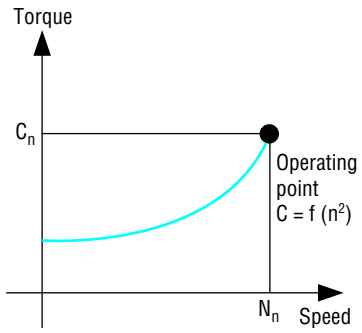
LS MV 3-phase TEFV induction motors

Selection

A

SELECTION OF TYPE OF MOTOR AND SPEED DRIVE

Integrating variable speed control into a drive chain entails certain restrictions which can be divided into two categories :
- requirements of the application itself
example : centrifugal machines



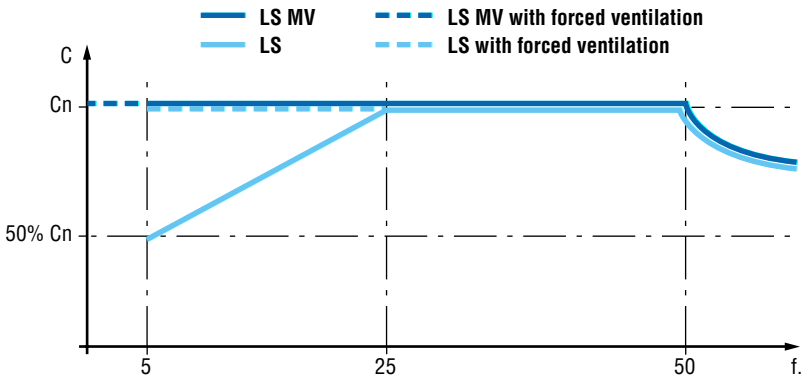
- the inevitable results of the motor/electronic speed drive combination : noise, presence of harmonics, etc.

LEROY-SOMER offers :
• **the standard LS range :**
- motors conforming to IEC standards
- IP 55
- class F insulation
- thermal reserve higher than 20 °C
- class N balancing.

The electrical and mechanical construction of these motors makes them ideal for use in standard applications : fans, pumps, etc.
• **the LSMV range :**
- motors conforming to IEC standards
- IP 55
- class F insulation
- improved thermal reserve with increased overtorque capacity
- balancing : class S for frame sizes ≤ 132, class R for frame sizes ≥ 160.
- thermal protection probes (PTC)
- aluminium terminal box
- metal fan cover

The specially designed active magnetic part of these motors makes them ideal for the most difficult applications : rated torque at low or even zero speed.
• **construction suitable for very high speed motors (> 4000 min^{-1}) :**
Using a setting adapted to speed drives with constant U/f, these motors can deliver power in proportion to the speed.
These motors are part of a special ranges.

Thermal torque / speed characteristics of the LS and LSMV ranges



Z+

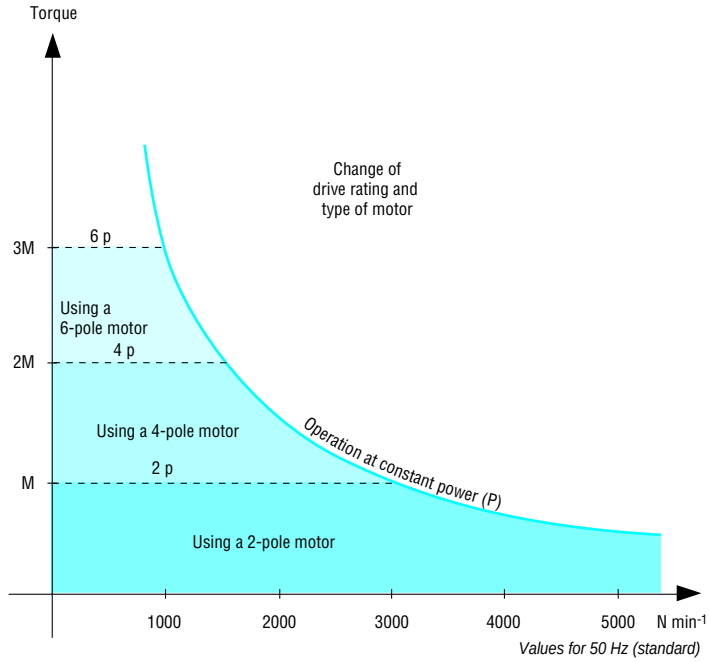
Screen

P +

Print

SELECTING THE NUMBER OF POLES

The number of poles is one of the most important criteria. As the graph below shows, the torque distribution varies according to the number of poles of the motor being used. Hence, for use at low speed only, a 6-pole motor should be selected.
Conversely, for overspeed operation, the 2-pole motor should be selected.



SELECTING OPTIONS

Certain accessories may be required, depending on the application and speed drive used :

Forced ventilation :
- for operation at low speed (< N/2* for the LS motor and < N/10* for the LSMV) in continuous duty,
- for high speed operation (special study).

Encoder :
- for operation on a speed drive with flux vector control,
- for speeds of less than N/10*,
- to obtain speed precision required for certain operations.

Brake :

Brake	Frame size
Type BK	80 to 132
Type FCO	112 and 132
Type FCPL	160 to 250
Type FCR J01	80 to 100

** N = rated speed*

Gene.

Mount.

Adap.

Selec.

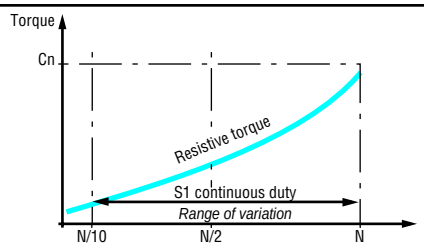
Opti.

Dim.

LS MV 3-phase TEFV induction motors

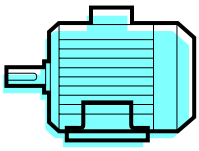
Selection

Centrifugal or quadratic resistive torque applications



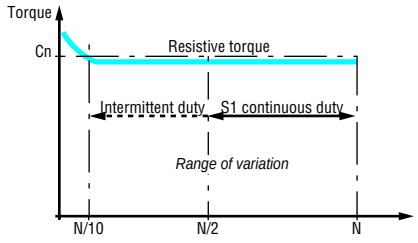
N = rated speed

Operation with resistive torque depending on the speed for f < 50 Hz

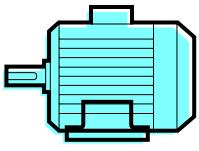


LS motor

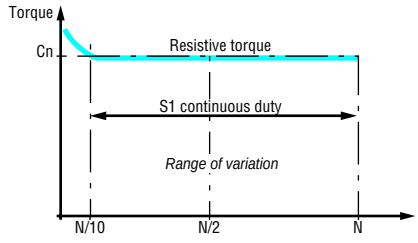
General or constant resistive torque applications



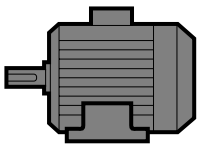
Operation with a speed range of 25 to 50 Hz (1 to 2) in continuous duty (S1)



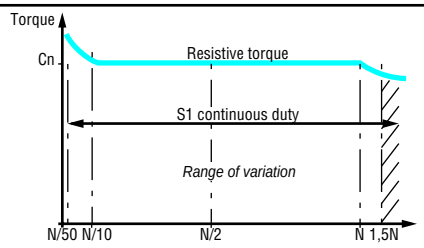
LS motor



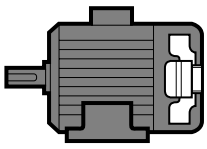
Operation with a speed range of 5 to 50 Hz (1 to 10) in continuous duty (S1)



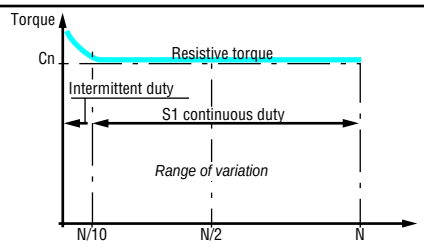
LSMV motor



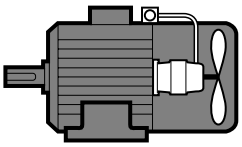
Operation with extreme speed ranges : < 5 Hz and > 70 Hz



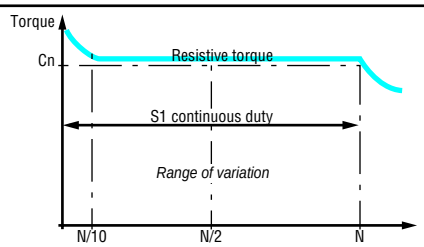
LSMV motor with forced ventilation



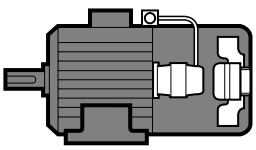
Operation :
- from 0 to 50 Hz with a range of 0 to 5 Hz in intermittent duty
- with good precision of both speed and torque dynamics



LSMV motor with encoder



Operation :
- from 0 to 50 Hz with a range of 0 to 5 Hz in continuous duty
- with good precision of both speed and torque dynamics



LSMV motor with encoder and forced ventilation

* This is a general guide. The performance of the variable speed drives is shown on the individual tables.

LS MV 3-phase TEFV induction motors

Selection

A

2 poles 3000 min-1

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated speed at 50 Hz P_N kW	Rated speed N_N min-1	Rated torque M_N N.m	Maximum torque/ rated torque $\frac{M_M}{M_N}$	No-load current I_o A	Rated current $I_{N(400V)}$ A	Power factor Cos φ	Efficiency η %	Moment of inertia J kg.m²	Weight IM B3 kg
LSMV 80 L	0.75	2865	2.4	3	0.72	1.6	0.88	80	0.0009	11
LSMV 80 L	1.1	2880	3.5	3.5	1	2.2	0.87	82	0.0011	12.5
LSMV 90 L	1.5	2885	4.8	4	1.1	2.9	0.9	83	0.0017	18.5
LSMV 90 L	2.2	2890	7.1	4	2.35	4.5	0.85	80	0.0023	21
LSMV 100 L	3	2875	9.7	3.75	2.4	5.7	0.89	84	0.0029	26
LSMV 112 MG	4	2900	13	3	2.3	7.5	0.92	84	0.0092	36
LSMV 132 SM	5.5	2915	18	3.2	2.7	10.1	0.91	86	0.0236	63
LSMV 132 M	7.5	2910	24	2.9	3.2	13.6	0.92	86	0.0289	72

Z+
Screen
P +
P -
1eP
Print
Gene.
Mount.
Adap.
Selec.
Opti.
Dim.

LS MV 3-phase TEFV induction motors

Selection

2 poles 3000 min^{-1}

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V

A

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS MV 80 L	0.75	-		-	
LS MV 80 L	1.1	-		-	
LS MV 90 L	1.5	-		-	
LS MV 90 L	2.2	-		-	
LS MV 100 L	3	-		-	
LS MV 112 MG	4	-		-	
LS MV 132 SM	5.5	-		-	
LS MV 132 M	7.5	-		-	

Z+
Screen
P +
P -
1eP
Print
Gene.
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Adap.
Selec.
Opti.
Dim.

LS MV 3-phase TEFV induction motors

Selection

A

4 poles 1500 min⁻¹

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1
LS MV frame sizes ≤ 200 from 0.75 kW to 30 kW - IM B3 and IM B5 (IM 1001 and IM 3001)

No option	Forced ventilation	Encoder*	BK brake	FCO** brake	FCPL brake	A.T*** D.T	Time P ≤ 11 kW	Time P ≥ 18.5 kW
							15 kW inclusive	15 kW inclusive
•								
	•							
		•					up to 9 kW inclusive	
		•	•					
				•				
					•			
	•				•			
		•			•			
	•	•			•			
	•	•						
	•	•	•					
						•		

** 1024 points - 5 volts. ** Only applies to B5 motors (with options, please consult Leroy-Somer). *** A.T = A.C. tachogenerator- D.T = D.C. tachogenerator (with or without forced ventilation).*

- **Other versions (on consultation)**
  - **LS MV with frame size ≥ 225**
  - **LS MV other numbers of poles (2, 6... poles)**
  - **LS MV with encoders other than 1024 pts 5 V**
  - **LS MV other forms of mounting**

Not possible

4 poles 1500 min⁻¹

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated power at 50 Hz P_N kW	Rated speed N_N min⁻¹	Rated torque M_N N.m	Maximum torque/ rated torque $\frac{M_M}{M_N}$	No-load current I_o A	Rated current $I_{N(400V)}$ A	*Power factor Cos φ	* Efficiency η %	Moment of inertia J kg.m²	Weight IM B3 kg
LSMV 80 L	0.75	1435	4.8	2.9	1.6	2	0.71	75	0.0024	10.8
LSMV 90 SL	1.1	1445	7.1	2.4	1.3	2.5	0.82	79	0.0039	15.3
LSMV 90 L	1.5	1435	9.7	1.9	1.5	3.2	0.84	80	0.0049	17.3
LSMV 100 L	2.2	1440	14	2.8	2.4	4.7	0.84	81	0.0051	22.7
LSMV 100 L	3	1435	19.5	2.4	2.9	6.3	0.84	82	0.0071	25.7
LSMV 112 MG	4	1440	26	2.7	3.8	8	0.86	84	0.015	33.3
LSMV 132 SM	5.5	1460	35	2.5	4.1	10.4	0.87	87	0.0334	56.3
LSMV 132 M	7.5	1455	49	2.3	4.7	14	0.89	87	0.035	62.3
LSMV 132 M	9	1460	60	2.6	6.5	16.8	0.88	88	0.0385	65
LSMV 160 MR	11	1460	72	2.5	6.6	20.2	0.88	89	0.069	87
LSMV 160 LU	15	1465	100	3.6	11	28.1	0.85	90.6	0.095	110
LSMV 180 MU	18.5	1465	120	2.6	11	32.9	0.89	91.2	0.147	165
LSMV 180 LU	22	1465	144	2.8	15.4	40.8	0.86	90.6	0.147	165
LSMV 200 L	30	1475	195	2.9	22.2	55.1	0.85	92.4	0.23	190
LSMV 225 SR	37	1475	235	2.8	24.6	66.8	0.86	93	0.28	235
LSMV 225 MK	45	1480	293	3	31.6	83	0.84	93.1	0.75	325
LSMV 250 MP	55	1480	356	3	45	104	0.82	92.7	0.79	355
LSMV 280 SP	75	1480	475	3.3	59.3	138	0.83	94.5	1.45	490
LSMV 280 MK	90	1490	577	3.1	64	164	0.84	94.3	2.54	690
LSMV 315 SP	110	1485	707	3.5	79.2	201	0.83	95	2.95	785
LSMV 315 MR	132	1485	845	3.1	89.5	232	0.86	96	3.37	855

* Power factor - Cos φ
Value at 4/4 for motor supplied in sine wave operation at 400 V - 50 Hz

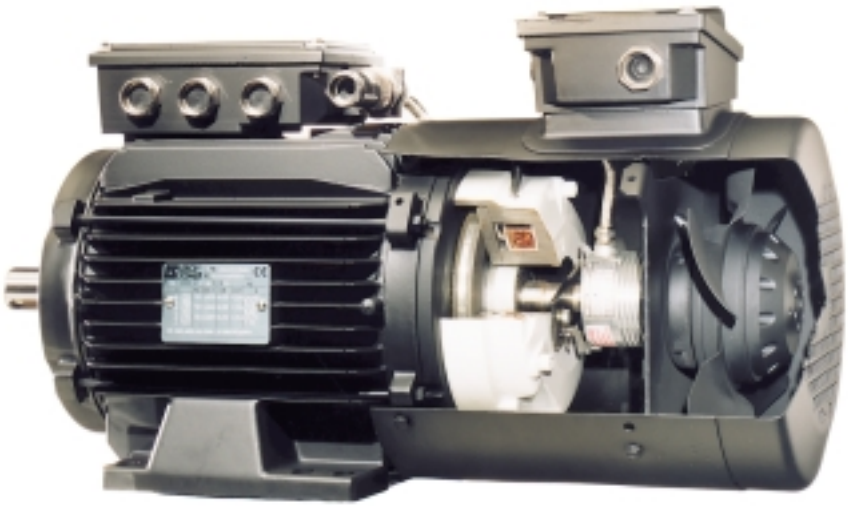
* Efficiency - η
Value at 4/4 for motor supplied in sine wave operation at 400 V - 50 Hz

Higher power ratings are available on request.

Z+ Screen P + P - 1eP Print
Gene. Mount. Adap. Selec. Opti. Dim.

LS MV 3-phase TEFV induction motors

Selection



IP 55 - 50 Hz - Class F - 400 V Y

4 poles 1500 min^{-1}

LS MV without option

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS MV 80 L	0.75	MM4 75 101	2	MM4 75 102	2
LS MV 90 SL	1.1	MM4 11 201	2	MM4 11 202	2
LS MV 90 L	1.5	MM4 15 201	2	MM4 15 202	2
LS MV 100 L	2.2	MM4 22 201	2	MM4 22 202	2
LS MV 100 L	3	MM4 30 201	2	MM4 30 202	2
LS MV 112 MG	4	MM4 40 201	2	MM4 40 202	2
LS MV 132 SM	5.5	MM4 55 201	2	MM4 55 202	2
LS MV 132 M	7.5	MM4 75 201	2	MM4 75 202	2
LS MV 132 M	9	MM4 90 201	2	MM4 90 202	2
LS MV 160 MR	11	MM4 11 301	2	MM4 11 302	2
LS MV 160 LU	15	MM4 15 301	2	MM4 15 302	2
LS MV 180 MU	18.5	MM4 18 301	1	MM4 18 302	1
LS MV 180 LU	22	MM4 22 301	1	MM4 22 302	1
LS MV 200 L	30	MM4 30 301	1	MM4 30 302	1
LS MV 225 SR	37	-		-	
LS MV 225 MK	45	-		-	
LS MV 250 MP	55	-		-	
LS MV 280 SP	75	-		-	
LS MV 280 MK	90	-		-	
LS MV 315 SR	110	-		-	
LS MV 315 MR	132	-		-	

- **Other versions (on consultation)**
  - LS MV other mounting forms

Selection example :

Speed :	1500 min^{-1} - 4 poles
Power :	5.5 kW
Mounting and position :	IM 1001 (IM B3)
Supply voltage :	230/400 V

Designation :
4P LS MV 132 SM 5.5 kW IM 1001 (IM B3) 400 V Y

Code : MM4 55 201

LS MV 3-phase TEFV induction motors

Selection

A

4 poles 1500 min^{-1}

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated power at 50 Hz P_N kW	Rated speed N_N min^{-1}	Rated torque M_N N.m	Maximum torque/ Rated torque $\frac{M_M}{M_N}$	No-load current I_o A	Rated current $I_{N(400V)}$ A	*Power factor Cos φ	* Efficiency η %	Moment of inertia J kg.m^2	Weight IM B3 kg
LSMV 80 L	0.75	1435	4.8	2.9	1.6	2	0.71	75	0.0024	10.8
LSMV 90 SL	1.1	1445	7.1	2.4	1.3	2.5	0.82	79	0.0039	15.3
LSMV 90 L	1.5	1435	9.7	1.9	1.5	3.2	0.84	80	0.0049	17.3
LSMV 100 L	2.2	1440	14	2.8	2.4	4.7	0.84	81	0.0051	22.7
LSMV 100 L	3	1435	19.5	2.4	2.9	6.3	0.84	82	0.0071	25.7
LSMV 112 MG	4	1440	26	2.7	3.8	8	0.86	84	0.015	33.3
LSMV 132 SM	5.5	1460	35	2.5	4.1	10.4	0.87	87	0.0334	56.3
LSMV 132 M	7.5	1455	49	2.3	4.7	14	0.89	87	0.035	62.3
LSMV 132 M	9	1460	60	2.6	6.5	16.8	0.88	88	0.0385	65
LSMV 160 MR	11	1460	72	2.5	6.6	20.2	0.88	89	0.069	87
LSMV 160 LU	15	1465	100	3.6	11	28.1	0.85	90.6	0.095	110
LSMV 180 MU	18.5	1465	120	2.6	11	32.9	0.89	91.2	0.147	165
LSMV 180 LU	22	1465	144	2.8	15.4	40.8	0.86	90.6	0.147	165
LSMV 200 L	30	1475	195	2.9	22.2	55.1	0.85	92.4	0.23	190
LSMV 225 SR	37	1475	235	2.8	24.6	66.8	0.86	93	0.28	235
LSMV 225 MK	45	1480	293	3	31.6	83	0.84	93.1	0.75	325
LSMV 250 MP	55	1480	356	3	45	104	0.82	92.7	0.79	355
LSMV 280 SP	75	1480	475	3.3	59.3	138	0.83	94.5	1.45	490
LSMV 280 MK	90	1490	577	3.1	64	164	0.84	94.3	2.54	690
LSMV 315 SP	110	1485	707	3.5	79.2	201	0.83	95	2.95	785
LSMV 315 MR	132	1485	845	3.1	89.5	232	0.86	96	3.37	855

Z+

Screen

P +

P -

1eP

Print

Gene.

Mount.

Adap.

Selec.

Opti.

Dim.

4 poles 1500 min^{-1}

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated power at 50 Hz P_N kW	Rated speed N_N min^{-1}	Rated torque M_N N.m	Maximum torque/ Rated torque $\frac{M_M}{M_N}$	No-load current I_o A	Rated current $I_{N(400V)}$ A	*Power factor Cos φ	* Efficiency η %	Moment of inertia J kg.m^2	Weight IM B3 kg
LSMV 80 L	0.75	1435	4.8	2.9	1.6	2	0.71	75	0.0024	10.8
LSMV 90 SL	1.1	1445	7.1	2.4	1.3	2.5	0.82	79	0.0039	15.3
LSMV 90 L	1.5	1435	9.7	1.9	1.5	3.2	0.84	80	0.0049	17.3
LSMV 100 L	2.2	1440	14	2.8	2.4	4.7	0.84	81	0.0051	22.7
LSMV 100 L	3	1435	19.5	2.4	2.9	6.3	0.84	82	0.0071	25.7
LSMV 112 MG	4	1440	26	2.7	3.8	8	0.86	84	0.015	33.3
LSMV 132 SM	5.5	1460	35	2.5	4.1	10.4	0.87	87	0.0334	56.3
LSMV 132 M	7.5	1455	49	2.3	4.7	14	0.89	87	0.035	62.3
LSMV 132 M	9	1460	60	2.6	6.5	16.8	0.88	88	0.0385	65
LSMV 160 MR	11	1460	72	2.5	6.6	20.2	0.88	89	0.069	87
LSMV 160 LU	15	1465	100	3.6	11	28.1	0.85	90.6	0.095	110
LSMV 180 MU	18.5	1465	120	2.6	11	32.9	0.89	91.2	0.147	165
LSMV 180 LU	22	1465	144	2.8	15.4	40.8	0.86	90.6	0.147	165
LSMV 200 L	30	1475	195	2.9	22.2	55.1	0.85	92.4	0.23	190
LSMV 225 SR	37	1475	235	2.8	24.6	66.8	0.86	93	0.28	235
LSMV 225 MK	45	1480	293	3	31.6	83	0.84	93.1	0.75	325
LSMV 250 MP	55	1480	356	3	45	104	0.82	92.7	0.79	355
LSMV 280 SP	75	1480	475	3.3	59.3	138	0.83	94.5	1.45	490
LSMV 280 MK	90	1490	577	3.1	64	164	0.84	94.3	2.54	690
LSMV 315 SP	110	1485	707	3.5	79.2	201	0.83	95	2.95	785
LSMV 315 MR	132	1485	845	3.1	89.5	232	0.86	96	3.37	855

* Power factor - Cos φ

Value at 4/4 for motor supplied in sine wave operation at 400 V - 50 Hz

* Efficiency - η

Value at 4/4 for motor supplied in sine wave operation at 400 V - 50 Hz

Higher power ratings are available on request.

LS MV 3-phase TEFV induction motors

Selection

4 poles 1500 min^{-1}

IP 55 - 50 Hz - Class F - 400 V Y

A

+ FORCED VENTILATION

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS MV 80 L	0.75	MM4 75 10A	2	MM4 75 10B	2
LS MV 90 SL	1.1	MM4 11 20A	2	MM4 11 20B	2
LS MV 90 L	1.5	MM4 15 20A	2	MM4 15 20B	2
LS MV 100 L	2.2	MM4 22 20A	2	MM4 22 20B	2
LS MV 100 L	3	MM4 30 20A	2	MM4 30 20B	2
LS MV 112 MG	4	MM4 40 20A	2	MM4 40 20B	2
LS MV 132 SM	5.5	MM4 55 20A	2	MM4 55 20B	2
LS MV 132 M	7.5	MM4 75 20A	2	MM4 75 20B	2
LS MV 132 M	9	MM4 90 20A	2	MM4 90 20B	2
LS MV 160 MR	11	MM4 11 30A	2	MM4 11 30B	2
LS MV 160 LU	15	MM4 15 30A	2	MM4 15 30B	2
LS MV 180 MU	18.5	MM4 18 30A	1	MM4 18 30B	1
LS MV 180 LU	22	MM4 22 30A	1	MM4 22 30B	1
LS MV 200 L	30	MM4 30 30A	1	MM4 30 30B	1
LS MV 225 SR	37	-		-	
LS MV 225 MK	45	-		-	
LS MV 250 MP	55	-		-	
LS MV 280 SP	75	-		-	
LS MV 280 MK	90	-		-	
LS MV 315 SR	110	-		-	
LS MV 315 MR	132	-		-	

- **LS MV other mounting forms (on consultation)**

4 poles 1500 min^{-1}

IP 55 - 50 Hz - Class F - 400 V Y

+ ENCODER*

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS MV 80 L	0.75	MM4 75 10C	2	MM4 75 10D	2
LS MV 90 SL	1.1	MM4 11 20C	2	MM4 11 20D	2
LS MV 90 L	1.5	MM4 15 20C	2	MM4 15 20D	2
LS MV 100 L	2.2	MM4 22 20C	2	MM4 22 20D	2
LS MV 100 L	3	MM4 30 20C	2	MM4 30 20D	2
LS MV 112 MG	4	MM4 40 20C	2	MM4 40 20D	2
LS MV 132 SM	5.5	MM4 55 20C	2	MM4 55 20D	2
LS MV 132 M	7.5	MM4 75 20C	2	MM4 75 20D	2
LS MV 132 M	9	MM4 90 20C	2	MM4 90 20D	2
LS MV 160 MR	11	MM4 11 30C	2	MM4 11 30D	2
LS MV 160 LU	15	-		-	
LS MV 180 MU	18.5	-		-	
LS MV 180 LU	22	-		-	
LS MV 200 L	30	-		-	
LS MV 225 SR	37	-		-	
LS MV 225 MK	45	-		-	
LS MV 250 MP	55	-		-	
LS MV 280 SP	75	-		-	
LS MV 280 MK	90	-		-	
LS MV 315 SR	110	-		-	
LS MV 315 MR	132	-		-	

** LS standard encoder = 1024 points - 5 volts.*

- **Other versions (on consultation)**
  - **LS MV with encoders other than 1024 pts 5 V**
  - **LS MV other mounting forms**

Z+ | Screen | P + | P - | 1eP | Print

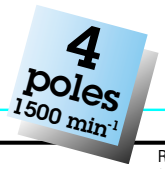
Gene. | Mount. | Adap. | Selec. | Opti. | Dim.

LS MV 3-phase TEFV induction motors

Selection

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated power at 50 Hz P_N kW	Rated speed N_N min^{-1}	Rated torque M_N N.m	Maximum torque/ Rated torque $\frac{M_M}{M_N}$	No-load current I_o A	Rated current $I_{N(400V)}$ A	*Power factor Cos φ	* Efficiency η %	Moment of inertia J kg.m^2	Weight IM B3 kg
LSMV 80 L	0.75	1435	4.8	2.9	1.6	2	0.71	75	0.0024	10.8
LSMV 90 SL	1.1	1445	7.1	2.4	1.3	2.5	0.82	79	0.0039	15.3
LSMV 90 L	1.5	1435	9.7	1.9	1.5	3.2	0.84	80	0.0049	17.3
LSMV 100 L	2.2	1440	14	2.8	2.4	4.7	0.84	81	0.0051	22.7
LSMV 100 L	3	1435	19.5	2.4	2.9	6.3	0.84	82	0.0071	25.7
LSMV 112 MG	4	1440	26	2.7	3.8	8	0.86	84	0.015	33.3
LSMV 132 SM	5.5	1460	35	2.5	4.1	10.4	0.87	87	0.0334	56.3
LSMV 132 M	7.5	1455	49	2.3	4.7	14	0.89	87	0.035	62.3
LSMV 132 M	9	1460	60	2.6	6.5	16.8	0.88	88	0.0385	65
LSMV 160 MR	11	1460	72	2.5	6.6	20.2	0.88	89	0.069	87
LSMV 160 LU	15	1465	100	3.6	11	28.1	0.85	90.6	0.095	110
LSMV 180 MU	18.5	1465	120	2.6	11	32.9	0.89	91.2	0.147	165
LSMV 180 LU	22	1465	144	2.8	15.4	40.8	0.86	90.6	0.147	165
LSMV 200 L	30	1475	195	2.9	22.2	55.1	0.85	92.4	0.23	190
LSMV 225 SR	37	1475	235	2.8	24.6	66.8	0.86	93	0.28	235
LSMV 225 MK	45	1480	293	3	31.6	83	0.84	93.1	0.75	325
LSMV 250 MP	55	1480	356	3	45	104	0.82	92.7	0.79	355
LSMV 280 SP	75	1480	475	3.3	59.3	138	0.83	94.5	1.45	490
LSMV 280 MK	90	1490	577	3.1	64	164	0.84	94.3	2.54	690
LSMV 315 SP	110	1485	707	3.5	79.2	201	0.83	95	2.95	785
LSMV 315 MR	132	1485	845	3.1	89.5	232	0.86	96	3.37	855



IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated power at 50 Hz P_N kW	Rated speed N_N min^{-1}	Rated torque M_N N.m	Maximum torque/ Rated torque $\frac{M_M}{M_N}$	Braking torque M_F N.m	No-load current I_o A	Rated current $I_{N(400V)}$ A	*Power factor Cos φ	* Efficiency η %	Moment of inertia J kg.m^2	Weight IM B3 kg
LSMV 80 L	0.75	1435	4.8	2.9	8	1.6	2	0.71	75	0.0024	10.8
LSMV 90 SL	1.1	1445	7.1	2.4	16	1.3	2.5	0.82	79	0.0039	15.3
LSMV 90 L	1.5	1435	9.7	1.9	16	1.5	3.2	0.84	80	0.0049	17.3
LSMV 100 L	2.2	1440	14	2.8	32	2.4	4.7	0.84	81	0.0051	22.7
LSMV 100 L	3	1435	19.5	2.4	32	2.9	6.3	0.84	82	0.0071	25.7
LSMV 112 MG	4	1440	26	2.7	32	3.8	8	0.86	84	0.015	33.3
LSMV 132 SM	5.5	1460	35	2.5	60	4.1	10.4	0.87	87	0.0334	56.3
LSMV 132 M	7.5	1455	49	2.3	60	4.7	14	0.89	87	0.035	62.3
LSMV 132 M	9	1460	60	2.6	-	6.5	16.8	0.88	88	0.0385	65

* Power factor - Cos φ	* Rendement - η
Value at 4/4 for motor supplied in sine wave operation at 400 V - 50 Hz	Value at 4/4 for motor supplied in sine wave operation at 400 V - 50 Hz

Higher power ratings are available on request.

LS MV 3-phase TEFV induction motors

Selection

4 poles 1500 min^{-1}

IP 55 - 50 Hz - Class F - 400 V Y

+ FORCED VENTILATION + ENCODER*

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS MV 80 L	0.75	MM4 75 10G	2	MM4 75 10H	2
LS MV 90 SL	1.1	MM4 11 20G	2	MM4 11 20H	2
LS MV 90 L	1.5	MM4 15 20G	2	MM4 15 20H	2
LS MV 100 L	2.2	MM4 22 20G	2	MM4 22 20H	2
LS MV 100 L	3	MM4 30 20G	2	MM4 30 20H	2
LS MV 112 MG	4	MM4 40 20G	2	MM4 40 20H	2
LS MV 132 SM	5.5	MM4 55 20G	2	MM4 55 20H	2
LS MV 132 M	7.5	MM4 75 20G	2	MM4 75 20H	2
LS MV 132 M	9	MM4 90 20G	2	MM4 90 20H	2
LS MV 160 MR	11	MM4 11 30G	2	MM4 11 30H	2
LS MV 160 LU	15	MM4 15 30G	2	MM4 15 30BH	2
LS MV 180 MU	18.5	MM4 18 30G	1	MM4 18 30H	1
LS MV 180 LU	22	MM4 22 30G	1	MM4 22 30H	1
LS MV 200 L	30	MM4 30 30G	1	MM4 30 30H	1
LS MV 225 SR	37	-		-	
LS MV 225 MK	45	-		-	
LS MV 250 MP	55	-		-	
LS MV 280 SP	75	-		-	
LS MV 280 MK	90	-		-	
LS MV 315 SR	110	-		-	
LS MV 315 MR	132	-		-	

** LS standard encoder = 1024 points - 5 volts.*

- **Other versions (on consultation)**
  - **LS MV with encoders other than 1024 pts 5 V**
  - **LS MV other mounting forms**

4 poles 1500 min^{-1}

IP 55 - 50 Hz - Class F - 400 V Y

+ ENCODER* + BK BRAKE

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS MV 80 L	0.75	MM4 75 10E	2	MM4 75 10F	2
LS MV 90 SL	1.1	MM4 11 20E	2	MM4 11 20F	2
LS MV 90 L	1.5	MM4 15 20E	2	MM4 15 20F	2
LS MV 100 L	2.2	MM4 22 20E	2	MM4 22 20F	2
LS MV 100 L	3	MM4 30 20E	2	MM4 30 20F	2
LS MV 112 MG	4	MM4 40 20E	2	MM4 40 20F	2
LS MV 132 SM	5.5	MM4 55 20E	2	MM4 55 20F	2
LS MV 132 M	7.5	MM4 75 20E	2	MM4 75 20F	2
LS MV 132 M	9	MM4 90 20E	2	MM4 90 20F	2

** LS standard encoder = 1024 points - 5 volts.*

- **Other versions (on consultation)**
  - **LS MV with encoders other than 1024 pts 5 V**
  - **LS MV other mounting forms**

LS MV 3-phase TEFV induction motors

Selection

A

4 poles 1500 min-1

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated power at 50 Hz P_N kW	Rated speed N_N min-1	Rated torque M_N N.m	Maximum torque/ Rated torque $\frac{M_M}{M_N}$	Braking torque M_F N.m	No-load current I_o A	Rated current $I_{N(400V)}$ A	*Power factor Cos φ	* Efficiency η %	Moment of inertia J kg.m²	Weight IM B3 kg
LSMV 80 L	0.75	1435	4.8	2.9	8	1.6	2	0.71	75	0.0024	10.8
LSMV 90 SL	1.1	1445	7.1	2.4	16	1.3	2.5	0.82	79	0.0039	15.3
LSMV 90 L	1.5	1435	9.7	1.9	16	1.5	3.2	0.84	80	0.0049	17.3
LSMV 100 L	2.2	1440	14	2.8	32	2.4	4.7	0.84	81	0.0051	22.7
LSMV 100 L	3	1435	19.5	2.4	32	2.9	6.3	0.84	82	0.0071	25.7
LSMV 112 MG	4	1440	26	2.7	32	3.8	8	0.86	84	0.015	33.3
LSMV 132 SM	5.5	1460	35	2.5	60	4.1	10.4	0.87	87	0.0334	56.3
LSMV 132 M	7.5	1455	49	2.3	60	4.7	14	0.89	87	0.035	62.3
LSMV 132 M	9	1460	60	2.6	-	6.5	16.8	0.88	88	0.0385	65

Z+

Screen

P +

P -

1eP

Print

Gene.

Mount.

Adap.

Selec.

Opti.

Dim.

6 poles 1000 min-1

IP 55 - 50 Hz - Class F - 400 V supply - Y motor connection 400 V - S1

Type	Rated power at 50 Hz P_N kW	Rated speed N_N min-1	Rated torque M_N N.m	Maximum torque/ Rated torque $\frac{M_M}{M_N}$	Braking torque I_o A	No-load current $I_{N(400V)}$ A	Rated current Cos φ	*Power factor η %	* Efficiency J kg.m²	Moment of inertia IM B3 kg
LSMV 90 S	0.75	930	7.2	2.4	1.5	2.1	0.77	68	0.0039	15.3
LSMV 90 L	1.1	915	10.5	2	2.1	3	0.75	70	0.0048	17.3
LSMV 100 L	1.5	905	14.3	2.1	3.4	4.2	0.74	69	0.0058	21.3
LSMV 112 M	2.2	905	21	2.4	4.7	5.8	0.76	72	0.0087	23.3
LSMV 132 S	3	945	28.6	2.4	3.9	7.1	0.78	78	0.0177	45.3
LSMV 132 M	4	965	38.2	2.7	4.9	9.4	0.75	82	0.0517	56.3
LSMV 132 M	5.5	970	52.5	3	7.5	12.9	0.75	82	0.0595	61.3
LSMV 160 M	7.5	967	74	2.1	8.3	16.1	0.79	85.2	0.084	81
LSMV 160 L	11	967	109	2.1	10.9	23.3	0.79	86.3	0.126	105
LSMV 180 L	15	972	147	2.8	14.5	30.1	0.81	88.7	0.191	135
LSMV 200 LT	18.5	970	182	2.8	18.2	37	0.81	89	0.237	160
LSMV 200 L	22	972	215	2.7	18.3	43.6	0.81	89.9	0.287	190
LSMV 225 MR	30	968	296	2.5	22.4	59.5	0.81	89.9	0.38	235
LSMV 250 MP	37	977	360	2.9	32.6	73	0.81	90.9	1.03	340
LSMV 280 SP	45	983	436	2.7	34	85	0.83	92.3	1.87	405
LSMV 280 MP	55	983	541	2.8	45.4	103	0.83	92.6	2.3	480
LSMV 315 SP	75	982	733	3.4	54.3	141	0.82	93.7	2.99	660
LSMV 315 MP	90	982	880	2.7	75.3	165	0.84	93.6	3.63	760

LS MV 3-phase TEFV induction motors

Selection

4 poles 1500 min⁻¹

IP 55 - 50 Hz - Class F - 400 V Y

A

+ FORCED VENTILATION + ENCODER* + BK BRAKE

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty	IM 3001 (IM B5) Code	Qty
LS MV 80 L	0.75	MM4 75 10J	2	MM4 75 10K	2
LS MV 90 SL	1.1	MM4 11 20J	2	MM4 11 20K	2
LS MV 90 L	1.5	MM4 15 20J	2	MM4 15 20K	2
LS MV 100 L	2.2	MM4 22 20J	2	MM4 22 20K	2
LS MV 100 L	3	MM4 30 20J	2	MM4 30 20K	2
LS MV 112 MG	4	MM4 40 20J	2	MM4 40 20K	2
LS MV 132 SM	5.5	MM4 55 20J	2	MM4 55 20K	2
LS MV 132 M	7.5	MM4 75 20J	2	MM4 75 20K	2
LS MV 132 M	9	MM4 90 20J	2	MM4 90 20K	2

** LS standard encoder = 1024 points - 5 volts.*

- **Other versions (on consultation)**
  - **LS MV with encoders other than 1024 pts 5 V**
  - **LS MV other mounting forms**

6 poles 1000 min⁻¹

IP 55 - 50 Hz - Class F - 400 V Y supply

Type	Rated power at 50 Hz P_N kW	IM 1001 (IM B3) Code	Qty
LSMV 90 S	0.75	-	-
LSMV 90 L	1.1	-	-
LSMV 100 L	1.5	-	-
LSMV 112 M	2.2	-	-
LSMV 132 S	3	-	-
LSMV 132 M	4	-	-
LSMV 132 M	5.5	-	-
LSMV 160 M	7.5	-	-
LSMV 160 L	11	-	-
LSMV 180 L	15	-	-
LSMV 200 LT	18.5	-	-
LSMV 200 L	22	-	-
LSMV 225 MR	30	-	-
LSMV 250 MP	37	-	-
LSMV 280 SP	45	-	-
LSMV 280 MP	55	-	-
LSMV 315 SP	75	-	-
LSMV 315 MP	90	-	-

Z+
Screen
P -
1eP
Print
Gene.
Mount.
Adap.
Selec.
Opti.
Dim.