

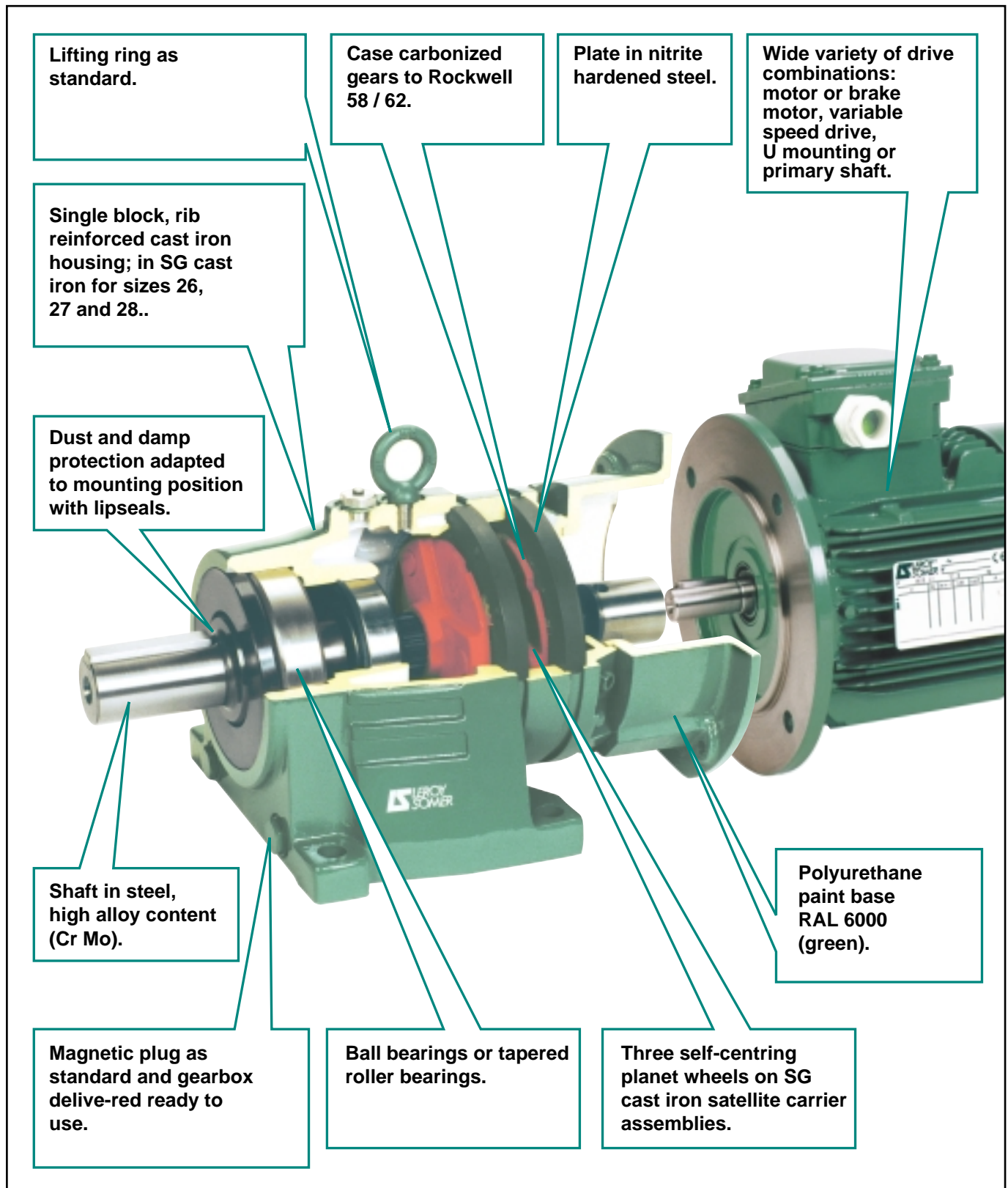
# **PLANIBLOC 2000**

## **Planetary geared motors**

# PLANIBLOC 2000

Compact geared motor with high transient overload capacity

Available in 8 sizes up to 90 kW  
Reduction ratios of 1/10 to 1/4300  
Output torque up to 70000 Nm  
95 % Efficiency



# Selection

Planibloc (PI) gearbox : S baseplate or BS, BP flange (PI 2102 à PI 2805) form

Induction motors : LS 4-pole, IP 55, 50 Hz, class F

- multi-voltage : 220/380 V - 230/400 V - 240/415 V from 0.18 to 9 kW
- other voltages : 380 V Δ - 400 V Δ - 415 V Δ from 4 to 90 kW

Brake motors : LS induction type FCR, FCO, FAST, FAP or FCPL, 4-pole, IP 55, 50 Hz, class F

- FCR : multi-voltage : from 0.18 to 3 kW FCPL : 230/400V : from 11 to 90 kW
- FAST : multi-voltage : from 0.18 to 1.8 kW FAP : multi-voltage : from 0.18 to 37 kW
- FCO : multi-voltage : from 4 to 9 kW

Universal mounting MU

Input shaft mounting AP

**Class I**  
(K<sub>p</sub>=1)

0.337 to 159 min<sup>-1</sup>

Output speed min <sup>-1</sup>	Reductions	LS motors, power kW																							
		Frame size																							
		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	11	15	18.5	22	30	37	45	55 <sup>1</sup>	75 <sup>1</sup>	90 <sup>1</sup>
0,337	4305		2605	2705					2805																
0,422	3433																								
0,530	2738																								
0,664	2183																								
0,891	1628																								
1,12	1298																								
1,50	967	2304																							
1,88	772																								
2,36	615	2204		2304																					
2,73	531		2203																						
3,43	423																								
4,29	338																								
5,75	252																								
7,21	201																								
9,06	160																								
12,1	120		2103																						
15,2	95,3																								
18,9	76,6																								
22,1	65,6																								
27,7	52,3																								
34,8	41,7																								
46,6	31,1																								
58,0	25																								
72,5	20																								
98,6	14,7																								
123	11,8																								
153	9,5																								

Brake motors	Frame size																								
	71	80	90	100	112	132	160	180	200	225	250	280													
FCR																									
FCO																									
FAST																									
FAP																									
FCPL																									

◆ Gearbox thermal limit reached in continuous duty : consult Leroy-Somer giving the duty factor.

1. These motors are produced with IM 2001 (IM B35).

**Selection example :**

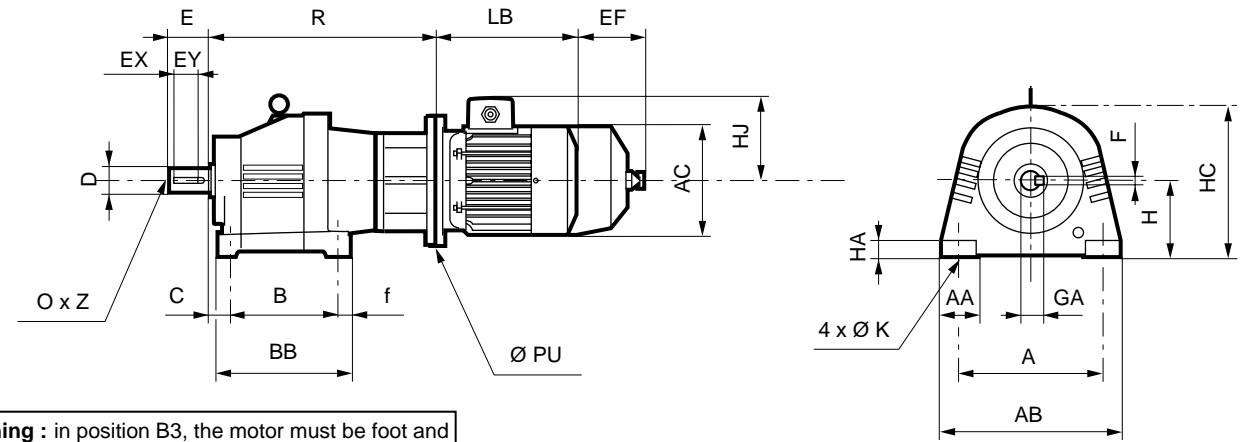
Required power :	2.2 kW
Required speed :	12 min <sup>-1</sup>
Duty factor necessary for the application :	K = 1
Mounting :	with foot
<b>Designation :</b>	<b>PI 2303 S B3 120 MU - 4P LS 100 2.2 kW - 400 V</b>

# Dimensions

Dimensions of Planibloc (PI) geared motors, MU universal mounting, PI 2102 to PI 2805

Dimensions in millimetres

S baseplate form



**Warning :** in position B3, the motor must be foot and flange mounted with additional support if it weighs more than 100 kg.

Type	Geared motors with S foot											Weight (kg)			
	A	AA	AB	B	BB	C	f	H	HA	HC	K	-- 02	-- 03	-- 04	-- 05
PI 28 --	680	210	800	416	556	0	70	355	35	675	42	1180	1230	1280	1290
PI 27 --	508	200	620	389	509	169	60	315	35	598	33	700	750	790	800
PI 26 --	457	110	550	334	422	102	44	240	35	445	33	290	310	340	348
PI 25 --	318	72	390	219	283	35	35	180	35	343	26	113	123	127	-
PI 24 --	250	50	300	180	230	30	25	132	30	260	22	77	75	80	-
PI 23 --	250	50	300	180	230	30	25	132	30	260	22	49	53	56	-
PI 22 --	210	38	246	150	186	30	18	112	25	206	18	37	41	45	-
PI 21 --	210	38	246	150	186	30	18	112	25	206	18	34	38	-	-

Type	Solid output shaft							
	D	E	EX	EY	GA	F	O <sup>1</sup>	Z <sup>1</sup>
PI 28 --	170 m6	240	3	220	179	40	2 x M16	36
PI 27 --	150 m6	200	2,5	185	158	36	2 x M16	36
PI 26 --	120 m6	195	2,5	180	127	32	2 x M12	28
PI 25 --	90 m6	150	2,5	135	95	25	M20	42
PI 24 --	65 m6	105	3	90	69	18	M20	42
PI 23 --	65 m6	105	3	90	69	18	M20	42
PI 22 --	45 k6	90	2	75	48,5	14	M16	36
PI 21 --	45 k6	90	2	75	48,5	14	M16	36

1. For output shaft details on PI 26 - - up to PI 28 - - please consult.

Frame size	Induction and brake motor											Gearbox											
	LS 3-phase				Weight	Brake				Weight <sup>2</sup> (kg)	Planibloc												
	AC	HJ	LB	PU <sup>1</sup>		Max. braking force					Max. reductions												
71	140	130	183	160	8,3	FCR <sup>3</sup>	FCO	FAP	FCPL	FAST	FCR <sup>3</sup>	FCO	FAP	FCPL	FAST	21 --	22 --	23 --	24 --	25 --	26 --	27 --	28 --
80	170	130	215	200	11	88	127	181	-	46	3	5	8	-	2	333	387	422	457	516	651	-	-
90	190	138	265	200	15,2	77	139	142	-	51	7	6	13	-	2	353	407	442	477	536	631	854	831
100	200	152	290	250	21	59	113	141	-	25	9	9	20	-	2	353	407	442	477	536	631	854	831
112	235	152	315	250	24,4	82	188	191	-	-	9	15	30	-	-	363	417	452	496	546	641	831	795
132	280	201	387	300	60	-	179	228	-	-	-	15	37	-	-	363	417	452	496	546	641	831	795
160 L	316	235	495	350	78	-	283	241	-	-	-	30	28	-	-	-	442	477	512	571	666	867	910
180 L	350	255	552	350	113	-	-	192	173	-	-	-	41	62	-	-	376	451	486	618	652	804	910
200 L	390	275	621	400	170	-	-	227	243	-	-	-	56	40	-	-	376	451	486	618	652	804	910
225 MR	390	275	676	450	235	-	-	248	253	-	-	-	140	70	-	-	-	386	475	609	730	824	877
250 MK	510	418	785	550	340	-	-	-	277	-	-	-	-	85	-	-	-	396	485	619	740	834	857
280 MP	510	418	836	550	490	-	-	-	272	-	-	-	-	85	-	-	-	396	485	619	740	834	857
						-	-	-	341	-	-	-	-	165	-	-	-	-	-	788	889	834	857

- Warning : dimension PU divided by 2 may be greater than H.
- Additional brake weight.
- FCR J01 to J03.

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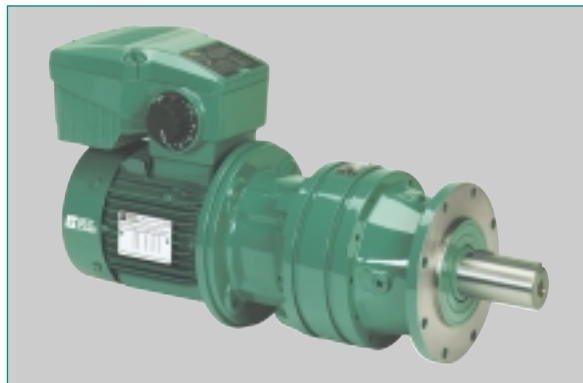
**Robustness and high performance ...  
... incomparable range of drive systems**



Flange gear motor for fixed or variable speed drive system (with speed controller).



Application requiring extremely precise positioning:  
low backlash planetary.



VARMECA variable speed drive system.

**... for solving all your motor drive problems.**



Tower crane or wind turbine slewing movement.



Concrete pumping.