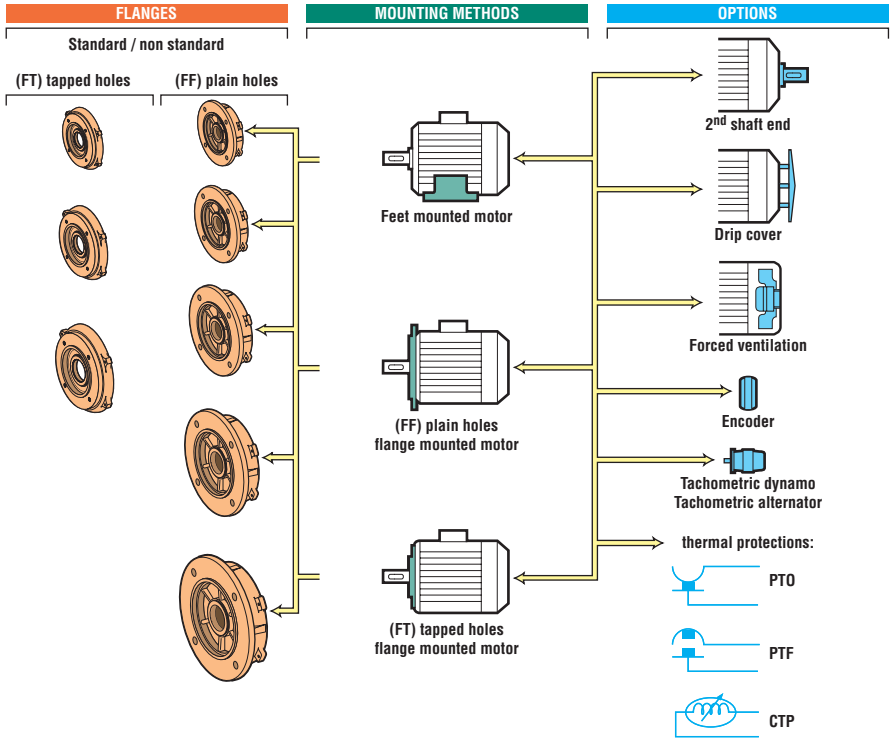
The LS three-motors may be associated to:

- gearboxes
- electronic variable speed drive[1]

The options:

- drip cover
- anti-blocking cover
- forced ventilation
- thermal protection
- aluminium terminal box
- brass cable glands
- cable glands of different dimensions
- switch
- cables output
- stainless steel plate
- second shaft end
- non standard flanges
- renforced sealing
- plug-in connector

1. Conforming to regulations for use as indicated by the standard IEC 34-17.



Designation / Codification

4P 1500 min^{-1}	LS	180	MT	18.5 kW	IM 1001 (IM B3)	400 VΔ	50 Hz	IP 55
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:
LS three-phase asynchronous motor, 1500 min-1, 18.5 kW IM 1001 (IM B3), 400 V Δ

Designation	Code
4P LS 180 MT 18.5 kW IM 1001 (IM B3) 400 V Δ	EA4 18 302

Codification example:
Addition of a drip cover

Designation	Code
• drip cover	MATP 1024

The table above is an example.
It enables the creation of the designation for the required product.
The 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

A

IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

2 poles 3000 min-1

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	Power factor Cos Phi 3/4	Power factor Cos Phi 2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	Efficiency* IEC 60034-2-1; 2007 η 3/4	Efficiency* IEC 60034-2-1; 2007 η 2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.09	2860	0.3	0.44	0.55	0.45	0.4	54	45.2	37.1	5.0	5.3	5.4	0.00015	3.8	54
LS 56 M	0.12	2820	0.4	0.5	0.6	0.55	0.45	58.7	54	45.2	4.6	4.0	4.1	0.00015	3.8	54
LS 63 M	0.18	2790	0.6	0.52	0.75	0.65	0.55	67.4	66.9	59.3	5.0	3.3	2.9	0.00019	4.8	57
LS 63 M	0.25	2800	0.9	0.71	0.75	0.65	0.55	67.8	67.3	59.2	5.4	3.2	2.9	0.00025	6	57
LS 71 L	0.37	2800	1.3	0.98	0.8	0.7	0.6	68.4	67.6	63.9	5.2	3.3	3.9	0.00035	6.4	62
LS 71 L	0.55	2800	1.9	1.32	0.8	0.7	0.55	75.7	75.2	71.1	6.0	3.2	3.1	0.00045	7.3	62
LS 71 L	0.75	2780	2.6	1.7	0.85	0.75	0.65	74.6	75.8	73.1	6.0	3.3	2.9	0.0006	8.3	62
LS 80 L	0.75	2840	2.5	1.64	0.87	0.8	0.68	**75.7**	76.1	73.3	5.9	2.4	2.2	0.0007	8.2	61
LS 80 L	1.1	2837	3.7	2.4	0.84	0.77	0.65	**77.3**	78.3	76.4	5.8	2.7	2.4	0.0009	9.7	61
LS 80 L	1.5	2859	5.0	3.2	0.83	0.76	0.62	**79.3**	80	78.1	7.0	3.2	2.8	0.0011	11.3	61
LS 90 S	1.5	2870	5.0	3.4	0.81	0.72	0.58	**80**	79.5	75.9	8.0	3.9	4.0	0.0014	12	64
LS 90 L	1.8	2865	6.0	3.6	0.86	0.8	0.69	**81.9**	82.5	81.4	8.0	3.6	3.6	0.0017	14	64
LS 90 L	2.2	2862	7.3	4.3	0.88	0.83	0.73	**82**	83	82	7.7	3.7	3.3	0.0021	16	64
LS 100 L	3	2868	10.0	6.3	0.81	0.73	0.59	**82.5**	82.6	80.1	7.5	3.8	3.9	0.0022	20	66
LS 100 L	3.7	2850	12.5	8	0.85	0.76	0.62	**82.7**	82.2	77.2	8.6	0.0	0.0	0.0022	21	66
LS 112 M	4	2877	13.3	7.8	0.85	0.78	0.65	**85**	85.3	83.7	7.8	2.9	2.9	0.0029	24.4	66
LS 112 MG	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	3.1	3.5	0.0076	33	66
LS 132 S	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	0.0	0.0	0.0076	34.4	72
LS 132 S	7.5	2905	24.5	14.7	0.85	0.78	0.63	**86**	85.8	83.2	8.7	0.0	0.0	0.0088	39	72
LS 132 M	9	2910	29.5	17.3	0.85	0.8	0.71	**87.9**	88.5	87.5	8.6	2.5	3.5	0.016	49	72
LS 132 M	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.018	54	72
LS 160 MP	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.019	62	72
LS 160 MP	15	2935	48.8	28.4	0.85	0.79	0.71	**89.3**	89.7	88.6	8.1	3.0	3.5	0.023	72	72
LS 160 L	18.5	2934	60.2	33.7	0.87	0.83	0.75	**90.09**	90.6	90.0	8.0	3.0	3.3	0.044	88	72
LS 180 MT	22	2938	71.5	39.9	0.87	0.84	0.76	**90.6**	91.2	90.8	8.1	3.1	3.1	0.052	99	72
LS 200 LT	30	2946	97.2	52.1	0.9	0.87	0.82	**91.5**	92.1	91.7	8.6	2.7	3.4	0.089	154	73
LS 200 L	37	2950	120	65	0.89	0.87	0.82	**92.1**	92.6	92.3	7.4	2.6	3.0	0.12	180	73
LS 225 MT	45	2950	146	78	0.9	0.87	0.82	**92.5**	92.7	92.7	7.5	2.8	3.1	0.14	200	73
LS 250 MZ	55	2956	178	96	0.89	0.86	0.8	**92.9**	93.6	92.5	8.3	3.1	3.4	0.173	235	78
LS 280 SC	75	2968	241	129	0.9	0.87	0.82	**93.5**	93.6	93.1	8.5	2.6	3.4	0.39	330	79
LS 280 MC	90	2968	290	154	0.9	0.88	0.83	**93.8**	94.0	93.6	8.4	2.6	3.3	0.47	375	79
LS 315 SN	110	2964	354	184	0.92	0.9	0.86	**94**	94.2	93.9	8.6	2.7	3.4	0.55	445	80
LS 315 MP	132	2976	424	227	0.89	0.87	0.82	**94.4**	94.2	93.1	7.6	2.8	2.9	1.67	715	83
LS 315 MR	160	2976	513	271	0.9	0.88	0.84	**94.6**	94.6	93.7	7.6	2.9	3.1	1.97	820	83
LS 315 MR•	200	2982	640	350	0.87	0.86	0.82	**94.8**	94.3	92.9	9.3	3.8	3.9	1.97	845	83

● Temperature rise class F

* This standard replaces the IEC 60034-2; 1996.

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totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - T 80 K - 230 V / 400 V - S1

2 poles 3000 min^{-1}

A

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty	IM 2001 (IM B35) Code	Qty	IM 3601 (IM B14) Code	Qty	IM 2101 (IM B34) Code	Qty
LS 56 M	*0.09*	*MA2 09 107*	*10*	*MA2 09 109*	*10*	*MA2 09 1C9*	*5*	*MA2 09 111*	*10*	*MA2 09 1D1*	*5*
LS 56 M	*0.12*	*MA2 12 107*	*10*	*MA2 12 109*	*5*	*MA2 12 1C9*	*5*	*MA2 12 111*	*5*	*MA2 21 1D1*	*5*
LS 63 M	*0.18*	*MA2 18 113*	*10*	*MA2 18 115*	*10*	*MA2 18 1C5*	*5*	*MA2 18 117*	*5*	*MA2 18 1D7*	*5*
LS 63 M[1]	*0.18*	*MA2 18 BA1*	*10*	*MA2 18 BA2*	*5*	*MA2 18 BA4*	*5*	*MA2 18 BA3*	*5*	*MA2 18 BA5*	*5*
LS 63 M	*0.25*	*MA2 25 125*	*10*	*MA2 25 127*	*10*	*MA2 25 1C7*	*5*	*MA2 25 129*	*10*	*MA2 25 1D9*	*5*
LS 63 M[1]	*0.25*	*MA2 25 BA1*	*10*	*MA2 25 BA2*	*5*	*MA2 25 BA4*	*5*	*MA2 25 BA3*	*10*	*MA2 25 BA5*	*5*
LS 71 L	*0.37*	*MA2 37 119*	*10*	*MA2 37 121*	*10*	*MA2 37 1C1*	*5*	*MA2 37 123*	*10*	*MA2 37 1D3*	*5*
LS 71 L	*0.55*	*MA2 55 119*	*10*	*MA2 55 121*	*10*	*MA2 55 1C1*	*5*	*MA2 55 123*	*10*	*MA2 55 1D3*	*5*
LS 71 L	*0.75*	*MA2 75 138*	*10*	*MA2 75 139*	*5*	*MA2 75 1C9*	*5*	*MA2 75 140*	*10*	*MA2 75 1D0*	*5*
LS 80 L	0.75	MA2 75 133	10	MA2 75 135[3]	5	MA2 75 1C5	5	MA2 75 137[4]	2	MA2 75 1D7	2
LS 80 L	1.1	EA2 11 233	10	EA2 11 235[3]	5	EA2 11 2C5	5	EA2 11 237[4]	2	EA2 11 2D7	2
LS 80 L	1.5	EA0 00 001	10	EA0 00 002	2	EA0 00 003	1	EA0 00 004	2	EA0 00 005	1
LS 90 S	1.5	EA2 15 233	10	EA2 15 235[3]	5	EA2 15 2C5	3	EA2 15 237[4]	5	EA2 15 2D7	2
LS 90 L	1.8	EA2 18 213	5	EA2 18 215[3]	1		-	EA2 18 217[4]	5		-
LS 90 L	2.2	EA2 22 219	10	EA2 22 221[3]	10	EA2 22 2C1	3	EA2 22 223[4]	5	EA2 22 2D3	2
LS 100 L	3	EA2 30 201	10	EA2 30 203[3]	5	EA2 30 2C3	3	EA2 30 205[4]	5	EA2 30 2D5	2
LS 100 L	3.7	MA2 37 201	5		-		-	MA2 37 205	1		-
LS 112 M	4	EA2 40 201	10	EA2 40 203[3]	5	EA2 40 2C3	2	EA2 40 205	2	EA2 40 2D5	5
LS 112 MG	5.5	EA2 55 201	5	EA2 55 203[3]	3	EA2 55 2C3	2	EA2 55 205	2	EA2 55 2D5	2
LS 132 S	5.5	EA2 55 207	10	EA2 55 209[3]	5	EA2 55 2C9	2	EA2 55 211	2		-
LS 132 S	7.5	EA2 75 201	5	EA2 75 203[3]	10	EA2 75 2C3	2	EA2 75 205	2	EA2 75 2D5	1
LS 132 M	9	EA2 90 201	5	EA2 90 203[3]	1	EA2 90 2C3	2		-		-
LS 132 M	11	EA2 11 340	3	EA2 11 342[3]	2	EA2 11 3C2	1		-		-
LS 160 MP	11	EA2 11 301	3	EA2 11 303[3]	1		-				
LS 160 MP	15	EA2 15 301	2	EA2 15 303 [3]	1	EA2 15 3C3	1				
LS 160 L	18.5	EA2 18 301	1	EA2 18 303	1	EA2 18 3C3	1				
LS 180 MT	22	EA2 22 301	1	EA2 22 303	1	EA2 22 3C3	1				
LS 200 LT	30	EA2 30 301	1	EA2 30 303	1	EA2 30 3C3	1				
LS 200 L	37	EA2 37 301	1	EA2 37 303	1	EA2 37 3C3	1				
LS 225 MT	45	EA2 45 301	1	EA2 45 303	1	EA2 45 3C3	1				
LS 250 MZ	55	EA2 55 301	1			EA2 55 3C3	1				
LS 280 SC	75	EA2 75 301	1			EA2 75 3C3	1				
LS 280 MC	90		-				-				
LS 315 SN	110		-				-				
LS 315 MP	132		-				-				
LS 315 MR	160		-				-				
LS 315 MR[2]	200		-				-				

1. Flange or foot motor (or foot and flange) with shaft end different from the standard (D: 14 j6 - E: 30 mm).
2. Temperature rise class F.
3. Motors IM B5 / IM V1.
4. Motors IM B14 / IM V18.

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

Designation:
2P LS 90 L 2.2 kW IM 1001 (IM B3)
230/400 V

Code: EA2 22 219

LS
totally enclosed three-phase asynchronous motors

Selection

A

IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

4 poles 1500 min-1

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	Power factor Cos Phi 3/4	Power factor Cos Phi 2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	Efficiency* IEC 60034-2-1; 2007 η 3/4	Efficiency* IEC 60034-2-1; 2007 η 2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.06	1380	0.4	0.29	0.76	0.69	0.62	41.8	37.1	29.7	2.8	2.4	2.5	0.00025	4	47
LS 56 M	0.09	1400	0.6	0.39	0.6	0.52	0.42	55.2	49.6	42.8	3.2	2.8	2.8	0.00025	4	47
LS 63 M	0.12	1380	0.8	0.44	0.7	0.58	0.47	56.1	53.9	46.8	3.2	2.4	2.3	0.00035	4.8	49
LS 63 M	0.18	1390	1.2	0.64	0.65	0.55	0.44	61.6	58	51.3	3.7	2.6	2.6	0.00048	5	49
LS 71 M	0.25	1425	1.7	0.8	0.65	0.55	0.44	69.4	66.8	59.8	4.6	2.7	2.9	0.00068	6.4	49
LS 71 M	0.37	1420	2.5	1.06	0.7	0.59	0.47	72.1	71.7	66.4	4.9	2.4	2.8	0.00085	7.3	49
LS 71 L	0.55	1400	3.8	1.62	0.7	0.62	0.49	70.4	70	65.1	4.8	2.3	2.5	0.0011	8.3	49
LS 80 L	0.55	1410	3.7	1.42	0.76	0.68	0.55	73.2	69.1	62.1	4.5	2.0	2.3	0.0013	8.2	47
LS 80 L	0.75	1400	5.1	2.01	0.77	0.71	0.59	**72.1**	72.8	70.1	4.5	2.0	2.2	0.0018	9.3	47
LS 80 L	0.9	1425	6.0	2.44	0.73	0.67	0.54	**73.2**	72.9	70.3	5.8	3.0	3.0	0.0024	10.9	47
LS 90 S	1.1	1429	7.4	2.5	0.84	0.77	0.64	**76.7**	78.2	76.6	4.8	1.6	2.0	0.0026	11.5	48
LS 90 L	1.5	1428	10.0	3.4	0.82	0.74	0.6	**79.3**	79.9	77.5	5.3	1.8	2.3	0.0032	13.5	48
LS 90 L	1.8	1438	12.0	4	0.82	0.75	0.61	**79.4**	80	77.6	6	2.1	3.2	0.0037	15.2	48
LS 100 L	2.2	1436	14.6	4.8	0.81	0.73	0.59	**80.3**	81.2	79.3	5.9	2.1	2.5	0.0043	20	48
LS 100 L	3	1437	19.9	6.5	0.81	0.72	0.59	**82.8**	83.4	81.8	6	2.5	2.8	0.0055	22.5	48
LS 112 M**	4	1438	26.6	8.3	0.83	0.76	0.57	**81.7**	81.6	80.6	7.1	2.5	3.0	0.0067	24.9	49
LS 132 S	5.5	1447	36.7	11.1	0.83	0.79	0.67	**84.7**	85.6	84.6	6.3	2.4	2.8	0.014	36.5	49
LS 132 M	7.5	1451	49.4	15.2	0.82	0.74	0.61	**86.0**	86.2	84.4	7	2.4	2.9	0.019	54.7	62
LS 132 M	9	1455	59.1	18.1	0.82	0.74	0.62	**86.8**	87.2	86.4	6.9	2.2	3.1	0.023	59.9	62
LS 160 MP	11	1454	72.2	21	0.86	0.79	0.67	**87.7**	88.4	87.5	7.7	2.3	3.2	0.03	70	62
LS 160 LR	15	1453	98.6	28.8	0.84	0.78	0.69	**88.7**	89.3	88.3	7.5	2.9	3.6	0.036	86	62
LS 180 MT	18.5	1456	121	35.2	0.84	0.79	0.67	**89.9**	90.6	90.5	7.6	2.7	3.2	0.085	100	64
LS 180 LR	22	1456	144	41.7	0.84	0.79	0.68	**90.2**	91.0	90.8	7.9	3.0	3.3	0.096	112	64
LS 200 LT	30	1460	196	56.3	0.84	0.8	0.69	**90.8**	91.5	91.2	6.6	2.9	2.9	0.151	165	64
LS 225 ST	37	1468	241	69	0.84	0.8	0.7	**92.0**	92.7	92.7	6.3	2.7	2.6	0.24	205	64
LS 225 MR	45	1468	293	84	0.84	0.8	0.7	**92.5**	93.1	93.0	6.3	2.7	2.6	0.29	235	64
LS 250 ME	55	1478	355	102	0.84	0.8	0.71	**93.1**	93.3	92.7	7	2.7	2.8	0.63	320	66
LS 280 SC	75	1478	485	138	0.84	0.8	0.71	**93.5**	93.9	93.5	7.2	2.8	2.9	0.83	380	69
LS 280 MD	90	1478	581	165	0.84	0.8	0.71	**93.5**	93.8	93.5	7.6	3.0	3.0	1.03	450	69
LS 315 SN	110	1477	711	201	0.84	0.79	0.7	**94.1**	94.5	94.2	7.6	3.0	3.2	1.04	470	76
LS 315 MP	132	1484	849	238	0.85	0.82	0.74	**94.2**	94.4	93.8	7.6	2.9	3.0	2.79	750	70
LS 315 MR	160	1484	1030	287	0.85	0.82	0.74	**94.7**	94.7	93.9	7.7	2.9	3.0	3.27	845	70
LS 315 MR•	200	1486	1285	362	0.84	0.79	0.69	**94.9**	94.9	94.2	8.1	3.1	3.4	3.27	845	70

• Temperature rise class F
* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

A

4 poles 1500 min⁻¹

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty	IM 2001 (IM B35) Code	Qty	IM 3601 (IM B14) Code	Qty	IM 2101 (IM B34) Code	Qty
LS 56 M	0.06		-		-		-		-		-
LS 56 M	0.09	MA4 09 113	10	MA4 09 115	10	MA4 09 1A5	5	MA4 09 117	10	MA4 09 1B7	
LS 63 M	0.12	MA4 12 119	10	MA4 12 121	10	MA4 12 1B1	5	MA4 12 123	5	MA4 12 1B3	5
LS 63 M[1]	0.12	MA4 12 BA1	10	MA4 12 BA2	5	MA4 12 BA4	5	MA4 12 BA3	5	MA4 12 BA5	5
LS 63 M	0.18	MA4 18 107	15	MA4 18 109	10	MA4 18 1A9	5	MA4 18 111	10	MA4 18 1B1	5
LS 63 M[1]	0.18	MA4 18 BA1	15	MA4 18 BA2	5	MA4 18 BA4	5	MA4 18 BA3	5	MA4 18 BA5	5
LS 71 M	0.18										
LS 71 M	0.25	MA4 25 119	15	MA4 25 121	10		-	MA4 25 123	10		-
LS 71 M	0.37	MA4 37 119	20	MA4 37 121	10	MA4 37 1A1	5	MA4 37 123	10	MA4 37 1B3	5
LS 71 L	0.55	MA4 55 132	10	MA4 55 133	10		-	MA4 55 134	10		-
LS 80 L	0.55	MA4 55 113	15	MA4 55 115[3]	5	MA4 55 1A5	3	MA4 55 117[4]	5	MA4 55 1B7	2
LS 80 L	0.75	MA4 75 119	15	MA4 75 121[3]	10	MA4 75 1A1	3	MA4 75 123[4]	5	MA4 75 1B3	2
LS 80 L	0.9	MA4 90 107	5	MA4 90 109[3]	2	MA4 90 1A9	2	MA4 90 111[4]	5	MA4 90 1B1	2
LS 90 S	1.1	EA4 11 219	15	EA4 11 221[3]	10	EA4 11 2A1	2	EA4 11 223[4]	5	EA4 11 2B3	5
LS 90 L	1.5	EA4 15 207	15	EA4 15 209[3]	15	EA4 15 2A9	2	EA4 15 211[4]	5	EA4 152B1	2
LS 90 L	1.8	EA4 18 207	10	EA4 18 209[3]	5	EA4 18 2A9	2	EA4 18 211[4]	5	EA4 18 2B1	2
LS 100 L	2.2	EA4 22 207	15	EA4 22 209[3]	15	EA4 22 2A9	2	EA4 22 211[4]	5	EA4 22 0B1	2
LS 100 L	3	EA4 30 207	15	EA4 30 209[3]	10	EA4 30 2A9	5	EA4 30 211[4]	5	EA4 30 2B1	2
LS 112 M	4	MA4 40 201	25	MA4 40 203[3]	10	MA4 40 2A3	5	MA4 40 205[4]	5	MA4 40 2B5	2
LS 112 MG	5.5	1637943	2	1792130	5	2344485	2	3901994	3	2502702	2
LS 132 S	5.5	EA4 55 207	10	EA4 55 209[3]	10	EA4 55 2A9	5	EA4 55 211[4]	2	EA4 55 2B1	2
LS 132 M	7.5	EA4 75 207	10	EA4 75 209[3]	5	EA4 75 2A9	5	EA4 75 211[4]	1	EA4 75 2B1	1
LS 132 M	9	EA4 90 201	5	EA4 90 203[3]	2	EA4 90 2A3	2	EA4 90 205[4]	1	EA4 90 2B6	1
LS 160 MP	11	EA4 11 301	5	EA4 11 303[3]	1	EA4 11 3A3	2				
LS 160 LR	15	EA4 15 301	5	EA4 15 303[3]	1	EA4 15 3A3	2				
LS 180 MT	18.5	EA4 18 301	2	EA4 18 303[3]	1	EA4 18 3A3	1				
LS 180 LR	22	EA4 22 301	2	EA4 22 303[3]	1	EA4 22 3A3	1				
LS 200 LT	30	EA4 30 301	2	EA4 30 303	1	EA4 30 3A3	1				
LS 225 ST	37	EA4 37 301	2	EA4 37 303	1	EA4 37 3A3	1				
LS 225 MR	45	EA4 45 301	2	EA4 45 303	1	EA4 45 3A3	1				
LS 250 ME	55	EA4 55 301	1			EA4 55 3A3	1				
LS 280 SC	75	EA4 75 301	1			EA4 75 3A3	1				
LS 280 MD	90		-				-				
LS 315 SN	110		-				-				
LS 315 MP	132		-				-				
LS 315 MR	160		-				-				
LS 315 MR[2]	200		-				-				

1. Flange or foot motor (or foot and flange) with shaft end different from the standard (D: 14 j6 - E: 30 mm).
2. Temperature rise class F.
3. Motors IM B5 / IM V1.
4. Motors IM B14 / IM V18.

Selection example:

Speed:	1500 min⁻¹ - 4 poles
Power:	55 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	230/400 V

Designation:
4P LS 250 ME 55 kW IM 1001 (IM B3) 230/400 V

Code: EA4 55 301

LS
totally enclosed three-phase asynchronous motors

Selection

A

IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

6 poles 1000 min^{-1}

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\,(400V)}$ A	Power factor Cos Phi 4/4	Power factor Cos Phi 3/4	Power factor Cos Phi 2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	Efficiency* IEC 60034-2-1; 2007 η 3/4	Efficiency* IEC 60034-2-1; 2007 η 2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.045	860	0.5	0.29	0.66	0.59	0.52	34	31.5	25.3	2	1.7	1.7	0.00025	4	54
LS 56 M	0.06	850	0.7	0.39	0.67	0.6	0.53	33.4	30.9	25	2	1.7	1.7	0.00025	4	54
LS 63 M	0.09	860	1.0	0.46	0.8	0.7	0.63	35	32	26	2.1	1.6	1.6	0.0006	5.5	48
LS 71 M	0.12	950	1.2	0.75	0.51	0.44	0.38	45.6	40.5	32	3	2.4	3.0	0.0007	6.5	52
LS 71 M	0.18	945	1.8	0.95	0.52	0.46	0.38	52.8	48.8	40.7	3.3	2.3	2.9	0.0011	7.6	52
LS 71 L	0.25	915	2.6	1.15	0.6	0.52	0.43	51.9	49.6	42.2	3.1	2.0	2.2	0.0013	7.9	52
LS 80 L	0.25	955	2.5	0.85	0.67	0.64	0.48	62.8	62.7	56	3.9	1.6	1.8	0.0024	8.4	41
LS 80 L	0.37	950	3.7	1.1	0.72	0.67	0.57	65.8	59.7	59	4.3	1.7	2.2	0.0032	9.7	41
LS 80 L	0.55	950	5.5	1.8	0.64	0.6	0.47	68	63	55	4.9	2.1	2.6	0.0042	11	41
LS 90 S	0.75	930	7.7	2.1	0.77	0.66	0.54	**70.5**	69.3	63.5	4.7	2.4	2.6	0.0039	13.5	51
LS 90 L**	1.1	915	11.5	3	0.76	0.67	0.55	**70.7**	70.0	66.2	4.5	2.4	2.5	0.0048	15.2	51
LS 100 L**	1.5	905	15.8	4.2	0.74	0.62	0.52	**70.8**	70.8	65.0	5.6	2.5	2.7	0.0058	20	50
LS 112 M**	2.2	905	23.2	5.8	0.76	0.66	0.53	**73.2**	73.3	68.1	6	2.8	2.7	0.0087	24.2	51
LS 132 M**	3	957	30.3	6.8	0.78	0.71	0.59	**78.2**	79.3	77.2	6	2.0	2.6	0.018	38.3	55
LS 132 M	4	961	39.7	9.3	0.75	0.66	0.56	**81.4**	82.3	80.9	5.9	2.5	2.9	0.034	53.3	55
LS 132 M**	5.5	960	54.7	13.3	0.71	0.65	0.52	**81.8**	82.7	80.8	5.5	2.5	2.8	0.039	59.4	55
LS 160 M	7.5	969	73.9	16.3	0.79	0.74	0.63	**86.1**	86.4	84.9	4.7	1.7	2.5	0.089	77	56
LS 160 L	11	968	109	23.4	0.78	0.71	0.64	**86.77**	87.2	85.9	4.6	1.8	2.6	0.105	85	56
LS 180 LR	15	968	148	31.9	0.78	0.71	0.61	**87.7**	88.0	87.0	5.4	1.8	2.6	0.139	110	60
LS 200 LT	18.5	970	182	37	0.81	0.76	0.65	**88.8**	89.2	88.3	6.4	2.4	2.8	0.236	160	62
LS 200 L	22	972	216	43.6	0.81	0.76	0.65	**89.4**	89.7	88.8	6	2.0	2.7	0.295	190	62
LS 225 MR	30	968	296	59.5	0.81	0.79	0.72	**90.4**	91.2	91.0	6	2.2	2.5	0.39	235	63
LS 250 ME	37	978	361	71.1	0.81	0.79	0.69	**91.5**	92.1	92.0	6.2	2.3	2.5	0.85	305	65
LS 280 SC	45	978	439	86.5	0.81	0.79	0.69	**91.6**	92.2	91.9	6.2	2.3	2.5	0.99	340	65
LS 280 MC	55	978	537	106	0.81	0.79	0.72	**92**	93.1	93.4	6	2.4	2.5	1.19	385	65
LS 315 SN	75	983	729	142	0.82	0.78	0.67	**92.8**	92.9	92.3	6.5	2.5	2.7	1.3	438	65
LS 315 MP	90	980	877	164	0.85	0.83	0.76	**92.9**	93.1	92.4	7.2	2.4	2.9	3.74	760	74
LS 315 MR	110	980	1072	200	0.85	0.83	0.76	**93.3**	93.6	93.0	7.2	2.4	2.9	4.36	850	74
LS 315 MR	132	986	1278	242	0.83	0.8	0.72	**94.2**	94.3	93.7	6.6	2.40	2.50	4.36	830	74

* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

A

6 poles 1000 min^{-1}

	Rated power at 50 Hz	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
Type	P_N kW	Code	Qty	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LS 63 M	0,09	MA6 09 113	5		-		-	MA6 09 117	5		-
LS 63 M[1]	0,09	MA0 00 176	5		-		-	MA0 00 182	5		-
LS 71 M	0,12	MA6 12 113	5	MA6 12 115	5		-	MA6 12 117	5		-
LS 71 M	0,18	MA6 18 107	5	MA6 18 109	5		-	MA6 18 111	5		-
LS 71 L	0,25	MA6 25 119	5	MA6 25 121	5		-	MA6 25 123	5		-
LS 80 L	0,25	MA00010	5	MA000011	1	3582084	2	MA000012	2	3778279	1
LS 80 L	0,37	MA6 37 119	5	MA6 37 121	2	MA0 00 050	2	MA6 37 123	2	MA6 37 124	1
LS 80 L	0,55	MA6 55 113	5	MA6 55 115	5	MA0 00 053	2	MA6 55 117	2	MA6 55 114	1
LS 90 S	0,75	MA6 75 101	5	MA6 75 103[2]	5	MA6 75 108	2	MA6 75 105	2	MA0 00 103	1
LS 90 L	1,1	MA6 11 201	5	MA6 11 203[2]	5	MA6 11 208	2	MA6 11 205	2	MA0 00 132	1
LS 100 L	1,5	MA6 15 201	5	MA6 15 203[2]	3	MA0 00 057	2	MA6 15 205	2	MA0 00 133	1
LS 100 L	1,8	MA6 18 201	2	MA6 18 203	1	MA0 00 058	2	MA6 18 205	2	MA0 00 134	1
LS 112 M	2,2	MA6 22 201	5	MA6 22 203[2]	5	MA0 00 099	2	MA6 22 205	2	MA0 00 138	1
LS 132 S	3	MA6 30 201	5	MA6 30 203[2]	2	MA0 00 101	2		-		-
LS 132 M	4	MA6 40 201	2	MA6 40 203[2]	2		-		-		-
LS 132 M	5,5	MA6 55 201	2	MA6 55 203[2]	2		-		-		-
LS 160 M	7,5	MA6 75 201	1		-	MA0 00 186	1				
LS 160 L	11	MA6 11 301	1		-	MA0 00 187	1				
LS 180 LR	15	MA6 15 301	1		-	MA0 00 188	1				
LS 200 LT	18,5		-		-		-				
LS 200 L	22		-		-		-				
LS 225 MR	30		-		-		-				
LS 250 MP	37		-				-				
LS 280 SP	45		-				-				
LS 280 MP	55		-				-				
LS 315 SN	75		-				-				
LS 315 MP	90		-				-				
LS 315 MR	110		-				-				
LS 315 MR	132		-				-				

1. Flange or foot motor (or foot and flange) with shaft end different from the standard (D: 14 j6 - E: 30 mm).

2. Motors IM B5 / IM V1.

Selection example:

Speed:	1000 min^{-1} - 6 poles
Power:	7.5 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	230/400 V

Designation:
6P LS 160 M 7.5 kW IM 1001 (IM B3) 230/400 V

Code: MA6 75 201

LS
totally enclosed three-phase asynchronous motors

Selection

A

8 poles 750 min^{-1}

IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	3/4	2/4	Efficiency IEC 60034-2; 1996 η 4/4	3/4	2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 71 L	0.09	690	1.3	0.5	0.55	0.45	0.4	44	42	36	2.8	1.3	1.5	0.001	8	40
LS 71 L	0.12	650	1.8	0.9	0.55	0.45	0.4	44	42	36	2.1	1.3	1.4	0.001	8	40
LS 80 L	0.18	705	2.4	0.79	0.63	0.54	0.45	52	48	43	2.9	1.5	1.9	0.003	9.7	41
LS 80 L	0.25	700	3.4	0.98	0.68	0.6	0.51	54	52	45	2.8	1.7	1.9	0.004	11.3	41
LS 90 L	0.37	685	5.2	1.2	0.72	0.63	0.52	62	62	56	3.8	1.7	1.8	0.004	13.5	43
LS 90 S	0.37	685	5.2	1.2	0.72	0.63	0.52	62	62	56	3.8	1.7	1.8	0.004	13.5	43
LS 90 L	0.55	670	7.8	1.7	0.72	0.61	0.52	63.5	62	59	3.5	1.7	1.7	0.005	15.2	43
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 250 ME	30	732	391	60.7	0.78	0.74		91.5	92.2		5.8	1.6	2.4	0.86	312	65
LS 280 SC	37	731	483	73.8	0.79			91.6			5.6	1.6	2.4	0.92	334	65
LS 280 MC	45	730	589	88.5	0.8	0.76		91.7	92.6		5.4	1.6	2.3	1.13	378	65
LS 315 SP	55	738	712	105	0.81	0.78	0.71	93.2	93.2	92.2	5.4	1.8	2.4	3.1	660	74
LS 315 MR	75	738	971	143	0.81	0.78	0.71	93.6	93.8	93.1	5.4	1.8	2.4	4.38	815	74

LS
totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

A

8 poles 750 min^{-1}

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS 71 L	*0.09*		-		-
LS 71 M	*0.12*	*MA0 00 189*	*5*	*MA0 00 190*	*5*
LS 80 L	0.18	MA8 18 101	1	MA8 18 102[1]	1
LS 80 L	0.25	MA8 25 101	2	MA8 25 102[1]	2
LS 90 S	0.37	MA8 37 101	5	MA8 37 102[1]	1
LS 90 L	0.55	MA8 55 101	5	MA8 55 102[1]	2
LS 100 L	0.75	MA8 75 101	5	MA8 75 102[1]	1
LS 100 L	1.1	MA8 11 201	2	MA8 11 202[1]	1
LS 112 MG	1.5	MA8 15 201	2	MA8 15 202[1]	1
LS 132 SM	2.2	MA8 22 201	2	MA8 22 203	1
LS 132 M	3	MA8 30 201	2	MA8 30 203	1
LS 160 M	4		-		-
LS 160 M	5.5		-		-
LS 160 L	7.5		-		-
LS 180 L	11		-		-
LS 200 L	15		-		-
LS 225 ST	18.5		-		-
LS 225 MR	22		-		-
LS 250 ME	30		-		
LS 280 SC	37		-		
LS 280 MD	45		-		
LS 315 SP	55		-		
LS 315 MP	75		-		

1. Motors IM B5 / IM V1.

Selection example:

Speed:	750 min^{-1} - 8 poles
Power:	0.75 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	230/400 V

Designation:
8P LS 100 L 0.75 kW IM 1001 (IM B3) 230/400 V

Code: MA8 75 101

LS
totally enclosed three-phase asynchronous motors

Selection

A

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

2 poles 3000 min-1

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	3/4	2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	3/4	2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.09	2860	0.3	0.44	0.55	0.45	0.4	54	45.2	37.1	5.0	5.3	5.4	0.00015	3.8	54
LS 56 M	0.12	2820	0.4	0.5	0.6	0.55	0.45	58.7	54	45.2	4.6	4.0	4.1	0.00015	3.8	54
LS 63 M	0.18	2790	0.6	0.52	0.75	0.65	0.55	67.4	66.9	59.3	5.0	3.3	2.9	0.00019	4.8	57
LS 63 M	0.25	2800	0.9	0.71	0.75	0.65	0.55	67.8	67.3	59.2	5.4	3.2	2.9	0.00025	6	57
LS 71 L	0.37	2800	1.3	0.98	0.8	0.7	0.6	68.4	67.6	63.9	5.2	3.3	3.9	0.00035	6.4	62
LS 71 L	0.55	2800	1.9	1.32	0.8	0.7	0.55	75.7	75.2	71.1	6.0	3.2	3.1	0.00045	7.3	62
LS 71 L	0.75	2780	2.6	1.7	0.85	0.75	0.65	74.6	75.8	73.1	6.0	3.3	2.9	0.0006	8.3	62
LS 80 L	0.75	2840	2.5	1.64	0.87	0.8	0.68	**75.7**	76.1	73.3	5.9	2.4	2.2	0.0007	8.2	61
LS 80 L	1.1	2837	3.7	2.4	0.84	0.77	0.65	**77.3**	78.3	76.4	5.8	2.7	2.4	0.0009	9.7	61
LS 80 L	1.5	2859	5.0	3.2	0.83	0.76	0.62	**79.3**	80	78.1	7.0	3.2	2.8	0.0011	11.3	61
LS 90 S	1.5	2870	5.0	3.4	0.81	0.72	0.58	**80**	79.5	75.9	8.0	3.9	4.0	0.0014	12	64
LS 90 L	1.8	2865	6.0	3.6	0.86	0.8	0.69	**81.9**	82.5	81.4	8.0	3.6	3.6	0.0017	14	64
LS 90 L	2.2	2862	7.3	4.3	0.88	0.83	0.73	**82**	83	82	7.7	3.7	3.3	0.0021	16	64
LS 100 L	3	2868	10.0	6.3	0.81	0.73	0.59	**82.5**	82.6	80.1	7.5	3.8	3.9	0.0022	20	66
LS 100 L	3.7	2850	12.5	8	0.85	0.76	0.62	**82.7**	82.2	77.2	8.6	0.0	0.0	0.0022	21	66
LS 112 M	4	2877	13.3	7.8	0.85	0.78	0.65	**85**	85.3	83.7	7.8	2.9	2.9	0.0029	24.4	66
LS 112 MG	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	3.1	3.5	0.0076	33	66
LS 132 S	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	0.0	0.0	0.0076	34.4	72
LS 132 S	7.5	2905	24.5	14.7	0.85	0.78	0.63	**86**	85.8	83.2	8.7	0.0	0.0	0.0088	39	72
LS 132 M	9	2910	29.5	17.3	0.85	0.8	0.71	**87.9**	88.5	87.5	8.6	2.5	3.5	0.016	49	72
LS 132 M	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.018	54	72
LS 160 MP	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.019	62	72
LS 160 MP	15	2935	48.8	28.4	0.85	0.79	0.71	**89.3**	89.7	88.6	8.1	3.0	3.5	0.023	72	72
LS 160 L	18.5	2934	60.2	33.7	0.87	0.83	0.75	**90.09**	90.6	90.0	8.0	3.0	3.3	0.044	88	72
LS 180 MT	22	2938	71.5	39.9	0.87	0.84	0.76	**90.6**	91.2	90.8	8.1	3.1	3.1	0.052	99	72
LS 200 LT	30	2946	97.2	52.1	0.9	0.87	0.82	**91.5**	92.1	91.7	8.6	2.7	3.4	0.089	154	73
LS 200 L	37	2950	120	65	0.89	0.87	0.82	**92.1**	92.6	92.3	7.4	2.6	3.0	0.12	180	73
LS 225 MT	45	2950	146	78	0.9	0.87	0.82	**92.5**	92.7	92.7	7.5	2.8	3.1	0.14	200	73
LS 250 MZ	55	2956	178	96	0.89	0.86	0.8	**92.9**	93.6	92.5	8.3	3.1	3.4	0.173	235	78
LS 280 SC	75	2968	241	129	0.9	0.87	0.82	**93.5**	93.6	93.1	8.5	2.6	3.4	0.39	330	79
LS 280 MC	90	2968	290	154	0.9	0.88	0.83	**93.8**	94.0	93.6	8.4	2.6	3.3	0.47	375	79
LS 315 SN	110	2964	354	184	0.92	0.9	0.86	**94**	94.2	93.9	8.6	2.7	3.4	0.55	445	80
LS 315 MP	132	2976	424	227	0.89	0.87	0.82	**94.4**	94.2	93.1	7.6	2.8	2.9	1.67	715	83
LS 315 MR	160	2976	513	271	0.9	0.88	0.84	**94.6**	94.6	93.7	7.6	2.9	3.1	1.97	820	83
LS 315 MR•	200	2982	640	350	0.87	0.86	0.82	**94.8**	94.3	92.9	9.3	3.8	3.9	1.97	845	83

• Temperature rise class F

* This standard replaces the IEC 60034-2; 1996.

LS
totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

2 poles 3000 min⁻¹

A

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty	IM 2001 (IM B35) Code	Qty	IM 3601 (IM B14) Code	Qty	IM 2101 (IM B34) Code	Qty
LS 100 L	3	EA2 30 202	2	EA2 30 204[2]	1	EA2 30 2E4	2	EA2 30 206	2	EA2 30 2F6	2
LS 112 M	4	EA2 40 202	5	EA2 40 204[2]	5	EA2 40 2A4	1	EA2 40 206	2	EA2 40 2A6	2
LS 112 MG	5.5	EA2 55 202	5	EA2 55 204[2]	2	EA2 55 2E4	1	EA2 55 206	2	EA2 55 2F6	2
LS 132 S	5.5	EA2 55 208	5	EA2 55 210[2]	2	EA2 55 2B0	1	EA2 55 212	2	EA2 55 3B2	2
LS 132 S	7.5	EA2 75 202	5	EA2 75 204[2]	2	EA2 75 2E4	2	EA2 75 206	2	EA2 75 2F6	2
LS 132 M	9	EA2 90 202	5	EA2 90 204[2]	2	EA2 90 2E4	2	EA2 90 206	2	EA2 90 2F6	2
LS 132 M	11	EA2 11 344	5	EA2 11 345[2]	2	EA2 11 3E5	1	EA2 11 346	2	EA2 11 3E6	2
LS 160 MP	11	EA2 11 302	2	EA2 11 304[2]	1	EA2 11 3E4	2				
LS 160 MP	15	EA2 15 302	2	EA2 15 304[2]	2	EA2 15 3E4	1				
LS 160 L	18.5	EA2 18 302	2	EA2 18 304[2]	1	EA2 18 3E4	2				
LS 180 MT	22	EA2 22 302	2	EA2 22 304[2]	1	EA2 22 3E4	3				
LS 200 LT	30	EA2 30 302	1	EA2 30 304	2	EA2 30 3E4	3				
LS 200 L	37	EA2 37 302	1	EA2 37 304	2	EA2 37 3E4	3				
LS 225 MT	45	EA2 45 302	1	EA2 45 304	2	EA2 45 3E4	2				
LS 250 MZ	55	EA2 55 302	1	EA2 55 304	2	EA2 55 3E4	2				
LS 280 SC	75	EA2 75 302	1			EA2 75 3E4	1				
LS 280 MC	90	EA2 90 302	1			EA0 00 194	1				
LS 315 SN	110	MA2 11 402	1			MA0 00 195	1				
LS 315 MP	132	MA2 13 402	1			MA0 00 196	1				
LS 315 MR	160		-				-				
LS 315 MR[1]	200		-				-				

1. Temperature rise class F.

2. Motors IM B5 / IM V1.

Selection example:

Vitesse :	3000 min⁻¹ - 2 poles
Power:	30 kW
Mounting and position:	IM 2001 (IM B35)
Mains supply voltage:	400 V

Designation:
2P LS 200 LT 30 kW IM 2001 (IM B35) 400 V

Code: EA2 30 3E4

LS
totally enclosed three-phase asynchronous motors

Selection

A

4 poles 1500 min^{-1}

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	Power factor Cos Phi 3/4	Power factor Cos Phi 2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	Efficiency* IEC 60034-2-1; 2007 η 3/4	Efficiency* IEC 60034-2-1; 2007 η 2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.06	1380	0.4	0.29	0.76	0.69	0.62	41.8	37.1	29.7	2.8	2.4	2.5	0.00025	4	47
LS 56 M	0.09	1400	0.6	0.39	0.6	0.52	0.42	55.2	49.6	42.8	3.2	2.8	2.8	0.00025	4	47
LS 63 M	0.12	1380	0.8	0.44	0.7	0.58	0.47	56.1	53.9	46.8	3.2	2.4	2.3	0.00035	4.8	49
LS 63 M	0.18	1390	1.2	0.64	0.65	0.55	0.44	61.6	58	51.3	3.7	2.6	2.6	0.00048	5	49
LS 71 M	0.25	1425	1.7	0.8	0.65	0.55	0.44	69.4	66.8	59.8	4.6	2.7	2.9	0.00068	6.4	49
LS 71 M	0.37	1420	2.5	1.06	0.7	0.59	0.47	72.1	71.7	66.4	4.9	2.4	2.8	0.00085	7.3	49
LS 71 L	0.55	1400	3.8	1.62	0.7	0.62	0.49	70.4	70	65.1	4.8	2.3	2.5	0.0011	8.3	49
LS 80 L	0.55	1410	3.7	1.42	0.76	0.68	0.55	73.2	69.1	62.1	4.5	2.0	2.3	0.0013	8.2	47
LS 80 L	0.75	1400	5.1	2.01	0.77	0.71	0.59	**72.1**	72.8	70.1	4.5	2.0	2.2	0.0018	9.3	47
LS 80 L	0.9	1425	6.0	2.44	0.73	0.67	0.54	**73.2**	72.9	70.3	5.8	3.0	3.0	0.0024	10.9	47
LS 90 S	1.1	1429	7.4	2.5	0.84	0.77	0.64	**76.7**	78.2	76.6	4.8	1.6	2.0	0.0026	11.5	48
LS 90 L	1.5	1428	10.0	3.4	0.82	0.74	0.6	**79.3**	79.9	77.5	5.3	1.8	2.3	0.0032	13.5	48
LS 90 L	1.8	1438	12.0	4	0.82	0.75	0.61	**79.4**	80	77.6	6	2.1	3.2	0.0037	15.2	48
LS 100 L	2.2	1436	14.6	4.8	0.81	0.73	0.59	**80.3**	81.2	79.3	5.9	2.1	2.5	0.0043	20	48
LS 100 L	3	1437	19.9	6.5	0.81	0.72	0.59	**82.8**	83.4	81.8	6	2.5	2.8	0.0055	22.5	48
LS 112 M**	4	1438	26.6	8.3	0.83	0.76	0.57	**81.7**	81.6	80.6	7.1	2.5	3.0	0.0067	24.9	49
LS 132 S	5.5	1447	36.7	11.1	0.83	0.79	0.67	**84.7**	85.6	84.6	6.3	2.4	2.8	0.014	36.5	49
LS 132 M	7.5	1451	49.4	15.2	0.82	0.74	0.61	**86.0**	86.2	84.4	7	2.4	2.9	0.019	54.7	62
LS 132 M	9	1455	59.1	18.1	0.82	0.74	0.62	**86.8**	87.2	86.4	6.9	2.2	3.1	0.023	59.9	62
LS 160 MP	11	1454	72.2	21	0.86	0.79	0.67	**87.7**	88.4	87.5	7.7	2.3	3.2	0.03	70	62
LS 160 LR	15	1453	98.6	28.8	0.84	0.78	0.69	**88.7**	89.3	88.3	7.5	2.9	3.6	0.036	86	62
LS 180 MT	18.5	1456	121	35.2	0.84	0.79	0.67	**89.9**	90.6	90.5	7.6	2.7	3.2	0.085	100	64
LS 180 LR	22	1456	144	41.7	0.84	0.79	0.68	**90.2**	91.0	90.8	7.9	3.0	3.3	0.096	112	64
LS 200 LT	30	1460	196	56.3	0.84	0.8	0.69	**90.8**	91.5	91.2	6.6	2.9	2.9	0.151	165	64
LS 225 ST	37	1468	241	69	0.84	0.8	0.7	**92.0**	92.7	92.7	6.3	2.7	2.6	0.24	205	64
LS 225 MR	45	1468	293	84	0.84	0.8	0.7	**92.5**	93.1	93.0	6.3	2.7	2.6	0.29	235	64
LS 250 ME	55	1478	355	102	0.84	0.8	0.71	**93.1**	93.3	92.7	7	2.7	2.8	0.63	320	66
LS 280 SC	75	1478	485	138	0.84	0.8	0.71	**93.5**	93.9	93.5	7.2	2.8	2.9	0.83	380	69
LS 280 MD	90	1478	581	165	0.84	0.8	0.71	**93.5**	93.8	93.5	7.6	3.0	3.0	1.03	450	69
LS 315 SN	110	1477	711	201	0.84	0.79	0.7	**94.1**	94.5	94.2	7.6	3.0	3.2	1.04	470	76
LS 315 MP	132	1484	849	238	0.85	0.82	0.74	**94.2**	94.4	93.8	7.6	2.9	3.0	2.79	750	70
LS 315 MR	160	1484	1030	287	0.85	0.82	0.74	**94.7**	94.7	93.9	7.7	2.9	3.0	3.27	845	70
LS 315 MR•	200	1486	1285	362	0.84	0.79	0.69	**94.9**	94.9	94.2	8.1	3.1	3.4	3.27	845	70

• Temperature rise class F
* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

A

4 poles 1500 min^{-1}

	Rated power at 50 Hz	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
Type	P_N kW	Code	Qty	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LS 100 L	2.2	EA4 22 208	2	EA4 22 210[2]	1	3973387	1	EA4 22 212	2		2
LS 100 L	3	EA4 30 208	3	EA4 30 210[2]	1	EA4 30 2G0	1	EA4 30 212	2	EA4 30 2H2	2
LS 112 M	4	MA4 40 202	5	MA4 40 204[2]	5	EA4 40 2G4	1	MA4 40 206	2	MA4 40 2H6	2
LS 132 S	5.5	EA4 55 208	5	EA4 55 210[2]	5	EA4 55 2G0	2	EA4 55 212	2	EA4 55 2H2	2
LS 132 M	7.5	EA4 75 208	5	EA4 75 210[2]	5	EA4 75 2G0	2	EA4 75 212	2	EA4 75 2H2	2
LS 132 M	9	EA4 90 202	5	EA4 90 204[2]	2	EA4 90 2G4	1	EA4 90 206	2	EA4 90 2H6	2
LS 160 MP	11	EA4 11 302	2	EA4 11 304[2]	1	EA4 11 3G4	1				
LS 160 LR	15	EA4 15 302	2	EA4 15 304[2]	2	EA4 15 3G4	1				
LS 180 MT	18.5	EA4 18 302	2	EA4 18 304[2]	1	EA4 18 3G4	2				
LS 180 LR	22	EA4 22 302	2	EA4 22 304[2]	1	EA4 22 3G4	2				
LS 200 LT	30	EA4 30 302	2	EA4 30 304	1	EA4 30 3G4	2				
LS 225 ST	37	EA4 37 302	2	EA4 37 304	1	EA4 37 3G4	2				
LS 225 MR	45	EA4 45 302	2	EA4 45 304	1	EA4 45 3G4	1				
LS 250 ME	55	EA4 55 302	1			EA4 55 3G4	1				
LS 280 SC	75	EA4 75 302	1			EA4 75 3G4	1				
LS 280 MD	90	EA4 90 302	1			EA0 00 201	1				
LS 315 SN	110	MA4 11 402	1			MA0 00 202	1				
LS 315 MP	132	MA4 13 402	1			MA0 00 203	1				
LS 315 MR	160	MA0 00 007	1			MA0 00 204	1				
LS 315 MR[1]	200		-				-				

1. Temperature rise class F.
2. Motors IM B5 / IM V1.

Selection example:

Speed:	1500 min^{-1} - 4 poles
Power:	4 kW
Mounting and position:	IM 2101 (IM B34)
Mains supply voltage:	400 V

Designation:
4P LS 112 M 4 kW IM 2101 (IM B34)
400 V

Code: EA4 40 2H6

LS
totally enclosed three-phase asynchronous motors

Selection

A

6 poles 1000 min-1

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	Power factor Cos Phi 3/4	Power factor Cos Phi 2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	Efficiency* IEC 60034-2-1; 2007 η 3/4	Efficiency* IEC 60034-2-1; 2007 η 2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.045	860	0.5	0.29	0.66	0.59	0.52	34	31.5	25.3	2	1.7	1.7	0.00025	4	54
LS 56 M	0.06	850	0.7	0.39	0.67	0.6	0.53	33.4	30.9	25	2	1.7	1.7	0.00025	4	54
LS 63 M	0.09	860	1.0	0.46	0.8	0.7	0.63	35	32	26	2.1	1.6	1.6	0.0006	5.5	48
LS 71 M	0.12	950	1.2	0.75	0.51	0.44	0.38	45.6	40.5	32	3	2.4	3.0	0.0007	6.5	52
LS 71 M	0.18	945	1.8	0.95	0.52	0.46	0.38	52.8	48.8	40.7	3.3	2.3	2.9	0.0011	7.6	52
LS 71 L	0.25	915	2.6	1.15	0.6	0.52	0.43	51.9	49.6	42.2	3.1	2.0	2.2	0.0013	7.9	52
LS 80 L	0.25	955	2.5	0.85	0.67	0.64	0.48	62.8	62.7	56	3.9	1.6	1.8	0.0024	8.4	41
LS 80 L	0.37	950	3.7	1.1	0.72	0.67	0.57	65.8	59.7	59	4.3	1.7	2.2	0.0032	9.7	41
LS 80 L	0.55	950	5.5	1.8	0.64	0.6	0.47	68	63	55	4.9	2.1	2.6	0.0042	11	41
LS 90 S	0.75	930	7.7	2.1	0.77	0.66	0.54	**70.5**	69.3	63.5	4.7	2.4	2.6	0.0039	13.5	51
LS 90 L**	1.1	915	11.5	3	0.76	0.67	0.55	**70.7**	70.0	66.2	4.5	2.4	2.5	0.0048	15.2	51
LS 100 L**	1.5	905	15.8	4.2	0.74	0.62	0.52	**70.8**	70.8	65.0	5.6	2.5	2.7	0.0058	20	50
LS 112 M**	2.2	905	23.2	5.8	0.76	0.66	0.53	**73.2**	73.3	68.1	6	2.8	2.7	0.0087	24.2	51
LS 132 M**	3	957	30.3	6.8	0.78	0.71	0.59	**78.2**	79.3	77.2	6	2.0	2.6	0.018	38.3	55
LS 132 M	4	961	39.7	9.3	0.75	0.66	0.56	**81.4**	82.3	80.9	5.9	2.5	2.9	0.034	53.3	55
LS 132 M**	5.5	960	54.7	13.3	0.71	0.65	0.52	**81.8**	82.7	80.8	5.5	2.5	2.8	0.039	59.4	55
LS 160 M	7.5	969	73.9	16.3	0.79	0.74	0.63	**86.1**	86.4	84.9	4.7	1.7	2.5	0.089	77	56
LS 160 L	11	968	109	23.4	0.78	0.71	0.64	**86.77**	87.2	85.9	4.6	1.8	2.6	0.105	85	56
LS 180 LR	15	968	148	31.9	0.78	0.71	0.61	**87.7**	88.0	87.0	5.4	1.8	2.6	0.139	110	60
LS 200 LT	18.5	970	182	37	0.81	0.76	0.65	**88.8**	89.2	88.3	6.4	2.4	2.8	0.236	160	62
LS 200 L	22	972	216	43.6	0.81	0.76	0.65	**89.4**	89.7	88.8	6	2.0	2.7	0.295	190	62
LS 225 MR	30	968	296	59.5	0.81	0.79	0.72	**90.4**	91.2	91.0	6	2.2	2.5	0.39	235	63
LS 250 ME	37	978	361	71.1	0.81	0.79	0.69	**91.5**	92.1	92.0	6.2	2.3	2.5	0.85	305	65
LS 280 SC	45	978	439	86.5	0.81	0.79	0.69	**91.6**	92.2	91.9	6.2	2.3	2.5	0.99	340	65
LS 280 MC	55	978	537	106	0.81	0.79	0.72	**92**	93.1	93.4	6	2.4	2.5	1.19	385	65
LS 315 SN	75	983	729	142	0.82	0.78	0.67	**92.8**	92.9	92.3	6.5	2.5	2.7	1.3	438	65
LS 315 MP	90	980	877	164	0.85	0.83	0.76	**92.9**	93.1	92.4	7.2	2.4	2.9	3.74	760	74
LS 315 MR	110	980	1072	200	0.85	0.83	0.76	**93.3**	93.6	93.0	7.2	2.4	2.9	4.36	850	74
LS 315 MR	132	986	1278	242	0.83	0.8	0.72	**94.2**	94.3	93.7	6.6	2.40	2.50	4.36	830	74

* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

A

6 poles 1000 min^{-1}

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 2001 (IM B35) Code	Qty
LS 132 S	3	MA6 30 202	1		-
LS 132 M	4	MA6 40 202	2		-
LS 132 M	5.5	MA6 55 202	1		-
LS 160 M	7.5	MA6 75 202	1	MA6 75 2A2	1
LS 160 L	11	MA6 11 302	1	MA6 11 3A2	1
LS 180 LR	15	MA6 15 302	1	MA6 15 3A2	1
LS 200 LT	18.5	MA6 18 302	1	MA6 18 3A2	1
LS 200 L	22	MA6 22 302	1	MA6 22 3A2	1
LS 225 MR	30	MA6 30 302	1	MA6 30 3A2	1
LS 250 ME	37		-		-
LS 280 SC	45		-		-
LS 280 MC	55		-		-
LS 315 SN	75		-		-
LS 315 MP	90		-		-
LS 315 MR	110		-		-
LS 315 MR	132		-		-

Selection example:

Speed:	1000 min^{-1} - 6 poles
Power:	18.5 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	400 V

Designation:
6P LS 200 LT 18.5 kW IM 1001 (IM B3) 400 V

Code: MA6 18 302

LS
totally enclosed three-phase asynchronous motors

Selection

A

8 poles 750 min^{-1}

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

	Rated power	Rated speed	Rated torque	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			Id / In	Md/Mn	M_M/Mn	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)
LS 71 L	0.09	690	1.3	0.5	0.55	0.45	0.4	44	42	36	2.8	1.3	1.5	0.001	8	40
LS 71 L	0.12	650	1.8	0.9	0.55	0.45	0.4	44	42	36	2.1	1.3	1.4	0.001	8	40
LS 80 L	0.18	705	2.4	0.79	0.63	0.54	0.45	52	48	43	2.9	1.5	1.9	0.003	9.7	41
LS 80 L	0.25	700	3.4	0.98	0.68	0.6	0.51	54	52	45	2.8	1.7	1.9	0.004	11.3	41
LS 90 L	0.37	685	5.2	1.2	0.72	0.63	0.52	62	62	56	3.8	1.7	1.8	0.004	13.5	43
LS 90 S	0.37	685	5.2	1.2	0.72	0.63	0.52	62	62	56	3.8	1.7	1.8	0.004	13.5	43
LS 90 L	0.55	670	7.8	1.7	0.72	0.61	0.52	63.5	62	59	3.5	1.7	1.7	0.005	15.2	43
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 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
LS 250 ME	30	732	391	60.7	0.78	0.74		91.5	92.2		5.8	1.6	2.4	0.86	312	65
LS 280 SC	37	731	483	73.8	0.79			91.6			5.6	1.6	2.4	0.92	334	65
LS 280 MC	45	730	589	88.5	0.8	0.76		91.7	92.6		5.4	1.6	2.3	1.13	378	65
LS 315 SP	55	738	712	105	0.81	0.78	0.71	93.2	93.2	92.2	5.4	1.8	2.4	3.1	660	74
LS 315 MR	75	738	971	143	0.81	0.78	0.71	93.6	93.8	93.1	5.4	1.8	2.4	4.38	815	74

LS
totally enclosed three-phase asynchronous motors

Selection

IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

A

8 poles 750 min^{-1}

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 2001 (IM B35) Code	Qty
LS 132 M	3		-		-
LS 160 M	4		-		-
LS 160 M	5.5		-		-
LS 160 L	7.5		-		-
LS 180 L	11		-		-
LS 200 L	15		-		-
LS 225 ST	18.5		-		-
LS 225 MR	22		-		-
LS 250 ME	30		-		-
LS 280 SC	37		-		-
LS 280 MD	45		-		-
LS 315 SP	55		-		-
LS 315 MR	75		-		-

LS
totally enclosed three-phase asynchronous motors

Selection

A

2 poles 3000 min-1

PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y and 400 V Δ - S1

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	3/4	2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	3/4	2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.09	2860	0.3	0.44	0.55	0.45	0.4	54	45.2	37.1	5.0	5.3	5.4	0.00015	3.8	54
LS 56 M	0.12	2820	0.4	0.5	0.6	0.55	0.45	58.7	54	45.2	4.6	4.0	4.1	0.00015	3.8	54
LS 63 M	0.18	2790	0.6	0.52	0.75	0.65	0.55	67.4	66.9	59.3	5.0	3.3	2.9	0.00019	4.8	57
LS 63 M	0.25	2800	0.9	0.71	0.75	0.65	0.55	67.8	67.3	59.2	5.4	3.2	2.9	0.00025	6	57
LS 71 L	0.37	2800	1.3	0.98	0.8	0.7	0.6	68.4	67.6	63.9	5.2	3.3	3.9	0.00035	6.4	62
LS 71 L	0.55	2800	1.9	1.32	0.8	0.7	0.55	75.7	75.2	71.1	6.0	3.2	3.1	0.00045	7.3	62
LS 71 L	0.75	2780	2.6	1.7	0.85	0.75	0.65	74.6	75.8	73.1	6.0	3.3	2.9	0.0006	8.3	62
LS 80 L	0.75	2840	2.5	1.64	0.87	0.8	0.68	**75.7**	76.1	73.3	5.9	2.4	2.2	0.0007	8.2	61
LS 80 L	1.1	2837	3.7	2.4	0.84	0.77	0.65	**77.3**	78.3	76.4	5.8	2.7	2.4	0.0009	9.7	61
LS 80 L	1.5	2859	5.0	3.2	0.83	0.76	0.62	**79.3**	80	78.1	7.0	3.2	2.8	0.0011	11.3	61
LS 90 S	1.5	2870	5.0	3.4	0.81	0.72	0.58	**80**	79.5	75.9	8.0	3.9	4.0	0.0014	12	64
LS 90 L	1.8	2865	6.0	3.6	0.86	0.8	0.69	**81.9**	82.5	81.4	8.0	3.6	3.6	0.0017	14	64
LS 90 L	2.2	2862	7.3	4.3	0.88	0.83	0.73	**82**	83	82	7.7	3.7	3.3	0.0021	16	64
LS 100 L	3	2868	10.0	6.3	0.81	0.73	0.59	**82.5**	82.6	80.1	7.5	3.8	3.9	0.0022	20	66
LS 100 L	3.7	2850	12.5	8	0.85	0.76	0.62	**82.7**	82.2	77.2	8.6	0.0	0.0	0.0022	21	66
LS 112 M	4	2877	13.3	7.8	0.85	0.78	0.65	**85**	85.3	83.7	7.8	2.9	2.9	0.0029	24.4	66
LS 112 MG	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	3.1	3.5	0.0076	33	66
LS 132 S	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	0.0	0.0	0.0076	34.4	72
LS 132 S	7.5	2905	24.5	14.7	0.85	0.78	0.63	**86**	85.8	83.2	8.7	0.0	0.0	0.0088	39	72
LS 132 M	9	2910	29.5	17.3	0.85	0.8	0.71	**87.9**	88.5	87.5	8.6	2.5	3.5	0.016	49	72
LS 132 M	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.018	54	72
LS 160 MP	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.019	62	72
LS 160 MP	15	2935	48.8	28.4	0.85	0.79	0.71	**89.3**	89.7	88.6	8.1	3.0	3.5	0.023	72	72
LS 160 L	18.5	2934	60.2	33.7	0.87	0.83	0.75	**90.09**	90.6	90.0	8.0	3.0	3.3	0.044	88	72
LS 180 MT	22	2938	71.5	39.9	0.87	0.84	0.76	**90.6**	91.2	90.8	8.1	3.1	3.1	0.052	99	72
LS 200 LT	30	2946	97.2	52.1	0.9	0.87	0.82	**91.5**	92.1	91.7	8.6	2.7	3.4	0.089	154	73
LS 200 L	37	2950	120	65	0.89	0.87	0.82	**92.1**	92.6	92.3	7.4	2.6	3.0	0.12	180	73
LS 225 MT	45	2950	146	78	0.9	0.87	0.82	**92.5**	92.7	92.7	7.5	2.8	3.1	0.14	200	73
LS 250 MZ	55	2956	178	96	0.89	0.86	0.8	**92.9**	93.6	92.5	8.3	3.1	3.4	0.173	235	78
LS 280 SC	75	2968	241	129	0.9	0.87	0.82	**93.5**	93.6	93.1	8.5	2.6	3.4	0.39	330	79
LS 280 MC	90	2968	290	154	0.9	0.88	0.83	**93.8**	94.0	93.6	8.4	2.6	3.3	0.47	375	79
LS 315 SN	110	2964	354	184	0.92	0.9	0.86	**94**	94.2	93.9	8.6	2.7	3.4	0.55	445	80
LS 315 MP	132	2976	424	227	0.89	0.87	0.82	**94.4**	94.2	93.1	7.6	2.8	2.9	1.67	715	83
LS 315 MR	160	2976	513	271	0.9	0.88	0.84	**94.6**	94.6	93.7	7.6	2.9	3.1	1.97	820	83
LS 315 MR•	200	2982	640	350	0.87	0.86	0.82	**94.8**	94.3	92.9	9.3	3.8	3.9	1.97	845	83

● Temperature rise class F

* This standard replaces the IEC 60034-2; 1996.

LS
totally enclosed three-phase asynchronous motors

Selection

PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y and 400 V Δ - S1

A

2 poles 3000 min^{-1}

Type	Rated power at 50 Hz in 230/400V P_N kW	IM 1001 (IM B3) Code	Qty
LS 80 L	0.75	1520200	2
LS 80 L	1.1	EA000416	2
LS 80 L	1.5	EA000417	5
LS 90 S	1.8	EA000418	2
LS 90 L	2.2	EA000420	5
LS 100 L	3	EA000421	5
LS 112 M	4	EA000422	5
LS 112 MG	5.5	3960085	2
LS 132 S	7.5	EA000424	2

Type	Rated power at 50 Hz in 400V Δ P_N kW	IM 1001 (IM B3) Code	Qty
LS 112 MG	5.5	3964046	2
LS 132 M	7.5	EA000432	2
LS 160 MP	15	EA000436	1

LS
totally enclosed three-phase asynchronous motors

Selection

A

4 poles 1500 min-1

PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y and 400 V Δ - S1

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	3/4	2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	3/4	2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.06	1380	0.4	0.29	0.76	0.69	0.62	41.8	37.1	29.7	2.8	2.4	2.5	0.00025	4	47
LS 56 M	0.09	1400	0.6	0.39	0.6	0.52	0.42	55.2	49.6	42.8	3.2	2.8	2.8	0.00025	4	47
LS 63 M	0.12	1380	0.8	0.44	0.7	0.58	0.47	56.1	53.9	46.8	3.2	2.4	2.3	0.00035	4.8	49
LS 63 M	0.18	1390	1.2	0.64	0.65	0.55	0.44	61.6	58	51.3	3.7	2.6	2.6	0.00048	5	49
LS 71 M	0.25	1425	1.7	0.8	0.65	0.55	0.44	69.4	66.8	59.8	4.6	2.7	2.9	0.00068	6.4	49
LS 71 M	0.37	1420	2.5	1.06	0.7	0.59	0.47	72.1	71.7	66.4	4.9	2.4	2.8	0.00085	7.3	49
LS 71 L	0.55	1400	3.8	1.62	0.7	0.62	0.49	70.4	70	65.1	4.8	2.3	2.5	0.0011	8.3	49
LS 80 L	0.55	1410	3.7	1.42	0.76	0.68	0.55	73.2	69.1	62.1	4.5	2.0	2.3	0.0013	8.2	47
LS 80 L	0.75	1400	5.1	2.01	0.77	0.71	0.59	**72.1**	72.8	70.1	4.5	2.0	2.2	0.0018	9.3	47
LS 80 L	0.9	1425	6.0	2.44	0.73	0.67	0.54	**73.2**	72.9	70.3	5.8	3.0	3.0	0.0024	10.9	47
LS 90 S	1.1	1429	7.4	2.5	0.84	0.77	0.64	**76.7**	78.2	76.6	4.8	1.6	2.0	0.0026	11.5	48
LS 90 L	1.5	1428	10.0	3.4	0.82	0.74	0.6	**79.3**	79.9	77.5	5.3	1.8	2.3	0.0032	13.5	48
LS 90 L	1.8	1438	12.0	4	0.82	0.75	0.61	**79.4**	80	77.6	6	2.1	3.2	0.0037	15.2	48
LS 100 L	2.2	1436	14.6	4.8	0.81	0.73	0.59	**80.3**	81.2	79.3	5.9	2.1	2.5	0.0043	20	48
LS 100 L	3	1437	19.9	6.5	0.81	0.72	0.59	**82.8**	83.4	81.8	6	2.5	2.8	0.0055	22.5	48
LS 112 M**	4	1438	26.6	8.3	0.83	0.76	0.57	**81.7**	81.6	80.6	7.1	2.5	3.0	0.0067	24.9	49
LS 132 S	5.5	1447	36.7	11.1	0.83	0.79	0.67	**84.7**	85.6	84.6	6.3	2.4	2.8	0.014	36.5	49
LS 132 M	7.5	1451	49.4	15.2	0.82	0.74	0.61	**86.0**	86.2	84.4	7	2.4	2.9	0.019	54.7	62
LS 132 M	9	1455	59.1	18.1	0.82	0.74	0.62	**86.8**	87.2	86.4	6.9	2.2	3.1	0.023	59.9	62
LS 160 MP	11	1454	72.2	21	0.86	0.79	0.67	**87.7**	88.4	87.5	7.7	2.3	3.2	0.03	70	62
LS 160 LR	15	1453	98.6	28.8	0.84	0.78	0.69	**88.7**	89.3	88.3	7.5	2.9	3.6	0.036	86	62
LS 180 MT	18.5	1456	121	35.2	0.84	0.79	0.67	**89.9**	90.6	90.5	7.6	2.7	3.2	0.085	100	64
LS 180 LR	22	1456	144	41.7	0.84	0.79	0.68	**90.2**	91.0	90.8	7.9	3.0	3.3	0.096	112	64
LS 200 LT	30	1460	196	56.3	0.84	0.8	0.69	**90.8**	91.5	91.2	6.6	2.9	2.9	0.151	165	64
LS 225 ST	37	1468	241	69	0.84	0.8	0.7	**92.0**	92.7	92.7	6.3	2.7	2.6	0.24	205	64
LS 225 MR	45	1468	293	84	0.84	0.8	0.7	**92.5**	93.1	93.0	6.3	2.7	2.6	0.29	235	64
LS 250 ME	55	1478	355	102	0.84	0.8	0.71	**93.1**	93.3	92.7	7	2.7	2.8	0.63	320	66
LS 280 SC	75	1478	485	138	0.84	0.8	0.71	**93.5**	93.9	93.5	7.2	2.8	2.9	0.83	380	69
LS 280 MD	90	1478	581	165	0.84	0.8	0.71	**93.5**	93.8	93.5	7.6	3.0	3.0	1.03	450	69
LS 315 SN	110	1477	711	201	0.84	0.79	0.7	**94.1**	94.5	94.2	7.6	3.0	3.2	1.04	470	76
LS 315 MP	132	1484	849	238	0.85	0.82	0.74	**94.2**	94.4	93.8	7.6	2.9	3.0	2.79	750	70
LS 315 MR	160	1484	1030	287	0.85	0.82	0.74	**94.7**	94.7	93.9	7.7	2.9	3.0	3.27	845	70
LS 315 MR•	200	1486	1285	362	0.84	0.79	0.69	**94.9**	94.9	94.2	8.1	3.1	3.4	3.27	845	70

• Temperature rise class F
* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

4 poles 1500 min^{-1}

PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y and 400 V Δ - S1

A

Type	Rated power at 50 Hz in 230/400V P_N kW	IM 1001 (IM B3) Code	Qty
LS 56 M	*0.09*	*MA0 00 142*	*10*
LS 63 M	*0.12*	*MA0 00 143*	*10*
LS 63 M [1]	*0.12*	*MA0 00 144*	*5*
LS 63 M	*0.18*	*MA0 00 145*	*10*
LS 63 M [1]	*0.18*	*MA0 00 146*	*5*
LS 63 M	*0.25*	*MA0 00 208*	*5*
LS 63 M [1]	*0.25*	*MA0 00 147*	*5*
LS 71 M	*0.25*	*MA0 00 148*	*10*
LS 71 M	*0.37*	*MA0 00 149*	*10*
LS 71 L	*0.55*	*MA0 00 150*	*10*
LS 80 L	0.55	MA0 00 151	10
LS 80 L	0.75	MA0 00 152	10
LS 80 L	0.9	MA0 00 153	2
LS 90 S	1.1	EA0 00 154	10
LS 90 L	1.5	EA0 00 155	10
LS 90 L	1.8	EA0 00 156	5
LS 100 L	2.2	EA0 00 157	10
LS 100 L	3	EA0 00 158	5
LS 112 M	4	EA0 00 159	10
LS 132 S	5.5	EA0 00 160	5
LS 132 M	7.5	EA0 00 161	10
LS 132 M	9	EA0 00 162	5
LS 160 MP	11	EA0 00 163	5
LS 160 LR	15	EA0 00 164	5
LS 180 MT	18.5	EA0 00 165	1
LS 180 LR	22	EA0 00 166	1
LS 200 LT	30	EA0 00 167	1
LS 225 ST	37	EA0 00 168	1
LS 225 MR	45	EA0 00 169	1
LS 250 ME	55	EA0 00 170	1
LS 280 SC	75	EA0 00 171	1
LS 280 MD	90		-
LS 315 SN	110		-
LS 315 MP	132		-
LS 315 MR	160		-

Type	Rated power at 50 Hz in 400V Δ P_N kW	IM 1001 (IM B3) Code	Qty
LS 132 S	5.5	EA000411	5
LS 132 M	7.5	EA000412	5
LS 132 M	9	EA000413	5
LS 160 MP	11	EA000414	5
LS 160 LR	15	EA000415	5

1. Flange or foot motor (or foot and flange) with shaft end different from the standard (D: 14 j6 - E: 30 mm).

Selection example:

Speed:	1500 min^{-1} - 4 poles
Power:	4 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	230/400 V
Thermal protection:	PTO

Designation:
4P LS 112 M 4 kW IM 1001 (IM B3)
PTO 230/400 V

Code: EA0 00 159

LS
totally enclosed three-phase asynchronous motors

Selection

A

2 poles 3000 min^{-1}

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

								IE1								
	Rated power	Rated speed	Rated torque	Rated current	Power factor			Efficiency* IEC 60034-2-1; 2007			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			Id / In	Md/Mn	M_M/Mn	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)
LS 56 M	0.09	2860	0.3	0.44	0.55	0.45	0.4	54	45.2	37.1	5.0	5.3	5.4	0.00015	3.8	54
LS 56 M	0.12	2820	0.4	0.5	0.6	0.55	0.45	58.7	54	45.2	4.6	4.0	4.1	0.00015	3.8	54
LS 63 M	0.18	2790	0.6	0.52	0.75	0.65	0.55	67.4	66.9	59.3	5.0	3.3	2.9	0.00019	4.8	57
LS 63 M	0.25	2800	0.9	0.71	0.75	0.65	0.55	67.8	67.3	59.2	5.4	3.2	2.9	0.00025	6	57
LS 71 L	0.37	2800	1.3	0.98	0.8	0.7	0.6	68.4	67.6	63.9	5.2	3.3	3.9	0.00035	6.4	62
LS 71 L	0.55	2800	1.9	1.32	0.8	0.7	0.55	75.7	75.2	71.1	6.0	3.2	3.1	0.00045	7.3	62
LS 71 L	0.75	2780	2.6	1.7	0.85	0.75	0.65	74.6	75.8	73.1	6.0	3.3	2.9	0.0006	8.3	62
LS 80 L	0.75	2840	2.5	1.64	0.87	0.8	0.68	**75.7**	76.1	73.3	5.9	2.4	2.2	0.0007	8.2	61
LS 80 L	1.1	2837	3.7	2.4	0.84	0.77	0.65	**77.3**	78.3	76.4	5.8	2.7	2.4	0.0009	9.7	61
LS 80 L	1.5	2859	5.0	3.2	0.83	0.76	0.62	**79.3**	80	78.1	7.0	3.2	2.8	0.0011	11.3	61
LS 90 S	1.5	2870	5.0	3.4	0.81	0.72	0.58	**80**	79.5	75.9	8.0	3.9	4.0	0.0014	12	64
LS 90 L	1.8	2865	6.0	3.6	0.86	0.8	0.69	**81.9**	82.5	81.4	8.0	3.6	3.6	0.0017	14	64
LS 90 L	2.2	2862	7.3	4.3	0.88	0.83	0.73	**82**	83	82	7.7	3.7	3.3	0.0021	16	64
LS 100 L	3	2868	10.0	6.3	0.81	0.73	0.59	**82.5**	82.6	80.1	7.5	3.8	3.9	0.0022	20	66
LS 100 L	3.7	2850	12.5	8	0.85	0.76	0.62	**82.7**	82.2	77.2	8.6	0.0	0.0	0.0022	21	66
LS 112 M	4	2877	13.3	7.8	0.85	0.78	0.65	**85**	85.3	83.7	7.8	2.9	2.9	0.0029	24.4	66
LS 112 MG	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	3.1	3.5	0.0076	33	66
LS 132 S	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	0.0	0.0	0.0076	34.4	72
LS 132 S	7.5	2905	24.5	14.7	0.85	0.78	0.63	**86**	85.8	83.2	8.7	0.0	0.0	0.0088	39	72
LS 132 M	9	2910	29.5	17.3	0.85	0.8	0.71	**87.9**	88.5	87.5	8.6	2.5	3.5	0.016	49	72
LS 132 M	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.018	54	72
LS 160 MP	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.019	62	72
LS 160 MP	15	2935	48.8	28.4	0.85	0.79	0.71	**89.3**	89.7	88.6	8.1	3.0	3.5	0.023	72	72
LS 160 L	18.5	2934	60.2	33.7	0.87	0.83	0.75	**90.09**	90.6	90.0	8.0	3.0	3.3	0.044	88	72
LS 180 MT	22	2938	71.5	39.9	0.87	0.84	0.76	**90.6**	91.2	90.8	8.1	3.1	3.1	0.052	99	72
LS 200 LT	30	2946	97.2	52.1	0.9	0.87	0.82	**91.5**	92.1	91.7	8.6	2.7	3.4	0.089	154	73
LS 200 L	37	2950	120	65	0.89	0.87	0.82	**92.1**	92.6	92.3	7.4	2.6	3.0	0.12	180	73
LS 225 MT	45	2950	146	78	0.9	0.87	0.82	**92.5**	92.7	92.7	7.5	2.8	3.1	0.14	200	73
LS 250 MZ	55	2956	178	96	0.89	0.86	0.8	**92.9**	93.6	92.5	8.3	3.1	3.4	0.173	235	78
LS 280 SC	75	2968	241	129	0.9	0.87	0.82	**93.5**	93.6	93.1	8.5	2.6	3.4	0.39	330	79
LS 280 MC	90	2968	290	154	0.9	0.88	0.83	**93.8**	94.0	93.6	8.4	2.6	3.3	0.47	375	79
LS 315 SN	110	2964	354	184	0.92	0.9	0.86	**94**	94.2	93.9	8.6	2.7	3.4	0.55	445	80
LS 315 MP	132	2976	424	227	0.89	0.87	0.82	**94.4**	94.2	93.1	7.6	2.8	2.9	1.67	715	83
LS 315 MR	160	2976	513	271	0.9	0.88	0.84	**94.6**	94.6	93.7	7.6	2.9	3.1	1.97	820	83
LS 315 MR•	200	2982	640	350	0.87	0.86	0.82	**94.8**	94.3	92.9	9.3	3.8	3.9	1.97	845	83

• Temperature rise class F

* This standard replaces the IEC 60034-2; 1996.

LS
totally enclosed three-phase asynchronous motors

Selection

2 poles 3000 min^{-1}

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

A

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

	Rated power at 50 Hz	IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
Type	P_N kW	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LS 71 L	0.37	MA2 37 L21	5		-	*MA2 37 T23*	*5*	*MA2 37 TC3*	*5*
LS 71 L	0.55	MA2 55 L21	5		-	*MA2 55 T23*	*5*	*MA2 55 TC3*	*5*
LS 80 L	0.75	MA2 75 13F	5	MA2 75 1DF	5	MA2 75 13H	5	MA2 75 1DH	5
LS 80 L	1.1	EA2 11 23F	5	EA2 11 2DF	5	EA2 11 13H	5	EA2 11 2DH	5
LS 90 S	1.5	EA2 15 23F	5	EA2 15 2DF	5	EA2 15 23H	5	EA2 15 2DH	5
LS 90 L	2.2	EA2 22 22B	5	EA2 22 2CB	5	EA2 22 22D	5	EA2 22 2CD	5
LS 100 L	3	EA2 30 20D	5	EA2 30 2AD	5	EA2 30 20F	5	EA2 30 2AF	5
LS 112 M	4	EA2 40 20D	5	EA2 40 2AD	5	EA2 40 20F	5	EA2 40 2AF	5
LS 112 MG	5.5	EA2 55 20D	5	EA2 55 2AD	5	EA2 55 20F	5	EA2 55 2AF	5
LS 132 S	5.5	EA2 55 20J	2	EA2 55 2AJ	2	EA2 55 21B	2	EA2 55 2BB	2
LS 132 S	7.5	EA2 75 20D	2	EA2 75 2AD	2	EA2 75 20F	2	EA2 75 2AF	2
LS 132 M	9	EA2 90 20D	2	EA2 90 2AD	2	EA2 90 20F	2	EA2 90 2AF	2
LS 132 M	11	EA2 11 34C	2	EA2 11 3EC	2		-		-
LS 160 MP	11	EA2 11 30D	2	EA2 11 3AD	2				
LS 160 MP	15	EA2 15 30D	2	EA2 15 3AD	2				

Selection example:

Speed:	3000 min^{-1} - 2 poles
Power:	1.5 kW
Mounting and position:	IM 2001 (IM B35) FF130
Mains supply voltage:	230/400 V

Designation:
2P LS 90 S 1.5 kW IM 2001 (IM B35)
FF 130 230/400 V

Code: EA2 15 2DF

LS
totally enclosed three-phase asynchronous motors

Selection

A

4 poles 1500 min-1

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

IE1

Type	Rated power P_N kW	Rated speed N_N min-1	Rated torque M_N Nm	Rated current $I_{N\ (400V)}$ A	Power factor Cos Phi 4/4	Power factor Cos Phi 3/4	Power factor Cos Phi 2/4	Efficiency* IEC 60034-2-1; 2007 η 4/4	Efficiency* IEC 60034-2-1; 2007 η 3/4	Efficiency* IEC 60034-2-1; 2007 η 2/4	Starting current/ Rated current Id / In	Starting torque/ Rated torque Md/Mn	Maximum torque/ Rated torque M_M/Mn	Moment of inertia J kg.m2	Weight IM B3 kg	Noise LP db(A)
LS 56 M	0.06	1380	0.4	0.29	0.76	0.69	0.62	41.8	37.1	29.7	2.8	2.4	2.5	0.00025	4	47
LS 56 M	0.09	1400	0.6	0.39	0.6	0.52	0.42	55.2	49.6	42.8	3.2	2.8	2.8	0.00025	4	47
LS 63 M	0.12	1380	0.8	0.44	0.7	0.58	0.47	56.1	53.9	46.8	3.2	2.4	2.3	0.00035	4.8	49
LS 63 M	0.18	1390	1.2	0.64	0.65	0.55	0.44	61.6	58	51.3	3.7	2.6	2.6	0.00048	5	49
LS 71 M	0.25	1425	1.7	0.8	0.65	0.55	0.44	69.4	66.8	59.8	4.6	2.7	2.9	0.00068	6.4	49
LS 71 M	0.37	1420	2.5	1.06	0.7	0.59	0.47	72.1	71.7	66.4	4.9	2.4	2.8	0.00085	7.3	49
LS 71 L	0.55	1400	3.8	1.62	0.7	0.62	0.49	70.4	70	65.1	4.8	2.3	2.5	0.0011	8.3	49
LS 80 L	0.55	1410	3.7	1.42	0.76	0.68	0.55	73.2	69.1	62.1	4.5	2.0	2.3	0.0013	8.2	47
LS 80 L	0.75	1400	5.1	2.01	0.77	0.71	0.59	**72.1**	72.8	70.1	4.5	2.0	2.2	0.0018	9.3	47
LS 80 L	0.9	1425	6.0	2.44	0.73	0.67	0.54	**73.2**	72.9	70.3	5.8	3.0	3.0	0.0024	10.9	47
LS 90 S	1.1	1429	7.4	2.5	0.84	0.77	0.64	**76.7**	78.2	76.6	4.8	1.6	2.0	0.0026	11.5	48
LS 90 L	1.5	1428	10.0	3.4	0.82	0.74	0.6	**79.3**	79.9	77.5	5.3	1.8	2.3	0.0032	13.5	48
LS 90 L	1.8	1438	12.0	4	0.82	0.75	0.61	**79.4**	80	77.6	6	2.1	3.2	0.0037	15.2	48
LS 100 L	2.2	1436	14.6	4.8	0.81	0.73	0.59	**80.3**	81.2	79.3	5.9	2.1	2.5	0.0043	20	48
LS 100 L	3	1437	19.9	6.5	0.81	0.72	0.59	**82.8**	83.4	81.8	6	2.5	2.8	0.0055	22.5	48
LS 112 M**	4	1438	26.6	8.3	0.83	0.76	0.57	**81.7**	81.6	80.6	7.1	2.5	3.0	0.0067	24.9	49
LS 132 S	5.5	1447	36.7	11.1	0.83	0.79	0.67	**84.7**	85.6	84.6	6.3	2.4	2.8	0.014	36.5	49
LS 132 M	7.5	1451	49.4	15.2	0.82	0.74	0.61	**86.0**	86.2	84.4	7	2.4	2.9	0.019	54.7	62
LS 132 M	9	1455	59.1	18.1	0.82	0.74	0.62	**86.8**	87.2	86.4	6.9	2.2	3.1	0.023	59.9	62
LS 160 MP	11	1454	72.2	21	0.86	0.79	0.67	**87.7**	88.4	87.5	7.7	2.3	3.2	0.03	70	62
LS 160 LR	15	1453	98.6	28.8	0.84	0.78	0.69	**88.7**	89.3	88.3	7.5	2.9	3.6	0.036	86	62
LS 180 MT	18.5	1456	121	35.2	0.84	0.79	0.67	**89.9**	90.6	90.5	7.6	2.7	3.2	0.085	100	64
LS 180 LR	22	1456	144	41.7	0.84	0.79	0.68	**90.2**	91.0	90.8	7.9	3.0	3.3	0.096	112	64
LS 200 LT	30	1460	196	56.3	0.84	0.8	0.69	**90.8**	91.5	91.2	6.6	2.9	2.9	0.151	165	64
LS 225 ST	37	1468	241	69	0.84	0.8	0.7	**92.0**	92.7	92.7	6.3	2.7	2.6	0.24	205	64
LS 225 MR	45	1468	293	84	0.84	0.8	0.7	**92.5**	93.1	93.0	6.3	2.7	2.6	0.29	235	64
LS 250 ME	55	1478	355	102	0.84	0.8	0.71	**93.1**	93.3	92.7	7	2.7	2.8	0.63	320	66
LS 280 SC	75	1478	485	138	0.84	0.8	0.71	**93.5**	93.9	93.5	7.2	2.8	2.9	0.83	380	69
LS 280 MD	90	1478	581	165	0.84	0.8	0.71	**93.5**	93.8	93.5	7.6	3.0	3.0	1.03	450	69
LS 315 SN	110	1477	711	201	0.84	0.79	0.7	**94.1**	94.5	94.2	7.6	3.0	3.2	1.04	470	76
LS 315 MP	132	1484	849	238	0.85	0.82	0.74	**94.2**	94.4	93.8	7.6	2.9	3.0	2.79	750	70
LS 315 MR	160	1484	1030	287	0.85	0.82	0.74	**94.7**	94.7	93.9	7.7	2.9	3.0	3.27	845	70
LS 315 MR•	200	1486	1285	362	0.84	0.79	0.69	**94.9**	94.9	94.2	8.1	3.1	3.4	3.27	845	70

• Temperature rise class F
* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

4 poles 1500 min^{-1}

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

	Rated power	IM 3001		IM 2001		IM 3601		IM 2101	
	at 50 Hz	(IM B5)		(IM B35)		(IM B14)		(IM B34)	
Type	P_N kW	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LS 71 M	*0.25*	*MA4 25 12B*	*5*		-	*MA4 25 12D*	*5*		-
LS 71 M	*0.37*	*MA4 37 12B*	*5*		-	*MA4 37 12D*	*5*		-
LS 71 L	*0.55*	*MA4 55 13D*	*5*		-		-		-
LS 80 L	0.55	MA4 55 11F	2	MA4 55 1BF	2	MA4 55 11H	2	MA4 55 1BH	2
LS 80 L	0.75	MA4 75 12B	2	MA4 75 1CB	2	MA4 75 12D	2	MA4 75 1CD	2
LS 90 S	1.1	EA4 11 22B	2	EA4 11 2CB	2	EA4 11 22D	2	EA4 11 2CD	2
LS 90 L	1.5	EA4 15 20J	2	EA4 15 2AJ	2	EA4 15 21B	2	EA4 15 2BB	2
LS 100 L	2.2	EA4 22 20J	2	EA4 22 2AJ	2	EA4 22 21B	2	EA4 22 2BB	2
LS 100 L	3	EA4 30 20J	2	EA4 30 2AJ	2	EA4 30 21B	2	EA4 30 2BB	2
LS 112 M	4	MA4 40 20D	2	MA4 40 2AD	2	MA4 40 20F	2	MA4 40 2AF	2
LS 132 S	5.5	EA4 55 20J	1	EA4 55 2AJ	1	EA4 55 21B	1	EA4 55 2BB	1
LS 132 M	7.5	EA4 75 20J	1	EA4 75 2AJ	1	EA4 75 21B	1	EA4 75 2BB	1
LS 132 M	9	EA4 90 20D	1	EA4 90 2AD	1	EA4 90 20F	1	EA4 90 2AF	1

Selection example:

Vitesse :	1500 min^{-1} - 4 poles
Power:	2.2 kW
Mounting and position:	IM 2101 (IM B34) FF115
Mains supply voltage:	230/400 V

Designation:
4P LS 100 L 2.2 kW IM 2101 (IM B34)
FF 115 230/400 V

Code: EA4 22 2BB

LS
totally enclosed three-phase asynchronous motors

Selection

A

6 poles 1000 min^{-1}

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

									IE1							
	Rated power	Rated speed	Rated torque	Rated current	Power factor			Efficiency* IEC 60034-2-1; 2007			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			Id / In	Md/Mn	M_M/Mn	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)
LS 56 M	0.045	860	0.5	0.29	0.66	0.59	0.52	34	31.5	25.3	2	1.7	1.7	0.00025	4	54
LS 56 M	0.06	850	0.7	0.39	0.67	0.6	0.53	33.4	30.9	25	2	1.7	1.7	0.00025	4	54
LS 63 M	0.09	860	1.0	0.46	0.8	0.7	0.63	35	32	26	2.1	1.6	1.6	0.0006	5.5	48
LS 71 M	0.12	950	1.2	0.75	0.51	0.44	0.38	45.6	40.5	32	3	2.4	3.0	0.0007	6.5	52
LS 71 M	0.18	945	1.8	0.95	0.52	0.46	0.38	52.8	48.8	40.7	3.3	2.3	2.9	0.0011	7.6	52
LS 71 L	0.25	915	2.6	1.15	0.6	0.52	0.43	51.9	49.6	42.2	3.1	2.0	2.2	0.0013	7.9	52
LS 80 L	0.25	955	2.5	0.85	0.67	0.64	0.48	62.8	62.7	56	3.9	1.6	1.8	0.0024	8.4	41
LS 80 L	0.37	950	3.7	1.1	0.72	0.67	0.57	65.8	59.7	59	4.3	1.7	2.2	0.0032	9.7	41
LS 80 L	0.55	950	5.5	1.8	0.64	0.6	0.47	68	63	55	4.9	2.1	2.6	0.0042	11	41
LS 90 S	0.75	930	7.7	2.1	0.77	0.66	0.54	**70.5**	69.3	63.5	4.7	2.4	2.6	0.0039	13.5	51
LS 90 L**	1.1	915	11.5	3	0.76	0.67	0.55	**70.7**	70.0	66.2	4.5	2.4	2.5	0.0048	15.2	51
LS 100 L**	1.5	905	15.8	4.2	0.74	0.62	0.52	**70.8**	70.8	65.0	5.6	2.5	2.7	0.0058	20	50
LS 112 M**	2.2	905	23.2	5.8	0.76	0.66	0.53	**73.2**	73.3	68.1	6	2.8	2.7	0.0087	24.2	51
LS 132 M**	3	957	30.3	6.8	0.78	0.71	0.59	**78.2**	79.3	77.2	6	2.0	2.6	0.018	38.3	55
LS 132 M	4	961	39.7	9.3	0.75	0.66	0.56	**81.4**	82.3	80.9	5.9	2.5	2.9	0.034	53.3	55
LS 132 M**	5.5	960	54.7	13.3	0.71	0.65	0.52	**81.8**	82.7	80.8	5.5	2.5	2.8	0.039	59.4	55
LS 160 M	7.5	969	73.9	16.3	0.79	0.74	0.63	**86.1**	86.4	84.9	4.7	1.7	2.5	0.089	77	56
LS 160 L	11	968	109	23.4	0.78	0.71	0.64	**86.77**	87.2	85.9	4.6	1.8	2.6	0.105	85	56
LS 180 LR	15	968	148	31.9	0.78	0.71	0.61	**87.7**	88.0	87.0	5.4	1.8	2.6	0.139	110	60
LS 200 LT	18.5	970	182	37	0.81	0.76	0.65	**88.8**	89.2	88.3	6.4	2.4	2.8	0.236	160	62
LS 200 L	22	972	216	43.6	0.81	0.76	0.65	**89.4**	89.7	88.8	6	2.0	2.7	0.295	190	62
LS 225 MR	30	968	296	59.5	0.81	0.79	0.72	**90.4**	91.2	91.0	6	2.2	2.5	0.39	235	63
LS 250 ME	37	978	361	71.1	0.81	0.79	0.69	**91.5**	92.1	92.0	6.2	2.3	2.5	0.85	305	65
LS 280 SC	45	978	439	86.5	0.81	0.79	0.69	**91.6**	92.2	91.9	6.2	2.3	2.5	0.99	340	65
LS 280 MC	55	978	537	106	0.81	0.79	0.72	**92**	93.1	93.4	6	2.4	2.5	1.19	385	65
LS 315 SN	75	983	729	142	0.82	0.78	0.67	**92.8**	92.9	92.3	6.5	2.5	2.7	1.3	438	65
LS 315 MP	90	980	877	164	0.85	0.83	0.76	**92.9**	93.1	92.4	7.2	2.4	2.9	3.74	760	74
LS 315 MR	110	980	1072	200	0.85	0.83	0.76	**93.3**	93.6	93.0	7.2	2.4	2.9	4.36	850	74
LS 315 MR	132	986	1278	242	0.83	0.8	0.72	**94.2**	94.3	93.7	6.6	2.40	2.50	4.36	830	74

* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

6 poles 1000 min^{-1}

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 230 V Δ / 400 V Y - S1

A

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

	Rated power at 50 Hz	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
Type	P_N kW	Code	Qty	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LS 63 M	0.09	MA6 09 113	5		-		-	MA6 09 117	5		-
LS 63 M[1]	0.09	MA0 00 176	5		-		-	MA0 00 182	5		-
LS 71 M	0.12	MA6 12 113	5	MA6 12 115	5		-	MA6 12 117	5		-
LS 71 M	0.18	MA6 18 107	5	MA6 18 109	5		-	MA6 18 111	5		-
LS 71 L	0.25	MA6 25 119	5	MA6 25 121	5		-	MA6 25 123	5		-
LS 80 L	0.25	MA00010	5	MA000011	2	3582084	2	MA000012	2	3778279	1
LS 80 L	0.37	MA6 37 119	5	MA6 37 121	5	MA0 00 050	2	MA6 37 123	2	MA6 37 124	1
LS 80 L	0.55	MA6 55 113	10	MA6 55 115	5	MA0 00 053	2	MA6 55 117	2	MA6 55 114	1
LS 90 S	0.75	MA6 75 101	5	MA6 75 103[2]	5	MA6 75 108	2	MA6 75 105	2	MA0 00 103	2
LS 90 L	1.1	MA6 11 201	10	MA6 11 203[2]	5	MA6 11 208	2	MA6 11 205	2	MA0 00 132	1
LS 100 L	1.5	MA6 15 201	10	MA6 15 203[2]	5	MA0 00 057	2	MA6 15 205	2	MA0 00 133	1
LS 100 L	1.8	MA6 18 201	2	MA6 18 203	2	MA0 00 058	2	MA6 18 205	2	MA0 00 134	1
LS 112 M	2.2	MA6 22 201	5	MA6 22 203[2]	5	MA0 00 099	2	MA6 22 205	2	MA0 00 138	2
LS 132 S	3	MA6 30 201	5	MA6 30 203[2]	2	MA0 00 101	2		-		-
LS 132 M	4	MA6 40 201	2	MA6 40 203[2]	2		-		-		-
LS 132 M	5.5	MA6 55 201	2	MA6 55 203[2]	2		-		-		-
LS 160 M	7.5	MA6 75 201	2		-	MA0 00 186	2				
LS 160 L	11	MA6 11 301	2		-	MA0 00 187	2				
LS 180 LR	15	MA6 15 301	2		-	MA0 00 188	2				
LS 200 LT	18.5		-		-		-				
LS 200 L	22		-		-		-				
LS 225 MR	30		-		-		-				
LS 250 MP	37		-				-				
LS 280 SP	45		-				-				
LS 280 MP	55		-				-				
LS 315 SP	75		-				-				
LS 315 MP	90		-				-				
LS 315 MR	110		-				-				
LS 315 MR	132		-				-				

1. Flange or foot motor (or foot and flange) with shaft end different from the standard (D: 14 j6 - E: 30 mm).
2. Motors IM B5 / IM V1.

LS
totally enclosed three-phase asynchronous motors

Selection

A

2 poles 3000 min-1

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

								IE1								
	Rated power	Rated speed	Rated torque	Rated current	Power factor			Efficiency* IEC 60034-2-1; 2007			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			Id / In	Md/Mn	M_M/Mn	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)
LS 56 M	0.09	2860	0.3	0.44	0.55	0.45	0.4	54	45.2	37.1	5.0	5.3	5.4	0.00015	3.8	54
LS 56 M	0.12	2820	0.4	0.5	0.6	0.55	0.45	58.7	54	45.2	4.6	4.0	4.1	0.00015	3.8	54
LS 63 M	0.18	2790	0.6	0.52	0.75	0.65	0.55	67.4	66.9	59.3	5.0	3.3	2.9	0.00019	4.8	57
LS 63 M	0.25	2800	0.9	0.71	0.75	0.65	0.55	67.8	67.3	59.2	5.4	3.2	2.9	0.00025	6	57
LS 71 L	0.37	2800	1.3	0.98	0.8	0.7	0.6	68.4	67.6	63.9	5.2	3.3	3.9	0.00035	6.4	62
LS 71 L	0.55	2800	1.9	1.32	0.8	0.7	0.55	75.7	75.2	71.1	6.0	3.2	3.1	0.00045	7.3	62
LS 71 L	0.75	2780	2.6	1.7	0.85	0.75	0.65	74.6	75.8	73.1	6.0	3.3	2.9	0.0006	8.3	62
LS 80 L	0.75	2840	2.5	1.64	0.87	0.8	0.68	**75.7**	76.1	73.3	5.9	2.4	2.2	0.0007	8.2	61
LS 80 L	1.1	2837	3.7	2.4	0.84	0.77	0.65	**77.3**	78.3	76.4	5.8	2.7	2.4	0.0009	9.7	61
LS 80 L	1.5	2859	5.0	3.2	0.83	0.76	0.62	**79.3**	80	78.1	7.0	3.2	2.8	0.0011	11.3	61
LS 90 S	1.5	2870	5.0	3.4	0.81	0.72	0.58	**80**	79.5	75.9	8.0	3.9	4.0	0.0014	12	64
LS 90 L	1.8	2865	6.0	3.6	0.86	0.8	0.69	**81.9**	82.5	81.4	8.0	3.6	3.6	0.0017	14	64
LS 90 L	2.2	2862	7.3	4.3	0.88	0.83	0.73	**82**	83	82	7.7	3.7	3.3	0.0021	16	64
LS 100 L	3	2868	10.0	6.3	0.81	0.73	0.59	**82.5**	82.6	80.1	7.5	3.8	3.9	0.0022	20	66
LS 100 L	3.7	2850	12.5	8	0.85	0.76	0.62	**82.7**	82.2	77.2	8.6	0.0	0.0	0.0022	21	66
LS 112 M	4	2877	13.3	7.8	0.85	0.78	0.65	**85**	85.3	83.7	7.8	2.9	2.9	0.0029	24.4	66
LS 112 MG	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	3.1	3.5	0.0076	33	66
LS 132 S	5.5	2916	18.0	10.5	0.88	0.81	0.71	**86.1**	86.4	84.7	9.0	0.0	0.0	0.0076	34.4	72
LS 132 S	7.5	2905	24.5	14.7	0.85	0.78	0.63	**86**	85.8	83.2	8.7	0.0	0.0	0.0088	39	72
LS 132 M	9	2910	29.5	17.3	0.85	0.8	0.71	**87.9**	88.5	87.5	8.6	2.5	3.5	0.016	49	72
LS 132 M	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.018	54	72
LS 160 MP	11	2944	35.7	20.7	0.86	0.81	0.69	**88.2**	88.3	86.7	7.5	2.7	3.4	0.019	62	72
LS 160 MP	15	2935	48.8	28.4	0.85	0.79	0.71	**89.3**	89.7	88.6	8.1	3.0	3.5	0.023	72	72
LS 160 L	18.5	2934	60.2	33.7	0.87	0.83	0.75	**90.09**	90.6	90.0	8.0	3.0	3.3	0.044	88	72
LS 180 MT	22	2938	71.5	39.9	0.87	0.84	0.76	**90.6**	91.2	90.8	8.1	3.1	3.1	0.052	99	72
LS 200 LT	30	2946	97.2	52.1	0.9	0.87	0.82	**91.5**	92.1	91.7	8.6	2.7	3.4	0.089	154	73
LS 200 L	37	2950	120	65	0.89	0.87	0.82	**92.1**	92.6	92.3	7.4	2.6	3.0	0.12	180	73
LS 225 MT	45	2950	146	78	0.9	0.87	0.82	**92.5**	92.7	92.7	7.5	2.8	3.1	0.14	200	73
LS 250 MZ	55	2956	178	96	0.89	0.86	0.8	**92.9**	93.6	92.5	8.3	3.1	3.4	0.173	235	78
LS 280 SC	75	2968	241	129	0.9	0.87	0.82	**93.5**	93.6	93.1	8.5	2.6	3.4	0.39	330	79
LS 280 MC	90	2968	290	154	0.9	0.88	0.83	**93.8**	94.0	93.6	8.4	2.6	3.3	0.47	375	79
LS 315 SN	110	2964	354	184	0.92	0.9	0.86	**94**	94.2	93.9	8.6	2.7	3.4	0.55	445	80
LS 315 MP	132	2976	424	227	0.89	0.87	0.82	**94.4**	94.2	93.1	7.6	2.8	2.9	1.67	715	83
LS 315 MR	160	2976	513	271	0.9	0.88	0.84	**94.6**	94.6	93.7	7.6	2.9	3.1	1.97	820	83
LS 315 MR•	200	2982	640	350	0.87	0.86	0.82	**94.8**	94.3	92.9	9.3	3.8	3.9	1.97	845	83

• Temperature rise class F

* This standard replaces the IEC 60034-2; 1996.

LS
totally enclosed three-phase asynchronous motors

Selection

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

2 poles 3000 min^{-1}

A

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

	Rated power at 50 Hz	IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
Type	P_N kW	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LS 100 L	3	EA2 30 20E	5	EA2 30 2AE	5	EA2 30 20G	5	EA2 30 2AG	5
LS 112 M	4	EA2 40 20E	5	EA2 40 2AE	5	EA2 40 20G	5	EA2 40 2AG	5
LS 112 MG	5.5	EA2 55 20E	5	EA2 55 2AE	5	EA2 55 20G	5	EA2 55 2AG	5
LS 132 S	5.5	EA2 55 21A	2	EA2 55 2BA	2	EA2 55 21C	2	EA2 55 2B2	2
LS 132 S	7.5	EA2 75 20E	2	EA2 75 2AE	2	EA2 75 20G	2	EA2 75 2AG	2
LS 132 M	9	EA2 90 20E	2	EA2 90 2AE	2	EA2 90 20G	2	EA2 90 2AG	2
LS 132 M	11	EA2 11 50A	2	EA2 11 5AD	2		-		-
LS 160 MP	11	EA2 11 30A	2	EA2 11 30B	2				
LS 160 MP	15	EA2 15 30A	2	EA2 15 30B	2				

Selection example:

Speed:	3000 min^{-1} - 2 poles
Power:	7.5 kW
Mounting and position:	IM 3001 (IM B5) FF215
Mains supply voltage:	400 V

Designation:
2P LS 132 S 7.5 kW IM 3001 (IM B5)
FF 215 400 V

Code: EA2 75 20E

LS
totally enclosed three-phase asynchronous motors

Selection

A

4 poles 1500 min-1

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

								IE1									
	Rated power	Rated speed	Rated torque	Rated current	Power factor			Efficiency* IEC 60034-2-1; 2007			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			Id / In	Md/Mn	M_M/Mn	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)
LS 56 M	0.06	1380	0.4	0.29	0.76	0.69	0.62	41.8	37.1	29.7	2.8	2.4	2.5	0.00025	4	47
LS 56 M	0.09	1400	0.6	0.39	0.6	0.52	0.42	55.2	49.6	42.8	3.2	2.8	2.8	0.00025	4	47
LS 63 M	0.12	1380	0.8	0.44	0.7	0.58	0.47	56.1	53.9	46.8	3.2	2.4	2.3	0.00035	4.8	49
LS 63 M	0.18	1390	1.2	0.64	0.65	0.55	0.44	61.6	58	51.3	3.7	2.6	2.6	0.00048	5	49
LS 71 M	0.25	1425	1.7	0.8	0.65	0.55	0.44	69.4	66.8	59.8	4.6	2.7	2.9	0.00068	6.4	49
LS 71 M	0.37	1420	2.5	1.06	0.7	0.59	0.47	72.1	71.7	66.4	4.9	2.4	2.8	0.00085	7.3	49
LS 71 L	0.55	1400	3.8	1.62	0.7	0.62	0.49	70.4	70	65.1	4.8	2.3	2.5	0.0011	8.3	49
LS 80 L	0.55	1410	3.7	1.42	0.76	0.68	0.55	73.2	69.1	62.1	4.5	2.0	2.3	0.0013	8.2	47
LS 80 L	0.75	1400	5.1	2.01	0.77	0.71	0.59	**72.1**	72.8	70.1	4.5	2.0	2.2	0.0018	9.3	47
LS 80 L	0.9	1425	6.0	2.44	0.73	0.67	0.54	**73.2**	72.9	70.3	5.8	3.0	3.0	0.0024	10.9	47
LS 90 S	1.1	1429	7.4	2.5	0.84	0.77	0.64	**76.7**	78.2	76.6	4.8	1.6	2.0	0.0026	11.5	48
LS 90 L	1.5	1428	10.0	3.4	0.82	0.74	0.6	**79.3**	79.9	77.5	5.3	1.8	2.3	0.0032	13.5	48
LS 90 L	1.8	1438	12.0	4	0.82	0.75	0.61	**79.4**	80	77.6	6	2.1	3.2	0.0037	15.2	48
LS 100 L	2.2	1436	14.6	4.8	0.81	0.73	0.59	**80.3**	81.2	79.3	5.9	2.1	2.5	0.0043	20	48
LS 100 L	3	1437	19.9	6.5	0.81	0.72	0.59	**82.8**	83.4	81.8	6	2.5	2.8	0.0055	22.5	48
LS 112 M**	4	1438	26.6	8.3	0.83	0.76	0.57	**81.7**	81.6	80.6	7.1	2.5	3.0	0.0067	24.9	49
LS 132 S	5.5	1447	36.7	11.1	0.83	0.79	0.67	**84.7**	85.6	84.6	6.3	2.4	2.8	0.014	36.5	49
LS 132 M	7.5	1451	49.4	15.2	0.82	0.74	0.61	**86.0**	86.2	84.4	7	2.4	2.9	0.019	54.7	62
LS 132 M	9	1455	59.1	18.1	0.82	0.74	0.62	**86.8**	87.2	86.4	6.9	2.2	3.1	0.023	59.9	62
LS 160 MP	11	1454	72.2	21	0.86	0.79	0.67	**87.7**	88.4	87.5	7.7	2.3	3.2	0.03	70	62
LS 160 LR	15	1453	98.6	28.8	0.84	0.78	0.69	**88.7**	89.3	88.3	7.5	2.9	3.6	0.036	86	62
LS 180 MT	18.5	1456	121	35.2	0.84	0.79	0.67	**89.9**	90.6	90.5	7.6	2.7	3.2	0.085	100	64
LS 180 LR	22	1456	144	41.7	0.84	0.79	0.68	**90.2**	91.0	90.8	7.9	3.0	3.3	0.096	112	64
LS 200 LT	30	1460	196	56.3	0.84	0.8	0.69	**90.8**	91.5	91.2	6.6	2.9	2.9	0.151	165	64
LS 225 ST	37	1468	241	69	0.84	0.8	0.7	**92.0**	92.7	92.7	6.3	2.7	2.6	0.24	205	64
LS 225 MR	45	1468	293	84	0.84	0.8	0.7	**92.5**	93.1	93.0	6.3	2.7	2.6	0.29	235	64
LS 250 ME	55	1478	355	102	0.84	0.8	0.71	**93.1**	93.3	92.7	7	2.7	2.8	0.63	320	66
LS 280 SC	75	1478	485	138	0.84	0.8	0.71	**93.5**	93.9	93.5	7.2	2.8	2.9	0.83	380	69
LS 280 MD	90	1478	581	165	0.84	0.8	0.71	**93.5**	93.8	93.5	7.6	3.0	3.0	1.03	450	69
LS 315 SN	110	1477	711	201	0.84	0.79	0.7	**94.1**	94.5	94.2	7.6	3.0	3.2	1.04	470	76
LS 315 MP	132	1484	849	238	0.85	0.82	0.74	**94.2**	94.4	93.8	7.6	2.9	3.0	2.79	750	70
LS 315 MR	160	1484	1030	287	0.85	0.82	0.74	**94.7**	94.7	93.9	7.7	2.9	3.0	3.27	845	70
LS 315 MR•	200	1486	1285	362	0.84	0.79	0.69	**94.9**	94.9	94.2	8.1	3.1	3.4	3.27	845	70

• Temperature rise class F
* This standard replaces the IEC 60034-2; 1996.
** These motors do not reach the level of efficiency IE1.

LS
totally enclosed three-phase asynchronous motors

Selection

4 poles 1500 min^{-1}

Non standard flange
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V Δ - S1

Non standard flange motors: as an option, the motors may be fitted with flanges smaller than the standard flanges[1]. Consequently, the dimensions of the flanges M, N and P correspond to the dimensions of the standard flange for the next frame size down.

1. See page A2.44 for flange dimensions.

	Rated power at 50 Hz	IM 3001 (IM B5)		IM 2001 (IM B35)		IM 3601 (IM B14)		IM 2101 (IM B34)	
Type	P_N kW	Code	Qty	Code	Qty	Code	Qty	Code	Qty
LS 100 L	3	EA4 30 21A	5	EA4 30 2GA	5	EA4 30 21C	5	EA4 30 2BC	5
LS 112 M	4	MA4 40 20E	5	MA4 40 2AE	5	MA4 40 20G	5	MA4 40 2AG	5
LS 132 S	5.5	EA4 55 21A	2	EA4 55 2BA	2	EA4 55 21G	2	EA4 55 2BC	2
LS 132 M	7.5	EA4 75 21A	2	EA4 75 2BA	2	EA4 75 21G	2	EA4 75 2BC	2
LS 132 M	9	EA4 90 20E	2	EA4 90 2AE	2	EA4 90 21G	2	EA4 90 2AG	2

Selection example:

Speed:	1500 min^{-1} - 4 poles
Power:	7.5 kW
Mounting and position:	IM 2001 (IM B35) FF215
Mains supply voltage:	400 V

Designation:
4P LS 132 M 7.5 kW IM 2001 (IM B35)
FF 215 400 V

Code: EA4 75 2BA

LS
multi-speed closed three-phase asynchronous motors

Selection

A

2-4 Poles 3000-1500 min⁻¹

Use: centrifugal machines
1 winding (Dahlander) - PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

The motors are for use with quadratic resistive torque machines (centrifugal machines).
The high speed power (GV) is that of the standard motor having the same speed in the same frame size (from 80 to 315 included).
The motors connection is provided only for one power supply voltage (Dahlander connection) and it does not allow star delta starting.

Type		Rated power at 50 Hz P_N kW	Rated speed N_N min⁻¹	Rated current I_N (400 V) A	Power factor Cos φ 100%	Efficiency IEC 60034-2; 1996 η 100%	Starting torque / Rated torque I_D / I_N	Weight IM B3 kg
LS 71 M	GV[1] PV[2]	0.37 0.075						8.3
LS 71 M	GV PV	0.55 0.11	2810 1420	1.4 0.4	0.9 0.7	69 73	4.7 4.6	8.3
LS 80 L	GV PV	1.1 0.25	2810 1420	2.5 0.66	0.87 0.78	72 70	5.2 4.6	10.9
LS 90 S	GV PV	1.5 0.35	2850 1440	3.8 0.9	0.82 0.77	70 75	5.1 5.7	14
LS 90 L	GV PV	2.2 0.6	2840 1450	4.8 1.5	0.9 0.82	74 71	5.8 5.2	15.2
LS 100 L	GV PV	3 0.8	2920 1450	6.6 1.7	0.84 0.82	78 83	6.8 5.8	24.5
LS 112 MU	GV PV	4.5 1.3	2910 1460	9.9 3.1	0.83 0.75	79 80	6.9 6	37
LS 132 SM	GV PV	6 1.6	2895 1440	13.2 3.7	0.84 0.79	78 79	6.2 5.5	50
LS 132 M	GV PV	9 2.5	2920 1440	18.6 5.6	0.85 0.79	82 81	7.3 6.2	60
LS 160 M	GV PV	13.5 3.3	2920 1465	26 6.3	0.87 0.85	86.3 88.7	6.4 6.4	85
LS 160 L	GV PV	19 4.5	2925 1465	35.3 8.4	0.89 0.88	87.4 87.5	7.3 6.7	100
LS 180 LU	GV PV	24 8	2935 1455	44.5 15.2	0.89 0.87	87.5 87.5	7.5 5	165
LS 200 L	GV PV	31 11	2955 1465	55.9 20.2	0.91 0.89	88 88.5	8 5.2	205
LS 200 LU	GV PV	40 14	2955 1465	71 25.1	0.90 0.88	90 91.5	8 5.2	235
LS 225 MG	GV PV	50 17	2970 1476	87 30.9	0.90 0.85	92 92.2	8.8 5.5	320
LS 250 ME	GV PV	59 20	2970 1476	103 36.4	0.90 0.85	92 92.2	8.8 5.5	340
LS 250 ME	GV PV	70 24	2970 1476	122 43.7	0.90 0.85	92 92.2	8.8 5.5	380
LS 280 MD	GV PV	85 30	2970 1476	148 54.6	0.90 0.85	92 92.2	8.8 5.5	450
LS 315 MR	GV PV	100 35	2975 1485	168 60.9	0.92 0.88	93.3 94.3	8.5 5.5	825

1. GV : High speed. 2. PV : Low speed.

4-6 Poles 1500-1000 min⁻¹

Use: centrifugal machines
1 winding (PAM)[1]
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

The motors are for use with quadratic resistive torque machines (centrifugal machines).
The high speed power (GV) is that of the standard motor having the same speed in the same frame size (from 80 to 315 included).
The motors connection is provided only for one power supply voltage (Dahlander connection) and it does not allow star delta starting.

Type		Rated power at 50 Hz P_N kW	Rated speed N_N min⁻¹	Rated current I_N (400 V) A	Power factor Cos φ 100%	Efficiency IEC 60034-2; 1996 η 100%	Starting torque / Rated torque I_D / I_N	Weight IM B3 kg
LS 80 L	GV[2] PV[3]	0.75 0.25	1400 905	1.8 0.9	0.87 0.88	67 46	3.8 2.1	10.9
LS 90 SL	GV PV	1.1 0.37	1420 940	2.6 2.2	0.79 0.64	77 57	6 3.3	14
LS 90 L	GV PV	1.5 0.55	1425 940	3.6 1.5	0.8 0.63	78 57	6.1 3.3	15.2
LS 100 L	GV PV	2.2 0.75	1400 940	4.8 2.3	0.86 0.75	77 63	6.8 4.2	24.5
LS 100 L	GV PV	3 1.1	1410 940	6.7 3.2	0.84 0.76	77 65	6.6 4.4	24.5
LS 112 MU	GV PV	4 1.5	1450 965	9 4.7	0.78 0.70	82 67	7 3.6	37
LS 132 SM	GV PV	5.5 1.8	1460 970	11.7 7.4	0.82 0.70	84 70	6.4 4.4	55
LS 132 M	GV PV	7.5 2.5	1445 975	15.5 6.2	0.84 0.62	83 69	7 4	60

1. 2 separate windings, see pages A2.30 and A2.31. 2. GV: High speed. 3. PV: Low speed.

LS
multi-speed closed three-phase asynchronous motors

Selection

A

2-4 Poles 3000-1500 min⁻¹

Use: centrifugal machines
1 winding (Dahlander) - PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

Type		Rated power at 50 Hz P_N kW	IM 1001 PTO (IM B3) Code	Qty
LS 71 M	GV[1] PV[2]	0.37 0.075		-
LS 71 M	GV PV	0.55 0.11		-
LS 80 L	GV PV	1.1 0.25	MA9 112 M2	5
LS 90 S	GV PV	1.5 0.35	MA9 153 M2	2
LS 90 L	GV PV	2.2 0.6	MA9 206 M2	2
LS 100 L	GV PV	3 0.8	MA9 308 M2	2
LS 112 MU	GV PV	4.5 1.3	MA9 451 M2	2
LS 132 SM	GV PV	6 1.6	MA9 601 M2	1
LS 132 M	GV PV	9 2.5	MA9 902 M2	1
LS 160 M	GV PV	13.5 3.3		-
LS 160 L	GV PV	19 4.5		-
LS 180 LU	GV PV	24 8		-
LS 200 L	GV PV	31 11		-
LS 200 LU	GV PV	40 14		-
LS 225 MG	GV PV	50 17		-
LS 250 ME	GV PV	59 20		-
LS 250 ME	GV PV	70 24		-
LS 280 MD	GV PV	85 30		-
LS 315 MR	GV PV	100 35		-

1. GV: High speed. 2. PV: Low speed.

Selection exemple:

Speed:	3000-1500 min⁻¹-2/4 poles
Power:	3/0.8 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	400 V

Designation:
2/4 P LS 100 L 3/0.8 kW IM 1001 (IM B3) 400 V

Code: MA9 308 M2

4-6 Poles 1500-1000 min⁻¹

Use: centrifugal machines
1 winding (PAM)[1]
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

Type		Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty
LS 80 L	GV[2] PV[3]	0.75 0.25		-
LS 90 SL	GV PV	1.1 0.37		-
LS 90 L	GV PV	1.5 0.55		-
LS 100 L	GV PV	2.2 0.75		-
LS 100 L	GV PV	3 1.1		-
LS 112 MU	GV PV	4 1.5		-
LS 132 SM	GV PV	5.5 1.8		-
LS 132 M	GV PV	7.5 2.5		-

1. 2 separate windings, see pages A2.30 and A2.31.
2. GV: High speed.
3. PV: Low speed.

LS
multi-speed closed three-phase asynchronous motors

Selection

A

4-6 Poles 1500-1000 min^{-1}

Use: centrifugal machines
2 separate windings[1] - PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

The motors are for use with quadratic resistive torque machines (centrifugal machines).
The high speed power (GV) is that of the standard motor having the same speed in the same frame size (from 80 to 315 included).
The motors connection is provided only for one power supply voltage (Dahlander connection) and it does not allow star delta starting.

Type		Rated power at 50 Hz P_N kW	Rated speed N_N min^{-1}	Rated current I_N (400 V) A	Power factor Cos φ 100%	Efficiency IEC 60034-2; 1996 η 100%	Starting torque / Rated torque I_D / I_N	Weight IM B3 kg
LS 71 L	GV[2] PV[3]	0.25 0.09	1430 960	0.75 0.55	0.78 0.64	66 40	3.8 2.3	8.3
LS 80 L	GV PV	0.7 0.2	1435 945	2.1 1.05	0.73 0.72	67 40	4.5 2.5	10.9
LS 90 S	GV PV	0.85 0.25	1430 930	2.2 0.85	0.78 0.79	70 55	5.5 3.5	14
LS 90 L	GV PV	1.4 0.5	1425 925	3.5 1.4	0.79 0.80	73 61	6 3.6	15.2
LS 100 L	GV PV	2.4 0.75	1425 940	5.7 2.1	0.82 0.75	75 66	5.6 4.3	24.5
LS 112 MG	GV PV	3.4 1.1	1460 965	8.7 3.4	0.72 0.75	78 64	6.9 4	37
LS 132 SM	GV PV	4 1.2	1450 970	8.9 3.2	0.79 0.68	82 80	5.8 4.5	50
LS 132 M	GV PV	6.3 1.9	1445 970	13.2 5	0.82 0.71	84 75	5.9 5.2	60
LS 160 M	GV PV	9 3	1465 975	18.8 7.8	0.81 0.75	85.2 78.6	7 5.2	85
LS 160 M	GV PV	11 3.7	1465 975	22.6 9.3	0.82 0.76	85.7 78.8	7.4 5.5	85
LS 160 L	GV PV	13 4.3	1465 970	25.6 10.5	0.84 0.74	87.3 74.9	7.8 5.5	100
LS 160 LU	GV PV	15 5	1465 970	29.3 12.1	0.84 0.74	87.9 77.8	7.5 5.1	110
LS 180 L	GV PV	18.5 6.5	1460 980	34.1 14.8	0.88 0.78	89 81	5.5 5	135
LS 180 LU	GV PV	22 7.5	1470 980	41.5 16.6	0.86 0.80	89.0 81.5	6.8 4.8	165
LS 200 L	GV PV	25 8.5	1475 985	46.9 19.3	0.85 0.77	90.5 82.5	6.4 4.8	205
LS 200 LU	GV PV	30 9	1475 985	56.0 20.8	0.85 0.74	91.0 84.5	6 5.3	235
LS 225 SR	GV PV	34 11	1475 985	64 25.9	0.84 0.73	91.6 84.0	6.3 5.1	235
LS 250 ME	GV PV	42 14	1480 985	77.7 31.8	0.85 0.75	91.8 87	6.5 5.1	320
LS 250 MF	GV PV	52 19	1480 985	96 43.2	0.85 0.73	92 87	6.5 5.1	320
LS 280 SK	GV PV	75 28	1485 985	135 56.3	0.86 0.80	93.5 89.7	7.7 6.6	720
LS 280 MK	GV PV	90 33	1485 985	161 66.2	0.86 0.80	93.7 90.0	7.7 6.9	720
LS 315 SP	GV PV	110 37	1485 985	199 74	0.85 0.80	93.9 90.1	8 6.9	825
LS 315 MR	GV PV	132 44	1485 985	244 88	0.83 0.80	94.0 90.2	9.2 7.1	825

1. LS 80 to LS 132, 1 winding (PAM), see pages A2.28 and A2.29.
2. GV: High speed.
3. PV: Low speed.

LS
multi-speed closed three-phase asynchronous motors

Selection

Use: centrifugal machines
2 separate windings[1] - PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - 400 V - S1

A

Type		Rated power at 50 Hz P_N kW	IM 1001 PTO (IM B3) Code	Qty
LS 71 L	GV[2] PV[3]	0.25 0.09		-
LS 80 L	GV PV	0.7 0.2	MA9 074 B2	2
LS 90 S	GV PV	0.85 0.25		-
LS 90 L	GV PV	1.4 0.5	MA9 144 B2	2
LS 100 L	GV PV	2.4 0.75	MA9 244 B2	2
LS 112 MG	GV PV	3.4 1.1	MA9 344 B2	2
LS 132 SM	GV PV	4 1.2	MA9 404 B2	2
LS 132 M	GV PV	6.3 1.9	MA9 634 B2	2
LS 160 M	GV PV	9 3	MA9 094 C2	2
LS 160 M	GV PV	11 3.7	MA9 114 C2	1
LS 160 L	GV PV	13 4.3		-
LS 160 LU	GV PV	15 5	MA9 154 B2	1
LS 180 L	GV PV	18.5 6.5		-
LS 180 LU	GV PV	22 7.5	MA9 224 B2	1
LS 200 L	GV PV	25 8.5		-
LS 200 LU	GV PV	30 9		-
LS 225 SR	GV PV	34 11		-
LS 250 ME	GV PV	42 14		-
LS 250 MF	GV PV	52 19		-
LS 280 SK	GV PV	75 28		-
LS 280 MK	GV PV	90 33		-
LS 315 SP	GV PV	110 37		-
LS 315 MR	GV PV	132 44		-

1. LS 80 to LS 132, 1 winding (PAM), see page A2.28.
2. GV: High speed.
3. PV: Low speed.

Selection example:

Speed:	1500-1000 min-1-4/6 poles
Power:	18.5/6.5 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	400 V

Designation:
4/6 P LS 180 L 18.5/6.5 kW IM 1001 (IM B3) 400 V

Code: MA9 164 C2

LS
multi-speed closed three-phase asynchronous motors

Selection

A

4-8 Poles 1500-750 min^{-1}

Use: centrifugal machines
1 winding (Dahlander) - Thermal protections with PTO -n/c or with PTF -n/o
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

The motors are for use with quadratic resistive torque machines (centrifugal machines).
The high speed power (GV) is that of the standard motor having the same speed in the same frame size (from 80 to 315 included).
The motors connection is provided only for one power supply voltage (Dahlander connection) and it does not allow star delta starting.

Type		Rated power at 50 Hz P_N kW	Rated speed N_N min^{-1}	Rated current I_N (400 V) A	Power factor Cos φ 100%	Efficiency IEC 60034-2; 1996 η 100%	Starting torque / Rated torque I_D / I_N	Weight IM B3 kg
LS 71 M	GV[1] PV[2]	0.25 0.06	1430 640	0.8 0.4	0.7 0.6	65 98	3.5 1.5	8.3
LS 71 M	GV PV	0.37 0.07	1430 670	1.15 0.5	0.8 0.7	60 30	4 2.1	8.3
LS 80 L	GV PV	0.55 0.09	1435 715	1.15 0.6	0.71 0.48	69 46	4.8 2.3	10.9
LS 80 L	GV PV	0.75 0.12	1425 710	2.3 0.9	0.72 0.52	65 41	4.8 2.3	10.9
LS 90 S	GV PV	1.1 0.18	1435 720	2.8 1	0.82 0.47	71 52	4.6 2.9	14
LS 90 L	GV PV	1.5 0.25	1455 725	4 1.5	0.74 0.56	74 51	5.8 3.4	15.2
LS 100 L	GV PV	2.2 0.37	1435 720	5.5 2.2	0.81 0.48	72 51	5.1 2.6	24.5
LS 100 L	GV PV	3 0.55	1435 715	7.4 2.6	0.79 0.52	75 58	5.5 2.7	24.5
LS 112 MU	GV PV	4 0.75	1455 730	8.9 3.2	0.84 0.51	82 66	7.8 4.3	37
LS 132 SM	GV PV	5.5 1.1	1425 715	11 3.7	0.86 0.56	83 77	5.3 3.1	55
LS 132 M	GV PV	7.5 1.5	1435 720	15.3 5	0.84 0.57	84 75	5.8 3.4	60
LS 160 M	GV PV	9 2.2	1465 725	18.1 6.2	0.85 0.63	84.4 83.3	7.3 4.1	85
LS 160 M	GV PV	11 2.8	1465 730	21.5 7.7	0.85 0.65	87.0 83.6	7.5 4.2	85
LS 160 L	GV PV	13 3.3	1465 725	25.1 9.1	0.85 0.63	87.8 80.8	7.6 4.1	100
LS 160 L	GV PV	15 3.8	1460 725	28.6 10.1	0.86 0.64	88.1 81.8	7.6 4.2	100
LS 180 L	GV PV	18.5 4.8	1465 730	34.9 12.1	0.86 0.67	89.0 85.2	6.7 3.7	135
LS 180 LU	GV PV	22 5.3	1460 730	40.9 13.2	0.87 0.68	89.2 85.5	6.0 3.6	165
LS 200 LT	GV PV	24 6	1470 730	45.2 15.4	0.85 0.63	90.1 86.0	7.1 3.7	170
LS 200 L	GV PV	30 7	1475 735	55.8 18.6	0.86 0.65	90.3 86.6	6.1 3.8	205
LS 225 SR	GV PV	37 8.5	1475 735	69.2 21.8	0.85 0.64	90.8 89.9	6.8 4.0	235
LS 225 MG	GV PV	45 11	1482 738	83.1 26.3	0.85 0.66	92 91.3	7 4	235
LS 250 ME	GV PV	55 14	1484 738	100.8 33.1	0.85 0.66	92.7 92.4	7.7 4	320
LS 250 MF	GV PV	65 16	1484 738	118.7 37.7	0.85 0.66	93 92.8	7.7 4	320
LS 280 SD	GV PV	75 19	1484 738	136.9 45.5	0.85 0.65	93 92.8	7.7 3.9	430
LS 280 MK	GV PV	90 23	1485 740	159 54.8	0.87 0.67	93.8 90.5	8.7 4.8	665
LS 315 SP	GV PV	110 29	1485 740	195 69.0	0.87 0.65	93.8 90.3	8.6 4.6	825
LS 315 MP	GV PV	132 35	1485 740	238 86	0.85 0.67	94.1 90.5	8.3 4.9	790
LS 315 MR	GV PV	160 42	1485 740	288 103	0.85 0.65	94.2 90.4	8.3 5.0	825

1. GV: High speed.
2. PV: Low speed.

LS
multi-speed closed three-phase asynchronous motors

Selection

4-8 Poles 1500-750 min^{-1}

Use: centrifugal machines
1 winding (Dahlander) - Thermal protections with PTO -n/c or with PTF -n/o
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

A

Type		Rated power at 50 Hz P_N kW	IM 1001 PTO (IM B3) Code	Qty
LS 71 M	GV[1] PV[2]	0.25 0.06	MA9 024 M5	5
LS 71 M	GV PV	0.37 0.07	MA9 034 M4	5
LS 80 L	GV PV	0.55 0.09	MA9 054 M2	2
LS 80 L	GV PV	0.75 0.12	MA9 074 M2	5
LS 90 S	GV PV	1.1 0.18	MA9 014 M2	5
LS 90 L	GV PV	1.5 0.25	MA9 024 M2	5
LS 100 L	GV PV	2.2 0.37	MA9 024 M4	5
LS 100 L	GV PV	3 0.55	MA9 034 M2	5
LS 112 MU	GV PV	4 0.75	MA9 044 M2	5
LS 132 SM	GV PV	5.5 1.1	MA9 554 M2	3
LS 132 M	GV PV	7.5 1.5	MA9 754 M2	3
LS 160 M	GV PV	9 2.2	MA9 094 M2	2
LS 160 M	GV PV	11 2.8	MA9 114 M2	2
LS 160 L	GV PV	13 3.3	MA0 004 00	2
LS 160 L	GV PV	15 3.8	MA9 154 M2	2
LS 180 L	GV PV	18.5 4.8	MA0 004 02	2
LS 180 LU	GV PV	22 5.3	MA0 004 04	1
LS 200 LT	GV PV	24 6		-
LS 200 L	GV PV	30 7	MA0 004 08	1
LS 225 SR	GV PV	37 8.5		-
LS 225 MG	GV PV	45 11		-
LS 250 ME	GV PV	55 14		-
LS 250 MF	GV PV	65 16		-
LS 280 SD	GV PV	75 19		-
LS 280 MK	GV PV	90 23		-
LS 315 SP	GV PV	110 29		-
LS 315 MP	GV PV	132 35		-
LS 315 MR	GV PV	160 42		-

1. GV: High speed. 2. PV: Low speed.

Selection example:

Speed:	1500-750 min^{-1}-4/8 poles
Power:	15/3.8 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	400 V
Thermal protection:	PTO

Designation:
4/8 P LS 160 L 15/3.8 kW IM 1001 (IM B3) - PTO - 400V

Code: MA9 154 M2

LS
multi-speed closed three-phase asynchronous motors

Selection

A

6-12 poles 1000-500 min^{-1}

Use: centrifugal machines
1 winding (Dahlander) - PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

The motors are for use with quadratic resistive torque machines (centrifugal machines).
The high speed power (GV) is that of the standard motor having the same speed in the same frame size (from 80 to 315 included).
The motors connection is provided only for one power supply voltage (Dahlander connection) and it does not allow star delta starting.

Type		Rated power at 50 Hz P_N kW	Rated speed N_N min^{-1}	Rated current I_N (400 V) A	Power factor Cos φ 100%	Efficiency IEC 60034-2; 1996 η 100%	Starting torque / Rated torque I_D / I_N	Weight IM B3 kg
LS 90 L	GV[1] PV[2]	0.75 0.15	910 425	2.1 0.8	0.82 0.68	64 42	3.8 2.1	15
LS 90 LU	GV PV	1.1 0.18	915 450	3.2 1.2	0.77 0.54	65 40	4.2 2.3	17
LS 100 L	GV PV	1.5 0.25	915 450	4 1.5	0.79 0.55	68 44	4.5 2.4	24.5
LS 112 MU	GV PV	2.2 0.37	950 465	5.6 2.1	0.79 0.52	71 50	4.5 2.1	37
LS 132 SM	GV PV	3 0.55	955 475	8 3.8	0.70 0.43	77 58	4.5 2.4	55
LS 132 M	GV PV	4 0.65	955 465	10.4 3.1	0.71 0.45	77 58	4.8 2.0	60
LS 132 MU	GV PV	5.5 1	950 450	14.1 5.4	0.71 0.45	79 59	4.9 1.9	68
LS 160 M	GV PV	7.5 1.3	975 485	17.5 8.0	0.77 0.45	80.5 71.8	5.0 2.9	85
LS 160 LU	GV PV	11 1.8	975 485	26.2 5.5	0.73 0.51	82.9 66.6	5.5 2.4	110
LS 180 LU	GV PV	15 2.5	975 485	33.4 10.4	0.76 0.46	85.4 75.2	6.0 2.8	165
LS 200 L	GV PV	18.5 3	980 488	38.2 11.5	0.80 0.52	87.4 72.4	6.1 2.9	205
LS 200 LU	GV PV	25 4.5	980 485	52.2 16.6	0.79 0.54	87.5 72.4	7.0 2.7	235

1. GV: High speed.
2. PV: Low speed.

LS
multi-speed closed three-phase asynchronous motors

Selection

6-12 poles 1000-500 min^{-1}

Use: centrifugal machines
1 winding (Dahlander) - PTO thermal protection -n/c
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

Type		Rated power at 50 Hz P_N kW	IM 1001 PTO (IM B3) Code	Qty
LS 90 L	GV[1] PV[2]	0.75 0.15		-
LS 90 LU	GV PV	1.1 0.18		-
LS 100 L	GV PV	1.5 0.25	MA9 156 M2	1
LS 112 MU	GV PV	2.2 0.37	MA9 226 M2	1
LS 132 SM	GV PV	3 0.55	MA9 306 M2	1
LS 132 M	GV PV	4 0.65	MA9 406 M2	1
LS 132 MU	GV PV	5.5 1	MA9 556 M2	1
LS 160 M	GV PV	7.5 1.3		-
LS 160 LU	GV PV	11 1.8		-
LS 180 LU	GV PV	15 2.5		-
LS 200 L	GV PV	18.5 3		-
LS 200 LU	GV PV	25 4.5		-

1. GV: High speed.
2. PV: Low speed.

Selection example:

Speed:	1000-500 min^{-1}-6/12 poles
Power:	1.5/0.25 kW
Mounting and position:	IM 1001 (IM B3)
Mains supply voltage:	400 V

Designation:
6/12 P LS 100 L 1.5/0.25 kW IM 1001 (IM B3) - PTO - 400V

Code: MA9 156 M2

LS
multi-speed closed three-phase asynchronous motors

Selection

A

General table of the multi-speed motors
Use: centrifugal machines
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

Type	2/4 Poles Dahlander P_N kW	4/6 Poles PAM P_N kW	4/6 Poles 2 windings P_N kW	4/8 Poles Dahlander P_N kW	6/12 Poles Dahlander P_N kW
LS 71 M	0.37 / 0.075	-	-	0.25 / 0.06	-
LS 71 M	0.55 / 0.11	-	-	0.37 / 0.07	-
LS 80 L	-	-	-	0.55 / 0.09	-
LS 80 L	1.1 / 0.25	0.75 / 0.25	0.7 / 0.2	0.75 / 0.12	-
LS 90 S	1.5 / 0.35	-	0.85 / 0.25	1.1 / 0.18	-
LS 90 SL	-	1.1 / 0.37	-	-	-
LS 90 L	2.2 / 0.6	1.5 / 0.55	1.4 / 0.5	1.5 / 0.25	0.75 / 0.15
LS 90 LU	-	-	-	-	1.1 / 0.18
LS 100 L	-	2.2 / 0.75	2.4 / 0.75	2.2 / 0.37	1.5 / 0.25
LS 100 L	3 / 0.8	3 / 1.1	-	3 / 0.55	-
LS 112 MG	-	-	3.4 / 1.1	-	-
LS 112 MU	4.5 / 1.3	4 / 1.5	-	4 / 0.75	2.2 / 0.37
LS 132 SM	6 / 1.6	5.5 / 1.8	4 / 1.2	5.5 / 1.1	3 / 0.55
LS 132 M	9 / 2.5	7.5 / 2.5	6.3 / 1.9	7.5 / 1.5	4 / 0.65
LS 132 MU	-	-	-	-	5.5 / 1
LS 160 M	-	-	9 / 3	9 / 2.2	7.5 / 1.3
LS 160 M	13.5 / 3.3	-	11 / 3.7	11 / 2.8	-
LS 160 L	19 / 4.5	-	13 / 4.3	13 / 3.3	-
LS 160 L	-	-	-	15 / 3.8	-
LS 160 LU	-	-	15 / 5	-	11 / 1.8
LS 180 L	-	-	18.5 / 6.5	18.5 / 4.8	-
LS 180 LU	24 / 8	-	22 / 7.5	22 / 5.3	15 / 2.5
LS 200 LT	-	-	-	24 / 6	-
LS 200 L	31 / 11	-	25 / 8.5	30 / 7	18.5 / 3
LS 200 LU	40 / 14	-	30 / 9	-	25 / 4.5
LS 225 SR	-	-	34 / 11	37 / 8.5	-
LS 225 MG	50 / 17	-	-	45 / 11	-
LS 250 ME	59 / 20	-	42 / 14	55 / 14	-
LS 250 ME	70 / 24	-	-	-	-
LS 250 MF	-	-	52 / 19	65 / 16	-
LS 280 SD	-	-	-	75 / 19	-
LS 280 SK	-	-	75 / 28	-	-
LS 280 MD	85 / 30	-	-	-	-
LS 280 MK	-	-	90 / 33	90 / 23	-
LS 315 SP	-	-	110 / 37	110 / 29	-
LS 315 MP	-	-	-	132 / 35	-
LS 315 MR	100 / 35	-	132 / 44	160 / 42	-

The specific electrical characteristics available on request.

LS
multi-speed closed three-phase asynchronous motors

Selection

A

General table of the multi-speed motors
General use
IP 55 - 50 Hz - Class F - ΔT 80 K - 400 V - S1

Type	2/4 Poles Dahlander P_N kW	2/4 Poles 2 windings P_N kW	2/6 Poles 2 windings P_N kW	2/8 Poles 2 windings P_N kW	4/6 Poles 2 windings P_N kW	4/8 Poles Dahlander P_N kW
LS 71 M	-	-	-	0.18 / 0.045	0.12 / 0.09	-
LS 71 M	-	-	-	0.25 / 0.06	0.18 / 0.12	-
LS 71 M	0.37 / 0.25	-	-	0.37 / 0.09	-	0.25 / 0.12
LS 71 M	0.55 / 0.37	-	-	0.55 / 0.18	-	0.37 / 0.18
LS 71 L	-	0.37 / 0.09	0.25 / 0.08	-	-	-
LS 80 L	1.1 / 0.75	-	0.55 / 0.18	0.55 / 0.12	0.45 / 0.3	0.55 / 0.22
LS 90 S	1.5 / 1.1	0.75 / 0.37	0.75 / 0.25	0.75 / 0.18	0.7 / 0.45	0.75 / 0.4
LS 90 L	2.2 / 1.5	-	1.5 / 0.5	-	1.1 / 0.75	1.2 / 0.6
LS 90 LU	-	-	-	1.5 / 0.37	-	-
LS 100 L	3 / 2.6	2.2 / 1.1	2.2 / 0.75	2.2 / 0.55	1.8 / 1.2	1.7 / 0.9
LS 112 MG	4.5 / 3.7	3.3 / 1.7	-	3 / 0.75	2.8 / 1.8	2.8 / 1.5
LS 112 MU	5.5 / 4	-	3 / 1	-	3 / 2	3 / 1.8
LS 132 SM	6 / 4.5	3.7 / 1.85	4 / 1.3	4 / 1	4 / 2.8	5 / 2.85
LS 132 M	9 / 6.9	6 / 3	6.5 / 2.2	5.5 / 1.6	5.5 / 3.7	7.6 / 4
LS 160 M	13.5 / 10.3	-	-	-	5.9 / 3.9	8.1 / 4.5
LS 160 L	18.5 / 14	-	-	-	8.1 / 5.2	11 / 6
LS 180 LR	21 / 16	-	-	-	12 / 7.7	-
LS 180 L	-	-	-	-	14 / 9	14.5 / 9
LS 180 LU	25 / 19	-	-	-	-	16.5 / 11
LS 200 LT	-	-	-	-	-	18.5 / 12.5
LS 200 L	33 / 25	-	-	-	17 / 11.5	-
LS 200 L	-	-	-	-	21 / 14	22 / 15
LS 225 MR	37 / 26.5	-	-	-	24 / 16	-
LS 225 MG	44 / 33	-	-	-	28 / 18.5	28 / 19.5
LS 250 ME	52 / 40.5	-	-	-	33 / 22	-
LS 250 MF	-	-	-	-	39 / 22.5	40 / 26
LS 250 MF	-	-	-	-	45 / 30	50 / 33
LS 280 SC	62.5 / 51.5	-	-	-	-	-
LS 280 SD	-	-	-	-	-	55 / 37
LS 280 MD	81 / 66	-	-	-	-	-
LS 280 MK	-	-	-	-	55 / 40	66 / 45
LS 315 SP	-	-	-	-	62.5 / 42	80 / 50
LS 315 MR	95 / 78	-	-	-	78 / 51.5	95 / 60

The specific electrical characteristics available on request.

LS
totally enclosed three-phase asynchronous motors

Options

A

2 poles 3000 min-1 | 4 poles 1500 min-1 | 6 poles 1000 min-1 | 8 poles 750 min-1

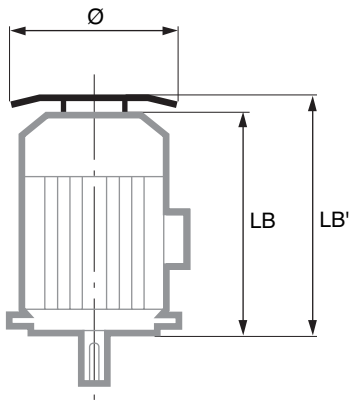
	Operating position (draining holes at lowest point)						Ventilation cover		
	IM V1[1] IM 3011	IM V3 IM 3031	IM V5 IM 1011	IM V6 IM 1031	IM V18[1] IM 3611	IM V19 IM 3631	Steel sheet	Drip cover	Anti-filling
Type	Code	Code	Code	Code	Code	Code	Code	Code	Code
LS 56	MAV 56 025	MAV 56 026	MAV 56 023	MAV 56 035	MAV 56 048	MAV 56 056	MATE 1011	MATP 1011	
LS 63	MAV 63 001	MAV 63 013	MAV 63 024	MAV 63 036	MAV 63 049	MAV 63 057	MATE 1012	MATP 1012	
LS 71	MAV 71 002	MAV 71 014	MAV 71 024	MAV 71 037	MAV 71 050	MAV 71 058	MATE 1013	MATP 1013	
LS 80	MAV 80 003	MAV 80 015	MAV 80 025	MAV 80 038	MAV 80 051	MAV 80 059	MATE 1014	MATP 1014	MA00 0247
LS 90	MAV 90 004	MAV 90 016	MAV 90 026	MAV 90 039	MAV 90 052	MAV 90 060	MATE 1015	MATP 1015	MA00 0248
LS 100	MAV 100 05	MAV 100 17	MAV 100 27	MAV 100 40	MAV 100 53	MAV 100 61	MATE 1016	MATP 1016	MA00 0249
LS 112	MAV 112 06	MAV 112 18	MAV 112 28	MAV 112 41	MAV 112 54	MAV 112 62	MATE 1017	MATP 1017	MA00 0250
LS 132	MAV 132 07	MAV 132 19	MAV 132 29	MAV 132 42	MAV 132 55	MAV 132 63	Standard	MATP 1018	MA00 0251
LS 160 M	MAV 160 08	MAV 160 20	MAV 160 30	MAV 160 43			Standard	MATP 1019	
LS 160 L	MAV 160 08	MAV 160 20	MAV 160 30	MAV 160 43			Standard	MATP 1019	
LS 160 MP	MAV 160 08	MAV 160 20	MAV 160 30	MAV 160 43			Standard	MATP 1019	
LS 160 LR	MAV 160 08	MAV 160 20	MAV 160 30	MAV 160 43			Standard	MATP 1019	
LS 180	MAV 180 11	MAV 180 12	MAV 180 64	MAV 180 65			Standard	MATP 1024	
LS 200	MAV 200 09	MAV 200 21	MAV 200 31	MAV 200 44			Standard	MATP 1020	
LS 225	MAV 225 10	MAV 225 22	MAV 225 32	MAV 225 45			Standard	MATP 1021	
LS 250			MAV 250 33	MAV 250 46			Standard	MATP 1022	
LS 280			MAV 280 34	MAV 280 47			Standard	MATP 1023	
LS 315			MA00 0244	MA00 0245			Standard	MA00 0246	

1. Motors 2, 4, 6 and 8 poles on white background IM B5 / IM V1 or IM B14 / IM V18.

Drip cover
for operation in vertical position, shaft facing down

Dimensions in millimetres

Type	LB'	ø
80	LB + 20	145
90	LB + 20	185
100	LB + 20	185
112 M	LB + 20	185
112 MG	LB + 25	210
132 S	LB + 25	210
132 SM et M	LB + 30	240
160 MP/LR	LB + 30	240
160 M/L/LU	LB + 36.5	265
180 MT/LR	LB + 36.5	265
180 L/LU	LB + 36.5	305
200 LT	LB + 36.5	305
200 L/LU	LB + 36.5	350
225 ST/MT/MR	LB + 36.5	350
225 MG	LB + 55	420
250 MZ	LB + 36.5	350
250 ME/MF	LB + 55	420
280 SC/SD/MC/MD	LB + 55	420
280 SK/MK	LB + 76.5	505
315 SP/MP/MR	LB + 76.5	505



☞ Use guide:

• STEP 1: Select the required basic motor according to the selection grids of the previous pages.

• STEP 2: Select the additional required option or options and add them to the basic designation.

☞ Codification example:

Motor LS tri 11 kW 3000 min-1 B5 standard flange 230/400 V with PTO and drip cover.

Designation	Code
2P LS 160MP 11kW B5 230/400V	EA2 11 303
+	+
PTO	MAPT 1011
+	+
Drip cover	MATP 1019

LS
totally enclosed three-phase asynchronous motors

Options

2 poles 3000 min^{-1} | 4 poles 1500 min^{-1} | 6 poles 1000 min^{-1} | 8 poles 750 min^{-1}

	Terminal box equipment					Forced ventilation
		Cable glands				
	Switch (with aluminium terminal box)	Brass (with aluminium terminal box)[1]	Smaller than standard		Cable output[2]	
Type	Code	Code	Code	N°	Code	Code
LS 56	*MAIT 1011*					
LS 63	*MAIT 1012*					
LS 71	*MAIT 1013*					
LS 80		MAPE 1014	MAPE 1027	13	MASPC 104	MVA 00 068
LS 90		MAPE 1015	MAPE 1028	13	MASPC 105	MVA 00 001
LS 100		MAPE 1016	MAPE 1029	13	MASPC 106	MVA 00 063
LS 112 M		MAPE 1017	MAPE 1030	13	MASPC 107	MVA 00 063
LS 112 MG		MAPE 1017	MAPE 1030	13	MASPC 107	MVA 00 002
LS 132 S		MAPE 1018	MAPE 1031	13	MASPC 108	MVA 00 002
LS 132 M		MAPE 1036	MAPE 1038	16	MASPC 114	MVA 00 064
LS 160 L		MAPE 1019	MAPE 1032	16	MASPC 109	
LS 160 M		MAPE 1019	MAPE 1032	16	MASPC 109	
LS 160 LR		MAPE 1019	MAPE 1032	16	MASPC 109	
LS 160 MP		MAPE 1019	MAPE 1032	16	MASPC 109	
LS 180		MAPE 1037	MAPE 1039	16	MASPC 115	
LS 200		MAPE 1020	MAPE 1033	21	MASPC 110	
LS 225		MAPE 1021	MAPE 1034	29	MASPC 111	
LS 250		MAPE 1022	MAPE 1035	36	MASPC 112	
LS 280		MAPE 1023	MAPE 1036	36	MASPC 113	
LS 315		MA00 0241	MA00 0242	36	MASPC 116	

1. Aluminium terminal box p. A2.19
2. Cable lenght: 1 metre. Conductor number: 6 + 1 (section according to the power and to the mains supply voltage). Cable connected to the board. Standard terminal box.

LS
totally enclosed three-phase asynchronous motors

Options

A

2 poles 3000 min^{-1} | 4 poles 1500 min^{-1} | 6 poles 1000 min^{-1} | 8 poles 750 min^{-1}

	PTO Thermal protection opening (n/c)	**PTF** Thermal protection closing (n/o)	**CTP** Positive temperature coefficient thermistors probes	Other options			
				Aluminium terminal box	Stainless steel plate	Roller bearings	Aluminium fan
Type	Code	Code	Code	Code	Code	Code	Code
LS 56	MAPT 1011			MABBA 101	MAPLA 101		
LS 63	MAPT 1011			MABBA 102	MAPLA 102		
LS 71	MAPT 1011			MABBA 103	MAPLA 103		
LS 80	MAPT 1011	MAPTF 101		MABBA 104	MAPLA 104		MA0 002 90
LS 90	MAPT 1011	MAPTF 101		MABBA 105	MAPLA 105		MA0 003 00
LS 100	MAPT 1011	MAPTF 101	MACTP 101	MABBA 106	MAPLA 106		MA0 003 01
LS 112 M	MAPT 1011	MAPTF 101	MACTP 101	MABBA 107	MAPLA 107		MA0 003 02
LS 112 MG	MAPT 1011	MAPTF 101	MACTP 101	MABBA 107	MAPLA 107		MA0 002 94
LS 132 S	MAPT 1011	MAPTF 101	MACTP 101	MABBA 108	MAPLA 108		MA0 002 95
LS 132 M	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 108		MA0 002 96
LS 160 L	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 109	MARR 1011	
LS 160 M	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 109	MARR 1011	
LS 160 LR	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 109		
LS 160 MP	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 109		
LS 180	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 114	MARR 1016	
LS 200	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 110	MARR 1012	
LS 225	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 111	MARR 1013	
LS 250	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 112	MARR 1014	
LS 280	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 113	MARR 1015	
LS 315	MAPT 1011	MAPTF 101	MACTP 101	Standard	MAPLA 115	MARR 1017	

LS
totally enclosed three-phase asynchronous motors

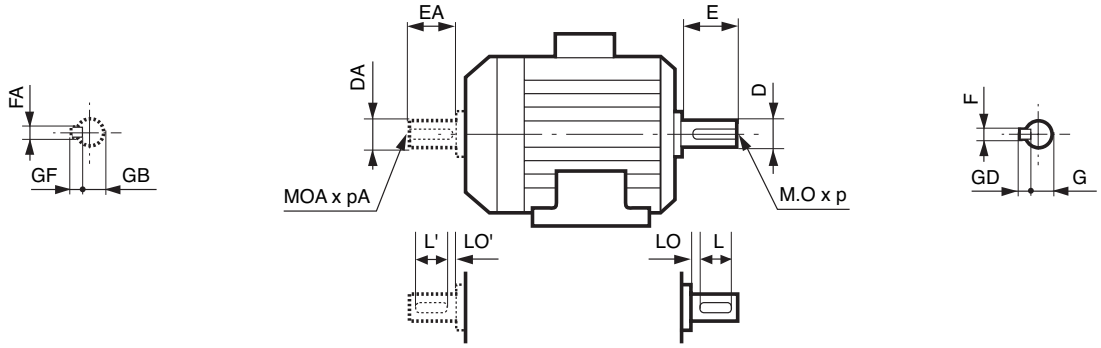
Dimensions

LS totally enclosed three-phase asynchronous motors dimensions LS - IP 55
Cage rotor

A

Dimensions in millimetres

- shaft end



	Main shaft ends																	
	4, 6 and 8 poles									2 poles and 2/4 poles								
Type	F	GD	D	G	E	O	p	L	LO	F	GD	D	G	E	O	p	L	LO
LS 56 M	3	3	9j6	7	20	4	10	16	3	3	3	9j6	7	20	4	10	16	3
LS 63 M	4	4	11j6	8.5	23	4	10	18	3.5	4	4	11j6	8.5	23	4	10	18	3.5
LS 71 L	5	5	14j6	11	30	5	15	25	3.5	5	5	14j6	11	30	5	15	25	3.5
LS 80 L	6	6	19j6	15.5	40	6	16	30	6	6	6	19j6	15.5	40	6	16	30	6
LS 90 S/SL/L/LU	8	7	24j6	20	50	8	19	40	6	8	7	24j6	20	50	8	19	40	6
LS 100 L	8	7	28j6	24	60	10	22	50	6	8	7	28j6	24	60	10	22	50	6
LS112 M/MG/MU	8	7	28j6	24	60	10	22	50	6	8	7	28j6	24	60	10	22	50	6
LS 132 S/SM/M	10	8	38k6	33	80	12	28	63	10	10	8	38k6	33	80	12	28	63	10
LS 160 M/MP/L/LR/LU	12	8	42k6	37	110	16	36	100	6	12	8	42k6	37	110	16	36	100	6
LS 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
LS 200 L/LT/LU	16	10	55m6	49	110	20	42	97	13	16	10	55m6	49	110	20	42	97	13
LS 225 SR/ST/MG/MR/MT	18	11	60m6	53	140	20	42	126	14	16	10	55m6	49	110	20	42	97	13
LS 250 ME/MF/MZ	18	11	65m6	58	140	20	42	126	14	18	11	60m6	53	140	20	42	126	14
LS 280 SC/SD/MC/MD	20	12	75m6	67.5	140	20	42	125	15	18	11	65m6	58	140	20	42	125	14
LS 280 SK/MK	20	12	75m6	67.5	140	20	42	125	15	18	11	65m6	58	140	20	42	126	14
LS 315 SP/SN/MP/MR	22	14	80m6	71	170	20	42	155	15	18	11	65m6	58	140	20	42	126	14

	Secondary shaft ends																	
	4, 6 and 8 poles									2 poles and 2/4 poles								
Type	FA	GF	DA	GB	EA	OA	pA	L'	LO'	FA	GF	DA	GB	EA	OA	pA	L'	LO'
LS 56 M	3	3	9j6	7	20	4	10	16	3	3	3	9j6	7	20	4	10	16	3
LS 63 M	4	4	11j6	8.5	23	4	10	18	3.5	4	4	11j6	8.5	23	4	10	18	3.5
LS 71 L	5	5	14j6	11	30	5	15	25	3.5	5	5	14j6	11	30	5	15	25	3.5
LS 80 L	5	5	14j6	11	30	5	15	25	3.5	5	5	14j6	11	30	5	15	25	3.5
LS 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
LS 100 L	8	7	24j6	20	50	8	19	40	6	8	7	24j6	20	50	8	19	40	6
LS112 M/MG/MU	8	7	24j6	20	50	8	19	40	6	8	7	24j6	20	50	8	19	40	6
LS 132 S/SM/M	8	7	28k6	24	60	10	22	50	6	8	7	28k6	24	60	10	22	50	6
LS 160 M/MP/L/LR/LU	12	8	38k6	37	80	16	36	100	6	12	8	38k6	37	80	16	36	100	6
LS 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
LS 200 L/LT/LU	16	10	55m6	49	110	20	42	97	13	16	10	55m6	49	110	20	42	97	13
LS 225 SR/ST/MG/MR/MT	18	11	60m6	53	140	20	42	126	14	16	10	55m6	49	110	20	42	97	13
LS 250 ME/MF/MZ	18	11	60m6	53	140	20	42	126	14	18	11	60m6	53	140	20	42	126	14
LS 280 SC/SD/MC/MD	18	11	65m6	58	140	20	42	126	14	18	11	65m6	58	140	20	42	126	14
LS 280 SK/MK	20	12	75m6	67.5	140	20	42	125	15	18	11	65m6	58	140	20	42	126	14
LS 315 SP/SN/MP/MR	22	14	80m6	71	170	24	42	155	15	18	11	65m6	58	140	20	42	126	14

LS
totally enclosed three-phase asynchronous motors

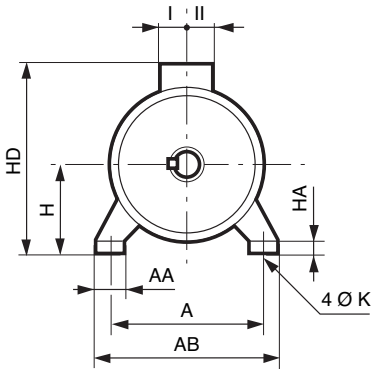
Dimensions

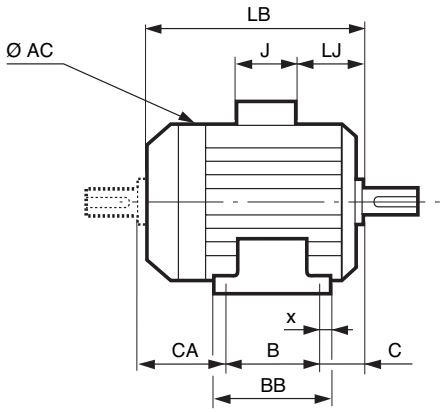
A

LS totally enclosed three-phase asynchronous motors dimensions LS - IP 55
Cage rotor

Dimensions in millimetres

- foot mounted





	Main dimensions																		
Type	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LB1*	LJ	J	I	II	CA
LS 56 M	90	104	71	87	36	8	24	6	7	56	110	140	156	134	16	86	43	43	51
LS 63 M	100	115	80	96	40	8	26	7	9	63	124	152	172	165	26	86	43	43	55
LS 71 L	112	126	90	106	45	8	24	7	9	71	140	170	193	166	21	86	43	43	61
LS 80 L	125	157	100	120	50	10	29	9	10	80	170	203	215	177	26	86	43	43	68
LS 80 LU	125	157	100	120	50	10	29	9	10	80	170	203	267	232	26	86	43	43	120
LS 90 S	140	172	100	120	56	10	37	10	11	90	190	223	218	177	26	86	43	43	68
LS 90 SL/L	140	172	125	162	56	28	37	10	11	90	190	223	245	204	26	86	43	43	68
LS 90 LU	140	172	125	162	56	28	37	10	11	90	190	223	265	230	26	86	43	43	88
LS 100 L	160	196	140	165	63	12	40	12	13	100	200	238	290	250	26	86	43	43	93
LS 112 M	190	220	140	165	70	12	45	12	14	112	200	250	290	250	26	86	43	43	86
LS 112 MG	190	220	140	165	70	12	52	12	14	112	235	260	315	265	36	86	43	43	110
LS 112 MU	190	220	140	165	70	12	52	12	14	112	235	260	334	288	36	86	43	43	130
LS 132 S	216	250	140	170	89	16	50	12	15	132	235	280	350	306	53	86	43	43	128
LS 132 SM/M	216	250	178	208	89	16	59	12	18	132	280	307	387	327	25	110	57	73	126
LS 132 MU	216	250	178	208	89	16	59	12	18	132	280	307	410	351	25	110	57	73	148
LS 160 MP	254	294	210	294	108	20	64	14.5	25	160	315	368	468	407	44	134	92	63	154
LS 160 M	254	294	210	294	108	20	60	14.5	25	160	316	395	495	435	44	134	92	63	182
LS 160 LR	254	294	254	294	108	20	64	14.5	25	160	315	368	495	440	44	134	92	63	138
LS 160 L	254	294	254	294	108	20	60	14.5	25	160	316	395	495	435	44	134	92	63	138
LS 160 LU	254	294	254	294	108	20	60	14.5	25	160	316	395	510	450	44	134	92	63	153
LS 180 MT	279	324	241	316	121	20	79	14.5	28	180	316	428	495	435	55	186	112	98	138
LS 180 LR	279	324	279	316	121	20	79	14.5	28	180	316	428	520	450	55	186	112	98	125
LS 180 L	279	339	279	329	121	25	86	14.5	25	180	350	435	552	481	64	186	112	98	159
LS 180 LU	279	339	279	329	121	25	86	14.5	25	180	350	435	593	508	64	186	112	98	199
LS 200 LT	318	378	305	365	133	30	108	18.5	30	200	350	455	599	514	70	186	112	98	167
LS 200 L	318	388	305	375	133	35	103	18.5	36	200	390	475	621	539	77	186	112	98	194
LS 200 LU	318	388	305	375	133	35	103	18.5	36	200	390	475	669	586	77	186	112	98	244
LS 225 ST	356	431	286	386	149	50	127	18.5	36	225	390	500	627	545	84	186	112	98	203
LS 225 SR	356	431	286	386	149	50	127	18.5	36	225	390	500	676	593	84	186	112	98	253
LS 225 MT	356	431	311	386	149	50	127	18.5	36	225	390	500	627	545	84	186	112	98	178
LS 225 MR	356	431	311	386	149	50	127	18.5	36	225	390	500	676	593	84	186	112	98	228
LS 225 MG	356	420	311	375	149	30	65	18.5	30	225	479	629	810	716	68	292	148	180	360
LS 250 MZ	406	470	349	449	168	70	150	24	47	250	390	550	676	593	68	217	103	145	171
LS 250 ME	406	470	349	420	168	35	90	24	36	250	479	655	810	716	68	292	148	180	303
LS 250 MF	406	470	349	420	168	35	90	24	36	250	479	655	870	776	68	292	148	180	363
LS 280 SC	457	520	368	478	190	35	90	24	35	280	479	685	810	716	68	292	148	180	262
LS 280 SD	457	520	368	478	190	35	90	24	35	280	479	685	870	776	68	292	148	180	322
LS 280 SK	457	533	368	495	190	40	85	24	35	280	586	746	921	819	99	292	148	180	379
LS 280 MC	457	520	419	478	190	35	90	24	35	280	479	685	810	716	68	292	148	180	211
LS 280 MD	457	520	419	478	190	35	90	24	35	280	479	685	870	776	68	292	148	180	271
LS 280 MK	457	533	419	495	190	40	85	24	35	280	586	746	921	819	99	292	148	180	328
LS 315 SN	508	594	406	537	216	40	140	28	50	315	475	720	870	776	68	292	148	180	248
LS 315 SP	508	594	406	537	216	40	114	28	70	315	586	781	947	845	125	292	148	180	341
LS 315 MP	508	594	457	537	216	40	114	28	70	315	586	781	947	845	125	292	148	180	290
LS 315 MR	508	594	457	537	216	40	114	28	70	315	586	781	1017	947	125	292	148	180	360

**LB1 : motor not ventilated*

LS
totally enclosed three-phase asynchronous motors

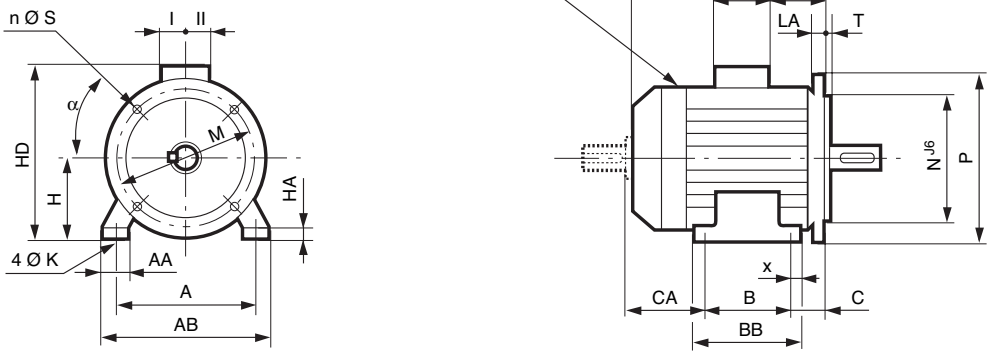
Dimensions

LS totally enclosed three-phase asynchronous motors dimensions LS - IP 55
Cage rotor

A

Dimensions in millimetres

- (FF) foot and plain hole flange mounted



Type	Main dimensions																			
	A	AB	B	BB	C	x	AA	K	HA	H	AC	HD	LB	LB1*	LJ	J	I	II	CA	Sym.
LS 56 M	90	104	71	87	36	8	24	6	7	56	110	140	156	134	16	86	43	43	51	FF 100
LS 63 M	100	115	80	96	40	8	26	7	9	63	124	152	172	165	26	86	43	43	55	FF 115
LS 71 L	112	126	90	106	45	8	24	7	9	71	140	170	193	166	21	86	43	43	61	FF 130
LS 80 L	125	157	100	120	50	10	29	9	10	80	170	203	215	177	26	86	43	43	68	FF 165
LS 80 LU	125	157	100	120	50	10	29	9	10	80	170	203	267	232	26	86	43	43	120	FF 165
LS 90 S	140	172	100	120	56	10	37	10	11	90	190	223	218	177	26	86	43	43	66	FF 165
LS 90 SL/L	140	172	125	162	56	28	37	10	11	90	190	223	245	204	26	86	43	43	68	FF 165
LS 90 LU	140	172	125	162	56	28	37	10	11	90	190	223	265	230	26	86	43	43	88	FF 165
LS 100 L	160	196	140	165	63	12	40	12	13	100	200	238	290	250	26	86	43	43	93	FF 215
LS 112 M	190	220	140	165	70	12	45	12	14	112	200	250	290	250	26	86	43	43	86	FF 215
LS 112 MG	190	220	140	165	70	12	52	12	14	112	235	260	315	265	36	86	43	43	110	FF 215
LS 112 MU	190	220	140	165	70	12	52	12	14	112	235	260	334	288	36	86	43	43	130	FF 215
LS 132 S	216	250	140	170	89	16	50	12	15	132	235	280	350	306	53	86	43	43	128	FF 265
LS 132 SM/M	216	250	178	208	89	16	59	12	18	132	280	307	387	327	25	110	57	73	126	FF 265
LS 132 MU	216	250	178	208	89	16	59	12	18	132	280	307	410	351	25	110	57	73	148	FF 265
LS 160 MP	254	294	210	294	108	20	64	14,5	25	160	315	368	468	407	44	134	92	63	154	FF 300
LS 160 M	254	294	210	294	108	20	60	14,5	25	160	316	395	495	435	44	134	92	63	182	FF 300
LS 160 LR	254	294	254	294	108	20	64	14,5	25	160	315	368	495	440	44	134	92	63	138	FF 300
LS 160 L	254	294	254	294	108	20	60	14,5	25	160	316	395	495	435	44	134	92	63	138	FF 300
LS 160 LU	254	294	254	294	108	20	60	14,5	25	160	316	395	510	450	44	134	92	63	153	FF 300
LS 180 MT	279	324	241	316	121	20	79	14,5	28	180	316	428	495	435	55	186	112	98	138	FF 300
LS 180 LR	279	324	279	316	121	20	79	14,5	28	180	316	428	520	450	55	186	112	98	125	FF 300
LS 180 L	279	339	279	329	121	25	86	14,5	25	180	350	435	552	481	64	186	112	98	159	FF 300
LS 180 LU	279	339	279	329	121	25	86	14,5	25	180	350	435	593	508	64	186	112	98	199	FF 300
LS 200 LT	318	378	305	365	133	30	108	18,5	30	200	350	455	599	514	70	186	112	98	167	FF 350
LS 200 L	318	388	305	375	133	35	103	18,5	36	200	390	475	621	539	77	186	112	98	194	FF 350
LS 200 LU	318	388	305	375	133	35	103	18,5	36	200	390	475	669	586	77	186	112	98	244	FF 350
LS 225 ST	356	431	286	386	149	50	127	18,5	36	225	390	500	627	545	84	186	112	98	203	FF 400
LS 225 SR	356	431	286	386	149	50	127	18,5	36	225	390	500	676	593	84	186	112	98	253	FF 400
LS 225 MT	356	431	311	386	149	50	127	18,5	36	225	390	500	627	545	84	186	112	98	178	FF 400
LS 225 MR	356	431	311	386	149	50	127	18,5	36	225	390	500	676	593	84	186	112	98	228	FF 400
LS 225 MG	356	420	311	375	149	30	65	18,5	30	225	479	629	810	716	68	292	148	180	360	FF 400
LS 250 MZ	406	470	349	449	168	70	150	24	47	250	390	550	676	593	68	217	103	145	171	FF 500
LS 250 ME	406	470	349	420	168	35	90	24	36	250	479	655	810	716	68	292	148	180	303	FF 500
LS 250 MF	406	470	349	420	168	35	90	24	36	250	479	655	870	776	68	292	148	180	363	FF 500
LS 280 SC	457	520	368	478	190	35	90	24	35	280	479	685	810	716	68	292	148	180	262	FF 500
LS 280 SD	457	520	368	478	190	35	90	24	35	280	479	685	870	776	68	292	148	180	322	FF 500
LS 280 SK	457	533	368	495	190	40	85	24	35	280	586	746	921	819	99	292	148	180	379	FF 500
LS 280 MC	457	520	419	478	190	35	90	24	35	280	479	685	810	716	68	292	148	180	211	FF 500
LS 280 MD	457	520	419	478	190	35	90	24	35	280	479	685	870	776	68	292	148	180	271	FF 500
LS 280 MK	457	533	419	495	190	40	85	24	35	280	586	746	921	819	99	292	148	180	328	FF 500
LS 315 SN	508	594	406	537	216	40	140	28	50	315	475	720	870	776	68	292	148	180	248	FF 600
LS 315 SP	508	594	406	537	216	40	114	28	70	315	586	781	947	845	125	292	148	180	341	FF 600
LS 315 MP	508	594	457	537	216	40	114	28	70	315	586	781	947	845	125	292	148	180	290	FF 600
LS 315 MR	508	594	457	537	216	40	114	28	70	315	586	781	1017	947	125	292	148	180	360	FF 600

**LB1 : motor not ventilated*

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

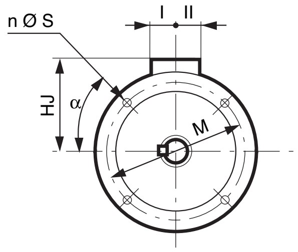
Dimensions

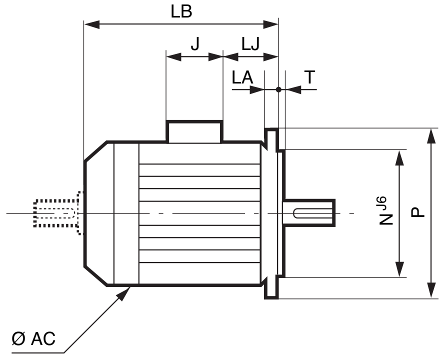
A

LS totally enclosed three-phase asynchronous motors dimensions LS - 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 100	100	80	120	2.5	4	45	7	5
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 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 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
FF 500	500	450	550	5	8	22.5	18.5	18
FF 600	600	550	660	6	8	22.5	24	22
FF 600	600	550	660	6	8	22.5	24	22
FF 600	600	550	660	6	8	22.5	24	22
FF 600	600	550	660	6	8	22.5	24	22

Type	Main dimensions							
	AC	LB	LB1*	HJ	LJ	J	I	II
LS 56 M	110	156	134	84	16	86	43	43
LS 63 M	124	172	165	89	26	86	43	43
LS 71 L	140	193	166	99	21	86	43	43
LS 80 L	170	215	177	123	26	86	43	43
LS 80 LU	170	267	232	123	26	86	43	43
LS 90 S	190	218	177	133	26	86	43	43
LS 90 SL/L	190	245	204	133	26	86	43	43
LS 90 LU	190	265	230	133	26	86	43	43
LS 100 L	200	290	250	138	26	86	43	43
LS 112 M	200	290	250	138	26	86	43	43
LS 112 MG	235	315	265	148	36	86	43	43
LS 112 MU	235	334	288	148	36	86	43	43
LS 132 S	235	350	306	148	53	86	43	43
LS 132 SM/M	280	387	327	175	25	110	57	73
LS 132 MU	280	410	351	175	25	110	57	73
LS 160 MP	315	468	407	208	44	134	92	63
LS 160 M	316	495	435	235	44	134	92	63
LS 160 LR	315	495	440	208	44	134	92	63
LS 160 L	316	495	435	235	44	134	92	63
LS 160 LU	316	510	450	235	44	134	92	63
LS 180 MT	316	495	435	248	55	186	112	98
LS 180 LR	316	520	450	248	55	186	112	98
LS 180 L	350	552	481	255	64	186	112	98
LS 180 LU	350	593	508	255	64	186	112	98
LS 200 LT	350	599	514	255	70	186	112	98
LS 200 L	390	621	539	275	77	186	112	98
LS 200 LU	390	669	586	275	77	186	112	98
LS 225 ST	390	627	545	275	84	186	112	98
LS 225 SR	390	676	593	275	84	186	112	98
LS 225 MT	390	627	545	275	84	186	112	98
LS 225 MR	390	676	593	275	84	186	112	98
LS 225 MG	479	810	716	405	68	292	148	180
LS 250 MZ	390	676	593	300	68	217	103	145
LS 250 ME	479	810	716	405	68	292	148	180
LS 250 MF	479	870	776	405	68	292	148	180
LS 280 SC	479	810	716	405	68	292	148	180
LS 280 SD	479	870	776	405	68	292	148	180
LS 280 SK	586	921	819	466	99	292	148	180
LS 280 MC	479	810	716	405	68	292	148	180
LS 280 MD	479	870	776	405	68	292	148	180
LS 280 MK	586	921	819	466	99	292	148	180
LS 315 SN	475	870	776	405	68	292	148	180
LS 315 SP	586	947	845	466	125	292	148	180
LS 315 MP	586	947	845	466	125	292	148	180
LS 315 MR	586	1017	947	466	125	292	148	180

**LB1 : motor not ventilated*

For IM 3001 use. for frame size ≥ 250 mm. consult us.

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

LEROY SOMER

LS
totally enclosed three-phase asynchronous motors

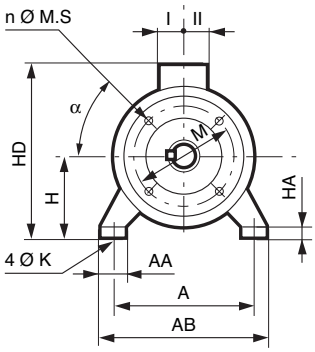
Dimensions

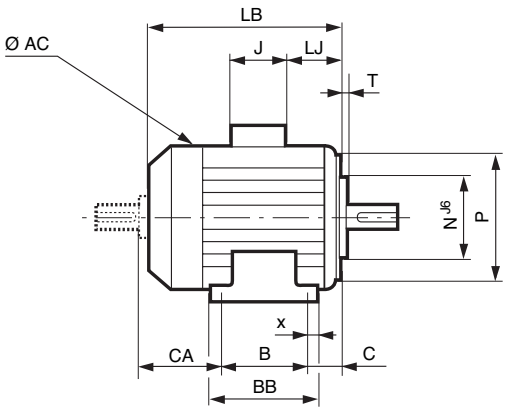
LS totally enclosed three-phase asynchronous motors dimensions LS - IP 55
Cage rotor

A

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	LB1*	LJ	J	I	II	CA	Sym.
LS 56 M	90	104	71	87	36	8	24	6	7	56	110	140	156	134	16	86	43	43	51	FT 65
LS 63 M	100	115	80	96	40	8	26	7	9	63	124	152	172	165	26	86	43	43	55	FT 75
LS 71 L	112	126	90	106	45	8	24	7	9	71	140	170	193	166	21	86	43	43	61	FT 85
LS 80 L	125	157	100	120	50	10	29	9	10	80	170	203	215	177	26	86	43	43	68	FT 100
LS 80 LU	125	157	100	120	50	10	29	9	10	80	170	203	267	232	26	86	43	43	120	FT 100
LS 90 S	140	172	100	120	56	10	37	10	11	90	190	223	218	177	26	86	43	43	66	FT 115
LS 90 SL/L	140	172	125	162	56	28	37	10	11	90	190	223	245	204	26	86	43	43	68	FT 115
LS 90 LU	140	172	125	162	56	28	37	10	11	90	190	223	265	230	26	86	43	43	88	FT 115
LS 100 L	160	196	140	165	63	12	40	12	13	100	200	238	290	250	26	86	43	43	93	FT 130
LS 112 M	190	220	140	165	70	12	45	12	14	112	200	250	290	250	26	86	43	43	86	FT 130
LS 112 MG	190	220	140	165	70	12	52	12	14	112	235	260	315	265	36	86	43	43	110	FT 130
LS 112 MU	190	220	140	165	70	12	52	12	14	112	235	260	334	288	36	86	43	43	130	FT 130
LS 132 S	216	250	140	170	89	16	50	12	15	132	235	280	350	306	53	86	43	43	128	FT 215
LS 132 SM/M	216	250	178	208	89	16	59	12	18	132	280	307	387	327	25	110	57	73	126	FT 215
LS 132 MU	216	250	178	208	89	16	59	12	18	132	280	307	410	351	25	110	57	73	148	FT 215
LS 160 MP	254	294	210	294	108	20	64	14.5	25	160	315	368	468	407	44	134	92	63	154	FT 215
LS 160 LR	254	294	254	294	108	20	64	14.5	28	180	315	368	495	440	44	134	92	63	138	FT 215

**LB1 : motor not ventilated*

LS
totally enclosed three-phase asynchronous motors

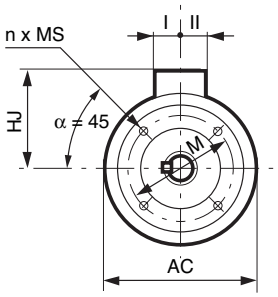
Dimensions

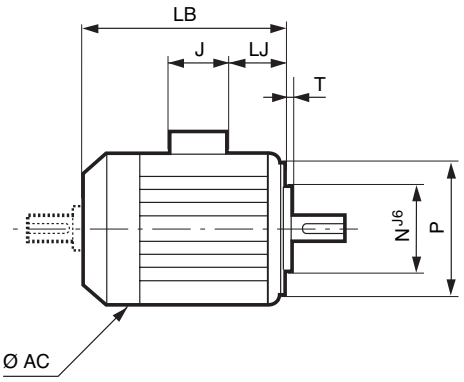
A

LS totally enclosed three-phase asynchronous motors dimensions LS - IP 55
Cage rotor

Dimensions in millimetres

- (FT) tapped hole flange mounted





IEC symbol	Flange dimensions					
	M	N	P	T	n	MS
FT 65	65	50	80	2.5	4	M5
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 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 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	LB1*	LJ	J	I	II
LS 56 M	110	156	134	16	86	43	43
LS 63 M	124	172	165	26	86	43	43
LS 71 L	140	193	166	21	86	43	43
LS 80 L	170	215	177	26	86	43	43
LS 80 LU	170	267	232	26	86	43	43
LS 90 S	190	218	177	26	86	43	43
LS 90 SL/L	190	245	204	26	86	43	43
LS 90 LU	190	265	230	26	86	43	43
LS 100 L	200	290	250	26	86	43	43
LS 112 M	200	290	250	26	86	43	43
LS 112 MG	235	315	265	36	86	43	43
LS 112 MU	235	334	288	36	86	43	43
LS 132 S	235	350	306	53	86	43	43
LS 132 SM/M	280	387	327	25	110	57	73
LS 132 MU	280	410	351	25	110	57	73
LSP 160 MP	315	468	407	44	134	92	63
LS 160 LR	315	495	440	44	134	92	63

**LB1 : motor not ventilated*

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