

Variable speed asynchronous motors with FCR brake LSMV FCR

General information



GENERAL USE : U.G.

Closed three-phase asynchronous brake motors, LSMV series with failsafe continuous current (dc) brake, according to IEC 34, 72, EN 50281.

- Single speed : power 0.25 to 11 kW, frame size from 71 to 160 mm, 2, 4, 6 poles 230/400 V, 50 Hz.

Presentation of the brake motor

IP55 protection providing a good sealing against projected liquid and dust in an industrial environment

Motors for variable speed operation :

- fitted with thermal probes in winding (obligatory)

Options

- Choice of brake torques ; manual brake release
- Drip cover ; 2nd shaft end
- Plug in connector
- Encoders and/or forced ventilation

Finish : aluminium housing

Routine test, no load test, dielectric test, control of the resistance and direction of rotation.

Protection of the flange and shaft end against atmospheric corrosion.
Individual anti-shock packaging.

Brake motor supplies

- Standard according to IEC 38 :
– 230/400 V +10 % –10 % at 50 Hz ; suitable for the following supplies:
220/380 V +5 % –5 % and
240/415 V +5 % –5 % at 50 Hz
– 400 V Δ +10 % –10 % at 50 Hz. Design suitable for Y/Δ starting.
- The brake mains supply is separate : the alternating (ac) supply is exterior to the motor

Description of the LSMV FCR aluminium brake three-phase motors

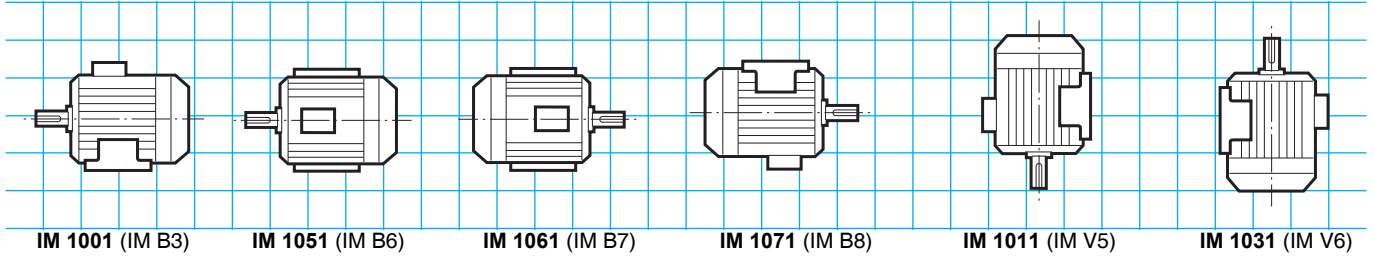
Component	Materials	Remarks
Finned housing	Aluminium alloy	- with cast feet, or without feet - pressure die-cast <ul style="list-style-type: none"> • 4 mounting holes for the feet housing • lifting rings frame size series 160, option in 132 and 112 - optional earth terminal
Stator	Insulated low carbon magnetic steel laminations Electrolytic copper	- the low carbon content guarantees long term stability of the characteristics - welded sheet steel lamination pack - semi-enclosed slots - magnetic circuit based on acquired experience in frequency variation - impregnation resistant to violent voltage variations generated by the high chopping frequency of variable speed drive IGBT transistors. Conforms with standard IEC34-17 - insulation system class F - PTC thermal protection (1 by phase) and OTP
Rotor	Insulated low carbon magnetic steel laminations	- inclined slots - squirrel cage pressure die cast in aluminium (or alloy for special applications) - mounted on the shaft by heat shrinking - level B rotor dynamic balancing
Shaft	Steel	- for all frame sizes : <ul style="list-style-type: none"> • centre holes fitted with screw and a shaft end washer • closed keyway
End shields	Cast iron	- front and rear assembled with tie rods
Bearings		- ball bearings, sealed, lubricated for life, with the following mounting <ul style="list-style-type: none"> • locked rear to provide precise positioning of the load no matter the load direction • preloaded front to eliminate axial movement
Lip seals	Synthetic rubber	- front and rear joints for IP 55 sealing at the shaft
Fan	Aluminium alloy or cast iron	- 2 directions of rotation : straight blades
Fan cover	Sheet steel	- on request, fitted with a drip cover for operation in vertical position, shaft facing down
Terminal box	Aluminium alloy	- IP 55, rotatable in 4 directions for flange version, mounted opposite position to the feet for foot and foot and flange versions - fitted with a 6 steel stud terminal board (brass as an optional extra) with connection by copper straps - delivered with polyamide cable glands - 1 earth terminal in all terminal boxes
Painting		- system Ia, colour RAL 9005 (black) - resistance to saline mist : 72 h (following NFX 41002)

Variable speed asynchronous motors with FCR brake LSMV FCR

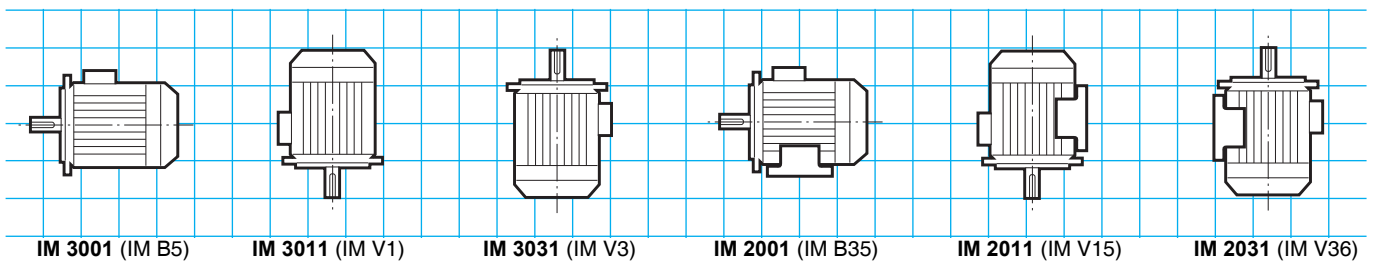
Mounting - Operating positions

Reference position is viewed from side F (drive end shaft)

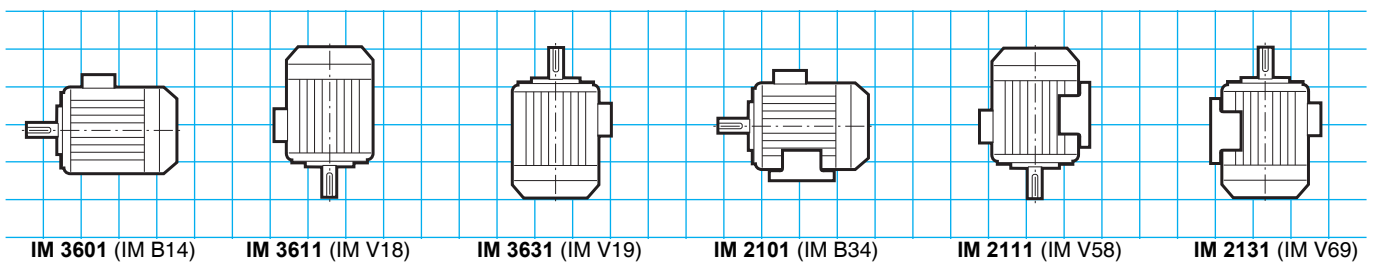
Foot mounted motor



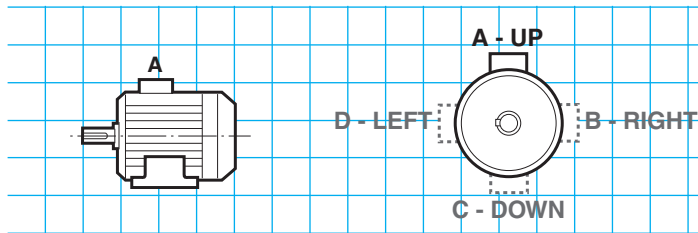
(FF) plain hole flange mounted motor



(FT) tapped hole flange mounted motor



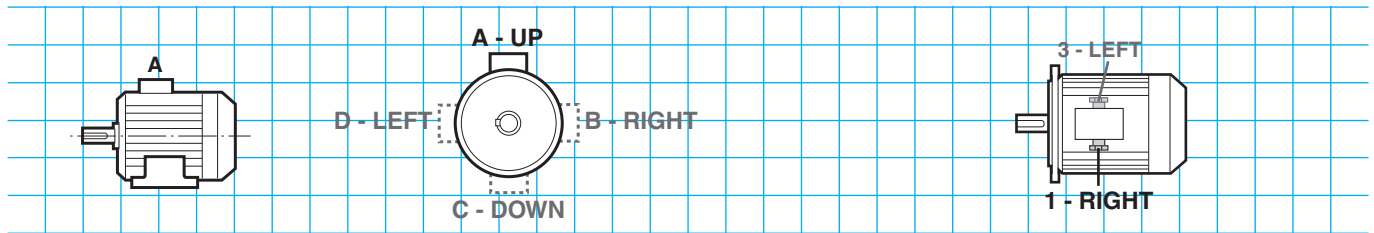
Positions of the terminal box in relation to the motor shaft end



Foot mounted motor
A: only possibility

Flange mounted motor
A - UP: standard

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



Standard in the terminal box
(1: RIGHT and 3: LEFT possible)

Variable speed asynchronous motors with FCR brake LSMV FCR

Adaptation possibilities

Leroy-Somer offers, for use with their general use brake motors, many options which meet the needs of highly diverse applications. They are described below and included in other chapters of the catalogue relating to gearboxes and variable speed drives.

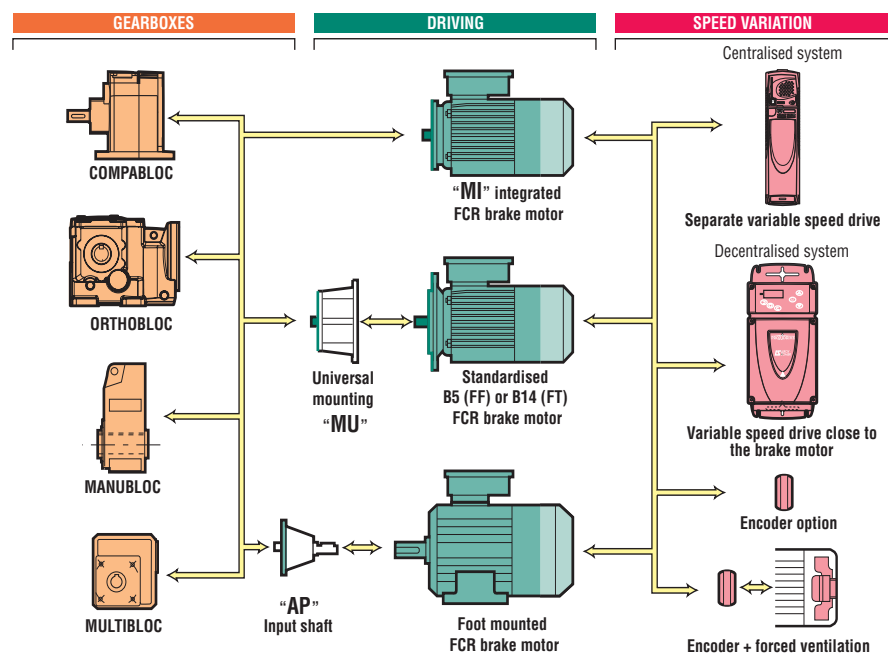
For other variants or any specific adaptation, consult the technical specialists at Leroy-Somer who will be pleased to advise you.

☞ **LSMV FCR brake motors may be integrally mounted (fitted motor), or with universal mounting (IEC standardised motor) with the following gearboxes :**

- Compabloc
- Orthobloc
- Manubloc
- Multibloc

☞ **LSMV FCR brake motors may be controlled by a variable speed drive :**

- Centralised system with separate variable speed drive (open loop vector variable speed drive technology or universal variable speed drive).
- Decentralised system with variable speed drive close to the motor.



Designation / Codification

4P 1500 min ⁻¹	LS MV	80	L	0.75 kW	IM 3001 (IM B5)	230/400 V 50 Hz	U.G.	FCR J01	10 N.m	A1
Speed polarity	Motor series	Motor frame size	Manuf. index (motor)	Motor rated power : kW	Mounting position	Power supply frequency and voltage	Use	Inertia and brake type	Brake torque	T Box and PE position

☞ **Codification example**

LSMV flange motor, 1500 min⁻¹, 230/400 V

Designation :

4P LSMV 80 L 0.75 kW B5 230/400 V 50 Hz
U.G. FCR J01 10 N.m

All the products in this catalogue have a code.

The coding table is incorporated in the price list together with the list of designations.

Each brake motor product is classified first in order of power and then in order of speed.

Variable speed asynchronous motors with FCR brake

LSMV FCR

Selection

LSMV FCR without option

2 poles
3000 min⁻¹

- LSMV series motor - IP 55 - 50 Hz - Class F - 230 V Δ / 400 V Y Aluminium Rotor (ALU) - U.G. General Use
- Brake - IP 55 - Separate mains supply - Brake torque set in factory

Motor type	Brake type	Rated power at 50 Hz P_N kW	Rated speed ¹ N_N min ⁻¹	Rated current I_N 400 V A	Rated torque M_N N.m	Brake torque $M_f \pm 20\%$ N.m	Brake release response time t_1 ms	Brake applied response time t_2 ms	Brake applied response time cut in DC supply t_2 ms	Moment of inertia J 10 ⁻³ kg.m ²	Weight ³ IM B5 kg
LSMV 71 L	FCR J01	0.37	2900	1.07	1.22	5	60	90	≤ 10	1.075	12
LSMV 71 L	FCR J01	0.55	2890	1.42	1.82	5	60	90	≤ 10	1.25	13
LSMV 80 L	FCR J01	0.75	2865	1.6	2.5	10	80	85	≤ 10	1.9	16.8
LSMV 80 L	FCR J01	1.1	2880	2.2	3.7	10	80	85	≤ 10	2.1	18.8
LSMV 90 L	FCR J01	1.5	2885	2.9	5	20	150	140	≤ 10	3.5	26
LSMV 90 L	FCR J01	2.2	2900	4.6	7.1	20	150	140	≤ 10	4.1	28.4
LSMV 100 L	FCR J01	3	2875	5.7	9.9	25	150	140	≤ 10	4.7	33.4
LSMV 112 MG	FCR J01	4	2900	7.5	13.2	43	150	580	≤ 40	13.5	52
LSMV 132 SM	FCR J02	5.5	2915	10.1	18	80	280	620	≤ 90	43	78
LSMV 132 M	FCR J02	7.5	2910	13.6	24.5	80	280	620	≤ 90	45	87
LSMV 132 M	FCR J02	9	2940	16.6	29.3	105	280	620	≤ 90	45	97
LSMV 160 MP	FCR J02	11	2935	20.6	35.8	120	280	550	≤ 90	62	110

1. Take into account the maximum mechanical speed : 4000 min⁻¹.
2. Brake applied response time, with no applied voltage, when the continuous current (dc) circuit is cut.
3. These values are given for information only.

LSMV FCR without option

4 poles
1500 min⁻¹

- LSMV series motor - IP 55 - 50 Hz - Class F - 230 V Δ / 400 V Y Aluminium Rotor (ALU) - U.G. General Use
- Brake - IP 55 - Separate mains supply - Brake torque set in factory

Motor type	Brake type	Rated power at 50 Hz P_N kW	Rated speed ¹ N_N min ⁻¹	Rated current N_{max} min ⁻¹	Rated torque M_N N.m	Brake torque $M_f \pm 20\%$ N.m	Brake release response time t_1 ms	Brake applied response time t_2 ms	Brake applied response time cut in DC supply t_2 ms	Moment of inertia J 10 ⁻³ kg.m ²	Weight ³ IM B5 kg
LSMV 71 L	FCR J01	0.25	1445	4000	1.68	5	60	90	≤ 10	1.075	11.5
LSMV 71 L	FCR J01	0.37	1440	4000	2.49	5	60	90	≤ 10	1.25	12.5
LSMV 80 L	FCR J01	0.55	1420	4000	3.7	10	80	85	≤ 10	2.3	13.8
LSMV 80 L	FCR J01	0.75	1435	4000	5.12	10	80	85	≤ 10	3.4	16.6
LSMV 90 SL	FCR J01	1.1	1445	4000	7.35	20	150	140	≤ 10	5.7	22.7
LSMV 90 L	FCR J01	1.5	1435	4000	10.03	20	150	140	≤ 10	6.8	24.7
LSMV 100 L	FCR J01	2.2	1440	4000	14.5	25	150	140	≤ 10	7.95	30
LSMV 100 L	FCR J01	3	1435	4000	19.5	25	150	140	≤ 10	8.9	33
LSMV 112 MG	FCR J01	4	1440	4000	26.56	43	150	580	≤ 40	19.3	49.3
LSMV 132 SM	FCR J02	5.5	1460	4000	36.3	80	280	620	≤ 90	60.4	71.3
LSMV 132 M	FCR J02	7.5	1455	4000	49.4	80	280	620	≤ 90	62	77.3
LSMV 132 M	FCR J02	9	1460	4000	59.3	105	280	620	≤ 90	65.5	80
LSMV 160 MR	FCR J02	11	1460	4000	72.2	120	280	550	≤ 90	96	102

1. Take into account the maximum mechanical speed : 4000 min⁻¹.
2. Brake applied response time, with no applied voltage, when the continuous current (dc) circuit is cut.
3. These values are given for information only.

Variable speed asynchronous motors with FCR brake LSMV FCR

Selection

LSMV FCR without option

2
poles
3000 min⁻¹

U.G. general use
IP 55 - 50 Hz - Class F - 400 V Y

Motor type	Brake type	Rated power at 50 Hz P_N kW	Brake torque $M_f \pm 20\%$ N.m	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 3601 (IM B14)	
				Code	Qty	Code	Qty	Code	Qty
LSMV 71 L	FCR J01	0.37	5		-		-		-
LSMV 71 L	FCR J01	0.55	5		-		-		-
LSMV 80 L	FCR J01	0.75	10		-		-		-
LSMV 80 L	FCR J01	1.1	10		-		-		-
LSMV 90 L	FCR J01	1.5	20		-		-		-
LSMV 90 L	FCR J01	2.2	20		-		-		-
LSMV 100 L	FCR J01	3	25		-		-		-
LSMV 112 MG	FCR J01	4	43		-		-		-
LSMV 132 SM	FCR J02	5.5	80		-		-		-
LSMV 132 M	FCR J02	7.5	80		-		-		-
LSMV 132 M	FCR J02	9	105		-		-		-
LSMV 160 MP	FCR J02	11	120		-		-		-

LSMV FCR without option

4
poles
1500 min⁻¹

U.G. general use
IP 55 - 50 Hz - Class F - 400 V Y

Motor type	Brake type	Rated power at 50 Hz P_N kW	Brake torque $M_f \pm 20\%$ N.m	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 3601 (IM B14)	
				Code	Qty	Code	Qty	Code	Qty
LSMV 71 L	FCR J01	0.25	5	4560740	-	4560741	5	4560742	5
LSMV 71 L	FCR J01	0.37	5	4560745	-	4243596	5	4560747	5
LSMV 80 L	FCR J01	0.55	10	4617313	-	4593872	5	4592112	5
LSMV 80 L	FCR J01	0.75	10	4137092	-	4139936	5	4077659	5
LSMV 90 SL	FCR J01	1.1	20	4560786	-	4560788	5	4560789	5
LSMV 90 L	FCR J01	1.5	20	4252670	-	4416069	5	4297049	5
LSMV 100 L	FCR J01	2.2	25	4560981	-	4264847	5	4341676	5
LSMV 100 L	FCR J01	3	25	4560984	-	4201427	5	4560986	5
LSMV 112 MG	FCR J01	4	43	4186370	-	4082634	5	4560991	5
LSMV 132 SM	FCR J02	5.5	80	4313854	-	4560992	3	4560994	-
LSMV 132 M	FCR J02	7.5	80	4561046	-	4560996	3	4561047	-
LSMV 132 M	FCR J02	9	105	4561048	-	4325939	3	4561050	-
LSMV 160 MR	FCR J02	11	120	4561053	-	4561051	1	4561052	-

Selection example :

Required power :	1.1 kW
Required speed :	1500 min ⁻¹
Mounting and position :	IM 3001 (IM B5)
Mains supply voltage:	230/400 V

Designation :

4P LSMV 90 SL 1.1 kW B5 230/400V
UG FCR J01 20 N.m

Code : 4560788

Variable speed asynchronous motors with FCR brake LSMV FCR

Selection

LSMV FCR + incremental
encoder 5V 1024 pts

4
poles
1500 min⁻¹

- LSMV series motor - IP 55 - 50 Hz - Class F - 230 V Δ / 400 V Y Aluminium Rotor (ALU) - U.G. General Use
- Brake - IP 55 - Separate mains supply - Brake torque set in factory

Motor type	Brake type	Rated power at 50 Hz P_N kW	Rated speed ¹ N_N min ⁻¹	Rated current N_{max} min ⁻¹	Rated torque M_N N.m	Brake torque $M_f \pm 20\%$ N.m	Brake release response time t_1 ms	Brake applied response time t_2 ms	Brake applied response time cut in DC supply t_2 ms	Moment of inertia J 10 ⁻³ kg.m ²	Weight ³ IM B5 kg
LSMV 71 L	FCR J01	0.25	1445	4000	1.68	5	60	90	≤ 10	1.075	11.5
LSMV 71 L	FCR J01	0.37	1440	4000	2.49	5	60	90	≤ 10	1.25	12.5
LSMV 80 L	FCR J01	0.75	1435	4000	5.12	10	80	85	≤ 10	3.4	16.6
LSMV 90 SL	FCR J01	1.1	1445	4000	7.35	20	150	140	≤ 10	5.7	22.7
LSMV 90 L	FCR J01	1.5	1435	4000	10.03	20	150	140	≤ 10	6.7	24.7
LSMV 100 L	FCR J01	2.2	1440	4000	14.5	25	150	140	≤ 10	8.9	30
LSMV 100 L	FCR J01	3	1435	4000	19.5	25	150	140	≤ 10	8.9	33
LSMV 112 MG	FCR J01	4	1440	4000	26.56	43	150	580	≤ 40	19.3	49.3
LSMV 132 SM	FCR J02	5.5	1460	4000	36.3	80	280	620	≤ 90	60.4	71.3
LSMV 132 M	FCR J02	7.5	1455	4000	49.4	80	280	620	≤ 90	62	77.3
LSMV 132 M	FCR J02	9	1460	4000	59.3	105	280	620	≤ 90	65.5	80
LSMV 160 MR	FCR J02	11	1460	4000	72.2	120	280	550	≤ 90	96	102

1. Take into account the maximum mechanical speed : 4000 min⁻¹.
2. Brake applied response time, with no applied voltage, when the continuous current (dc) circuit is cut
3. These values are given for information only.

LSMV FCR + V.F. + incremental
encoder 5V 1024 pts

4
poles
1500 min⁻¹

- LSMV series motor - IP 55 - 50 Hz - Class F - 230 V Δ / 400 V Y Aluminium Rotor (ALU) - U.G. General Use
- Brake - IP 55 - Separate mains supply - Brake torque set in factory

Motor type	Brake type	Rated power at 50 Hz P_N kW	Rated speed ¹ N_N min ⁻¹	Rated current N_{max} min ⁻¹	Rated torque M_N N.m	Brake torque $M_f \pm 20\%$ N.m	Brake release response time t_1 ms	Brake applied response time t_2 ms	Brake applied response time cut in DC supply t_2 ms	Moment of inertia J 10 ⁻³ kg.m ²	Weight ³ IM B5 kg
LSMV 71 L	FCR J01	0.25	1445	4000	1.68	5	60	90	≤ 10	1.075	11.5
LSMV 71 L	FCR J01	0.37	1440	4000	2.49	5	60	90	≤ 10	1.25	12.5
LSMV 80 L	FCR J01	0.75	1435	4000	5.12	10	80	85	≤ 10	3.4	16.6
LSMV 90 SL	FCR J01	1.1	1445	4000	7.35	20	150	140	≤ 10	5.7	22.7
LSMV 90 L	FCR J01	1.5	1435	4000	10.03	20	150	140	≤ 10	6.7	24.7
LSMV 100 L	FCR J01	2.2	1440	4000	14.5	25	150	140	≤ 10	8.9	30
LSMV 100 L	FCR J01	3	1435	4000	19.5	25	150	140	≤ 10	8.9	33
LSMV 112 MG	FCR J01	4	1440	4000	26.56	43	150	580	≤ 40	19.3	49.3
LSMV 132 SM	FCR J02	5.5	1460	4000	36.3	80	280	620	≤ 90	60.4	71.3
LSMV 132 M	FCR J02	7.5	1455	4000	49.4	80	280	620	≤ 90	62	77.3
LSMV 132 M	FCR J02	9	1460	4000	59.3	105	280	620	≤ 90	65.5	80
LSMV 160 MR	FCR J02	11	1460	4000	72.2	120	280	550	≤ 90	96	102

1. Take into account the maximum mechanical speed : 4000 min⁻¹.
2. Brake applied response time, with no applied voltage, when the continuous current (dc) circuit is cut
3. These values are given for information only.

Variable speed asynchronous motors with FCR brake LSMV FCR

Selection

LSMV FCR + incremental
encoder 5V 1024 pts

4
poles
1500 min⁻¹

General use
IP 55 - 50 Hz - Class F - 400 V Y + INCREMENTAL ENCODER 5V, 1024 points

Motor type	Brake type	Rated power at 50 Hz	Brake torque	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 3601 (IM B14)	
		P_N kW	$M_f \pm 20\%$ N.m	Code	Qty	Code	Qty	Code	Qty
LSMV 71 L	FCR J01	0.25	5	4562030	-	4563155	5	4563156	5
LSMV 71 L	FCR J01	0.37	5	4562031	-	4563160	5	4563161	5
LSMV 80 L	FCR J01	0.75	10	4341097	-	4218701	5	4563162	5
LSMV 90 SL	FCR J01	1.1	20	4563130	-	4140164	5	4563163	5
LSMV 90 L	FCR J01	1.5	20	4563147	-	4563297	5	4563298	5
LSMV 100 L	FCR J01	2.2	25	4563149	-	4389649	5	4563301	5
LSMV 100 L	FCR J01	3	25	4563151	-	4530581	5	4563304	5
LSMV 112 MG	FCR J01	4	43	4563152	-	4226900	5	4563313	5
LSMV 132 SM	FCR J02	5.5	80		-	4563315	3		-
LSMV 132 M	FCR J02	7.5	80		-	4563319	3		-
LSMV 132 M	FCR J02	9	105		-	4563320	1		-
LSMV 160 MR	FCR J02	11	120		-	4472214	1		-

LSMV FCR + V.F. + incremental
encoder 5V 1024 pts

4
poles
1500 min⁻¹

General use
IP 55 - 50 Hz - Class F - 400 V Y
+ INCREMENTAL ENCODER 5V, 1024 points + FORCED VENTILATION

Motor type	Brake type	Rated power at 50 Hz	Brake torque	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 3601 (IM B14)	
		P_N kW	$M_f \pm 20\%$ N.m	Code	Qty	Code	Qty	Code	Qty
LSMV 71 L	FCR J01	0.25	5	4563519	-	4563522	5	4563527	5
LSMV 71 L	FCR J01	0.37	5	4563528	-	4563529	5	4563532	5
LSMV 80 L	FCR J01	0.75	10	4563537	-	4563539	5	4161496	5
LSMV 90 SL	FCR J01	1.1	20	4563583	-	4563585	5	4563586	5
LSMV 90 L	FCR J01	1.5	20	4563587	-	4082133	5	4563588	5
LSMV 100 L	FCR J01	2.2	25	4314569	-	4563591	5	4563592	5
LSMV 100 L	FCR J01	3	25	4563589	-	4563596	5	4563597	5
LSMV 112 MG	FCR J01	4	43	4563593	-	4080742	5	4187491	5
LSMV 132 SM	FCR J02	5.5	105		-	4563599	3		-
LSMV 132 M	FCR J02	7.5	105		-	4563600	3		-
LSMV 132 M	FCR J02	9	120		-	4563603	1		-
LSMV 160 MR	FCR J02	11	160		-	4563607	1		-

Selection example :

Required power :	1.5 kW
Required speed :	1500 min ⁻¹
Mounting and position :	IM 1001 (IM B3)
Mains supply voltage:	230/400 V
Option :	Incremental encoder

Designation :

4P LSMV 90 L 1.5 kW B3 230/400V
UG FCR J01 20 N.m

Code : 4563147

Variable speed asynchronous motors with FCR brake LSMV FCR

Selection

LSMV FCR + V.F. + absolute encoder
5V EnDat 8192 pts 4096 trs

4
poles
1500 min⁻¹

- LSMV series motor - IP 55 - 50 Hz - Class F - 230 V Δ / 400 V Υ
Aluminium Rotor (ALU) - U.G. General Use
- Brake - IP 55 - Separate mains supply - Brake torque set in factory

Motor type	Brake type	Rated power at 50 Hz P_N kW	Rated speed ¹ N_N min ⁻¹	Rated current N_{max} min ⁻¹	Rated torque M_N N.m	Brake torque $M_t \pm 20\%$ N.m	Brake release response time t_1 ms	Brake applied response time t_2 ms	Brake applied response time cut in DC supply t_2 ms	Moment of inertia J 10 ⁻³ kg.m ²	Weight ³ IM B5 kg
LSMV 71 L	FCR J01	0.25	1445	4000	1.68	5	60	90	≤ 10	1.075	11.5
LSMV 71 L	FCR J01	0.37	1440	4000	2.49	5	60	90	≤ 10	1.25	12.5
LSMV 80 L	FCR J01	0.75	1435	4000	5.12	10	80	85	≤ 10	3.4	16.6
LSMV 90 SL	FCR J01	1.1	1445	4000	7.35	20	150	140	≤ 10	5.7	22.7
LSMV 90 L	FCR J01	1.5	1435	4000	10.03	20	150	140	≤ 10	6.7	24.7
LSMV 100 L	FCR J01	2.2	1440	4000	14.5	25	150	140	≤ 10	8.9	30
LSMV 100 L	FCR J01	3	1435	4000	19.5	25	150	140	≤ 10	8.9	33
LSMV 112 MG	FCR J01	4	1440	4000	26.56	43	150	580	≤ 40	19.3	49.3
LSMV 132 SM	FCR J02	5.5	1460	4000	36.3	80	280	620	≤ 90	60.4	71.3
LSMV 132 M	FCR J02	7.5	1455	4000	49.4	80	280	620	≤ 90	62	77.3
LSMV 132 M	FCR J02	9	1460	4000	59.3	105	280	620	≤ 90	65.5	80
LSMV 160 MR	FCR J02	11	1460	4000	72.2	120	280	550	≤ 90	96	102

1. Take into account the maximum mechanical speed : 4000 min⁻¹.

2. Brake applied response time, with no applied voltage, when the continuous current (dc) circuit is cut

3. These values are given for information only.

LSMV FCR without option

6
poles
1000 min⁻¹

- LSMV series motor - IP 55 - 50 Hz - Class F - 230 V Δ / 400 V Υ
Aluminium Rotor (ALU) - U.G. General Use
- Brake - IP 55 - Separate mains supply - Brake torque set in factory

Motor type	Brake type	Rated power at 50 Hz P_N kW	Rated speed ¹ N_N min ⁻¹	Rated current I_N 400 V A	Rated torque M_N N.m	Brake torque $M_t \pm 20\%$ N.m	Brake release response time t_1 ms	Brake applied response time t_2 ms	Brake applied response time cut in DC supply t_2 ms	Moment of inertia J 10 ⁻³ kg.m ²	Weight ³ IM B5 kg
LSMV 71 L	FCR J01	0.18				Consult us					10
LSMV 71 L	FCR J01	0.25				Consult us					10.4
LSMV 80 L	FCR J01	0.37				Consult us					16
LSMV 80 L	FCR J01	0.55				Consult us					18
LSMV 90 L	FCR J01	0.75	930	2.1	7.2	20	150	140	≤ 10	5.7	21
LSMV 90 L	FCR J01	1.1	915	3	10.5	20	150	140	≤ 10	6.6	24
LSMV 100 L	FCR J01	1.5	905	4.2	14.3	25	150	140	≤ 10	7.6	28
LSMV 112 MG	FCR J01	2.2	905	5.8	21	43	150	580	≤ 40	13	41
LSMV 132 M	FCR J02	4	965	9.4	38.2	80	280	620	≤ 90	54.5	68.5
LSMV 132 M	FCR J02	5.5	970	12.9	52.5	80	280	620	≤ 90	61.4	75.5

1. Take into account the maximum mechanical speed : 4000 min⁻¹.

2. Brake applied response time, with no applied voltage, when the continuous current (dc) circuit is cut

3. These values are given for information only.

Variable speed asynchronous motors with FCR brake

LSMV FCR

Selection

LSMV FCR + V.F. + absolute encoder
5V EnDat 8192 pts 4096 trs

4 poles
1500 min⁻¹

General use
IP 55 - 50 Hz - Class F - 400 V Y
+ ABSOLUTE ENCODER 5V, ENDat, 8192 points, 4096 turns + FORCED VENTILATION

Motor type	Brake type	Rated power at 50 Hz P_N kW	Brake torque $M_f \pm 20\%$ N.m	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 3601 (IM B14)	
				Code	Qty	Code	Qty	Code	Qty
LSMV 71 L	FCR J01	0.25	5	4564533	-	4564660	-	4564700	-
LSMV 71 L	FCR J01	0.37	5	4564542	-	4564693	-	4564701	-
LSMV 80 L	FCR J01	0.75	10	4564583	-	4365798	-	4564713	-
LSMV 90 SL	FCR J01	1.1	20	4564652	-	4564694	-	4564714	-
LSMV 90 L	FCR J01	1.5	20	4564653	-	4564695	-	4564715	-
LSMV 100 L	FCR J01	2.2	25	4564654	-	4564696	-	4564716	-
LSMV 100 L	FCR J01	3	25	4564655	-	4564697	-	4564717	-
LSMV 112 MG	FCR J01	4	43	4564656	-	4564698	-	4564719	-
LSMV 132 SM	FCR J02	5.5	80		-		-		-
LSMV 132 M	FCR J02	7.5	80		-		-		-
LSMV 132 M	FCR J02	9	105		-		-		-
LSMV 160 MR	FCR J02	11	120		-		-		-

LSMV FCR without option

6 poles
1000 min⁻¹

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

Motor type	Brake type	Rated power at 50 Hz P_N kW	Brake torque $M_f \pm 20\%$ N.m	IM 1001 (IM B3)		IM 3001 (IM B5)		IM 3601 (IM B14)	
				Code	Qty	Code	Qty	Code	Qty
LSMV 71 L	FCR J01	0.18	5		-		-		-
LSMV 71 L	FCR J01	0.25	5		-		-		-
LSMV 80 L	FCR J01	0.37	10		-		-		-
LSMV 80 L	FCR J01	0.55	10		-		-		-
LSMV 90 L	FCR J01	0.75	20		-		-		-
LSMV 90 L	FCR J01	1.1	20		-		-		-
LSMV 100 L	FCR J01	1.5	25		-		-		-
LSMV 112 MG	FCR J01	2.2	43		-		-		-
LSMV 132 M	FCR J02	4	80		-		-		-
LSMV 132 M	FCR J02	5.5	80		-		-		-

Selection example :

Required power : 1.1 kW
 Required speed : 1500 min⁻¹
 Mounting and position : IM 3001 (IM B5)
 Mains supply voltage: 230/400V
 Option : Absolute encoder

Designation :

4P LSMV 90 SL 1.1 kW B5 230/400V
 UG FCR J01 20 N.m A1 Absolute encoder
 Code : 4564694

Variable speed asynchronous motors with FCR brake LSMV FCR

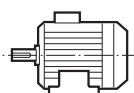
Dimensions

Dimensions of the LS FCR asynchronous brake motors

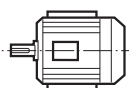
According to the operating position and mechanical forms of the brake motor

Foot mounted motor

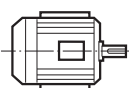
S



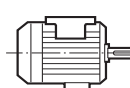
IM 1001 (IM B3)



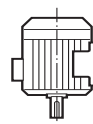
IM 1051 (IM B6)



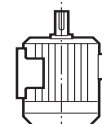
IM 1061 (IM B7)



IM 1071 (IM B8)



IM 1011 (IM V5)

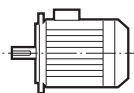


IM 1031 (IM V6)

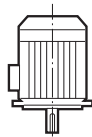
Page C2.12

(FF) plain hole flange mounted motor

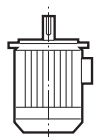
BS



IM 3001 (IM B5)



IM 3011 (IM V1)

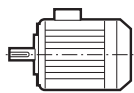


IM 3031 (IM V3)

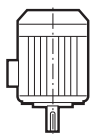
Page C2.13

(FT) tapped hole flange mounted motor

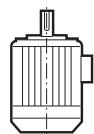
BT



IM 3061 (IM B14)



IM 3611 (IM V18)



IM 3631 (IM V19)

Page C2.14

Options

Pages C2.10 and C2.11

Options

Dimensions in millimetres

Dimensions of the FCR asynchronous brake motors, (FF) flange mounted with encoder

Type	Encoder			
	HJ	J	LB (volant J01)	LJ
LS ou LSMV 71*	130	197	334	38
LS ou LSMV 80*	146	197	384	40.5
LS ou LSMV 90*	156	197	394	33
LS ou LSMV 100*	161	197	458	50
LS ou LSMV 112*	169	197	499	49
LS 132 S*	169	197	511	41
LS or LSMV 132 SM, M*	192	197	603	65
LSMV 160 MR*	192	197	638	55

* For the other dimensions, see the dimensions pages above.

Dimensions of the FCR asynchronous brake motors, (FF) flange mounted with encoder + forced ventilation

Type	Encoder + Forced ventilation					
	HJ	J	JC	JD	LB	LJ
LS or LSMV 71*	135	197	68	75	404	38
LS or LSMV 80*	146	197	99	98	474	40.5
LS or LSMV 90*	156	197	131	98	486	33
LS or LSMV 100*	161	197	178	98	550	50
LS or LSMV 112*	169	197	182	110	581	49
LS 132 S*	169	197	194	110	593	49
LS or LSMV 132 SM, M*	192	197	299	110	712	65
LSMV 160 MR*	192	197	344	110	747	55

* For the other dimensions, see the dimensions pages above.

