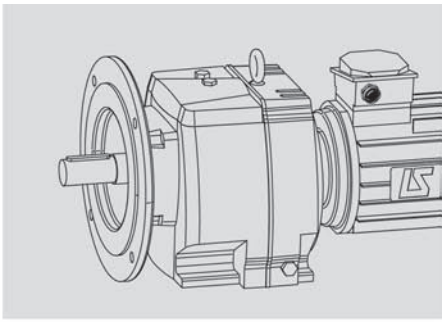
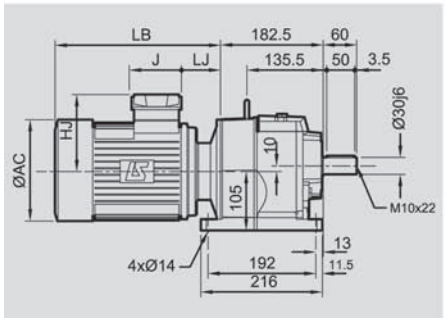
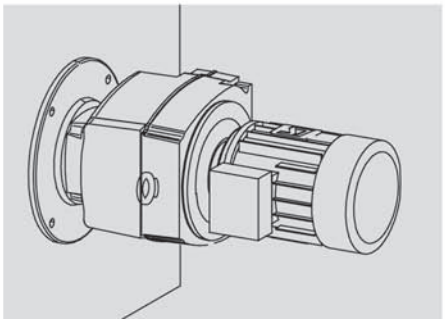
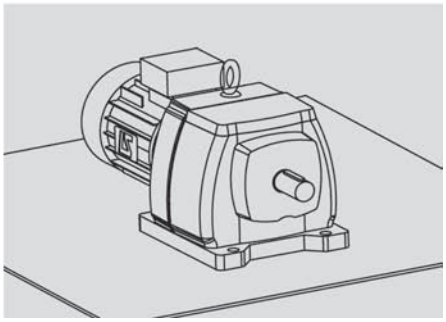
EMERSON™
Industrial Automation









LEROY® SOMER

Drive systems
COMPABLOC 3000 / LS, LSES

Selection guide

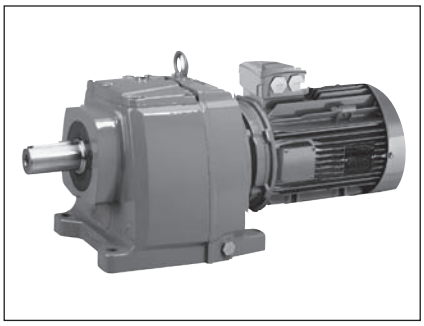
4787 en - 2012.09 / b

Electromechanical products
Compabloc 3000

Contents

Electromechanical products
Compabloc 3000

General



Compabloc geared motors with parallel gears are used to adapt the speed of the electric motor to that of the driven machine.
Their size is therefore determined by the motor power (P) expressed in kilowatts (kW) and the output rotation speed of the gearbox (n_S) in revolutions per minute (min^{-1}).
The main characteristic of speed reducers is the rated output torque (Mn_S) expressed in Newton-metres (N.m):

$$M_{nS} = \frac{P \times 9550}{n_S} \times \text{efficiency}$$

A range of ten sizes: 15, 30, 31, 32, 33, 34, 35, 36, 37, 38.
Rated output torque: from 10 N.m to 14,500 N.m.
Power ratings: from 0.06 to 110 kW.
Reduction ratios: from 1.16 to 252.
High efficiency: 95% to 98%.
Reversible.
Quiet operation.

Construction

Description of Compabloc gearboxes (Cb)

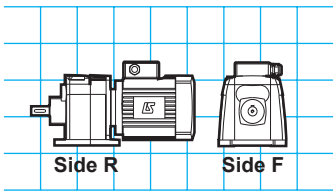
Component	Materials	Remarks
Housing	Aluminium (15, 30) ENGJL-200 cast iron (31 to 37)	- use of cast aluminium - use of ENGJL-200 cast iron (flake graphite: 200 MPa tensile strength) single component perlite to ensure unit is fully sealed - monobloc ribbed with internal reinforcements to absorb vibrations and noise, and increase its rigidity - foot mounted **S**, **BT** or with flanges **BS**, **BD** or **BR**. They are compact and meet industrial requirements
Gears	Steel Ni Cr Mo	- cut by the gear hob, they are heat treated and then undergo final machining. The quality and precision of the gear cutting allow maximum torque with minimum noise level
Lipseals	Nitrile	- sealing ring on motor side - sealed gasket with antidust lipseal in accordance with DIN 3760 form AS - gasket under the access cover (30 to 37)
Shaft	Steel	- grinding of sealing surfaces - key in accordance with ISO R773 - tolerance of diameters in accordance with NFE 22-051 and ISO R 775 - tapped holes at the shaft end for fixing connecting devices in accordance with DIN 332
Lubrication	Oil	- in accordance with ISO 6743/6 - delivered with the quantity of oil corresponding to the operating position, it is fitted with drain, level and breather plugs (except Cb 15, 30)
Mounting		AP: gearbox with input shaft MI: geared motor with built-in motor MU: geared motor with IEC motor, manufactured with universal mounting
Standard motor		LS, LSES: multi-voltage 230/400 VY - 400 VΔ three-phase and 230 V single-phase - fan cover made of composite material (80 to 100) or pressed steel (≥ 112), on request fitted with a drip cover for operation in vertical position (shaft facing down) - LS: metal terminal box fitted with cable gland - LSES: terminal box made of composite material (80 to 112) or aluminium alloy (≥ 132) equipped with threaded plugs (without cable glands) - IP 55 standard protection
Brake motors		FMD: failsafe brake induction motor, from 0.06 to 0.25 kW, IP 55 protection (LS 56 to 71) FCR: failsafe brake induction motor, from 0.25 to 15 kW (LS), from 0.75 to 11 kW (LSES), IP 55 protection FCPL: failsafe brake induction motor, from 11 to 75 kW, IP 44 protection (LS, LSES 160 and 225)
Finish	Paint	Shade: RAL 6000 (green), system I (1 polyurethane vinyl layer of 25/30 µm)

Electromechanical products
Compabloc 3000

Mounting - Operating positions

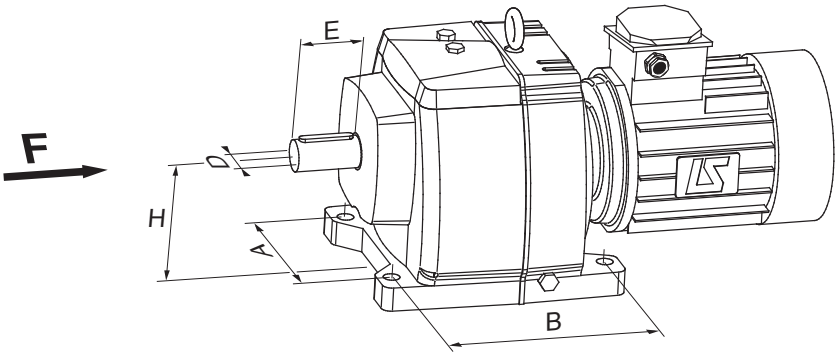
Standard position: gearbox view from side F, motor behind, side D on the floor.

Definition of mounting form: S



S

Foot mounted housing



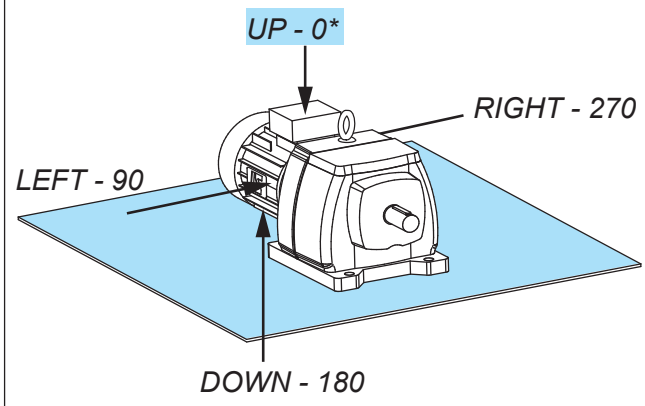
Compabloc	1-stage gearbox					
	ØD	E	A	B	H	kg
Cb 3531	45k6	90	260	160	160	41
Cb 3431	40k6	80	216	125	132	25
Cb 3331	35k6	70	190	100	112	15.5
Cb 3231	25j6	50	140	80	90	8.3
Cb 3131	20j6	40	120	75	80	6.9
Cb 3031	16j6	40	125	70	75	2.3

Compabloc	Multi-stage gearbox					
	ØD	E	A	B	H	kg
Cb 3833	110m6	210	510	480	355	290
Cb 3733	90m6	170	420	390	315	192
Cb 3633	70m6	140	355	355	250	162
Cb 3533	60m6	120	280	280	225	90
Cb 3433	50k6	100	230	235	180	50
Cb 3333	40k6	80	170	240	140	30
Cb 3233	30j6	60	135	192	115	18.5
Cb 3133	25j6	50	110	165	90	13
Cb 3033	20j6	40	125	125	75	4.9
Cb 3032	20j6	40	125	105	75	4.8
Cb 15--	16j6	40	100	105	90	3.2

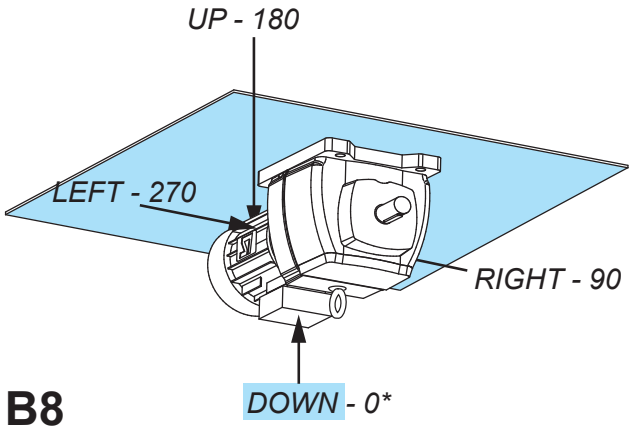
S operating position

The absolute orientation of the connection (TB: Up, Down, Right, Left, Front, Back) is related to the chosen operating position.

The relative orientation (0-90-180-270, in the trigonometric direction), a consequence of the absolute position, is related to the base of the gearbox for an observer, facing the gearbox.



B3



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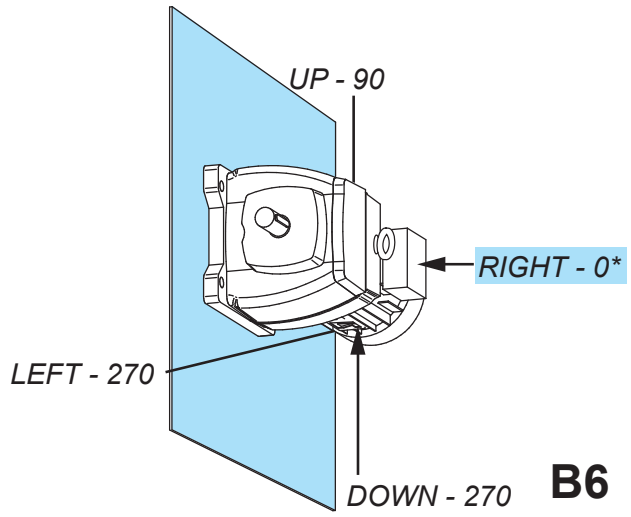
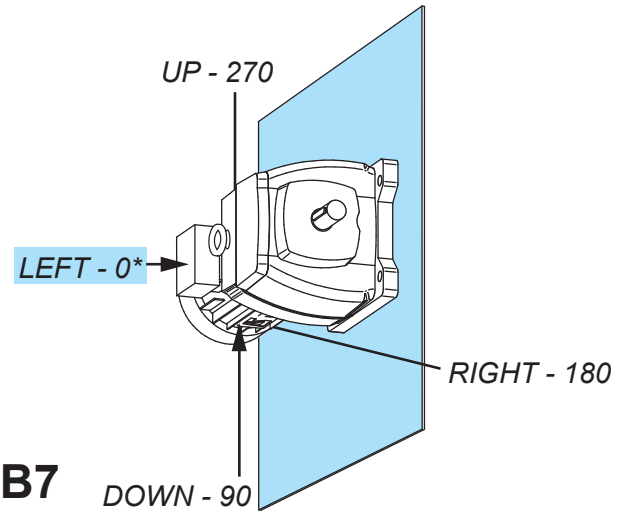


B6



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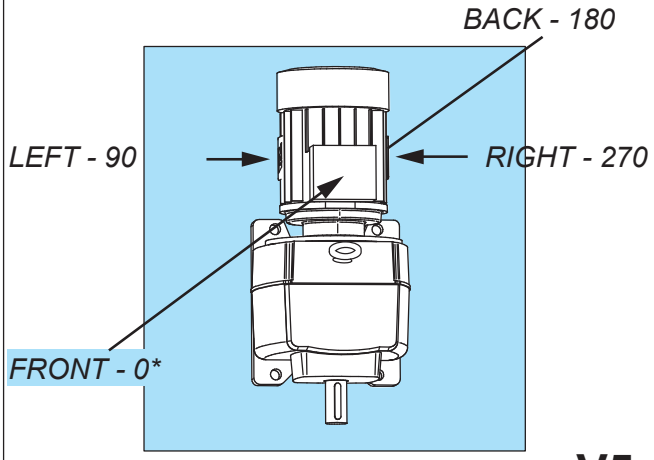
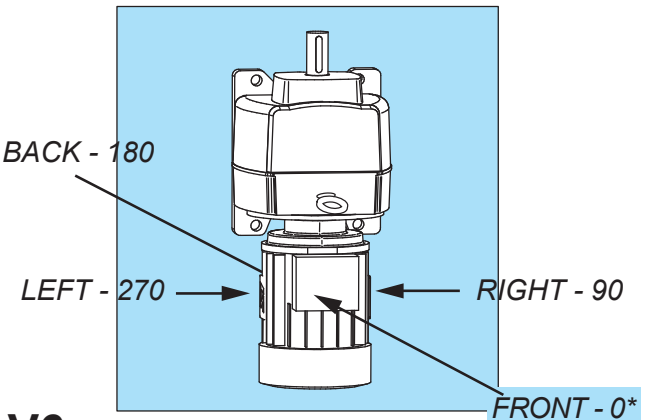


V5



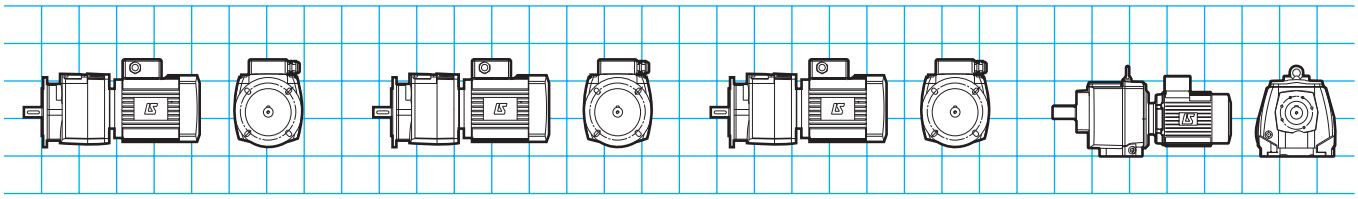
V6

* : Std terminal box

Mounting - Operating positions

Standard position: gearbox view from side F, motor behind, side D on the floor.

Definition of mounting form: BS, BDn..., BR, BT

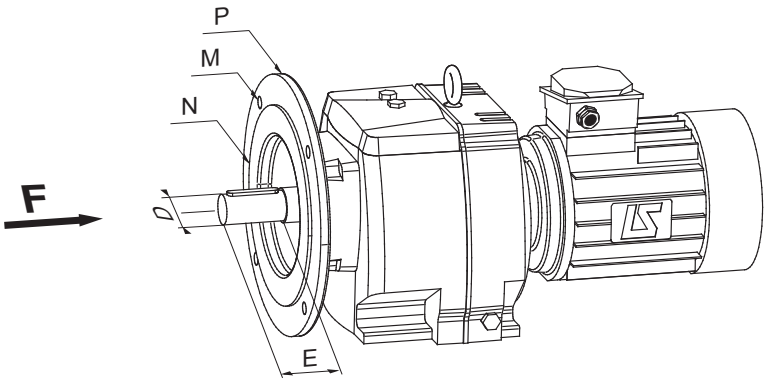


BS
Flange housing with plain holes

BDn...
Flange housing (different diameter) with plain holes

BR
Reinforced flange housing

BT
Housing with side F with tapped holes



	1-stage gearbox																	
			BS				BD1				BD2				BD3			
Compabloc	ØD	E	ØM	ØN	ØP	kg	ØM	ØN	ØP	kg	ØM	ØN	ØP	kg	ØM	ØN	ØP	kg
Cb 3531	45k6	90	300	250	350	48	265	230	300	46	-	-	-	-	-	-	-	-
Cb 3431	40k6	80	265	230	300	31	215	180	250	30	-	-	-	-	-	-	-	-
Cb 3331	35k6	70	215	180	250	19	165	130	200	18	-	-	-	-	-	-	-	-
Cb 3231	25j6	50	165	130	200	10	130	110	160	9.5	-	-	-	-	-	-	-	-
Cb 3131	20j6	40	130	110	160	8.1	115	95	140	7.9	-	-	-	-	-	-	-	-
Cb 3031	16j6	40	115	95	140	2.5	100	80	120	2.5	130	110	160	2.5	165	130	200	2.4

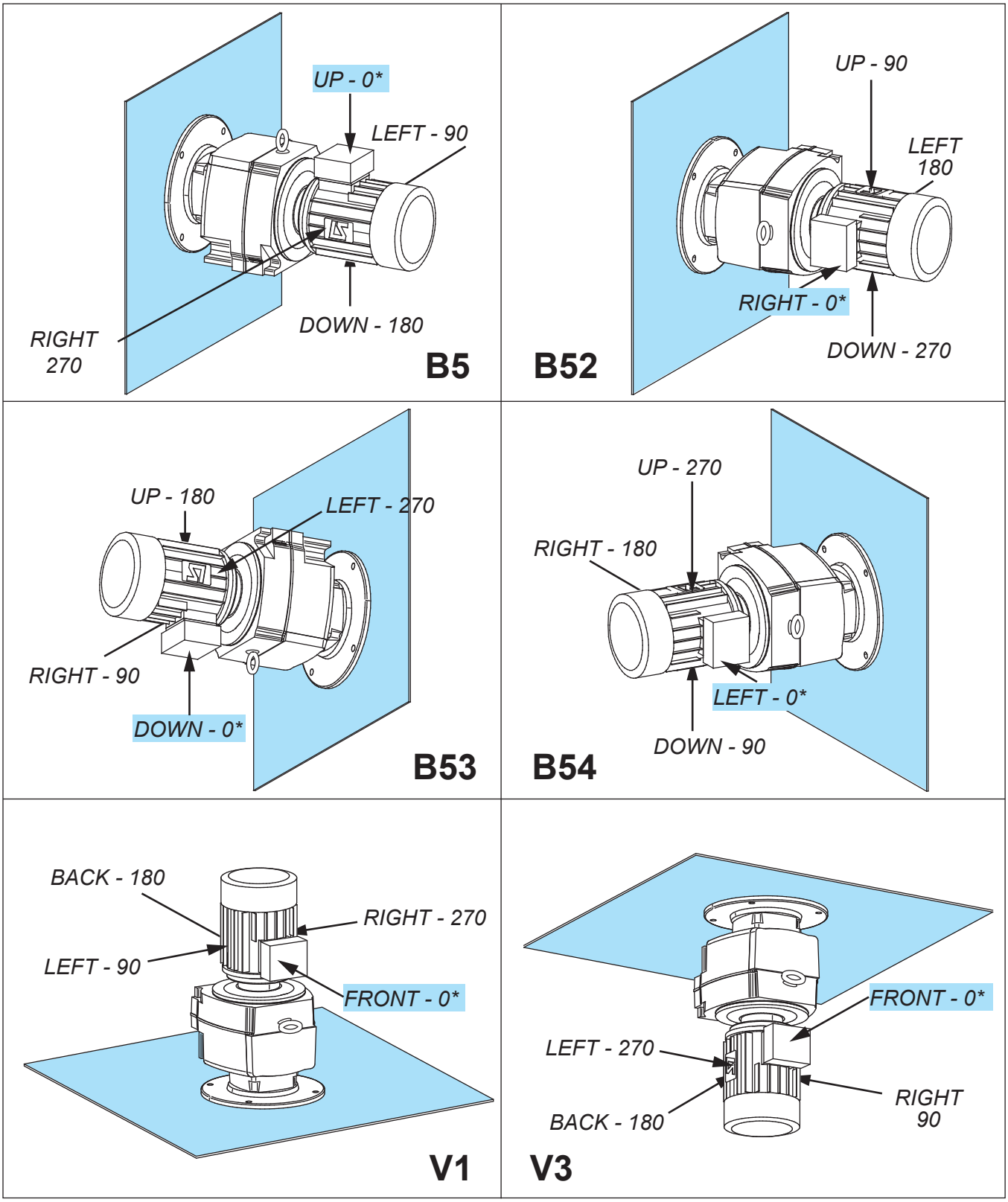
	Multi-stage gearbox																	
			BS				BD1				BD2				BD3			
Compabloc	ØD	E	ØM	ØN	ØP	kg	ØM	ØN	ØP	kg	ØM	ØN	ØP	kg	ØM	ØN	ØP	kg
Cb 3833	110m6	210	600	550	660	352	500	450	550	328	-	-	-	-	-	-	-	-
Cb 3733	90m6	170	500	450	550	228	400	350	450	222	-	-	-	-	-	-	-	-
Cb 3633	70m6	140	500	450	550	196	400	350	450	190	-	-	-	-	-	-	-	-
Cb 3533	60m6	120	350	300	400	97	300	250	350	96	265	230	300	90	-	-	-	-
Cb 3433	50k6	100	300	250	350	56	265	230	300	55	215	180	250	54	-	-	-	-
Cb 3333	40k6	80	265	230	300	34	215	180	250	33	165	130	200	32.5	-	-	-	-
Cb 3233	30j6	60	215	180	250	18.8	165	130	200	18.7	130	110	160	18.6	-	-	-	-
Cb 3133	25j6	50	165	130	200	13.4	130	110	160	13.3	115	95	140	13.2	100	80	120	13.1
Cb 3033	20j6	40	115	95	140	4.9	100	80	120	4.5	130	110	160	4.9	165	130	200	5
Cb 3032	20j6	40	115	95	140	4.9	100	80	120	4.5	130	110	160	4.9	165	130	200	5
Cb 15--	16j6	40	100	80	120	2.9	85	70	105	2.8	115	95	140	3	-	-	-	-

Electromechanical products
Compabloc 3000

Operating positions BS, BD, BR, BT

The absolute orientation of the connection (TB: Up, Down, Right, Left, Front, Back) is related to the chosen operating position.

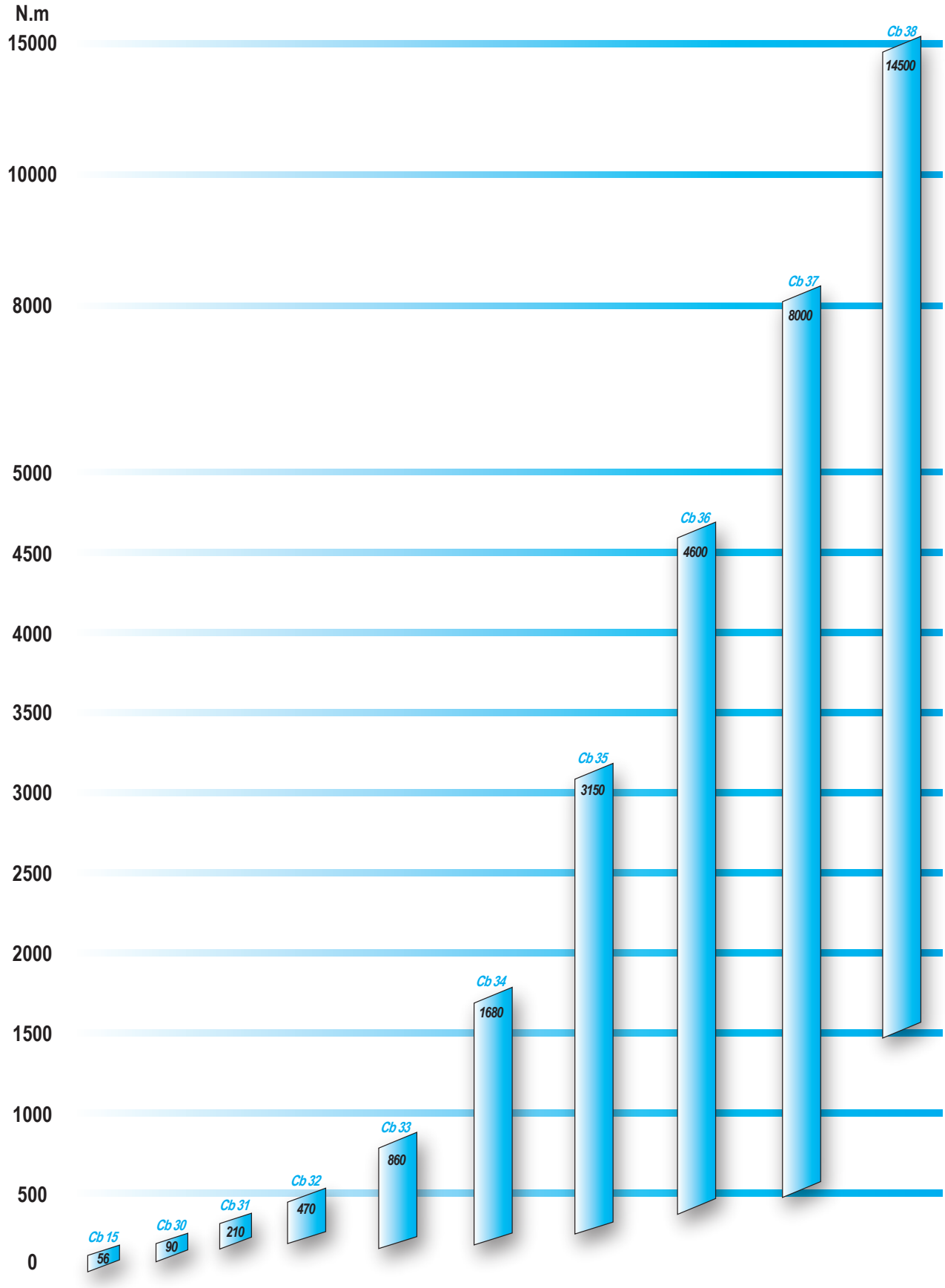
The relative orientation (0-90-180-270, in the trigonometric direction), a consequence of the absolute position, is related to the base of the gearbox for an observer, facing the gearbox.



* : Std terminal box

Electromechanical products
Compabloc 3000

General information - Ranges



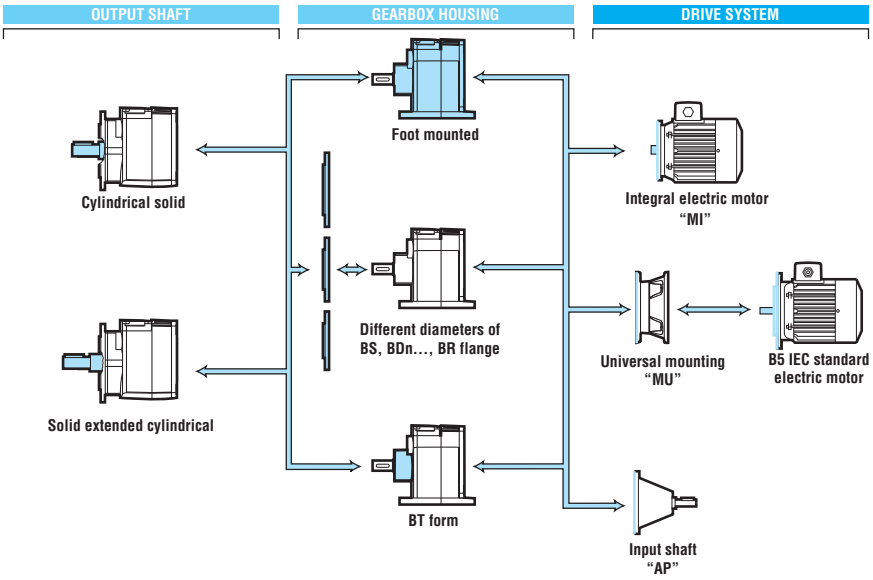
Electromechanical products
Compabloc 3000

Adaptation possibilities

Leroy-Somer offers several drives for its gearboxes which satisfy a very broad range of requirements. They are described below and offered in this catalogue.
For other drives, consult the Leroy-Somer technical specialists who will be glad to assist.

Compabloc Cb gearboxes can be used in conjunction with the following drives:

- **single-phase induction motors:**
  - LS motor from 0.06 to 0.25 kW
  - LS FMD brake motor from 0.06 to 0.25 kW
- **fixed speed three-phase induction motors:**
  - LS motor from 0.06 to 0.55 kW
  - LSES motor from 0.75 to 110 kW
  - LS FMD brake motor from 0.06 to 0.25 kW
  - FCR LS brake motor from 0.25 to 15 kW
    LSES motor from 0.75 to 11 kW
  - LS, LSES FCPL brake motor from 11 to 90 kW



Designation / Coding

Cb	3333	30.2	BS	S	B52	MI	4P	LSES 112 MU	4 kW LS2/IE2	230/400 V 50 Hz	UG
Compabloc gearbox type	Size and manufacturer code	Exact reduction	Mounting form	Definition of the output shaft	Operating position	Type of input	Number of poles	Series, frame size, manufacturer code	Motor power Generation code Class η	Mains voltage and frequency	Application

Example of coding:

Compabloc 3333 with flange 4 kW, 47 min^{-1}, class I

Designation:	**Code:**
Cb 3333 i:30.2 BS S B52 MI 4P LSES 112 MU 4 kW LS2/IE2 230/400V 50 Hz UG	473 8378

All the products in this catalogue have a code.
The coding table is incorporated in the price list with the list of designations.
Each electromechanical product is classified in order of power and then in order of speed.

Selection

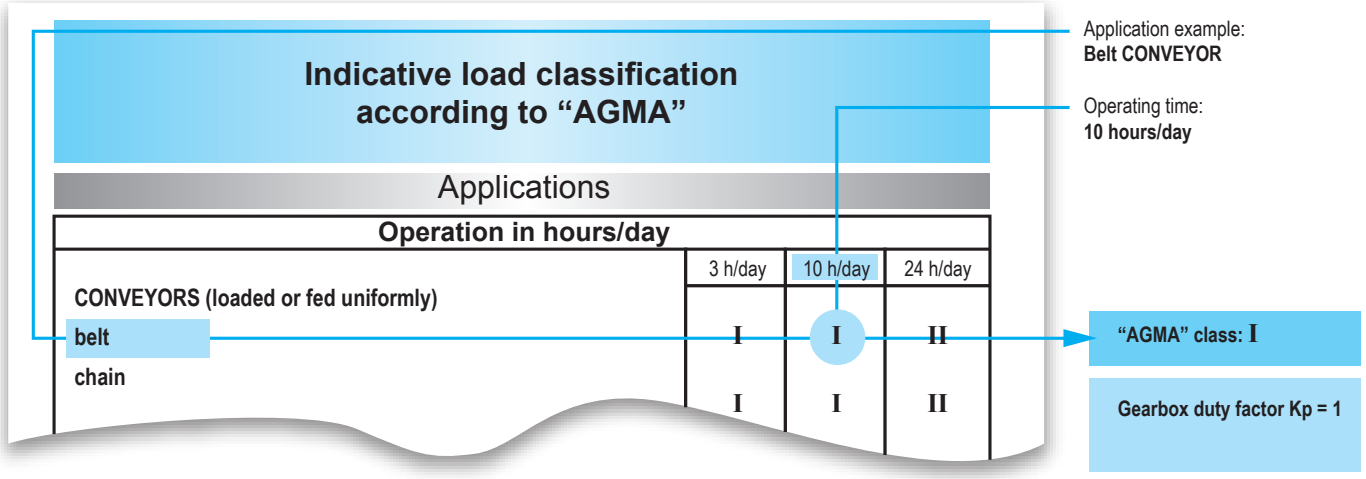
The selection of a gearbox or a geared motor should take account of the application.
Some of these applications are listed in the indicative “AGMA” load classification, on the next page.

The table opposite summarises the relationship between the “AGMA” class and the gearbox duty factor K_p.

“AGMA” class	Gearbox duty factor K_p
I	1
II	1.4
III	2

1st case – Your application is listed

Follow the indicative load classification table according to "AGMA" on the next page.



2nd case – Your application is not listed

The “AGMA” selection class is defined by the daily operating time and the type of application operation, according to the table below. ▼

Type of application	Daily operating time	“AGMA” class
Shock-free, not many starts	10 hours/day	I
Damped shocks	10 hours/day	II
Shock-free, not many starts	24 hours/day	
Violent shocks, many starts	10 hours/day	III
Damped shocks	24 hours/day	

Electromechanical products
Compabloc 3000

List of applications

OPERATION in hours/day	3 h/day	10 h/day	24 h/day
AGITATORS			
liquids and solids	II	II	II
liquids with variable density	II	II	II
pure liquids	I	I	II
semi-liquids, variable density	II	II	II*
BREWERIES, DISTILLERIES			
boilers, continuous duty			II
bottling machines	I	I	II
brewing vats, continuous duty			II
cookers, continuous duty			II
scaling hoppers:			
frequent starts	II	II	III
CANE KNIVES	II	II	III
SIEVES			
rotary	I	II	III
stone washer with water circulation	I	I	II
DREDGERS			
cable winding drums	I	II	-
conveyors	I	II	II
cutting head control	III	III	III*
handling winches	II	II	-
pumps	I	II	II
service winches	II	II	-
shaker control	III	III	III*
sieve control	III	III	III*
CLARIFIERS	I	I	II
SORTERS, GRADERS	I	II	II
COMPRESSORS			
centrifugal	I	II	II
	I	II	II
CONVEYORS (loaded or fed non-uniformly)			
heavy duty:			
apron	**II**	**II**	**II**
assembly	**II**	**II**	**II**
belt	**II**	**II**	**II**
bucket	**II**	**II**	**II**
chain	**II**	**II**	**II**
furnace	**II**	**II**	**II**
reciprocating	**III**	**III**	**III***
removal	**I**	**I**	**-**
roller	**I**	**I**	**II**
scraper	**II**	**II**	**II**
screw	**II**	**II**	**II**
vibrator	**III**	**III**	**III***
CONVEYORS (loaded or fed uniformly)			
apron	**I**	**I**	**II**
assembly	**I**	**I**	**II**
belt	**I**	**I**	**II**
bucket	**I**	**I**	**II**
chain	**I**	**I**	**II**
furnace	**I**	**I**	**II**
scraper	**I**	**I**	**II**
screw	**I**	**I**	**II**
CONTROL (vehicle)	II	II	II
ELEVATORS			
buckets:			
continuous load	I	I	II
heavy load	II	II	II
uniform load	I	I	II
centrifugal unloading	I	I	II
escalators	I	II	III
gravity unloading	I	I	II
hoist for building materials	III	III	-
COOLING TOWERS	-	-	-
CRANES AND LIFTING			
bucket winches	-	-	-
hoisting gear	-	-	-
moving bridge	-	-	-
moving truck	-	-	-
FEEDING (attachment)			
belt	I	II	II
disks	I	I	II
lattice	I	II	II
reciprocating	III	III	III*
screw	I	II	II
FOOD AND BEVERAGE INDUSTRY			
beet choppers	II	II	II
cereal cookers	I	I	II

OPERATION in hours/day	3 h/day	10 h/day	24 h/day
dough mixers	I	II	II
extruding machines	II	II	II
meat choppers	II	II	II
GRINDERS			
minerals	III	III	III*
stones	III	III	III*
HAMMER MILLS	III	III	III*
ROTARY GRINDERS			
ball mills	III	III	III*
pebble mills	III	III	III*
rod mills	III	III	III*
MACHINE TOOLS			
auxiliary drive system	I	II	II
main drive system	I	I	II
bending rollers	II	II	II
flat planers	III	III	III*
punching machines (geared)	III	III	III*
nut tappers	II	III	III*
shears	III	III	III
drawing frames, carriage	III	III	III*
drawing frames, carriage	III	III	III*
drawing frames, main control	III	III	III*
drying rollers	-	-	-
roller drive	III	III	III
spreading systems	III	III	III*
separating rollers	-	-	-
shape-cutting machines	III	III	III*
sheet metal winders	I	II	II
splitting lines	II	II	III
table conveyor:			
reverse operation	III	III	III
single direction of operation	I	II	III
wire drawing mills, flatteners	II	II	III
agitators, mixers	I	II	II
ball conveyors	III*	III*	III*
barking drums	III	III	III*
barking machines (mechanical)	III	III	III
bleaching vats	I	II	II
calenders	I	II	II*
centrifugal	I	I	II
conveyors	I	II	II
cutters, plating machines	I	II	II
cylinders	I	II	II
dosing	I	II	II*
dryers	I	II	II*
felt stitching machines	III*	III*	III*
felt tension devices	I	II	II
presses	I	II*	II*
pulp hammers	II	II	II*
pulp machines, uncoilers	I	II	II
PUMPS			
reciprocating:			
multi-cylinder single-acting	I	II	II
rotary:			
geared	I	I	II
lobed, vaned	I	I	II
suction rollers	I	II	II*
washers, thickeners	I	II	II*
wind up turrets	I	I	II
wire winders	I	II	II
wood pulp storing machines	I	II	II
agitators, mixers	I	II	II
ball conveyors	III*	III*	III*
barking drums	III	III	III*
barking machines (mechanical)	III	III	III
alignment controls	-	-	-
calenders	I	II	II
carding machines, spinners	I	II	II*
cloth finishing machines:			
washers, spreading machines	I	II	II
dryers, calenders	I	II	II
dryers	I	II	II
drying machines, mangles	II	II	II
dyeing machines	I	II	II
glueing machines	I	II	II
knitting machines	-	-	-
loading hoppers	II	II	II
napping mills	I	II	II

	3 h/day	10 h/day	24 h/day
padding calenders	I	II	II
reelers (except drum)	I	II	II
soap milling machines	I	II	II
spinning machines	I	I	II
thread preparation machines:			
washing machines	I	II	II
weaving looms	II	III	III
RUBBER (industry)			
air chamber extruder	II	II	II
calenders	II	II	II*
extruding machines	II	II	III
grinders (2 or more)	II	II	II*
mixers	III	III	III*
sheet forming machines	I	II	II*
TIPPERS	III	III	
TIMBER (industry)			
ball conveyors	III	III	III*
ball support plates	III	III	III*
barking drums	III	III	III*
barking machine, feeder	II	II	III
barking machine, main drive system	III	III	III*
burner conveyors	I	II	III
chains	II	II	III
circular feed conveyors	I	II	III
cutting saws:			
chain	II	II	III
for ball turning	III	III	III*
for planer inclination	I	II	III
reciprocating	II	II	III
devices:			
haulage of balls:			
inclined	III	III	III*
well	III	III	III*
main conveyors	I	II	III
peeling tower	-	-	-
plank conveyors	III	III	III*
roller drive system	III	III	III*
sorting tables	I	II	III
supplying:			
cutting	II	II	III
planers	II	II	III
saws in series	III	III	III*
shape-cutting machines	II	II	III
transfer conveyors	I	II	III
transfer:			
chain	I	II	III
on bogies	I	II	III
turntable control	I	II	III
waste conveyors	I	II	II
TRANSMISSION SHAFT			
brick machines	III	III	III*
brick presses	III	III	III*
CLAY (industry)			
constant loads	I	I	II
loads with moderate shocks	I	II	II
loads with severe shocks	III	III	III*
mixers	II	II	II
processing machines	II	II	II
WASHING MACHINES			
drum	II	II	II
reversible	II	II	II
WINDING MACHINES	_	_	_
FILTERS	I	II	III
FURNACES			
dryers, coolers	I	II	II
tumbling barrels	III	III	III*
WINDLASSES, CAPSTANS	II	II	II*
PRINTING (presses)	I	I	II
PACKAGING MACHINES			
stackers	II	III	III
wrapping machines	I	I	II

** : These classes assume minimum and normal conditions. To take account of variations which may affect the load conditions, it is recommended that applications are carefully researched before making a selection.*

- : Consult Leroy-Somer

Electromechanical products
Compabloc 3000

Conditions

Cb: S, BS, BT, BDn, BR
LS: IP55 - 50 Hz - Cl. F - 400 VY - from 0.06 to 0.55 kW - **LSES:** IP55 - 50 Hz - Cl. F - 400 VY, 400 VΔ from 0.75 to 110 kW LS2/IE2 - U.G.
LS, LS FMD brake: IP55 - 50 Hz - Cl. F - 230/400 V from 0.06 to 0.25 kW - U.G.
LS FCR brake: IP55 - 50 Hz - Cl. F - 400 V - **LS:** from 0.25 to 15 kW - **LSES:** from 0.75 to 11 kW - U.G.
LS, LSES FCPL brake: IP44 - 50 Hz - Cl. F - 400 V from 11 to 90 kW - U.G.

MI
MU
AP

Maximum quantity per order

Input		Cb 3031	Cb 3131 to 3531	Cb 15--	Cb 3032-3033	Cb 3133 to 3533	Cb 3633	Cb 3733	Cb 3833
AP	-	5	5	5	5	5	2	2	2
MI LS	1-ph 0.06-->0.25 kW	5	-	5	5	-	-	-	-
	3-ph 0.06-->0.55 kW	5	5	5	5	5	-	-	-
MI LSES	3-ph 0.75 --> 9 kW	5	5	-	5	5	2	2	2
	11 --> 45 kW	-	2	-	-	2	2	2	2
MI LS FMD	1-ph 0.06-->0.25 kW		-			-	-	-	-
	3-ph 0.06 --> 0.25 kW	5	-	5	5	-	-	-	-
MI LS FCR	0.25 --> 9 kW	5	5	-	5	5	2	2	2
	11 - 15 kW	-	2	-	-	2	2	2	1
MI LSES FCR	0.75 --> 11 kW			-					
MI LS, LSES FCPL	11 --> 75 kW	-		-	-				
MU LS	1-ph 0.06 -->0.25 kW	5	-	5	5	-	-	-	-
	3-ph 0.06 -->0.55 kW	5	5	5	5	5	-	-	-
MU LSES	3-ph 0.75 -->9 kW	5	5	-	5	5	2	2	2
	11 --> 30 kW	-	2	-	-	2	2	2	2
	37 - 45 kW	-	-	-	-	-	1	1	1
	55[1]-->110 kW[1]	-	-	-	-	-	1	1	1
MU LS FCR	0.25 --> 9 kW	5	5	-	5	5	2	2	2
	11 - 15 kW	-	1	-	-	1	1	1	1
MU LSES FCR	0.75 --> 11 kW			-					
MU LS, LSES FCPL	11 --> 45 kW			-					
	55[1]--> 90 kW[1]	-	-	-	-	-			

1. B35 motor obligatory

Pages of dimensions corresponding to mounting

	1-stage Cb MI forms						Mounting	Mounting
	Feet	Flange	Other flanges			Faceplate	1-stage Cb	1-stage Cb
Type	S	BS	BD1	BD2	BD3	BT	MU	AP
Cb 3031	31	31	30	30	30	30	64	29
Cb 3131	33	33	32	32		32	64	29
Cb 3231	35	35	34			34	64	29
Cb 3331	37	37	36			36	64	29
Cb 3431	39	39	38			38	64	29
Cb 3531	41	41	40			40	64	29

	Multi-stage Cb MI forms							Mounting	Mounting
	Feet	Flange	Other flanges				Faceplate	Backstop[1]	Multi-stage Cb	Multi-stage Cb
Type	S	BS	BD1	BD2	BD3	BR	BT	AD/AP-MI-MU	MU	AP
Cb 1502to1504	43	43	42	42			42		64	29
Cb 3032	45	45	44	44	44		44		64	29
Cb 3033	47	47	46	46	46		46		64	29
Cb 3133	49	49	48	48	48		48		64	29
Cb 3233	51	51	50	50			50		64	29
Cb 3333	53	53	52	52		**52**	52		64	29
Cb 3433	55	55	54	54		**54**	54		64	29
Cb 3533	57	57	56	56		**56**	56		64	29
Cb 3633	59	59	58				58	29-58-59-64	64	29
Cb 3733	61	61	60				60	29-60-61-64	64	29
Cb 3833	63	63	62				62	29-62-63-64	64	29

Options

Input		Electrical options			Mechanical options		Brake options			
4p / MI-MU		230/400V	400VΔ	PTO/PTC	Drip cover	Cover sheet	Hand brake release	Different Mf	TRR	J01
LS	0.06 --> 0.55 kW		-			-	-	-	-	-
	0.75 - 0.9 kW		-				-	-	-	-
	1.1 --> 3 kW						-	-	-	-
	4 --> 9 kW MI						-	-	-	-
LSES	11 - 15 kW MI					Standard	-	-	-	-
	18.5 --> 45 kW MI					Standard	-	-	-	-
	4 --> 9 kW MU					Standard	-	-	-	-
	11 --> 45 kW MU					Standard	-	-	-	-
	55[1] --> 110 kW[1] MU					Standard	-	-	-	-
LS FMD	0.06 - 0.25 kW		-					-	-	-
LS FCR	0.25 - 3 kW					Standard				
	4 - 5.5 kW					Standard				
	7.5 - 9 kW					Standard				-
	11 - 15 kW					Standard			-	-
LSES FCR	0.75-->11 kW									
	11 --> 45 kW									-
LS, LSES FCPL	55[1]--> 90 kW[1]									-

1. B35 motor obligatory

DG	<	2 WD	<	5 WD	<	10 WD	<	15 WD	<	To be agreed

DG : Availability ; n WD : Working Days

Electromechanical products
Compabloc 3000

Selection

Classes	Cb 3031	
I, II, III (kp = 1, 1.4, 2)	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3031

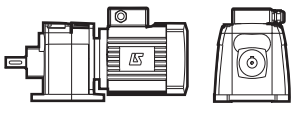
		LS, LSES (kW)										
		0.06	**0.09**	**0.12**	**0.18**	**0.25**	**0.37**	**0.55**	**0.75**	**0.9**	**1.1**	**1.5**
		Three-phase 4-pole LS, LSES										
		56		63		71			80		90	
		Single-phase 4-pole LS										
min-1	i exact	56 P		63 P		71 P						
178	8.13	6.16	3.87	2.73	1.76	1.27	0.84					
201	7.22	6.93	4.36	3.07	1.98	1.43	0.94					
227	6.4	7.82	4.92	3.47	2.23	1.61	1.07					
249	5.82	8.60	5.41	3.82	2.46	1.78	1.17					
281	5.17	9.68	6.09	4.30	2.77	2.00	1.32					
316	4.58		6.87	4.84	3.12	2.25	1.49	0.97				
356	4.08		7.72	5.45	3.51	2.53	1.67	1.10	0.82			
400	3.63		8.68	6.12	3.95	2.85	1.88	1.23	0.93			
448	3.24		9.73	6.86	4.42	3.19	2.11	1.38	1.04	0.85		
527	2.75			8.07	5.20	3.76	2.48	1.62	1.22	1.00		
569	2.55			8.71	5.61	4.05	2.68	1.75	1.32	1.08		
662	2.19				6.53	4.72	3.11	2.04	1.53	1.26		
741	1.96				7.31	5.28	3.49	2.28	1.72	1.41		
794	1.83				7.83	5.66	3.74	2.45	1.84	1.51		
943	1.54				9.30	6.72	4.43	2.90	2.18	1.79		
992	1.46				9.79	7.07	4.67	3.06	2.30	1.88		
1096	1.32					7.81	5.16	3.38	2.54	2.08		

4-pole LS, LSES and brakes	Three-phase 4-pole LS, LSES						
LS FMD	56 M		63 M		71 M		
LS FCR					71 L		80 L
LSES FCR							**80**
	Single-phase 4-pole LS						
LS FMD	**56 MP**		**63 MP**		**71 MP**		

Selection example

Required power:	0.25 kW
Required speed:	178 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	horizontal, foot mounted

Designation: Cb 3031 i: 8.13 S S M - MI 4p LS 71M 0.25 kW - 400 VY - U.G.



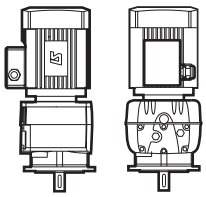
Electromechanical products
Compabloc 3000

Selection

Classes	Cb 3131	
I, II, III (kp = 1, 1.4, 2)	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

		Cb 3131										
		LS, LSES (kW)										
		0.25	**0.37**	**0.55**	**0.75**	**0.9**	**1.1**	**1.5**	**1.8**	**2.2**	**3**	**4**
		Three-phase 4-pole LS, LSES										
min-1	i exact	71			80		90			100		112
183	7.91	4.08	2.70									
202	7.17	4.50	2.97									
232	6.25	5.17	3.41	2.23	1.68	1.38	1.14 ●					
255	5.69	5.67	3.75	2.45	1.84	1.51	1.25 ●					
295	4.92	6.57	4.34	2.84	2.13	1.75	1.45	1.06	0.88			
331	4.38	7.36	4.86	3.18	2.39	1.96	1.62	1.19	0.98	0.80		
369	3.93	8.22	5.43	3.55	2.67	2.19	1.81	1.32	1.10	0.90		
422	3.44	9.39	6.20	4.06	3.05	2.50	2.07	1.51	1.25	1.02		
446	3.25	9.93	6.56	4.29	3.23	2.64	2.19	1.60	1.32	1.08		
530	2.74		7.79	5.10	3.83	3.14	2.60	1.90	1.57	1.29	0.94	
562	2.58		8.27	5.41	4.07	3.33	2.76	2.02	1.67	1.36	1.00	
634	2.29		9.33	6.10	4.59	3.76	3.11	2.27	1.88	1.54	1.13	
725	2			6.76	5.06	4.15	3.43	2.50	2.08	1.70	1.24	
824	1.76			7.18	5.34	4.39	3.62	2.64	2.19	1.79	1.31	
932	1.56			7.47 ●	5.55 ●	4.57 ●	3.76	2.75	2.28	1.86	1.36	
1051	1.38			7.74 ●	5.75 ●	4.74 ●	3.90	2.85	2.36	1.93	1.41	
1190	1.22			8.29	6.16	5.07	4.18	3.05	2.53	2.07	1.51	
1254	1.16			8.56	6.36	5.23	4.31	3.15	2.61	2.14	1.56	
4-pole LS, LSES and brake		Three-phase 4-pole LS, LSES										
LS FCR		71 L			80 L		90 L			100 L		
LSES FCR					**80**		**90**			**100**		

● *MU obligatory*



Selection example

Required power:	1.5 kW
Required speed:	331 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	V1 vertical; BS flange

Designation: Cb 3131 i: 4.38 BS S V1 - MI 4p LSES 90L 1.5 kW LS2/IE2 - 400 VY - U.G.

Electromechanical products
Compabloc 3000

Selection

Classes	Cb 3231	
I, II, III (kp = 1, 1.4, 2)	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

		Cb 3231											
		LS, LSES (kW)											
		0.25	**0.37**	**0.55**	**0.75**	**0.9**	**1.1**	**1.5**	**1.8**	**2.2**	**3**	**4**	**5.5**
		Three-phase 4-pole LS, LSES											
min-1	i exact	71			80		90			100		112	132
180	8.08	6.40	4.22	2.76	2.08	1.70	1.41 •						
210	6.92	7.47	4.93	3.23	2.43	1.99	1.65	1.20	1.00	0.81			
230	6.31	8.19	5.41	3.54	2.66	2.18	1.80	1.32	1.09	0.89			
254	5.71	9.04	5.97	3.91	2.94	2.41	1.99	1.46	1.20	0.99			
297	4.88		7.00	4.58	3.44	2.82	2.33	1.71	1.41	1.16	0.84		
335	4.33		7.87	5.15	3.88	3.17	2.63	1.92	1.59	1.30	0.95		
372	3.89		8.76	5.73	4.31	3.53	2.92	2.13	1.77	1.45	1.06	0.80	
423	3.43		9.95	6.51	4.90	4.01	3.32	2.43	2.01	1.64	1.20	0.91	
470	3.09			7.23	5.44	4.45	3.69	2.69	2.23	1.82	1.33	1.01	
533	2.72			8.21	6.17	5.06	4.18	3.06	2.53	2.07	1.51	1.15	0.83
570	2.55			8.77	6.60	5.40	4.47	3.27	2.70	2.21	1.62	1.23	0.89
657	2.21				7.60	6.23	5.15	3.77	3.12	2.55	1.86	1.41	1.02
748	1.94				8.67	7.10	5.87	4.29	3.55	2.91	2.13	1.61	1.17
829	1.75				9.44 •	7.74 •	6.40 •	4.67 •	3.87 •	3.17 •	2.31	1.75	1.27
936	1.55					8.41 •	6.93 •	5.07 •	4.20 •	3.43 •	2.51	1.90	1.38
999	1.45					8.23 •	6.77 •	4.95 •	4.10 •	3.36 •	2.45	1.85	1.34
1180	1.23					8.91 •	7.33	5.36	4.44	3.63	2.66	2.00	1.45
4-pole LS, LSES and brake		Three-phase 4-pole LS, LSES											
LS FCR		71 L			80 L		90 L			100 L		112	132
LSES FCR					**80**		**90**			**100**		**112**	**132**

• *MU obligatory*

Selection example:

Required power:	1.5 kW
Required speed:	230 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B5; BS flange

Designation: Cb 3231 i: 6.31 BS S B5 - MI 4p LSES 90L 1.5 kW LS2/IE2 - 400 VY - U.G.

Electromechanical products
Compabloc 3000

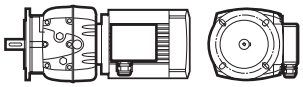
Selection

Classes	Cb 3331	
I, II, III (kp = 1, 1.4, 2)	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3331

		LS, LSES (kW)													
		0.25	**0.37**	**0.55**	**0.75**	**0.9**	**1.1**	**1.5**	**1.8**	**2.2**	**3**	**4**	**5.5**	**7.5**	**9**
		Three-phase 4-pole LS, LSES													
min-1	i exact	71			80		90			100		112	132		
185	7.83		8.16	5.34	4.02	3.29	2.72	1.99	1.65	1.35					
205	7.08		9.04	5.92	4.45	3.64	3.01	2.20	1.82	1.49					
229	6.33			6.61	4.97	4.07	3.37	2.46	2.04	1.67	1.22	0.92			
264	5.5			7.61	5.72	4.69	3.88	2.83	2.35	1.92	1.40	1.06			
298	4.87			8.60	6.47	5.30	4.38	3.20	2.65	2.17	1.59	1.20	0.87		
324	4.47			9.36	7.04	5.76	4.77	3.48	2.89	2.36	1.73	1.31	0.95		
367	3.95				7.97	6.52	5.40	3.94	3.27	2.67	1.95	1.48	1.07		
412	3.52				8.74	7.17	5.92	4.33	3.59	2.93	2.14	1.62	1.18	0.87	
459	3.16				9.12	7.51	6.18	4.52	3.75	3.06	2.24	1.69	1.23	0.90	
498	2.91					8.76	7.25	5.30	4.39	3.59	2.62	1.99	1.44	1.06	
561	2.58					9.98	8.26	6.03	5.00	4.09	2.99	2.27	1.64	1.21	
644	2.25						8.34	6.10	5.06	4.13	3.02	2.28	1.65	1.22	
712	2.04						8.77 •	6.41 •	5.32 •	4.35 •	3.18	2.40	1.74	1.28	
817	1.77						8.27 •	6.05 •	5.01 •	4.10 •	3.00	2.26	1.64	1.21	
903	1.61						8.29 •	6.06 •	5.02 •	4.11 •	3.01 •	2.27 •	1.64	1.21	
995	1.46						8.40	6.14	5.09	4.16	3.05	2.30	1.67	1.23	
1148	1.26						8.83	6.45	5.35	4.38	3.20	2.41	1.75	1.29	
4-pole LS, LSES and brake		Three-phase 4-pole LS, LSES													
LS FCR		71 L			80 L		90 L			100 L		112	132		
LSES FCR					**80**		**90**			**100**		**112**	**132**		

• *MU obligatory*



Selection example

Required power:	4 kW
Required speed:	300 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B52; BS flange

Designation: Cb 3331 i: 4.87 BS S B52 - MI 4p LSES 112MU 4 kW LS2/IE2 - 400 VY - U.G.

Electromechanical products
Compabloc 3000

Selection

Classes	Cb 3431	
I, II, III (kp = 1, 1.4, 2)	LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3431

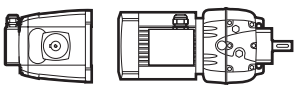
		LS, LSES (kW)															
		0.75	**0.9**	**1.1**	**1.5**	**1.8**	**2.2**	**3**	**4**	**5.5**	**7.5**	**9**	**11**	**15**	**18.5**	**22**	**30**
		Three-phase 4-pole LS, LSES															
min-1	i exact	80		90			100		112	132			160		180		200
179	8.1	8.05	6.59	5.45	3.98	3.29	2.69	1.97	1.49								
212	6.83		8.25	6.82	4.98	4.12	3.37	2.46	1.87								
236	6.15		9.20	7.61	5.55	4.60	3.76	2.75	2.08	1.51	1.11						
260	5.57			8.40	6.13	5.08	4.15	3.03	2.30	1.66	1.23						
282	5.13			9.12	6.66	5.51	4.51	3.29	2.50	1.81	1.33						
329	4.41				7.75	6.41	5.24	3.83	2.90	2.10	1.55	1.29	1.06				
353	4.11				8.31	6.88	5.63	4.11	3.12	2.26	1.66	1.39	1.13	0.83			
403	3.6				9.49	7.86	6.43	4.70	3.56	2.58	1.90	1.58	1.29	0.95			
456	3.18					8.89	7.27	5.31	4.03	2.91	2.15	1.79	1.46	1.07	0.87		
512	2.83					9.89	8.09	5.91	4.48	3.24	2.39	1.99	1.63	1.19	0.97	0.81	
571	2.54						8.75	6.39	4.84	3.51	2.58	2.15	1.76	1.29	1.04	0.88	
667	2.17						9.73	7.11	5.38	3.90	2.87	2.39	1.96	1.43	1.16	0.98	
737	1.97							7.58 •	5.74 •	4.16	3.06	2.55	2.09	1.53	1.24	1.04	
836	1.74							7.41 •	5.61 •	4.06	2.99	2.50	2.04	1.49	1.21	1.02	
932	1.56							8.73 •	6.61 •	4.79	3.53	2.94	2.40	1.76	1.43	1.20	0.88 •
1047	1.38							8.62 •	6.53 •	4.73	3.48	2.91	2.37	1.74	1.41	1.18	0.87 •
1171	1.24							8.04 •	6.08 •	4.41	3.25	2.71	2.21	1.62	1.31	1.10	0.81 •
4-pole LS, LSES and brakes		Three-phase 4-pole LS, LSES															
LS FCR		80 L		90 L			100 L		112	132			160				
LSES FCR		**80**		**90**			**100**		**112**	**132**			**160**				
LS, LSES FCPL													**160**		**180**		**200**

• *MU obligatory*

Selection example

Required power:	4 kW
Required speed:	179 min-1
Duty factor required by the application:	Kp = 1.4
Operating position; Mounting form:	Horizontal B7; foot mounted

Designation: Cb 3431 i: 8.1 S S B7 - MI 4p LS 112MU 4 kW LS2/IE2 - 400 VY - U.G.



Selection

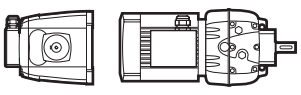
Classes	Cb 3531	
I, II, III (kp = 1, 1.4, 2)	LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3531

LSES (kW)

		1.1	1.5	1.8	2.2	3	4	5.5	7.5	9	11	15	18.5	22	30
		Three-phase 4-pole LSES													
min-1	i exact	90			100		112	132			160		180		200
181	8	9.93	7.24	5.99	4.90	3.58	2.71	1.96	1.45						
211	6.87		8.20	6.78	5.55	4.05	3.07	2.22	1.64						
230	6.31		9.26	7.66	6.26	4.58	3.47	2.51	1.85						
264	5.5			8.79	7.19	5.25	3.98	2.88	2.12	1.77	1.45	1.06	0.86		
299	4.85			9.92	8.11	5.92	4.48	3.25	2.39	2.00	1.63	1.19	0.97	0.81	
333	4.35				9.09	6.64	5.03	3.64	2.68	2.24	1.83	1.34	1.08	0.91	
374	3.88				9.83	7.18	5.44	3.93	2.90	2.42	1.98	1.45	1.17	0.98	
408	3.55					7.88	5.96	4.31	3.18	2.65	2.17	1.58	1.29	1.08	
472	3.07					7.94	6.01	4.35	3.21	2.67	2.19	1.60	1.30	1.09	
523	2.77					8.88	6.70	4.86	3.57	2.98	2.44	1.78	1.45	1.21	0.89
594	2.44					9.43 •	7.11 •	5.16	3.79	3.16	2.58	1.89	1.53	1.29	0.95
644	2.25					9.76 •	7.36 •	5.33	3.92	3.27	2.67	1.96	1.59	1.33	0.98
725	2						7.71 •	5.58	4.11	3.42	2.8	2.05	1.66	1.40	1.03
812	1.79						8.03 •	5.82	4.28	3.57	2.92	2.14	1.73	1.45	1.07
906	1.6									3.71	3.03	2.22	1.80	1.51	1.11
994	1.46									3.82	3.12	2.28	1.85	1.56	1.14
1137	1.28									3.97	3.25	2.38	1.93	1.62	1.19
4-pole LS, LSES and brakes		Three-phase 4-pole LS, LSES													
LS FCR		90 L			100 L		112	132			160				
LSES FCR		**90**			**100**		**112**	**132**			**160**				
LS, LSES FCPL											**160**		**180**		**200**

• *MU obligatory*



Selection example

Required power:	15 kW
Required speed:	300 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B7; foot mounted

Designation: Cb 3531 i: 4.85 S S B7 - MI 4p LSES 160L 15 kW LS2/IE2 - 400 VΔ - U.G.

Selection

Classes	Cb 15	
I, II, III (kp = 1, 1.4, 2)	LS, brake LS - IP 55 - Cl. F - 230 V/400 V Y - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

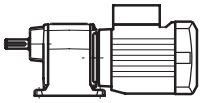
Cb 1502, 1503, 1504

		LS (kW)										
		0.06	**0.09**	**0.12**	**0.18**	**0.25**	**0.37**	**0.55**	**0.75**	**0.9**	**1.1**	**1.5**
		Three-phase 4-pole LS										
		56		63		71			80		90	
		Single-phase 4-pole LS										
min-1	i exact	56 P	63 P			71 P			80		90	
6.29	231	1.01										
7.13	203	1.14			**Cb 1504**							
8.01	181	1.27										
9.01	161	1.33	0.83									
10.1	144	1.48	0.92									
11.6	125	1.69	1.05									
13.1	110	1.89	1.18	0.83								
14.8	98.3	2.10	1.31	0.92								
16.4	88.2	2.32	1.45	1.02		**Cb 1503**						
18.2	79.7	2.54	1.58	1.11								
20.5	70.8	2.80	1.74	1.23								
22.5	64.6	3.01	1.87	1.32	0.85							
24.5	59.1	3.22	2.00	1.41	0.91							
29.0	50.1	3.71	2.30	1.63	1.04							
31.4	46.2	3.91	2.43	1.72	1.10							
35.6	40.8	4.31	2.68	1.89	1.21	0.87						
39.3	36.9	4.64	2.88	2.03	1.31	0.94						
46.0	31.5	4.16	2.60	1.83	1.18							
51.5	28.2	5.70	3.56	2.51	1.61	1.16						
59.1	24.5	6.38	3.99	2.80	1.80	1.30						
67	21.6	7.13	4.46	3.14	2.01	1.45		**Cb 1502**				
75.2	19.3	7.89	4.93	3.47	2.23	1.61						
83.8	17.3	8.62	5.39	3.79	2.44	1.76	1.16					
92.8	15.6	9.37	5.86	4.12	2.65	1.91	1.26					
104	13.9		6.40	4.50	2.89	2.09	1.38					
115	12.7		6.84	4.81	3.09	2.23	1.47	0.96				
125	11.6		7.24	5.10	3.27	2.36	1.56	1.02				
148	9.81		8.16	5.74	3.69	2.66	1.76	1.15				
160	9.07		8.63	6.07	3.90	2.81	1.86	1.21				
181	7.99		9.53	6.70	4.31	3.11	2.05	1.34				
201	7.23			7.07	4.55	3.28	2.16	1.42				
4-pole LS and brakes						Three-phase 4-pole LS						
FMD		56 M		63 M		71 M						
FCR						71 L						
		Single-phase 4-pole LS										
FMD		**56 MP**	**63 MP**		**71 MP**							

Selection example

Required power:	0.18 kW
Required speed:	45 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	horizontal, foot mounted

Designation: Cb 1502 i: 31.5 S S M - MI 4p LS 63M 0.18 kW - 400 VY - U.G.



Electromechanical products
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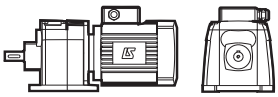
Selection

Classes	Cb 30	
I, II, III (kp = 1, 1.4, 2)	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3032, 3033

		LS, LSES (kW)										
		0.06	**0.09**	**0.12**	**0.18**	**0.25**	**0.37**	**0.55**	**0.75**	**0.9**	**1.1**	**1.5**
		Three-phase 4-pole LS, LSES										
		56		63		71			80		90	
		Single-phase 4-pole LS										
min-1	i exact	56 P	63 P		71 P							
7.1	204	1.41	0.89									
7.99	181	1.59	1.00									
9.02	161	1.79	1.13	0.80								
9.92	146	1.97	1.24	0.88				**Cb 3033**				
11.2	130	2.22	1.40	0.99								
12.6	115	2.50	1.58	1.11								
14.2	102	2.82	1.77	1.25	0.80							
15.9	91.1	3.17	1.99	1.41	0.91							
17.8	81.3	3.55	2.23	1.57	1.01							
21.0	69.1	4.17	2.63	1.85	1.19	0.86						
22.6	64.1	4.50	2.83	2.00	1.29	0.93						
26.4	55	5.24	3.30	2.33	1.50	1.08						
29.5	49.2	5.87	3.69	2.60	1.68	1.21	0.80					
31.6	45.9	6.28	3.95	2.79	1.80	1.30	0.86					
37.5	38.7	7.44	4.68	3.30	2.13	1.54	1.01					
39.5	36.7	7.83	4.92	3.47	2.24	1.62	1.07					
43.6	33.2	8.62	5.44	3.82	2.46	1.78	1.17					
32.0	45.4	6.29	3.95	2.79	1.80	1.30	0.86					
36.0	40.3	7.06	4.44	3.13	2.02	1.46	0.96					
40.6	35.7	7.96	5.00	3.53	2.27	1.64	1.08		**Cb 3032**			
43.6	33.2	8.62	5.42	3.82	2.46	1.78	1.17					
44.6	32.5	8.74	5.49	3.88	2.50	1.8	1.19					
50.3	28.8	9.82	6.17	4.36	2.81	2.03	1.34					
56.7	25.6		6.94	4.90	3.16	2.28	1.50	0.99				
63.7	22.8		7.79	5.50	3.54	2.56	1.69	1.11	0.83			
71.6	20.2		8.74	6.17	3.97	2.87	1.89	1.24	0.93			
80.3	18.1		9.76	6.89	4.44	3.20	2.12	1.39	1.04	0.85		
94.4	15.4			8.08	5.20	3.75	2.48	1.62	1.22	1.00		
102	14.2			8.69	5.60	4.04	2.67	1.75	1.31	1.08		
119	12.2				6.49	4.69	3.09	2.03	1.52	1.25		
133	10.9				7.24	5.23	3.45	2.26	1.70	1.39		
142	10.2				7.75	5.59	3.69	2.42	1.82	1.49		
169	8.59				9.15	6.60	4.36	2.85	2.14	1.76		
178	8.16				9.61	6.94	4.58	3.00	2.25	1.85		
196	7.38					7.62	5.03	3.30	2.48	2.03		

4-pole LS, LSES and brakes	Three-phase 4-pole LS, LSES								
LS FMD	56 M		63 M		71 M				
LS FCR					71 L		80 L		
LSES FCR							**80**		
	Single-phase 4-pole LS								
FMD	**56 MP**	**63 MP**		**71 MP**					



Selection example

Required power:	0.25 kW
Required speed:	32 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	horizontal, foot mounted

Designation: Cb 3032 i: 45.4 S S M - MI 4p LS 71M 0.25 kW - 400 VY - U.G.

Selection

Classes	Cb 3133	
I, II, III	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F	Integral mounting **MI**
(kp = 1, 1.4, 2)	230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Universal mounting **MU**
		Input shaft mounting **AP**

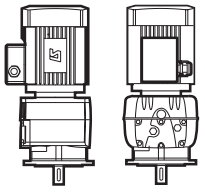
		Cb 3133										
		LS, LSES (kW)										
		0.25	**0.37**	**0.55**	**0.75**	**0.9**	**1.1**	**1.5**	**1.8**	**2.2**	**3**	**4**
		Three-phase 4-pole LS, LSES										
min-1	i exact	71			80		90			100		112
9.17	158	0.85										
10.1	144	0.93										
11.7	124	1.08										
13.1	111	1.20										
14.6	99.4	1.30	0.86									
16.7	87	1.43	0.95									
17.6	82.2	1.49	0.99									
20.9	69.2	1.67	1.11									
22.2	65.3	1.74	1.15									
25.1	57.8	1.89	1.25	0.82				Cb 3133				
28.7	50.6			0.90								
29.5	49.1	2.71	1.79									
32.6	44.5	2.98	1.97	0.98								
37.3	38.8	3.41	2.25	1.48	1.11	0.91						
41.0	35.4	3.74	2.47	1.62	1.22	1.00						
47.5	30.6	4.32	2.85	1.87	1.40	1.15	0.95					
53.2	27.2	4.83	3.19	2.09	1.57	1.29	1.06					
59.4	24.4	5.38	3.55	2.33	1.75	1.43	1.18	0.87				
67.9	21.4	6.13	4.05	2.65	1.99	1.63	1.35	0.99	0.82			
71.8	20.2	6.47	4.27	2.8	2.10	1.72	1.42	1.04	0.86			
85.3	17	7.65	5.05	3.31	2.49	2.04	1.68	1.23	1.02	0.83		
90.5	16	8.11	5.35	3.50	2.63	2.16	1.78	1.30	1.08	0.88		
102	14.2	9.11	6.02	3.94	2.96	2.43	2.01	1.47	1.21	0.99		
117	12.4		6.71	4.40	3.29	2.70	2.23	1.63	1.35	1.11	0.81	
133	10.9		7.36	4.84	3.61	2.97	2.45	1.79	1.48	1.21	0.89	
139	10.4		5.84	3.82	2.87	2.35	1.95 ●					
150	9.67			5.28 ●	3.93 ●	3.23 ●	2.66	1.95	1.61	1.32	0.96	
165	8.79		6.93	4.54	3.41	2.8	2.31 ●					
169	8.57			5.72 ●	4.25 ●	3.50 ●	2.88	2.11	1.75	1.43		
191	7.57			6.18	4.60	3.79	3.12	2.28	1.89	1.55	1.13	
198	7.34		8.30	5.43	4.09	3.35	2.77	2.02	1.68	1.37	1.00	
226	6.42		9.49	6.21	4.67	3.83	3.17	2.31	1.92	1.57	1.15	
257	5.65			6.96	5.22	4.28	3.54	2.58	2.14	1.75	1.28	
290	4.99			7.39 ●	5.49 ●	4.52 ●	3.72	2.72	2.26	1.84	1.35	
327	4.43			7.61 ●	5.65 ●	4.66 ●	3.83	2.80	2.32	1.90	1.39	
371	3.91			8.48	6.30	5.19	4.27	3.12	2.59	2.12	1.55	
391	3.71			8.72	6.48	5.33	4.39	3.21	2.66	2.18	1.59	
4-pole LS, LSES and brake		Three-phase 4-pole LS, LSES										
LS FCR		71 L			80 L		90 L			100 L		
LSES FCR					**80**		**90**			**100**		

● *MU obligatory*

Selection example

Required power:	1.5 kW
Required speed:	84 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	V1 vertical; BS flange

Designation: Cb 3133 i: 17 BS S V1 - MI 4p LSES 90L 1.5 kW LS2/IE2 - 400 VY - U.G.



Electromechanical products
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Selection

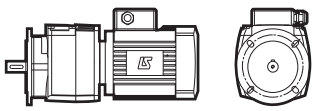
Classes	Cb 3233	
I, II, III (kp = 1, 1.4, 2)	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3233

LS, LSES (kW)

		0.25	0.37	0.55	0.75	0.9	1.1	1.5	1.8	2.2	3	4	5.5
		Three-phase 4-pole LS, LSES											
min-1	i exact	71			80		90			100		112	132
7.12	204	1.48	0.97										
8.31	174	1.72	1.14										
9.11	159	1.89	1.25	0.82									
10.1	144	2.09	1.38	0.90									
11.8	123	2.45	1.62	1.06	0.80								
13.3	109	2.75	1.82	1.19	0.89								
14.8	98.2	3.06	2.02	1.32	1.00	0.82							
16.8	86.5	3.48	2.30	1.50	1.13	0.93			Cb 3233				
18.6	77.9	3.86	2.55	1.67	1.26	1.03	0.85						
21.1	68.6	4.38	2.90	1.89	1.43	1.17	0.97						
22.6	64.2	4.68	3.09	2.02	1.52	1.25	1.03						
26.0	55.7	5.40	3.57	2.33	1.76	1.44	1.19	0.87					
28.9	50.2	5.93	3.92	2.56	1.93	1.58	1.31						
29.7	48.9			2.66	2.00	1.64	1.36	0.99	0.82				
33.7	43	6.91	4.56	2.99	2.25	1.84	1.52	1.11	0.92				
37.0	39.2	7.56	5.00	3.27	2.46	2.01	1.67	1.22	1.01	0.82			
40.8	35.5	8.33	5.50	3.60	2.71	2.22	1.84	1.34	1.11	0.91			
47.9	30.3	9.73	6.43	4.21	3.16	2.59	2.14	1.57	1.30	1.06			
53.9	26.9		7.21	4.72	3.55	2.91	2.40	1.76	1.45	1.19	0.87		
59.9	24.2		8.00	5.24	3.94	3.23	2.67	1.95	1.61	1.32	0.97		
68.1	21.3		9.06	5.93	4.46	3.65	3.02	2.21	1.83	1.50	1.09	0.83	
75.6	19.2		9.99	6.54	4.92	4.03	3.33	2.43	2.02	1.65	1.21	0.9	
85.8	16.9			7.20	5.39	4.42	3.65	2.67	2.21	1.81	1.32	1.00	
91.7	15.8			7.57	5.64	4.64	3.82	2.79	2.32	1.89	1.39	1.05	
106	13.7			8.38	6.23	5.13	4.22	3.09	2.56	2.09	1.53	1.16	0.84
120	12			9.12	6.79	5.59	4.60	3.36	2.79	2.28	1.67	1.26	
133	10.9			9.77 •	7.27 •	5.98 •	4.93 •	3.60 •	2.99 •	2.44 •	1.79	1.35	
134	10.8			6.51	4.90	4.01	3.32	2.43	2.01	1.64			
149	9.72			7.23	5.44	4.46	3.69	2.69	2.23	1.82			
151	9.62				7.86 •	6.47 •	5.32 •	3.89 •	3.23 •	2.64 •	1.93	1.46	1.06
161	9.02				8.22 •	6.77 •	5.57 •	4.07 •	3.38 •	2.76 •	2.02	1.52	1.11
169	8.57			8.21	6.17	5.06	4.18	3.06	2.53	2.07			
181	8.02			8.77	6.60	5.40	4.47	3.27	2.71	2.21			
190	7.63				9.13 •	7.51 •	6.19	4.52	3.75	3.07	2.24	1.69	1.23
208	6.96				7.61	6.23	5.15	3.77	3.12	2.55	1.86	1.41	1.02
238	6.1				8.67	7.10	5.87	4.29	3.55	2.91	2.13	1.61	1.17
263	5.51				9.6 •	7.86 •	6.50 •	4.75 •	3.93 •	3.22 •	2.35	1.78	1.29
297	4.88					8.88 •	7.35 •	5.37 •	4.45 •	3.64 •	2.66	2.02	1.46
317	4.57					9.48 •	7.84 •	5.73 •	4.74 •	3.88 •	2.84	2.15	1.56
375	3.87						9.26	6.77	5.6	4.59	3.35	2.54	1.84
4-pole LS, LSES and brakes		Three-phase 4-pole LS, LSES											
LS FCR		71 L			80 L		90 L			100 L		112	132
LSES FCR					**80**		**90**			**100**		**112**	**132**

• *MU obligatory*



Selection example:

Required power:	0.75 kW
Required speed:	20 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B5; BS flange

Designation: Cb 3233 i: 77.9 BS S B5 - MI 4p LSES 80LG 0.75 kW LS2/IE2 - 400 VY - U.G.

Electromechanical products
Compabloc 3000

Selection

Classes	Cb 3333	
I, II, III (kp = 1, 1.4, 2)	LS, LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3333

LS, LSES (kW)

min-1	i exact	0.25	0.37	0.55	0.75	0.9	1.1	1.5	1.8	2.2	3	4	5.5	7.5	9
		Three-phase 4-pole LS, LSES													
		71			80		90			100		112	132		
7.23	200	2.75	1.81	1.19	0.89										
8.01	181	3.04	2.01	1.31	0.99	0.81									
8.95	162	3.40	2.24	1.47	1.10	0.90									
10.3	141	3.91	2.58	1.69	1.27	1.04	0.86			Cb 3333					
11.6	125	4.42	2.92	1.91	1.44	1.18	0.97								
12.7	114	4.81	3.17	2.08	1.56	1.28	1.06								
14.3	101	5.44	3.59	2.35	1.77	1.45	1.20	0.88							
16.1	90.1	6.11	4.03	2.64	1.99	1.63	1.35	0.98	0.81						
17.9	80.9	6.81	4.49	2.94	2.21	1.81	1.50	1.10	0.91						
19.5	74.4	7.39	4.88	3.20	2.40	1.97	1.63	1.19	0.99	0.81					
21.9	66.1	8.33	5.50	3.60	2.71	2.22	1.83	1.34	1.11	0.91					
25.2	57.6			4.13	3.11	2.54	2.11	1.54	1.27	1.04					
27.8	52.1			4.57 •	3.43 •	2.81 •	2.33 •	1.70 •	1.41 •	1.15 •	0.84				
29.8	48.7		7.13	4.67	3.51	2.88	2.38	1.74	1.44	1.18					
33.0	44		7.89	5.17	3.89	3.18	2.63	1.92	1.59	1.30					
36.8	39.4		8.82	5.77	4.34	3.56	2.94	2.15	1.78	1.46	1.06	0.81			
42.4	34.2			6.65	5.00	4.10	3.39	2.48	2.05	1.68	1.23	0.93			
48.0	30.2			7.51	5.65	4.63	3.83	2.80	2.32	1.90	1.39	1.05			
52.2	27.8			8.17	6.15	5.03	4.17	3.04	2.52	2.06	1.51	1.14	0.83		
59.0	24.6			9.25	6.96	5.70	4.72	3.5	2.85	2.33	1.71	1.29	0.94		
66.3	21.9				7.81	6.40	5.29	3.87	3.20	2.62	1.91	1.45	1.05		
73.8	19.6				8.70	7.13	5.90	4.31	3.57	2.92	2.13	1.62	1.17	0.86	
80.2	18.1				9.45	7.74	6.41	4.68	3.88	3.17	2.32	1.76	1.27	0.94	
90.3	16.1					8.72	7.21	5.27	4.36	3.57	2.61	1.98	1.43	1.06	
104	14						8.28	6.05	5.01	4.10	3.00	2.27	1.64	1.21	
115	12.7						9.12 •	6.66 •	5.52 •	4.51 •	3.30	2.50	1.81	1.34	
116	12.5			9.25	6.96	5.70	4.72	3.45	2.85	2.33					
131	11.1				7.81	6.40	5.29	3.87	3.20	2.62					
132	11						9.94 •	7.26 •	6.02 •	4.92 •	3.60	2.72	1.97	1.45	
145	9.98							7.95 •	6.59 •	5.39 •	3.94 •	2.98 •	2.16	1.59	
146	9.95				8.70	7.13	5.90	4.31	3.57	2.92	2.13	1.62			
158	9.16				9.45	7.74	6.41	4.68	3.88	3.17					
160	9.06							8.51	7.06	5.77	4.22	3.19	2.31	1.70	
178	8.14					8.72	7.21	5.27	4.36	3.57	2.61	1.98			
185	7.85							9.33	7.74	6.33	4.63	3.49	2.53	1.86	
205	7.09						8.28	6.05	5.01	4.10	3.00	2.27	1.64	1.21	
226	6.41						9.15 •	6.69 •	5.54 •	4.53 •	3.31	2.51	1.82	1.34	
259	5.59							7.68 •	6.35 •	5.20 •	3.80	2.88	2.09	1.54	
287	5.06							8.48 •	7.02 •	5.74 •	4.20 •	3.18 •	2.30	1.70	
316	4.59							9.35	7.74	6.33	4.63	3.51	2.54	1.87	
364	3.98								8.93	7.30	5.34	4.05	2.93	2.16	

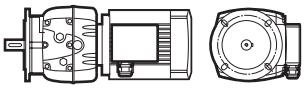
4-pole LS, LSES and brake	Three-phase 4-pole LS, LSES						
LS FCR	71 L	80 L	90 L	100 L	112	132	
LSES FCR		**80**	**90**	**100**	**112**	**132**	

• *MU obligatory*

Selection example

Required power:	4 kW
Required speed:	47 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B52; BS flange

Designation: Cb 3333 i: 30.2 BS S B52 - MI 4p LSES 112MU 4 kW LS2/IE2 - 400 VY - U.G.



Electromechanical products
Compabloc 3000

Selection

Classes
I, II, III
(kp = 1, 1.4, 2)

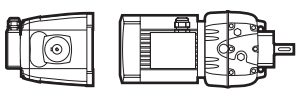
Cb 3433
LSES, LS brake, LSES brake - IP 55 - Cl. F
230 V/400 V Y 400 V Δ - 50 Hz - U.G.

Integral mounting	**MI**
Universal mounting	**MU**
Input shaft mounting	**AP**

Cb 3433

		LSES (kW)															
		0.75	**0.9**	**1.1**	**1.5**	**1.8**	**2.2**	**3**	**4**	**5.5**	**7.5**	**9**	**11**	**15**	**18.5**	**22**	**30**
		Three-phase 4-pole LSES															
min-1	i exact	80		90			100		112	132			160		180		200
7.11	204	1.72	1.40	1.16	0.85												
8.43	172	2.03	1.66	1.37	1.00	0.83											
9.36	155	2.26	1.85	1.53	1.11	0.92											
10.3	140	2.49	2.04	1.68	1.23	1.02	0.83										
11.2	129	2.70	2.21	1.82	1.33	1.10	0.90										
13.1	111	3.13	2.56	2.12	1.55	1.28	1.05										
14	104	3.36 •	2.75 •	2.27	1.66	1.37	1.12	0.82									
16.0	90.7	3.82 •	3.13 •	2.59	1.89	1.56	1.28	0.93									
18.1	80.1	4.32 •	3.53 •	2.92	2.13	1.76	1.44	1.05	0.80								
20.3	71.4	4.84 •	3.96 •	3.27	2.39	1.98	1.62	1.18	0.90								
22.7	63.9	5.39 •	4.41 •	3.64	2.66	2.20	1.80	1.32	1.00								
26.5	54.7	6.27 •	5.13 •	4.24	3.10	2.56	2.10	1.53	1.16	0.84		**Cb 3433**					
28.8	50.3	6.74	5.51	4.56	3.33	2.75	2.25	1.65	1.25								
34.2	42.5	7.95	6.51	5.38	3.93	3.25	2.66	1.94	1.47								
37.9	38.2	8.81	7.21	5.96	4.35	3.60	2.94	2.15	1.63	1.18	0.87						
41.9	34.6	9.70	7.94	6.56	4.79	3.97	3.24	2.37	1.80	1.30	0.96						
45.5	31.9		8.60	7.11	5.19	4.29	3.51	2.57	1.94	1.41	1.04						
52.9	27.4		9.96	8.23	6.01	4.98	4.07	2.97	2.25	1.63	1.20	1.00	0.82				
56.8	25.5			8.82	6.44	5.33	4.36	3.18	2.41	1.75	1.29	1.07	0.88				
64.8	22.4				7.32	6.06	4.95	3.62	2.74	1.99	1.46	1.22	1.00				
73.3	19.8				8.25	6.83	5.58	4.08	3.09	2.24	1.65	1.38	1.12	0.82			
82.4	17.6				9.22	7.63	6.24	4.56	3.46	2.50	1.84	1.54	1.26	0.92			
91.9	15.8					8.49	6.94	5.07	3.84	2.78	2.05	1.71	1.40	1.02	0.83		
107	13.5					9.86	8.06	5.89	4.46	3.23	2.38	1.99	1.62	1.19	0.96	0.81	
119	12.2						8.86 •	6.48 •	4.90 •	3.55	2.62	2.18	1.78	1.31	1.06	0.89	
134	10.8						9.77 •	7.14 •	5.40 •	3.91	2.88	2.40	1.96	1.44	1.17	0.98	
150	9.67							7.72 •	5.83 •	4.22	3.11	2.59	2.12	1.55	1.26	1.06	
169	8.6							8.31 •	6.28 •	4.55	3.35	2.79	2.28	1.67	1.35	1.14	0.84 •
188	7.69							8.04 •	6.09 •	4.41	3.25	2.71	2.21	1.62	1.31	1.10	0.81 •
211	6.86						9.73	7.11	5.38	3.90	2.87	2.40	1.96	1.43	1.16	0.98	
233	6.21							7.59 •	5.74 •	4.16	3.06	2.56	2.09	1.53	1.24	1.04	
265	5.48							7.41 •	5.61 •	4.06	2.99	2.50	2.04	1.49	1.21	1.02	
295	4.91							8.73 •	6.61 •	4.79	3.53	2.94	2.40	1.76	1.43	1.20	0.88 •
332	4.37							8.63 •	6.53 •	4.73	3.48	2.91	2.38	1.74	1.41	1.18	0.87 •
371	3.91							8.04 •	6.09 •	4.41	3.25	2.71	2.21	1.62	1.31	1.10	0.81 •
4-pole LS, LSES and brakes		Three-phase 4-pole LS, LSES															
LS FCR		80 L		90 L			100 L		112	132			160				
LSES FCR		**80**		**90**			**100**		**112**	**132**			**160**				
LS, LSES FCPL													**160**		**180**		**200**

• *MU obligatory*



Selection example

Required power:	4 kW
Required speed:	28 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B7; foot mounted

Designation: Cb 3433 i: 50.3 S S B7 - MI 4p LSES 112MU LS2/IE2 4 kW - 400 VY - U.G.

Electromechanical products
Compabloc 3000

Selection

Classes	Cb 3533	
I, II, III (kp = 1, 1.4, 2)	LSES, LS brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3533

		LSES (kW)															
		0.75	**0.9**	**1.1**	**1.5**	**1.8**	**2.2**	**3**	**4**	**5.5**	**7.5**	**9**	**11**	**15**	**18.5**	**22**	**30**
		Three-phase 4-pole LSES															
min-1	i exact	80		90			100		112	132			160		180		200
7.2	201	3.32 •	2.72 •	2.24	1.64	1.35	1.11	0.81									
8.39	173	3.86 •	3.16 •	2.61	1.90	1.57	1.29	0.94									
9.13	159	4.19 •	3.43 •	2.83	2.07	1.71	1.40	1.02									
10.5	138	4.80 •	3.93 •	3.25	2.37	1.96	1.60	1.17	0.89								
11.9	122	5.44 •	4.45 •	3.67	2.68	2.22	1.81	1.32	1.00								
13.2	110	6.05 •	4.94 •	4.08	2.98	2.46	2.02	1.47	1.11	0.81							
14.9	97.5	6.78 •	5.54 •	4.58	3.34	2.76	2.26	1.65	1.25	0.90							
16.2	89.3	7.39 •	6.04 •	4.99 •	3.64 •	3.01 •	2.46 •	1.80	1.36	0.99							
18.8	77.2	8.52 •	6.97 •	5.75 •	4.2 •	3.47 •	2.84 •	2.07	1.57	1.14	0.84		**Cb 3533**				
20.8	69.8	9.10 •	7.46 •	6.15 •	4.49 •	3.71 •	3.04 •	2.22	1.68	1.21	0.89						
23.6	61.4	9.90 •	8.13 •	6.69 •	4.88 •	4.04 •	3.30 •	2.41 •	1.82 •	1.32	0.97	0.81					
25.6	56.6		8.52 •	7.00 •	5.11 •	4.23 •	3.46 •	2.53 •	1.91 •	1.38	1.02	0.85					
29.2	49.7			8.76	6.39	5.29	4.32	3.16	2.39	1.73	1.28						
34.0	42.7				7.41	6.13	5.02	3.66	2.77	2.01	1.48						
37.0	39.2				8.05	6.66	5.44	3.98	3.01	2.18	1.61						
42.4	34.2				9.20	7.61	6.22	4.55	3.44	2.49	1.84	1.53	1.25	0.92			
48.1	30.1					8.60	7.03	5.13	3.89	2.81	2.07	1.73	1.41	1.03	0.84		
53.6	27.1					9.55	7.80	5.70	4.32	3.12	2.30	1.92	1.57	1.15	0.93		
60.2	24.1						8.73	6.38	4.83	3.50	2.58	2.15	1.76	1.28	1.04	0.88	
65.7	22.1						9.50 •	6.94	5.26	3.80	2.80	2.34	1.91	1.40	1.13	0.95	
76.0	19.1							7.56	5.73	4.14	3.05	2.55	2.08	1.52	1.24	1.04	
84.1	17.2							8.78	6.65	4.81	3.55	2.96	2.42	1.77	1.43	1.20	0.89
95.6	15.2							9.61 •	7.27 •	5.27	3.88	3.24	2.64	1.93	1.57	1.32	0.97
104	14								7.66 •	5.55	4.09	3.41	2.79	2.04	1.65	1.39	1.02
117	12.4								8.46 •	6.12	4.51	3.76	3.08	2.25	1.82	1.53	1.13
131	11.1								9.04 •	6.55	4.82	4.02	3.29	2.41	1.95	1.64	1.21
146	9.94											4.44	3.63	2.65	2.15	1.81	1.33
160	9.07											4.71	3.85	2.82	2.29	1.92	1.41
183	7.92											5.15	4.21	3.08	2.50	2.10	1.54
202	7.18								7.66 •	5.55	4.09	3.41	2.79	2.04	1.65	1.39	1.02
227	6.38								8.46 •	6.13	4.51	3.76	3.08	2.25	1.83	1.53	1.13
255	5.7								9.04 •	6.54	4.82	4.02	3.29	2.40	1.95	1.64	1.21
284	5.1											5.28	4.31	3.16	2.56	2.15	1.58
311	4.66											5.55	4.53	3.32	2.69	2.26	1.66
356	4.07											5.94	4.86	3.55	2.88	2.42	1.78

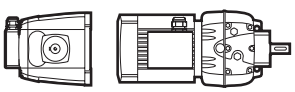
4-pole LS, LSES and brakes	Three-phase 4-pole LS, LSES										
LS FCR	80 L	90 L	100 L	112	132			160			
LSES FCR	**80**	**90**	**100**	**112**	**132**			**160**			
LS, LSES FCPL								**160**	**180**		**200**

• *MU obligatory*

Selection example

Required power:	15 kW
Required speed:	60 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B7; foot mounted

Designation: Cb 3533 i: 24.1 S S B7 - MI 4p LSES 160L 15 kW LS2/IE2 - 400 VΔ - U.G.



Electromechanical products
Compabloc 3000

Selection

Classes
I, II, III
(kp = 1, 1.4, 2)

Cb 3633
LSES, LS brake, LSES brake - IP 55 - Cl. F
230 V/400 V Y 400 V Δ - 50 Hz - U.G.

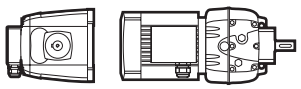
Integral mounting	**MI**
Universal mounting	**MU**
Input shaft mounting	**AP**

Cb 3633

		LSES (kW)															
		1.1	1.5	1.8	2.2	3	4	5.5	7.5	9	11	15	18.5	22	30	37	45	55 [1]
		Three-phase 4-pole LSES																
min-1	i exact	90			100		112	132			160		180		200	225		250
5.8	252	2.56	1.86	1.54	1.26	0.92												
6.7	216	2.98	2.17	1.79	1.47	1.07	0.81											
7.3	199	3.24	2.36	1.95	1.60	1.17	0.88											
8.4	173	3.72	2.71	2.24	1.83	1.34	1.02											
9.5	153	4.22	3.08	2.56	2.08	1.52	1.15	0.83										
10.6	137	4.69	3.42	2.85	2.32	1.69	1.28	0.93										
11.9	122	5.26	3.84	3.20	2.60	1.90	1.44	1.04		Cb 3633								
12.9	112				2.83 •	2.07	1.56	1.13	0.83									
15.0	96.6				3.26 •	2.38	1.80	1.31	0.96	0.80								
16.6	87.3				3.60 •	2.63	1.99	1.44	1.06	0.89								
18.9	76.9				4.08 •	2.98 •	2.26 •	1.63	1.20	1.00	0.82							
20.5	70.8				4.42 •	3.23 •	2.44 •	1.77	1.30	1.09	0.89							
23.0	63				4.96 •	3.62 •	2.74 •	1.98	1.46	1.22	1.00							
25.8	56.2				5.54 •	4.04 •	3.06 •	2.22	1.63	1.36	1.11	0.81						
28.8	50.4				6.16 •	4.50 •	3.41 •	2.47•	1.82 •	1.52	1.24	0.91						
33.9	42.8				6.80	4.97	3.75	2.72	2.00	1.67	1.36	1.00	0.81					
37.2	39				7.83	5.72	4.33	3.13	2.31	1.93	1.57	1.15	0.93					
42.0	34.5				8.75	6.39	4.84	3.50	2.58	2.15	1.76	1.29	1.04	0.88				
46.6	31.1				9.60 •	7.01	5.30	3.84	2.83	2.36	1.93	1.41	1.14	0.96				
52.3	27.7					7.76	5.87	4.25	3.13	2.61	2.13	1.56	1.27	1.06				
56.9	25.5					8.35	6.31	4.57	3.37	2.81	2.29	1.68	1.36	1.14				
66.2	21.9					9.54 •	7.21 •	5.22	3.85	3.21	2.62	1.92	1.56	1.31	0.96			
72.5	20						7.78 •	5.63	4.15	3.46	2.83	2.07	1.68	1.41	1.04	0.84		
81.9	17.7						8.66 •	6.27	4.62	3.85	3.15	2.30	1.87	1.57	1.15	0.94		
96.0	15.1						9.95 •	7.20	5.30	4.42	3.62	2.65	2.15	1.80	1.33	1.08	0.89	
107	13.5							7.98	5.88	4.90	4.01	2.93	2.38	2.00	1.47	1.20	0.98	0.81 •
120	12.1									5.40	4.41	3.23	2.62	2.20	1.62	1.32	1.08	0.89 •
133	10.9									5.90	4.82	3.53	2.86	2.40	1.77	1.44	1.18	0.97 •
151	9.63									6.58	5.38	3.94	3.19	2.68	1.97	1.61	1.32	1.09 •
170	8.53									7.33	5.99	4.38	3.56	2.99	2.20	1.79	1.47	1.21 •
190	7.62									8.10	6.62	4.84	3.93	3.30	2.43	1.98	1.63	1.34 •
203	7.15										7.00 •	5.12 •	4.15 •	3.49 •	2.57	2.09	1.72	1.42 •
236	6.15										7.73	5.66	4.59	3.85	2.83	2.30	1.90	1.56 •
261	5.56										8.36	6.12	4.96	4.17	3.06	2.49	2.05	1.69 •
295	4.91										9.18	6.72	5.45	4.57	3.36	2.74	2.25	1.85 •
334	4.34										10.04	7.35	5.96	5.00	3.68	3.00	2.47	2.03 •
374	3.88										10.12	7.40	6.00	5.04	3.71	3.02	2.49	2.05 •
398	3.64										9.49 •	6.94 •	5.63 •	4.73 •	3.48	2.83	2.33	1.92 •
452	3.21										9.37 •	6.86 •	5.56 •	4.67 •	3.44	2.80	2.30	1.90 •
4-pole LS, LSES and brakes		Three-phase 4-pole LS, LSES																
LS FCR		90 L			100 L		112	132			160							
LSES FCR		**90**			**100**		**112**	**132**			**160**							
LS, LSES FCPL											**160**		**180**		**200**	**225**		**250**

1. LS B35 obligatory

• *MU obligatory*



Selection example

Required power:	37 kW
Required speed:	105 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B7; foot mounted

Designation: Cb 3633 i: 13.5 S S B7 - MI 4p LSES 225ST 37 kW LS2/IE2 - 400 VΔ - U.G.

Electromechanical products
Compabloc 3000

Selection

Classes
I, II, III
(kp = 1, 1.4, 2)

Cb 3733
LSES IE2, LS IE1 brake, LSES brake - IP 55 - Cl. F
230 V/400 V Y 400 V Δ - 50 Hz - U.G.

Integral mounting	**MI**
Universal mounting	**MU**
Input shaft mounting	**AP**

Cb 3733

		LSES (kW)																	
		1.1	**1.5**	**1.8**	**2.2**	**3**	**4**	**5.5**	**7.5**	**9**	**11**	**15**	**18.5**	**22**	**30**	**37**	**45**	**55**[1]	**75**[1]
		Three-phase 4-pole LSES																	
min^{-1}	i exact	90			100		112	132			160		180		200	225		250	280
5.9	244	6.07	4.43	3.70	2.99	2.18	1.65	1.20	0.88										
6.7	217	6.82	4.97	4.14	3.36	2.45	1.86	1.34	0.99	0.83									
7.3	198	7.48	5.45	4.54	3.68	2.69	2.04	1.47	1.09	0.91									
8.3	175	8.46	6.17	5.14	4.17	3.04	2.30	1.67	1.23	1.03	0.84								
9.2	158				4.63 •	3.38	2.56	1.85	1.36	1.14	0.93								
10.3	141				5.19 •	3.79	2.87	2.08	1.53	1.28	1.04		Cb 3733						
11.2	129				5.63 •	4.11	3.11	2.25	1.66	1.38	1.13	0.83							
13.1	111				6.54 •	4.78 •	3.62 •	2.62	1.93	1.61	1.31	0.96							
14.2	102				7.12 •	5.20 •	3.94 •	2.85	2.10	1.75	1.43	1.05	0.85						
16.1	89.9				8.03 •	5.86 •	4.44 •	3.21	2.37	1.97	1.61	1.18	0.96	0.80					
18.9	76.8				9.29 •	6.78 •	5.13 •	3.71	2.74	2.28	1.86	1.36	1.11	0.93					
21.2	68.3					7.32 •	5.53 •	4.00	2.95	2.46	2.01	1.47	1.19	1.00					
23.7	61.2									2.63	2.15	1.57	1.27	1.07					
26.2	55.4									2.78	2.27	1.66	1.35	1.13	0.83				
29.7	48.8									2.99	2.44	1.79	1.45	1.22	0.90				
33.6	43.2									3.20	2.62	1.92	1.55	1.31	0.96				
36.1	40.2					9.93	7.51	5.44	4.00	3.34	2.73	2.00	1.62	1.36					
37.5	38.7										2.82 •	2.06 •	1.67 •	1.41 •	1.03	0.84			
39.9	36.3										2.87 •	2.10 •	1.71 •	1.43 •	1.05	0.86			
40.3	36						8.79	6.36	4.69	3.91	3.19	2.34	1.90	1.59					
45.3	32										3.10 •	2.27 •	1.84 •	1.54 •	1.13	0.92			
45.6	31.8							7.78	5.73	4.78	3.90	2.86	2.32	1.95					
51.1	28.4							8.90	6.55	5.47	4.47	3.27	2.65	2.23	1.64	1.33 •			
57.5	25.2							9.87	7.27	6.06	4.95	3.62	2.94	2.47	1.82	1.48 •			
64.2	22.6								7.98	6.66	5.44	3.98	3.23	2.71	1.99	1.62	1.34	1.10 •	
72.1	20.1								8.81	7.35	6.00	4.39	3.56	2.99	2.20	1.79	1.47	1.21 •	
81.5	17.8								9.78	8.15	6.66	4.88	3.95	3.32	2.44	1.99	1.64	1.35 •	
92.4	15.7									9.11	7.44	5.45	4.42	3.71	2.73	2.22	1.83	1.51 •	
105	13.8										8.31	6.08	4.93	4.14	3.05	2.48	2.04	1.68 •	
119	12.2										9.27	6.78	5.50	4.62	3.40	2.77	2.28	1.87 •	
132	11											7.38	5.98	5.03	3.70	3.01	2.48	2.04 •	1.50 •
150	9.64											8.31	6.74	5.66	4.16	3.39	2.79	2.30 •	1.68 •
168	8.62											9.16	7.43	6.24	4.59	3.74	3.08	2.53 •	1.86 •
189	7.68												8.22	6.90	5.08	4.14	3.40	2.80 •	2.06 •
210	6.9												9.02	7.58		4.54	3.73	3.08 •	2.26 •
240	6.05												10.13	8.51		5.10	4.19	3.45 •	2.53 •
258	5.63												7.17	6.02	4.43	3.61	2.97	2.45 •	1.80 •
295	4.91												8.16	6.85	5.04	4.11	3.38	2.79 •	2.04 •
330	4.39												9.07	7.62	5.61	4.57	3.76	3.10 •	2.27 •
371	3.91													8.50	6.25	5.09	4.19	3.45 •	2.53 •
412	3.52															5.62	4.63	3.81 •	2.80 •
471	3.08															6.36	5.24	4.31 •	3.16 •
4-pole LS, LSES and brakes		Three-phase 4-pole LS, LSES																	
LS FCR		90 L			100 L		112	132			160								
LSES FCR		90			100		112	132			160								
LS, LSES FCPL											160		180		200	225		250	280

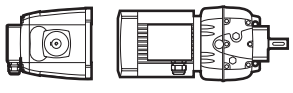
1. LS B35 obligatory

• *MU obligatory*

Selection example

Required power:	45 kW
Required speed:	70 min-1
Duty factor required by the application:	Kp = 1.4
Operating position; Mounting form:	Horizontal B7; foot mounted

Designation: Cb 3733 i: 20.1 S S B7 - MI 4p LS 225MR 45 kW LS2/IE2 - 400 VΔ - U.G.



Electromechanical products
Compabloc 3000

Selection

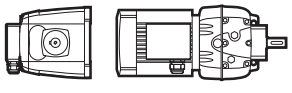
Classes	Cb 3833	
I, II, III (kp = 1, 1.4, 2)	LSES IE2, LS IE1 brake, LSES brake - IP 55 - Cl. F 230 V/400 V Y 400 V Δ - 50 Hz - U.G.	Integral mounting **MI** Universal mounting **MU** Input shaft mounting **AP**

Cb 3833

		LSES (kW)												
		7.5	9	11	15	18.5	22	30	37	45	55[1]	75[1]	90[1]	110[1]
		Three-phase 4-pole LSES 4p												
min^{-1}	i exact	132		160		180		200	225		250	280		315
6.6	220	1.47	1.23	1.00										
7.4	196	1.64	1.37	1.12	0.82									
7.9	184	1.76	1.47	1.20	0.88									
8.8	164	1.97	1.64	1.34	0.98	0.79								
9.9	146	2.22	1.85	1.51	1.11	0.90								
11.2	130	2.48	2.07	1.69	1.24	1.00	0.84							
12.6	115	2.79	2.33	1.90	1.39	1.13	0.95	Cb 3833						
14.1	103	3.11	2.59	2.12	1.55	1.26	1.05							
15.8	92	3.48	2.90	2.37	1.73	1.40	1.18	0.87						
17.8	81.5	3.91	3.26	2.66	1.95	1.58	1.33	0.98	0.8					
20.2	71.7	4.43	3.69	3.02	2.21	1.79	1.50	1.11	0.9					
23.0	63.1	5.02	4.18	3.42	2.50	2.03	1.70	1.25	1.02	0.84				
26.0	55.7	5.67	4.73	3.86	2.83	2.29	1.93	1.42	1.15	0.95	0.78 •			
28.7	50.5	6.24	5.20	4.25	3.11	2.52	2.12	1.56	1.27	1.04	0.86 •			
32.9	44.1	7.13						1.78	1.45	1.19	0.98 •			
33.3	43.6		2.87	2.35	1.72	1.39	1.17							
36.8	39.4	7.95						1.98	1.62	1.33	1.10 •	0.80 •		
37.3	38.9		3.57	2.92	2.14	1.73	1.46							
41.3	35.1	8.90						2.22	1.81	1.49	1.23 •	0.90 •		
42.2	34.4		4.70	3.84	2.81	2.28	1.91							
45.9	31.6	9.87							2.01	1.65	1.36 •	1.00 •	0.83 •	
47.1	30.8		6.45	5.27	3.86	3.13	2.63	1.93						
52.3	27.7								2.28	1.88	1.55 •	1.14 •	0.95 •	0.78 •
52.7	27.5		7.47	6.11	4.47	3.63	3.04	2.24						
59.2	24.5		8.89	7.27	5.32	4.32	3.62	2.66	2.17	1.78	1.47 •			
66.2	21.9		9.88	8.08	5.92	4.80	4.03	2.96	2.41	1.98	1.63 •			
74.4	19.5			8.49	6.22	5.04	4.23	3.11	2.53	2.08	1.71 •	1.26 •	1.05 •	0.86 •
83.3	17.4			9.74	7.13	5.78	4.86	3.57	2.90	2.39	1.96 •	1.44 •	1.20 •	0.98 •
94.2	15.4				7.58	6.15	5.16	3.80	3.09	2.54	2.09 •	1.53 •	1.28 •	1.05 •
106	13.7				8.50	6.90	5.79	4.26	3.46	2.85	2.34 •	1.72 •	1.43 •	1.17 •
116	12.5				8.88	7.20	6.05	4.45	3.62	2.97	2.45 •	1.79 •	1.49 •	1.22 •
132	11					8.11	6.81	5.01	4.08	3.35	2.76 •	2.02 •	1.68 •	1.37 •
146	9.96					8.77	7.37	5.42	4.41	3.62	2.98 •	2.19 •	1.82 •	1.49 •
166	8.75					9.65	8.11	5.96	4.85	3.99	3.28 •	2.40 •	2.00 •	1.64 •
179	8.11					9.92	8.34		4.98	4.10	3.37 •	2.47 •	2.06 •	1.69 •
209	6.95						9.80		5.86	4.82	3.96 •	2.91 •	2.42 •	1.98 •
229	6.33								6.29	5.17	4.25 •	3.12 •	2.60 •	2.13 •
261	5.55							9.08	7.39	6.08	5.00 •	3.67 •	3.06 •	2.50 •
289	5.01							9.85	8.02	6.60	5.43 •	3.99 •	3.32 •	2.72 •
330	4.4								8.91	7.33	6.02 •	4.42 •	3.68 •	3.01 •
355	4.08								8.95	7.36	6.06 •	4.45 •	3.70 •	3.03 •
415	3.49								9.30	7.65	6.30 •	4.62 •	3.85 •	3.15 •
456	3.18								8.01	6.59	5.43 •	3.98 •	3.32 •	2.72 •
503	2.88								9.10	7.49	6.17 •	4.53 •	3.77 •	3.08 •
4-pole LS, LSES and brakes		Three-phase 4-pole LS, LSES												
LS FCR		132		160										
LSES FCR		132		160										
LS, LSES FCPL				160		180		200	225		250	280		NC

1. LS B35 obligatory *NC : Consult Leroy-Somer*

• *MU obligatory*



Selection example

Required power:	45 kW
Required speed:	29 min-1
Duty factor required by the application:	Kp = 1
Operating position; Mounting form:	Horizontal B7; foot mounted

Designation: Cb 3833 i: 50.5 S S B7 - MI 4p LSES225MR 45 kW LS2/IE2 - 400 VΔ - U.G.