

COMPABLOC

Cb 1502 - Cb 1503 - Cb 1504

Installation and maintenance

Compabloc

Cb 1502 - Cb 1503

Cb 1504

INSTALLATION RECOMMENDATIONS

For the gearbox :

- Remove the shaft protections (plastic end caps).
- Mount the gearboxes on rigid horizontal supports; they should be isolated from vibration.
- Mount the couplings, pinions, pulleys, with extreme care (heat them up). Avoid using a hammer and hitting the shaft extension.
- For the pinions and pulleys, ensure that the radial force is correct (see selection charts).
- Ensure that the voltage is normal and that the transmission is correctly aligned; keep shafts precisely parallel.
- For direct sleeve couplings, check the alignment of the axes.

NOTE : In the event of prolonged storage, turn by hand before starting so as to avoid damaging the seals. In spite of all the care taken during manufacturing and testing, LEROY-SOMER cannot give a 100 % guarantee that the lubricant will not leak. In the event that these leaks could have serious consequences jeopardising the safety of goods and personnel, it is the installer's responsibility to take all the necessary precautions to avoid such consequences.

For the motor : See recommendations page 6

ORDERING SPARE PARTS

The following information must be provided

a) Information on the gearbox nameplate :

- 1 - Description of gearbox
- 2 - Type of mounting (S baseplate, BS or BD flange form)
- 3 - Position
- 4 - Exact gearbox reduction
- 5 - Manufacturing number

b) Information in the corresponding parts list :

- part number and description

c) If the motor is coupled to the gearbox, information on the motor plate :

- (For the motor : see corresponding manual)
- motor type
 - polarity (or speed in min^{-1})
 - power in kW

Caution : special flange and motor shaft for these gearboxes.

INSTRUCTIONS FOR DISMANTLING AND REASSEMBLY

Dismantling :

- Uncouple the motor and remove the gearbox (remove the 4 assembly rods (151)).
- Drain the gearbox and rinse with trichlorethylene or similar.
- Caution : use the appropriate tools :
 - hub remover, bearing remover
 - plastic or leather mallets
 - correctly sized keys
 - circlip pliers, gauged screwdrivers

(To remove wheel axis 2 (052), use a hub remover - it is retained on a tapered shaft).

- The dismantled parts should be put carefully in order in a clean place.
- The flange spigots which ensure watertightness should be cleaned with the scraper.
- Retrieve the sealing rings and inspect them for quality; to ensure that they are watertight when reassembled, they should show no sign of pressure, nor breaks or tears.
- Systematically replace the lipseals.
- Gather together all faulty parts so that replacement parts can be ordered.

Reassembly :

- Follow the instructions for dismantling in reverse order.
- Lightly lubricate the shafts and bearing cages before mounting.
- To fit the gear wheels onto the shafts, do not use a hammer. First heat them on a hotplate (or in an oven) to $180\text{ }^{\circ}\text{C}$ (+0, -10). Heat open-type bearings to a maximum of 120 ° , and sealed bearings to a maximum of 90 ° .
- Oil the lipseals; these should be mounted with care so as not to damage the contact lips; ideally use protective sleeves for the shaft keyways.
- The screws and pins should be mounted with a polymer adhesive (for example "normal" Loctite type).
- Replace the sealing joints, checking their position carefully.
- Fill with oil, up to the level shown (see page 6).
- Run the gearbox and inspect its operation before mounting it permanently.

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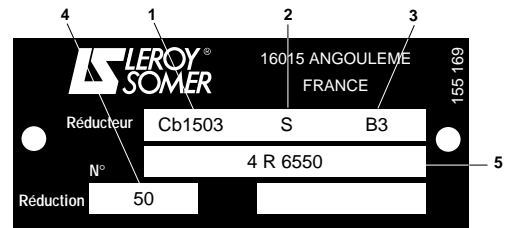
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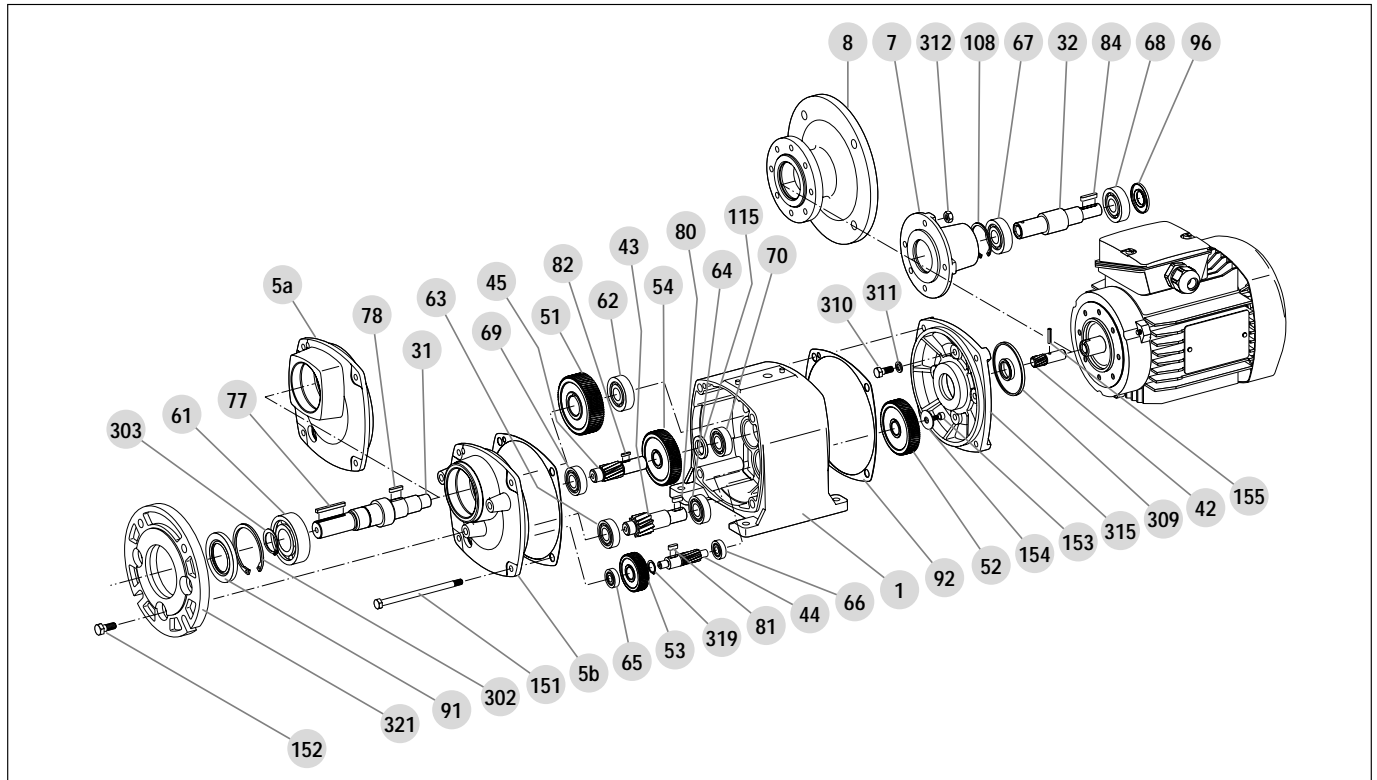
PARTS LIST Cb 1502-1503-1504

Information to be provided with all orders for spare parts

Type of gearbox	Mounting	Mounting position	Reduction	Manufacturing No.	Part No.	Motor type	Polarity - power
1	2	3	4	5			
Eg : Cb1503	S	B3	50	4 R 6550	shaft no. 032	LS 63 E/4	0.18 kW



Caution : special flange and motor shaft for the gearboxes.



No.	QTY	DESCRIPTION	No.	QTY	DESCRIPTION	No.	QTY	DESCRIPTION
001	1	Housing	065	1	DE bearing axis 3	115	1	Spacer axis 4 (Cb1504) 3 (Cb1503)
005	1	End shield	066	1	NDE bearing axis 3	151	4	Assembly rod
007	1	Input shaft shield	067	1	AP bearing gear side	152	3	Flange adapter mounting screw
031	1	Output shaft	068	1	AP bearing shaft end side	153	1	Wheel screw axis 2
032	1	Input shaft	069	1	DE bearing axis 4	154	1	Wheel washer axis 2
042	1	End gear axis 1	070	1	NDE bearing axis 4	155	1	End gear pin
043	1	Gear shaft axis 2	077	1	Output shaft keyway	302	1	Output shaft DE bearing I circlip
044	1	Gear shaft axis 3	078	1	Output shaft wheel keyway	303	1	Output shaft NDE bearing E circlip
045	1	Gear shaft axis 4	080	1	Wheel keyway axis 2	309	1	Motor seal
051	1	Output shaft wheel	081	1	Wheel keyway axis 2	310	4	Motor flange adapter mounting screw
052	1	Wheel axis 2	082	1	Wheel keyway axis 4	311	4	Motor output flange mounting washers
053	1	Wheel axis 3	084	1	Input shaft keyway	312	4	Assembly nut
054	1	Wheel axis 4	091	1	Output shaft sealing ring	315	1	Motor flange adapter
061	1	Output shaft DE bearing	092	2	Gasket	319	1	E circlip axis 3 (Cb1504) 2 (Cb1503)
062	1	Output shaft NDE bearing	096	1	Input shaft sealing ring	321	1	Output flange adapter
063	1	DE bearing axis 2	108	1	Input shaft I circlip			
064	1	NDE bearing axis 2	109	1	Input shaft E circlip			

FIRST MAINTENANCE PARTS

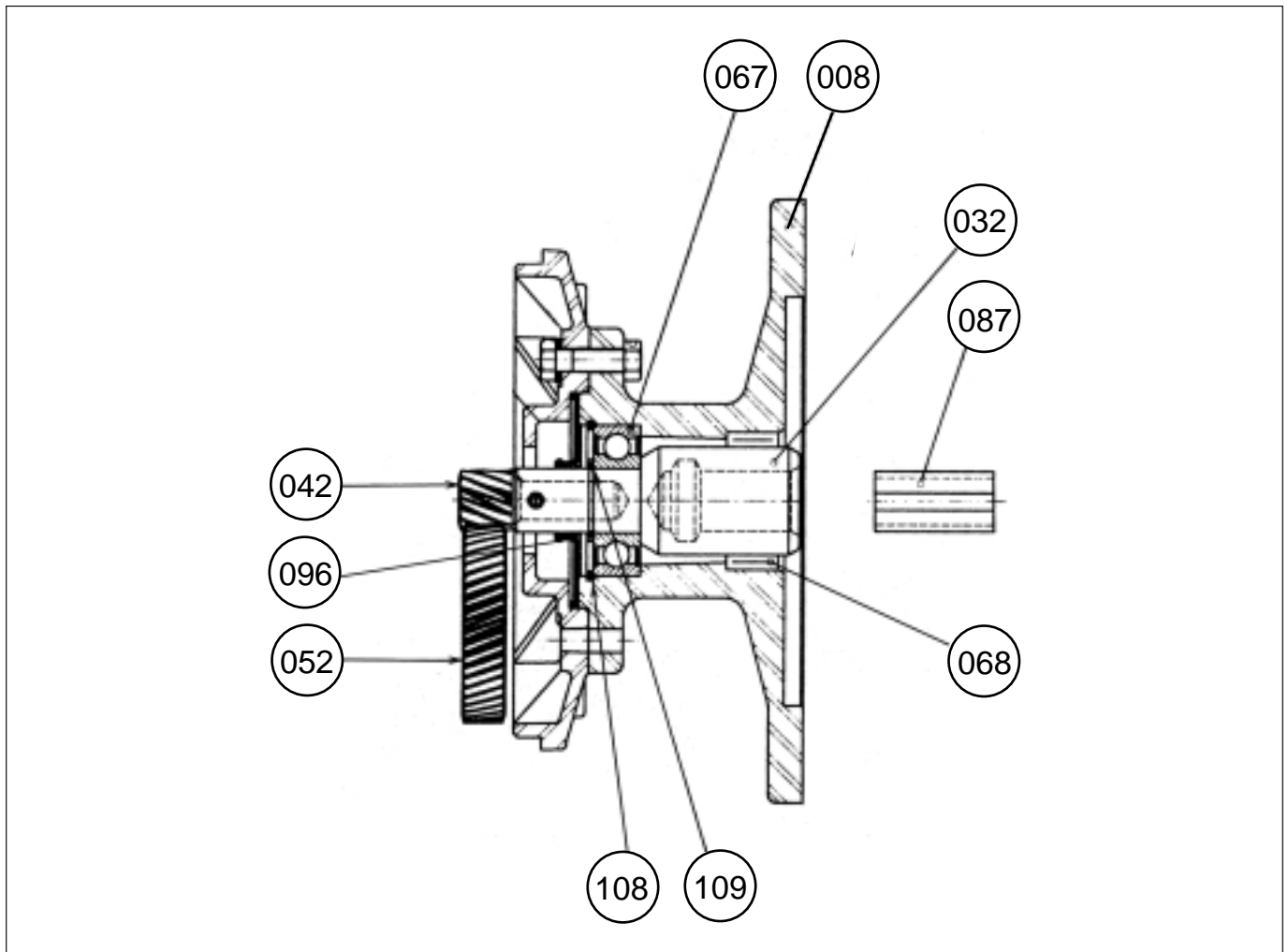
Type	061	062	063/064	065/066	067	068	069/070	091	309	092	096
Cb 1502	6204 ZZ	6300	6001	-	6204 2RS	6203 2RS	-	20 x 47 x 7	15 x 50 x 6	Special	17 x 28 x 7
Cb 1503	6204 ZZ	6300	6001	6001	6204 2RS	6203 2RS	-	20 x 47 x 7	15 x 50 x 6	Special	17 x 28 x 7
Cb 1504	6204 ZZ	6300	6001	608	6204 2RS	6203 2RS	6001	20 x 47 x 7	15 x 50 x 6	Special	17 x 28 x 7

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Cb 1504

U MOUNTING PARTS LIST for Cb 1502 - 1503 - 1504



CAUTION :

For an order :

- for part no. (008) "U" mount
specify the dimensions of motor flange B14 or B5

- for part no. (032) "U" shaft
specify the dimensions of the shaft extension

- for part no. (042) end gear
specify gear box type 1502, 1503, 1504 and the total reduction.

No.	QTY	DESCRIPTION
008	1	U mount
032	1	U shaft
042	1	Pinion
052	1	Wheel axis 2
067	1	Pinion bearing

No.	QTY	DESCRIPTION
068	1	Shaft bearing
087	1	Coupling sleeve or adapter key
096	1	Sealing joint
108	1	I circlip
109	1	E circlip

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Cb 1504

3-PHASE MOTORS

1 - Setting up

Before setting up, check :

- whether the shaft turns freely when pushed by hand.

Tip :

When the motor has been kept in a damp atmosphere, it is advisable to have the insulation resistance checked by your electrician.

This should be not less than 5000 ohms per volt of rated voltage.

2 - Connection :

- Choose cables of sufficient diameter to avoid excessive voltage drops (5 amps per mm²).
- Connect the terminals in accordance with the diagram located inside the terminal box.
- Follow the wiring diagrams supplied with the units in the terminal boxes and the power supply indicated on the nameplate.

Very important : Once connected, the terminal box cover should be carefully replaced. Tighten the cable gland firmly on the power supply cable.

Earthing :

A terminal is provided inside the terminal box, enabling a conductor to be connected for earthing.

3 - Bearings (types)

Type of motor	Drive end side	Fan side	2eBA fan side
LS 56	6202	6201	6201
LS 63	6202	6201	6002
LS 71	6202	6201	6002
LS 80	6204	6203	6204

The bearings are ZZ type for IP 44 motors and RS 2 type for IP 55 motors. They are permanently greased : 15,000 hours at 3,000 min⁻¹, 30,000 hours at 1,500 min⁻¹).

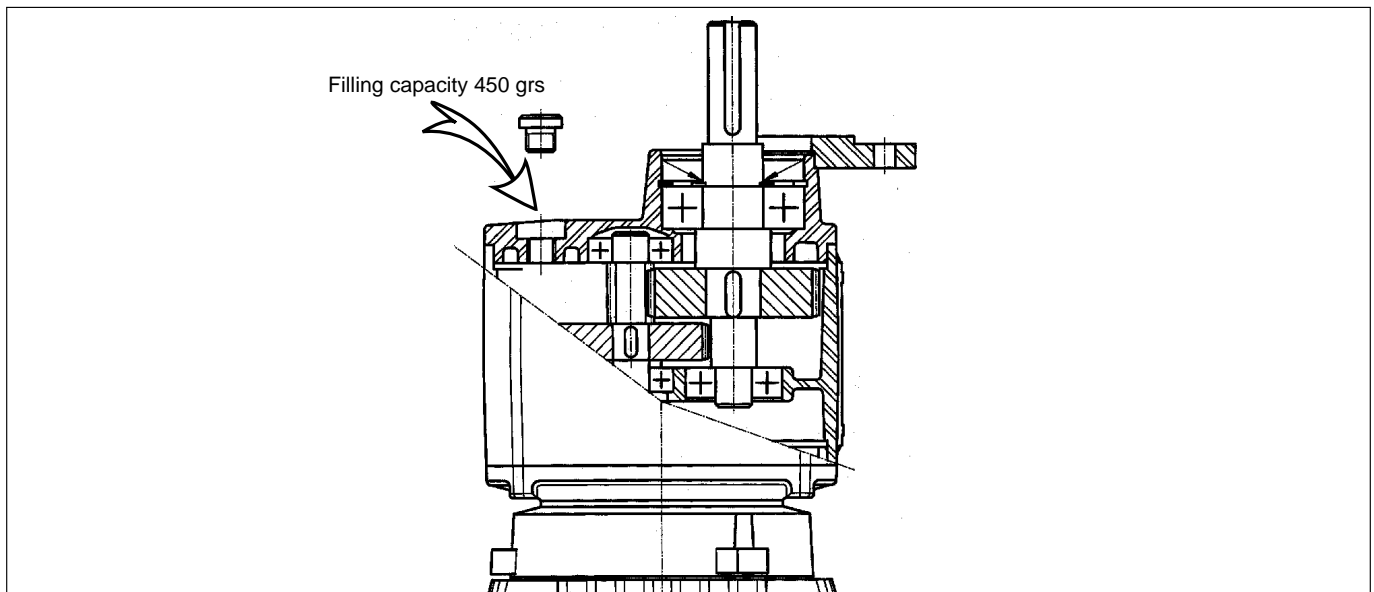
SINGLE-PHASE MOTORS WITH PERMANENT CAPACITOR

These are mechanically identical to three-phase motors. In addition they have 1 permanent capacitor fixed on the side of the terminal box.

For connection, apply the voltage indicated on the nameplate and follow the wiring diagrams supplied in the terminal box.

LUBRICATION

Volume of oil



Oils

These gearboxes are permanently greased with synthetic oil. There is only one filler plug.

- Original oil :

Syntheso HT 220 - Synthetic base
 Operating temperature -50 °C to + 150 °C
 Viscosity ISO VG 220
 Ignition point 250 °C
 Supplier : KLUBER LUBRICATION - MUNICH RFA

- After dismantling :

- Suitable replacement oils :
 any oils with synthetic base for gearing having characteristic viscosity equivalent to ISO VG 220 (DIN 51 519)
 Eg : MOBIL SHC 629 or 634 oils

Note : Do not mix oils; empty the gearbox, wash well, fill with new oil.

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PARTS LIST TEFV INDUCTION MOTORS WITH SHORT-CIRCUITED ROTOR

Information to be provided with all orders for spare parts

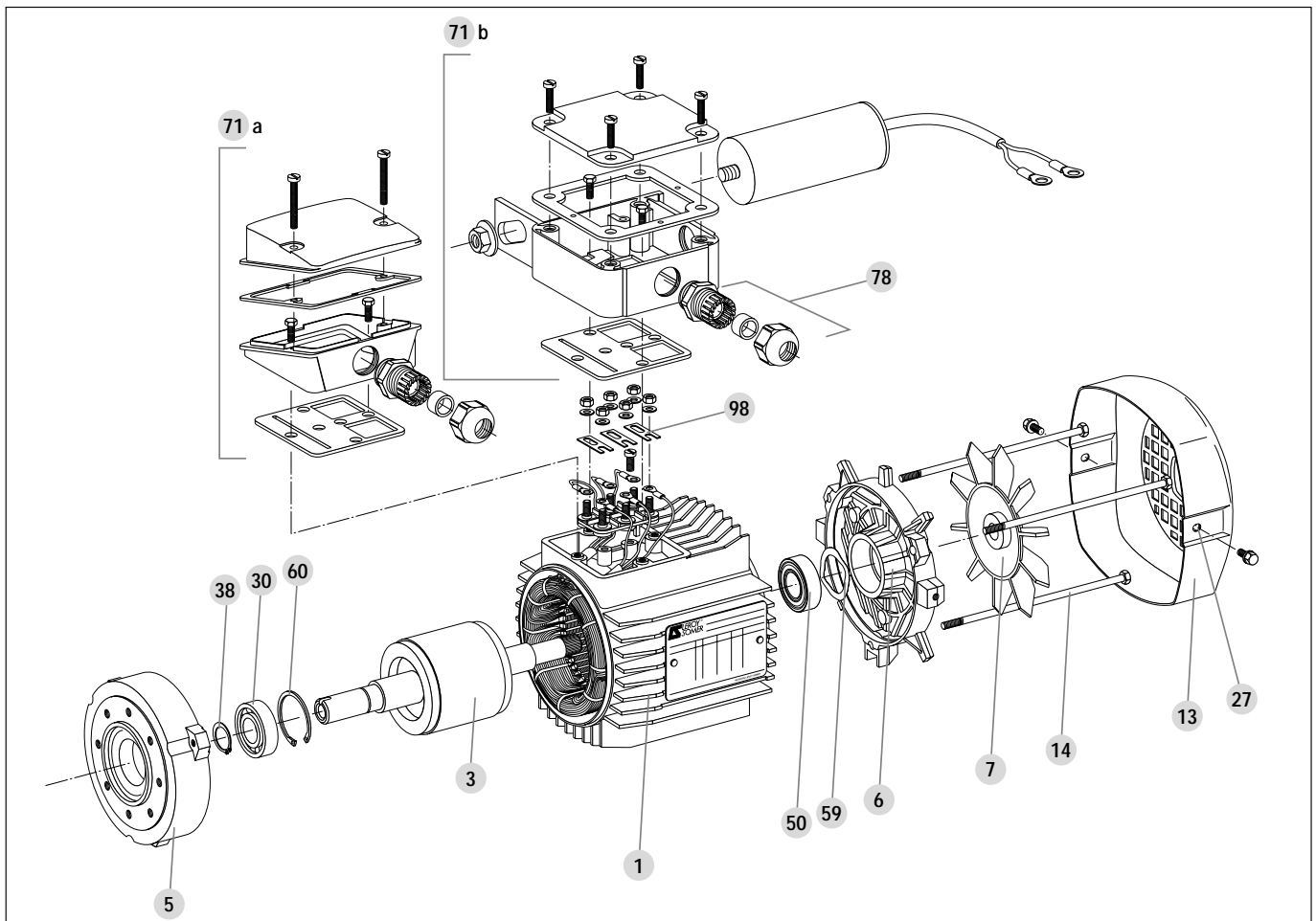
Caution : to order parts for a motor coupled to a gearbox, give full details of the gearbox (see previous pages).

Type of motor	Speed min ⁻¹	Power kW
Example : LS 71	1500	0,37
Mounting - position	Manufacturing No.	Part No.
Special B14 flange	370 058	Housing and wound stator no. 1

		N° 370058	1993
		Mot. 3 ~ LS 71	
IP 55	I.cl. F	40 °C	C
S1	%	c/h	C
			µf V
			µf V

V	Hz	min ⁻¹	kW	Cos φ	A
220/230	50	1500	.37	.75	1.85
240	50	1500	.37	.7	1.9
380/400	50	1500	.37	.75	1.05
415	50	1500	.37	.7	1.1

IEC 34-1 MADE IN FRANCE



No.	QTY	DESCRIPTION
1	1	Wound stator
3	1	Rotor
5	1	DE shield
6	1	NDE shield
7	1	Fan
13	1	Fan cover
14	2,3,4	Assembly rods
27	2	Cover mounting screw
30	1	DE bearing

No.	QTY	DESCRIPTION
38	1	DE bearing circlip
50	1	NDE bearing
59	1	Preloading wavy washer
60	1	Circlip
71a	1	3-ph - wired plastic terminal box
71b	1	1-ph - wired metal terminal box
78	1	Cable gland
98	3	Connector links