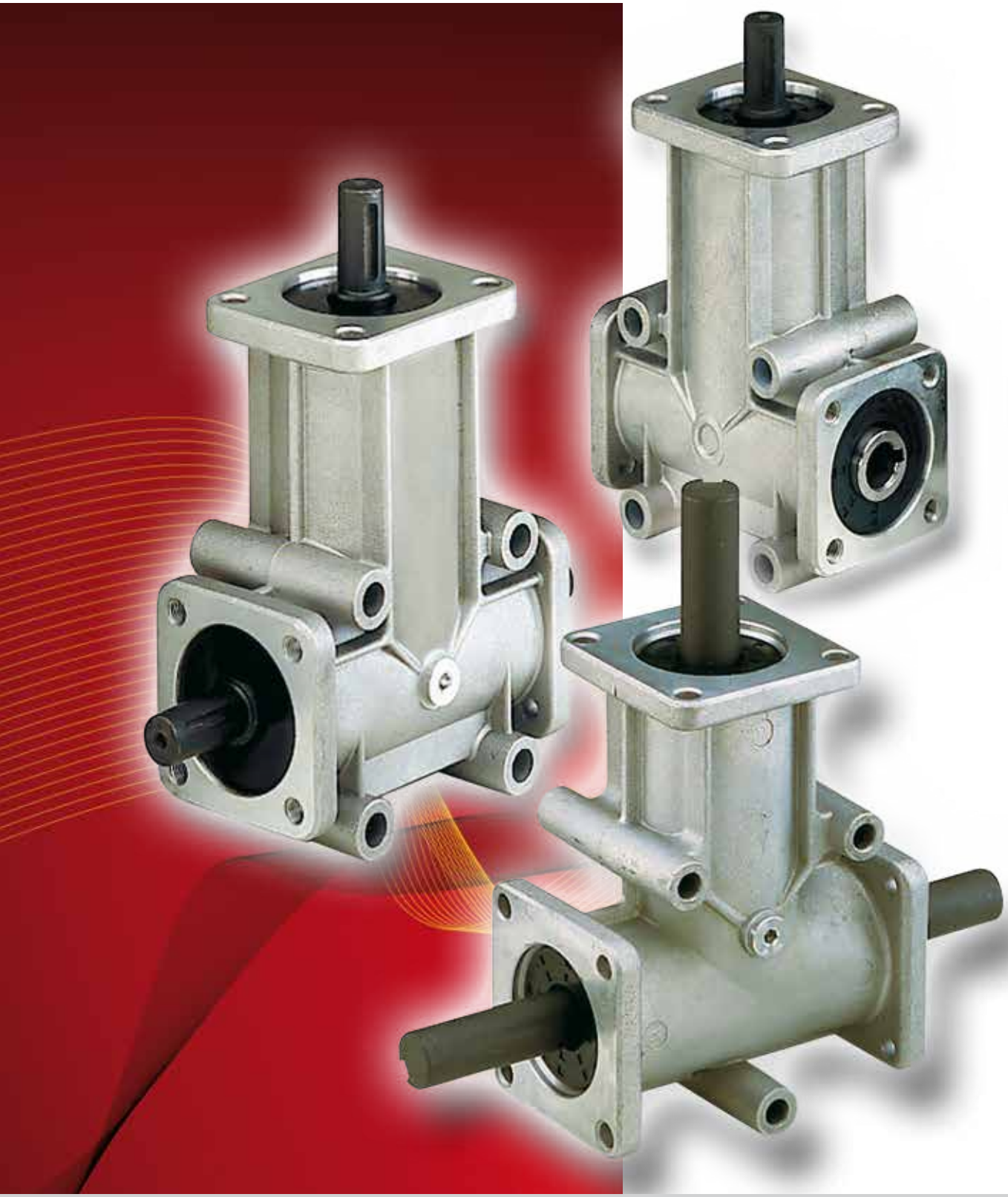
CHIARAVALLI® GROUP SpA

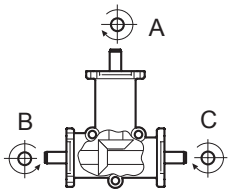
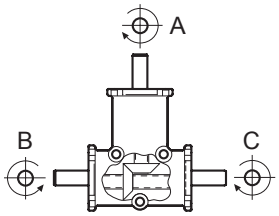
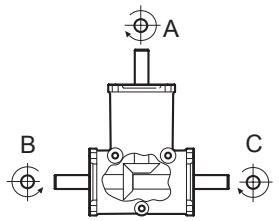
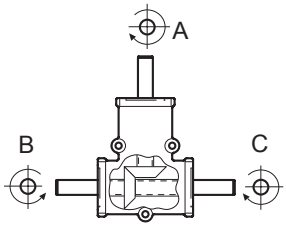


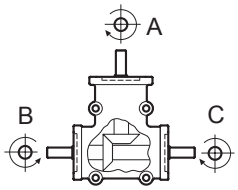
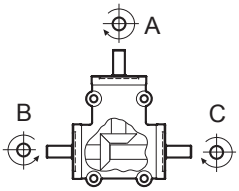
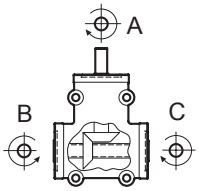
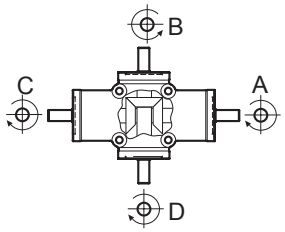
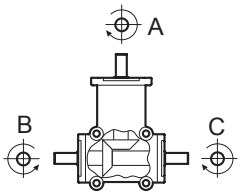
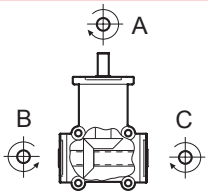
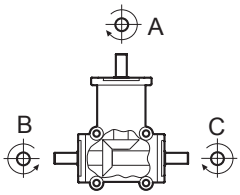
RIGHT-ANGLE PRECISION BEVEL GEAR DRIVES

CHT-RB and CHT-RP right-angle drives are designed for industrial applications where rotary power must be transferred between two shafts at right-angles to each other. CHT-RB and CHT-RP are available in many different sizes with 2 or 3 outputs and 1/1 - 1/2 - 1/3 transmission ratios.

Right-angle identification:

The following tables show: the shaft diameter, the transmission ratio, the input shaft, the output shafts B-C or D and the direction of rotation (looking at the shaft from the front).

SIZE	MOD. RB	CHT					
		SHAFT	RATIO	INPUT	OUTPUT	TYPE	CODE	WEIGHT Kg
1		Ø 8	1/1	A	B	1	R1081101	0.3
		Ø 8	1/1	A	C	2	R1081102	
		Ø 8	1/2	A	B	3	R1081203	
		Ø 8	1/2	A	C	4	R1081204	
		Ø 8	1/1	A	B-C	5	R1081105	
		Ø 8	1/2	A	B-C	6	R1081206	
2		Ø 15	1/1	A	B	1	R1151101	1.1
		Ø 15	1/1	A	C	2	R1151102	
		Ø 15	1/2	A	B	3	R1151203	
		Ø 15	1/2	A	C	4	R1151204	
		Ø 15	1/1	A	B-C	5	R1151105	1.2
		Ø 15	1/2	A	B-C	6	R1151206	
3		Ø 20	1/1	A	B	1	R1201101	3.4
		Ø 20	1/1	A	C	2	R1201102	
		Ø 20	1/2	A	B	3	R1201203	
		Ø 20	1/2	A	C	4	R1201204	
		Ø 20	1/1	A	B-C	5	R1201105	3.5
		Ø 20	1/2	A	B-C	6	R1201206	
4		Ø 25	1/1	A	B	1	R1251101	5.5
		Ø 25	1/1	A	C	2	R1251102	
		Ø 25	1/2	A	B	3	R1251203	
		Ø 25	1/2	A	C	4	R1251204	
		Ø 25	1/1	A	B-C	5	R1251105	5.8
		Ø 25	1/2	A	B-C	6	R1251206	

SIZE	MOD. RP	CHT					
		SHAFT	RATIO	INPUT	OUTPUT	TYPE	CODE	WEIGHT Kg
1		Ø 8	1/1	A	B	1	R3081101	0.6
		Ø 8	1/1	A	C	2	R3081102	
		Ø 8	1/2	A	B	3	R3081203	
		Ø 8	1/2	A	C	4	R3081204	
		Ø 8	1/1	A	B-C	5	R3081105	
		Ø 8	1/2	A	B-C	6	R3081206	
2		Ø 14	1/1	A	B	1	R3141101	2
		Ø 14	1/1	A	C	2	R3141102	
		Ø 14	1/2	A	B	3	R3141203	
		Ø 14	1/2	A	C	4	R3141204	
		Ø 14	1/3	A	B	5	R3141305	
		Ø 14	1/3	A	C	6	R3141306	
		Ø 14	1/1	A	B-C	7	R3141107	
		Ø 14	1/2	A	B-C	8	R3141208	
		Ø 14	1/3	A	B-C	9	R3141309	
3		Ø 14	1/1	A	B-C	10	R3141110	1.9
		Ø 14	1/2	A	B-C	11	R3141211	
		Ø 14	1/3	A	B-C	12	R3141312	
4		Ø 14	1/1	A	B-C	13	R3141113	3.2
		Ø 14	1/1	A	C-D	14	R3141114	
		Ø 14	1/2	A	B-C	15	R3141215	
		Ø 14	1/2	A	C-D	16	R3141216	
		Ø 14	1/3	A	B-C	17	R3141317	
		Ø 14	1/3	A	C-D	18	R3141318	
		Ø 14	1/1	A	B-C-D	19	R3141119	
		Ø 14	1/2	A	B-C-D	20	R3141220	
		Ø 14	1/3	A	B-C-D	21	R3141321	
5		Ø 19	1/1	A	B	1	R3191101	4.5
		Ø 19	1/1	A	C	2	R3191102	
		Ø 19	1/2	A	B	3	R3191203	
		Ø 19	1/2	A	C	4	R3191204	
		Ø 19	1/3	A	B	5	R3191305	
		Ø 19	1/3	A	C	6	R3191306	
		Ø 19	1/1	A	B-C	7	R3191107	
		Ø 19	1/2	A	B-C	8	R3191208	
		Ø 19	1/3	A	B-C	9	R3141309	
6		Ø 19	1/1	A	B-C	10	R3191110	4.4
		Ø 19	1/2	A	B-C	11	R3191211	
		Ø 19	1/3	A	B-C	12	R3191312	
7		Ø 24	1/1	A	B	1	R3241101	4.6
		Ø 24	1/1	A	C	2	R3241102	
		Ø 24	1/2	A	B	3	R3241203	
		Ø 24	1/2	A	C	4	R3241204	
		Ø 24	1/3	A	B	5	R3241305	
		Ø 24	1/3	A	C	6	R3241306	
		Ø 24	1/1	A	B-C	7	R3241107	
		Ø 24	1/2	A	B-C	8	R3241208	
		Ø 24	1/3	A	B-C	9	R3241309	

TECHNICAL NOTES

Selecting the correct type of angle bevel gear is not simply a question of defining the power required in relation to R.P.M. and the torque to be transmitted. If also involves defining the conditions under wich the angle bevel gear will be used. Defining operating conditions involves taking into consideration a number of factor such as the type of operating cycle (intermittent, continuous), radial and axial loads on the shaft ends, maximum and minimum temperatures, ambient conditions (e.g. dust and dirt levels) and the type of lubricant used. To decide the type and size of angle bevel gear required, proceed as follows.

1) Use table 2 to define the Service Factor for your application.
2) Calculate the Rated Power (Pn); Pn = Pe (Horsepower) x FS.
3) Use the output speed and the rated power (Pn) to select the angle gear size and transmission ratio required for your application.
4) Check that the radial and axial load at the midpoint of the exposed shaft end does not exceed the values shown in table 1.
5) Check that the operating temperature does not exceed -20°C ÷ 80°C
6) If you require a 1/2 or 1/3 ratio, do not use a speed multiplier with an input more than 750 R.P.M.and 500 R.P.M. in ratio 1/2 and 1/3, respectively.
7) If the unit is to be used in very dusty conditions, protect the oil seal against direct exposure to dust to prevent abrasive damage which might shorten the working life of the unit.

TABLE 1

MAX RADIAL AND AXIAL LOADS

SIZE	MAX AXIAL LOAD IN Kg.	MAX RADIAL LOAD IN Kg.
RB1	21	11
RB2	41	20
RB3	76	43
RB4	88	49
RP1	28	15
RP2-3/4	53	30
RP5-6	65	45
RP7	80	60

TABLE 2

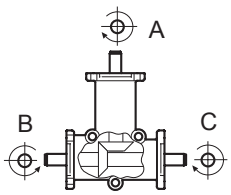
SERVICE FACTOR Fs

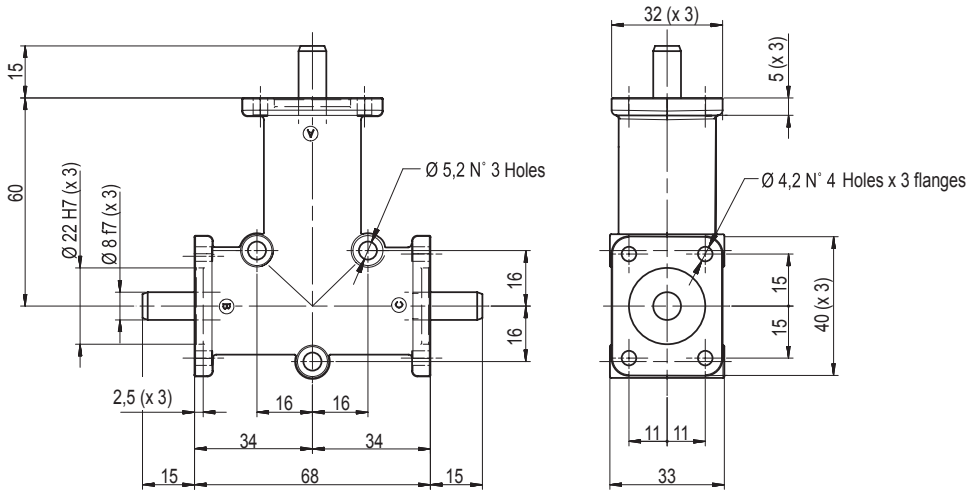
	hours of operation for day			
	3	8	12	24
uniform load	0.7	0.9	1	1.3
load with moderate shocks	0.9	1	1.3	1.8
load with shocks	1.3	1.6	1.8	2.3

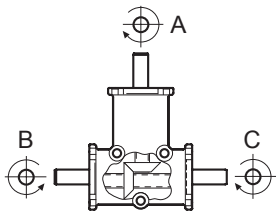
Output speed		50 rpm		100 rpm		200 rpm		400 rpm		800 rpm		1400 rpm		2000 rpm		3000 rpm	
Output torque		T	power	T	power	T	power	T	power	T	power	T	power	T	power	T	power
Type	Ratio	Nm	Kw	Nm	Kw	Nm	Kw	Nm	Kw	Nm	Kw	Nm	Kw	Nm	Kw	Nm	Kw
RB 1-1/2- RB 1-5	R 1:1	4,7	0,02	3,9	0,04	3,3	0,07	2,8	0,12	2,3	0,19	2,0	0,30	1,8	0,39	1,7	0,53
RP 1-1/2- RP 1-5		9,1	0,05	7,6	0,08	6,4	0,13	5,4	0,23	4,5	0,38	4,0	0,58	3,6	0,76	3,3	1,03
RB 2-1/2- RB 2-5		16,5	0,09	13,9	0,15	11,7	0,24	9,8	0,41	8,2	0,69	7,2	1,05	6,6	1,37	5,9	1,86
RP 3-10		28,8	0,15	24,2	0,25	20,3	0,43	17,1	0,72	14,4	1,20	12,5	1,83	11,4	2,39	10,3	3,25
RP 2-1/2 RP 4-13/14 RP 2-7 RP 4-19		34,5	0,18	29,0	0,30	24,4	0,51	20,5	0,86	17,2	1,44	15,0	2,20	13,7	2,87	12,4	3,89
RB 3-1/2 RB 3-5		53,1	0,28	44,6	0,47	37,5	0,79	31,6	1,32	26,5	2,22	23,1	3,38	21,1	4,42	19,1	5,99
RP 6-10		75,7	0,40	63,7	0,67	53,5	1,12	45,0	1,89	37,9	3,17	32,9	4,82	30,1	6,30	27,2	8,54
RB 4-1/2 - RP 5-1/2 RP 7-1/2- RB 4-5 RP 5-7- RP 7-7		87,3	0,46	73,4	0,77	61,8	1,29	51,9	2,17	43,7	3,66	38,0	5,56	34,7	7,27	31,4	9,86
RB 1-3/4- RB 1-6	R 1:2	4,0	0,02	3,4	0,04	2,8	0,06	2,4	0,10	2,0	0,17	1,7	0,26	1,6	0,33	1,4	0,45
RP 1-3/4- RP 1-6		8,9	0,05	7,5	0,08	6,3	0,13	5,3	0,22	4,4	0,37	3,9	0,57	3,5	0,74	3,2	1,00
RB 2-3/4- RB 2-6		14,6	0,08	12,3	0,13	10,3	0,22	8,7	0,36	7,3	0,61	6,3	0,93	5,8	1,21	5,2	1,65
RP 3-11		28,1	0,15	23,7	0,25	19,9	0,42	16,7	0,70	14,1	1,18	12,2	1,79	11,2	2,34	10,1	3,17
RP 2-3/4 RP 4-15/16 RP 2-8 RP 4-20		33,8	0,18	28,5	0,30	23,9	0,50	20,1	0,84	16,9	1,42	14,7	2,16	13,5	2,82	12,2	3,82
RB 3-3/4-RB 3-6		42,5	0,22	35,7	0,37	30,1	0,63	25,3	1,06	21,3	1,78	18,5	2,71	16,9	3,54	15,3	4,80
RP 6-11		71,3	0,37	59,9	0,63	50,4	1,06	42,4	1,77	35,6	2,98	31,0	4,54	28,3	5,93	25,6	8,04
RB 4-3/4 - RP 4-6 RP 7-3/4- RB 4-6 RP 5-8- RP 7-8		82,3	0,43	69,2	0,72	58,2	1,22	48,9	2,05	41,1	3,44	35,8	5,24	32,7	6,85	29,6	9,28
RP 2-5/6 RP 2-9 RP 3-12 RP 4-17/18 RP 4-21	R 1:3	27,5	0,14	23,1	0,24	19,4	0,41	16,3	0,68	13,7	1,15	12,0	1,75	10,9	2,29	9,9	3,10
RP 5-5/6 RP 5-9 RP 6-12 RP 7-5/6 RP 7-9		63,4	0,33	53,3	0,56	44,9	0,94	37,7	1,58	31,7	2,66	27,6	4,04	25,2	5,28	22,8	7,16

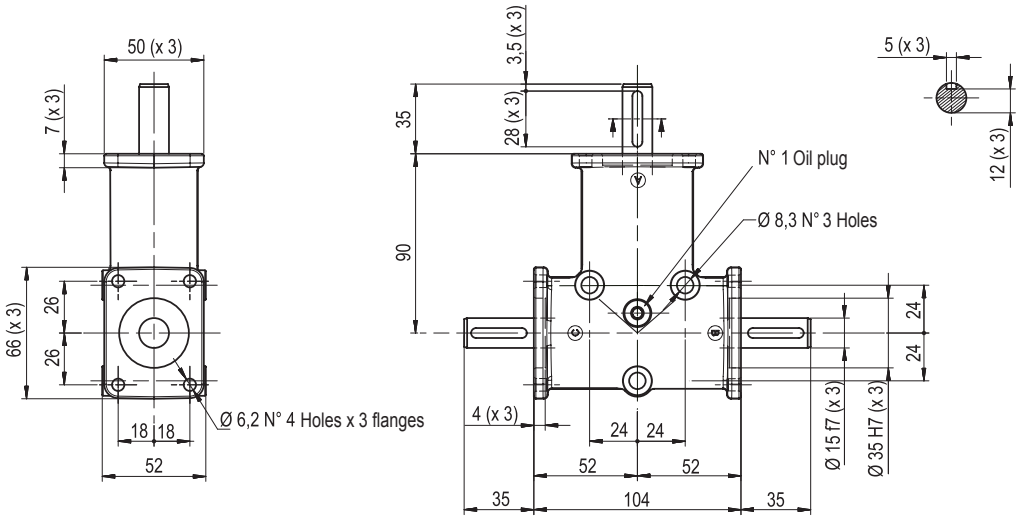
EXTERNAL LOADS IN CONNECTION WITH SPEED Fr = radial load Fa = axial load

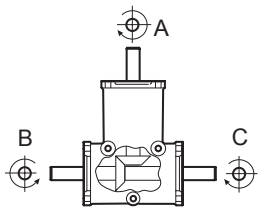
Output speed		50 rpm		100 rpm		200 rpm		400 rpm		800 rpm		1400 rpm		2000 rpm		3000 rpm	
Radial - axial load		Fr	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr	Fa	Fr	Fa
Type	Ratio	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
RB 1-1/2- RB 1-5	R 1:1	139	94	117	79	98	66	83	56	70	47	60	41	55	37	50	34
RP 1-1/2- RP 1-5		195	158	164	133	138	112	116	94	98	79	85	69	78	63	70	57
RB 2-1/2- RB 2-5		328	220	276	185	232	156	195	131	164	110	142	96	130	87	118	79
RP 3-10		430	348	361	293	304	246	256	207	215	174	187	151	171	139	154	125
RP 2-1/2 RP 4-13/14 RP 2-7 RP 4-19		516	418	434	351	365	295	307	248	258	209	224	182	205	166	185	150
RB 3-1/2 RB 3-5		684	458	575	385	484	324	407	273	342	229	297	199	272	182	246	165
RP 6-10		826	554	695	465	584	391	491	329	413	277	359	241	329	220	297	199
RB 4-1/2 - RP 5-1/2 RP 7-1/2- RB 4-5 RP 5-7- RP 7-7		953	639	802	537	674	452	567	380	477	319	414	278	379	254	342	229
RB 1-3/4- RB 1-6	R 1:2	107	76	90	64	76	54	64	45	54	38	47	33	43	30	39	27
RP 1-3/4- RP 1-6		182	110	153	93	129	78	108	66	91	55	79	48	73	44	66	40
RB 2-3/4- RB 2-6		276	168	232	141	195	119	164	100	138	84	120	73	110	67	99	60
RP 3-11		370	263	311	221	262	186	220	157	185	132	161	114	147	105	133	95
RP 2-3/4 RP 4-15/16 RP 2-8 RP 4-20		445	316	374	266	315	224	265	188	223	158	194	137	177	126	160	114
RB 3-3/4-RB 3-6		548	361	461	303	387	255	326	214	274	180	238	157	218	143	197	130
RP 6-11		696	422	585	355	492	299	414	251	348	211	303	184	277	168	250	152
RB 4-3/4 - RP 4-6 RP 7-3/4- RB 4-6 RP 5-8- RP 7-8		803	483	675	406	568	341	478	287	402	241	349	210	319	192	289	173
RP 2-5/6 RP 2-9 RP 3-12 RP 4-17/18 RP 4-21	R 1:3	357	199	301	167	253	141	213	118	179	99	155	86	142	79	128	71
RP 5-5/6 RP 5-9 RP 6-12 RP 7-5/6 RP 7-9		619	346	521	291	438	245	368	206	310	173	269	151	246	138	222	124

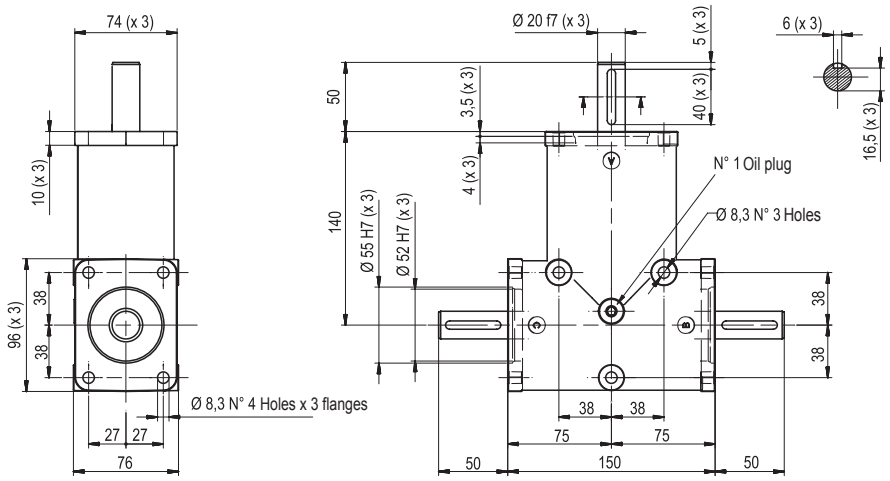
SIZE 1	MOD. RB	CHT			
	RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
	1/1	A	B	R1081101	0.3
	1/1	A	C	R1081102	
	1/2	A	B	R1081203	
	1/2	A	C	R1081204	
	1/1	A	B-C	R1081105	
	1/2	A	B-C	R1081206	

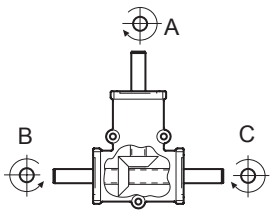


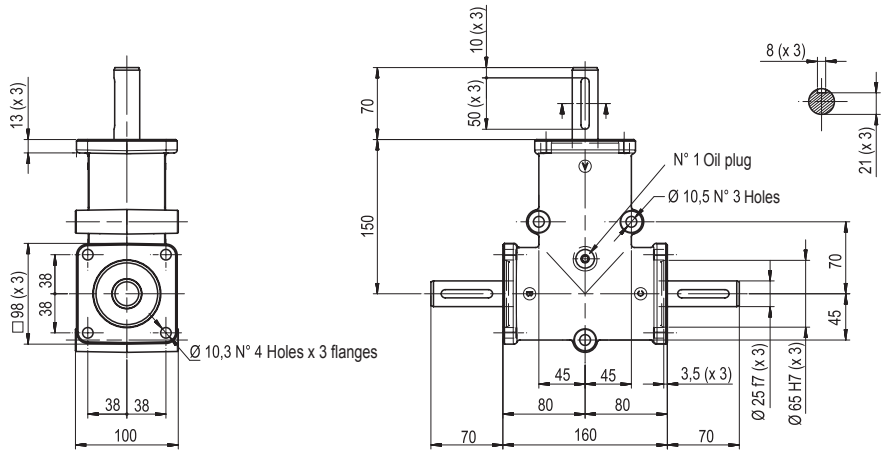
SIZE 2	MOD. RB	CHT			
	RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
	1/1	A	B	R1151101	1.1
	1/1	A	C	R1151102	
	1/2	A	B	R1151203	
	1/2	A	C	R1151204	
	1/1	A	B-C	R1151105	1.2
	1/2	A	B-C	R1151206	

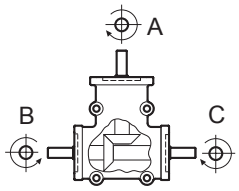


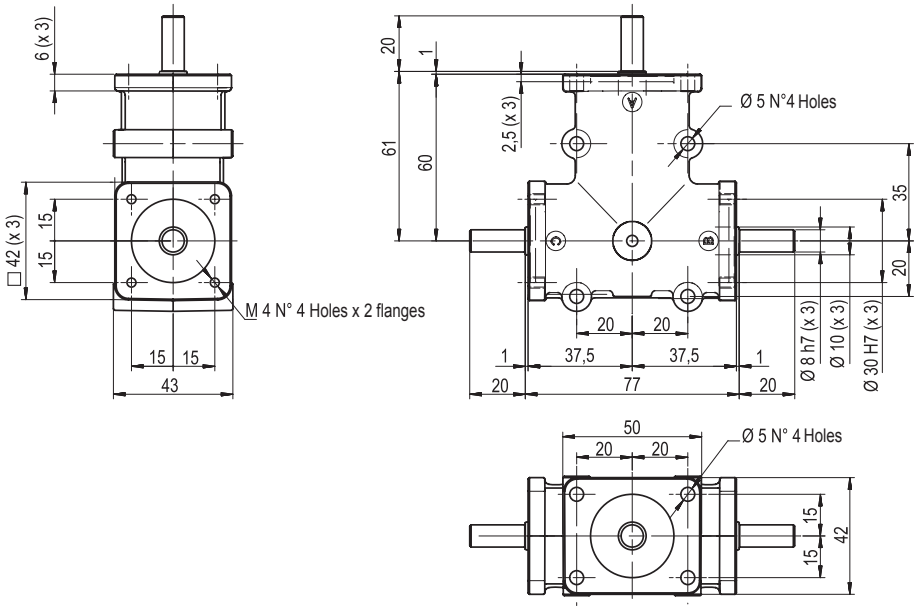
SIZE 3	MOD. RB	CHT			
	RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
	1/1	A	B	R1201101	3.4
	1/1	A	C	R1201102	
	1/2	A	B	R1201203	
	1/2	A	C	R1201204	
	1/1	A	B-C	R1201105	3.5
	1/2	A	B-C	R1201206	

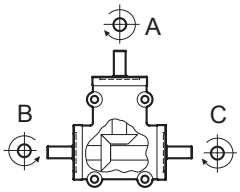


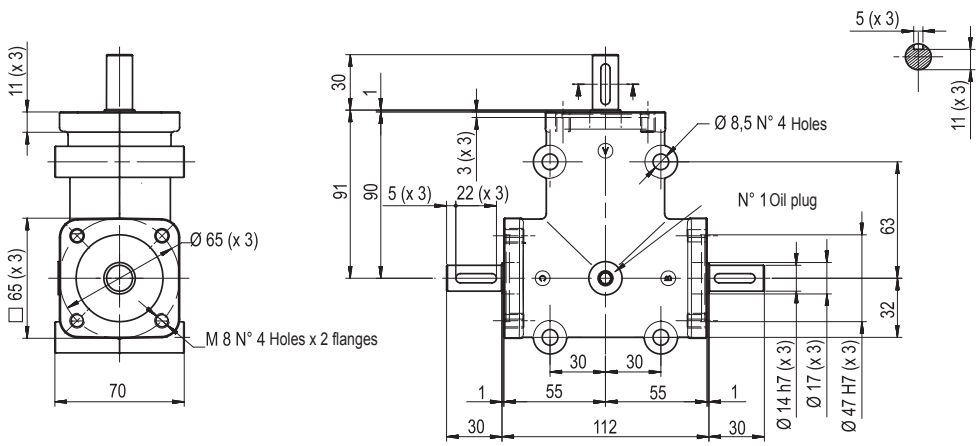
SIZE 4	MOD. RB	CHT			
	RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
	1/1	A	B	R1251101	5.5
	1/1	A	C	R1251102	
	1/2	A	B	R1251203	
	1/2	A	C	R1251204	
	1/1	A	B-C	R1251105	5.8
	1/2	A	B-C	R1251206	



SIZE 1	MOD. RP		CHT		
	RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
	1/1	A	B	R3081101	0.6
	1/1	A	C	R3081102	
	1/2	A	B	R3081203	
	1/2	A	C	R3081204	
	1/1	A	B-C	R3081105	
	1/2	A	B-C	R3081206	

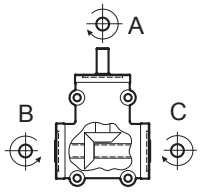


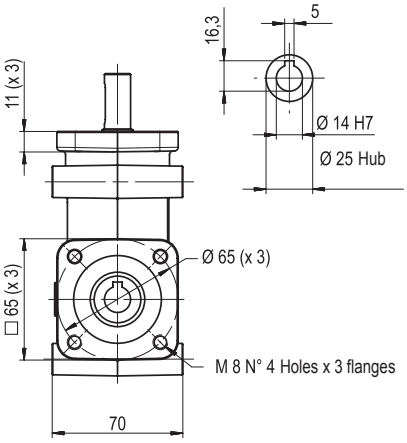
SIZE 2	MOD. RP		CHT		
	RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
	1/1	A	B	R3141101	2
	1/1	A	C	R3141102	
	1/2	A	B	R3141203	
	1/2	A	C	R3141204	
	1/3	A	B	R3141305	
	1/3	A	C	R3141306	
	1/1	A	B-C	R3141107	
	1/2	A	B-C	R3141208	
	1/3	A	B-C	R3141309	

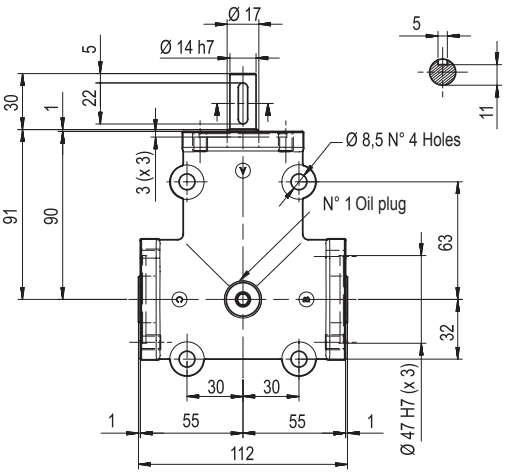


SIZE 3 — MOD. RP — CHT

RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
1/1	A	B-C	R3141110	2
1/2	A	B-C	R3141211	
1/3	A	B-C	R3141312	

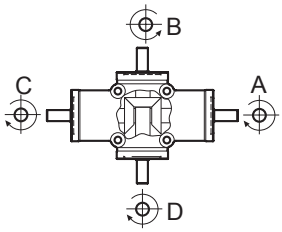


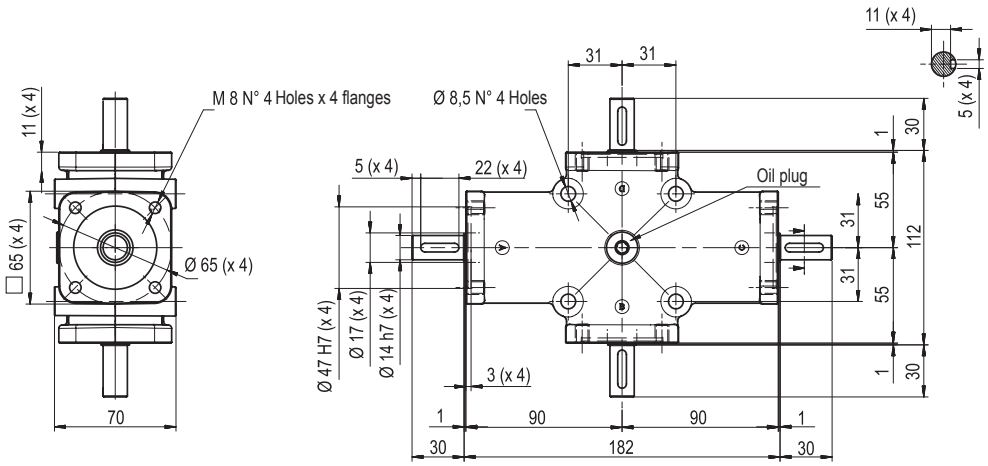




SIZE 4 — MOD. RP — CHT

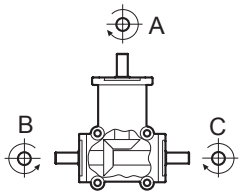
RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
1/1	A	B-C	R3141113	3.2
1/1	A	C-D	R3141114	
1/2	A	B-C	R3141215	
1/2	A	C-D	R3141216	
1/3	A	B-C	R3141317	
1/3	A	C-D	R3141318	
1/1	A	B-C-D	R3141119	
1/2	A	B-C-D	R3141220	
1/3	A	B-C-D	R3141321	

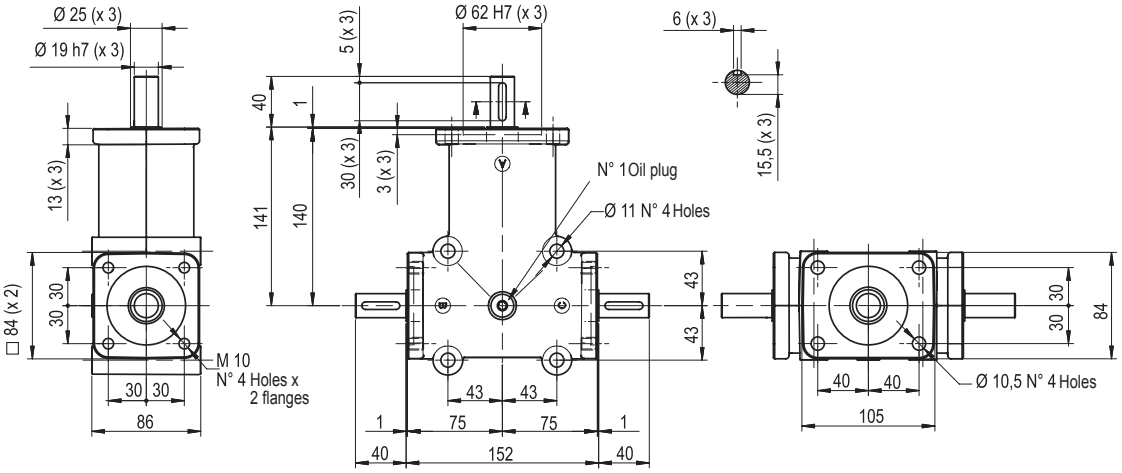




SIZE 5 — MOD. RP — CHT

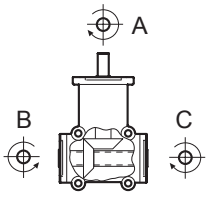
RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
1/1	A	B	R3191101	
1/1	A	C	R3191102	
1/2	A	B	R3191203	
1/2	A	C	R3191204	
1/3	A	B	R3191305	4.5
1/3	A	C	R3191306	
1/1	A	B-C	R3191107	
1/2	A	B-C	R3191208	
1/3	A	B-C	R3191309	

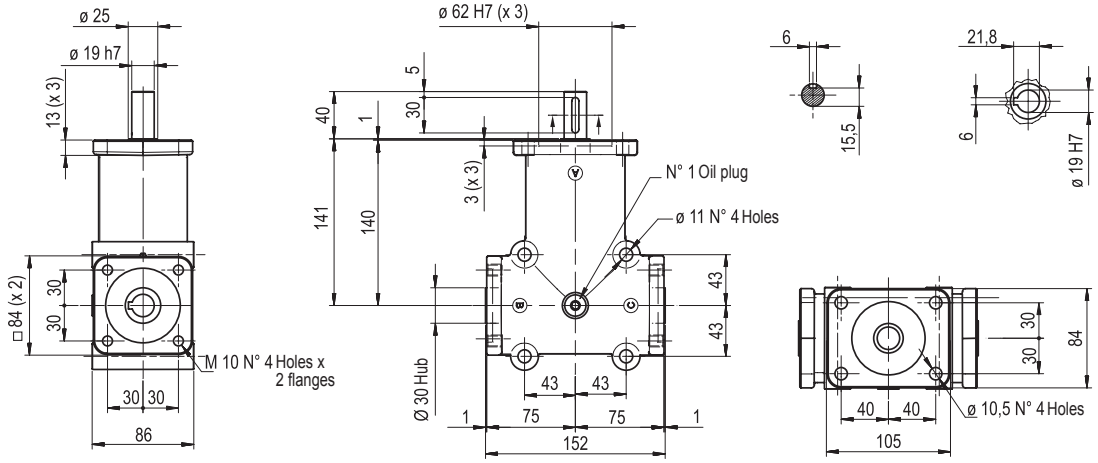


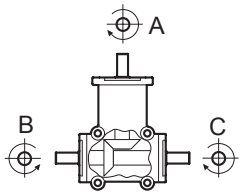


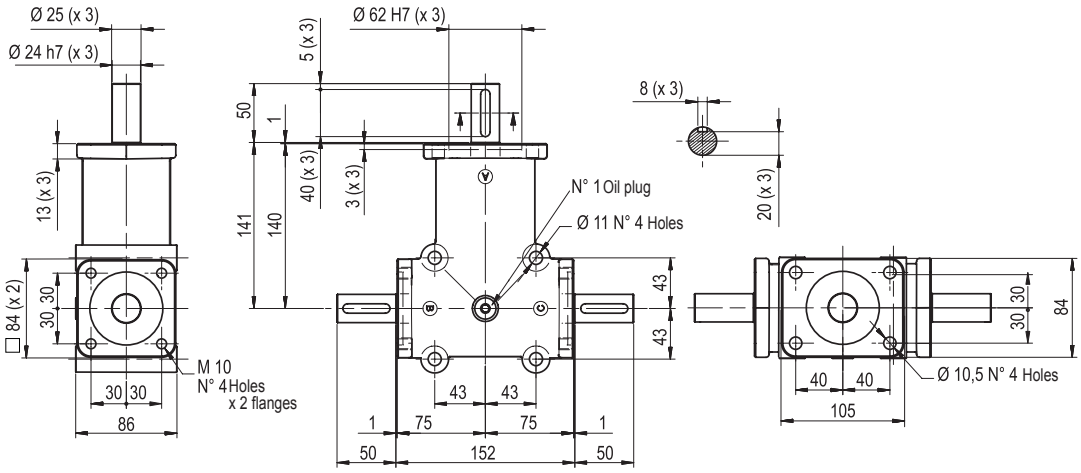
SIZE 6 — MOD. RP — CHT

RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
1/1	A	B-C	R3191110	
1/2	A	B-C	R3191211	4.5
1/3	A	B-C	R3191312	





SIZE 7	MOD. RP		CHT		
	RATIO	INPUT	OUTPUT	CODE	WEIGHT Kg
	1/1	A	B	R3241101	4.5
	1/1	A	C	R3241102	
	1/2	A	B	R3241203	
	1/2	A	C	R3241204	
	1/3	A	B	R3241305	
	1/3	A	C	R3241306	
	1/1	A	B-C	R3241107	
	1/2	A	B-C	R3241208	
	1/3	A	B-C	R3241309	



CHIARAVALLI® GROUP SpA

ELECTRIC MOTORS

INTRODUCTION

CHT series motors have been produced to be mounted on gearboxes and therefore they have mechanical and electrical characteristics particularly right for this use.
All our motors are IP55, insulation class F with phase separator to be used with frequency variators, in this condition they can be provided complete with forced ventilation.
The motors like the gearboxes are painted with RAL 9022 grey colour epoxy powder.

TECHNICAL CHARACTERISTICS

- **Cage rotor motors, locked with outside surface ventilation.**
- **Project, construction and test in compliance with CEI2-3, international norms IEC34-1 and principal foreign/international standard.**
- **Power-sizes in specification with IEC 72, national norms UNEL-MEC.**
- **Insulation: class F**
- **Protection: class IP55**
- **Rated power delivered on continuous: S1**
- **European directive ROHS 2002/95/CE**
- **Phase separator**
- **Motors size 160 up to 355**
- **Volt 400/690 standard from 160 up to 355 on request for other sizes**

FUNCTION WITH A FREQUENCY OF 60

The CHT line motors can function with a frequency of 60 Hz. with differences in performances and electrical sizes as described on the table.

PLATE VOLTAGE 50 Hz	PLATE VOLTAGE 60 Hz	NOMINAL POWER	NOMINAL CURRENT	NOMINAL TORQUE	R.P.M.	STARTING CURRENT	STARTING TORQUE	MAX TORQUE
230 +/- 10%	220 +/- 5%	1	1	0.83	1.2	0.83	0.83	0.83
230 +/- 10%	230 +/- 10%	1	0.95	0.83	1.2	0.83	0.83	0.83
230 +/- 10%	254 +/- 5%	1.15	1.02	0.96	1.2	0.93	0.93	0.93
230 +/- 10%	277 +/- 5%	1.2	1	1	1.2	1	1	1
400 +/- 10%	380 +/- 5%	1	1	0.83	1.2	0.83	0.83	0.83
400 +/- 10%	400 +/- 10%	1	0.95	0.83	1.2	0.83	0.83	0.83
400 +/- 10%	440 +/- 5%	1.16	1.02	0.96	1.2	0.93	0.93	0.93
400 +/- 10%	460 +/- 10%	1.15	1	0.96	1.2	0.96	0.96	0.96
400 +/- 10%	480 +/- 5%	1.2	1	1	1.2	1	1	1

FEEDING VOLTAGE

The CHT line motors are made to be used on the European net system Volt 230/400 +/- 10% - Hz 50 and Volt 400/690 +/- 10% - Hz 50
This means that the same motor can function on the following stili existing nets:
- 220/380 Volt +/- 5%
- 230/400 Volt +/- 10%
- 240/415 Volt +/- 5%
- 380/660 Volt +/- 5%
- 400/690 Volt +/- 10%
- 415/720 Volt +/- 5%

corresponding to the requirements requested by the rules of numerous countries.

IE 1

TYPE		POLES	POWER Kw	VOLTAGE V	CURRENT 400 V	TORQUE N/m	EFFICIENCY %	FACTOR COS.ø	WEIGHT Kg.
CHT 56	**B2**	2	0.13	230/400	0.40	0.42	62.00	0.69	3.20
CHT 56	**B4**	4	0.09	230/400	0.43	0.64	50.00	0.61	3.20
CHT 63	**A2**	2	0.18	230/400	0.55	0.63	63.00	0.75	4.00
CHT 63	**B2**	2	0.25	230/400	0.71	0.88	65.00	0.78	4.40
CHT 63	**C2**	2	0.37	230/400	1.05	1.30	65.00	0.78	4.90
CHT 63	**A4**	4	0.12	230/400	0.47	0.85	57.00	0.64	3.90
CHT 63	**B4**	4	0.18	230/400	0.70	1.27	57.00	0.65	4.50
CHT 63	**C4**	4	0.22	230/400	0.92	1.77	59.00	0.67	4.80
CHT 63	**B6**	6	0.12	230/400	0.62	1.27	45.00	0.62	4.80
CHT 71	**A2**	2	0.37	230/400	0.97	1.29	70.00	0.79	5.60
CHT 71	**B2**	2	0.55	230/400	1.42	1.90	71.00	0.79	6.10
CHT 71	**A4**	4	0.25	230/400	0.84	1.77	60.00	0.62	5.60
CHT 71	**B4**	4	0.37	230/400	1.12	2.58	65.00	0.74	6.20
CHT 71	**C4**	4	0.55	230/400	1.61	3.81	66.00	0.75	7.00
CHT 71	**A6**	6	0.18	230/400	0.70	1.95	56.00	0.66	6.00
CHT 71	**B6**	6	0.25	230/400	0.87	2.65	59.00	0.70	6.50
CHT 71	**C6**	6	0.37	230/400	1.27	3.97	61.00	0.69	7.20
CHT 80	**A4**	4	0.55	230/400	1.59	3.81	67.00	0.75	8.90
CHT 80	**A6**	6	0.37	230/400	1.23	3.93	62.00	0.70	8.20
CHT 80	**B6**	6	0.55	230/400	1.65	5.80	67.00	0.72	9.90

IE 2

IE 2 EFFICIENCY MOTORS

Starting from June 2011, 2 - 4 - 6 poles electric motors with power included from 0,75kw to 375kw. sold into European Community, must be in accordance with EU MEPS European Union Minimum Energy Performance Standards regulation concerning efficiency level, in order to reduce consumptions and C02 emissions.
IE 2 mark reported on the motors nameplate will show that it belongs to this class.

TYPE		POLES	POWER Kw	VOLTAGE V	CURRENT 400 V	TORQUE N/m	EFFICIENCY %	FACTOR COS.ø	WEIGHT Kg.
CHT 80	**A2**	2	0.75	230/400	1.75	2.51	77.40	0.80	9.10
CHT 80	**B2**	2	1.10	230/400	2.45	3.69	80.00	0.82	10.70
CHT 80	**C2**	2	1.50	230/400	3.12	4.97	82.70	0.83	13.00
CHT 80	**B4**	4	0.75	230/400	1.79	5.04	79.60	0.76	11.20
CHT 80	**C4**	4	1.10	230/400	2.72	7.39	81.40	0.71	13.50
CHT 90	**S2**	2	1.50	230/400	3.20	4.95	81.40	0.83	13.30
CHT 90	**L2**	2	2.20	230/400	4.54	7.38	83.20	0.84	16.00
CHT 90	**S4**	4	1.10	230/400	2.50	7.37	81.40	0.78	13.90
CHT 90	**L4**	4	1.50	230/400	3.31	10.09	82.80	0.79	16.20
CHT 90	**M4**	4	2.20	230/400	5.09	14.71	84.30	0.74	20.50
CHT 90	**S6**	6	0.75	230/400	2.01	7.66	76.00	0.71	13.00
CHT 90	**L6**	6	1.10	230/400	2.82	11.23	78.10	0.72	16.30
CHT 100	**LA2**	2	3.00	230/400	5.88	10.05	84.60	0.87	23.00
CHT 100	**LA4**	4	2.20	230/400	4.83	14.70	84.30	0.78	22.70
CHT 100	**LB4**	4	3.00	230/400	6.33	20.00	85.50	0.80	26.50
CHT 100	**LA6**	6	1.50	230/400	3.71	15.20	80.00	0.73	22.00
CHT 112	**M2**	2	4.00	230/400	7.56	13.13	86.00	0.89	27.00
CHT 112	**M4**	4	4.00	230/400	8.23	26.60	86.60	0.81	32.50
CHT 112	**L4**	4	5.50	230/400	11.25	36.57	87.90	0.80	39.00
CHT 112	**M6**	6	2.20	230/400	5.17	22.30	81.80	0.75	29.50
CHT 132	**SA2**	2	5.50	230/400	10.25	18.00	87.20	0.89	40.20
CHT 132	**SB2**	2	7.50	230/400	13.80	24.47	88.10	0.89	45.00
CHT 132	**S4**	4	5.50	230/400	11.00	36.22	87.90	0.83	44.00
CHT 132	**M4**	4	7.50	230/400	14.50	50.00	88.70	0.84	53.50
CHT 132	**M6**	6	4.00	230/400	8.86	40.42	84.60	0.77	45.00
CHT 132	**S6**	6	3.00	230/400	6.84	30.48	83.30	0.76	36.10

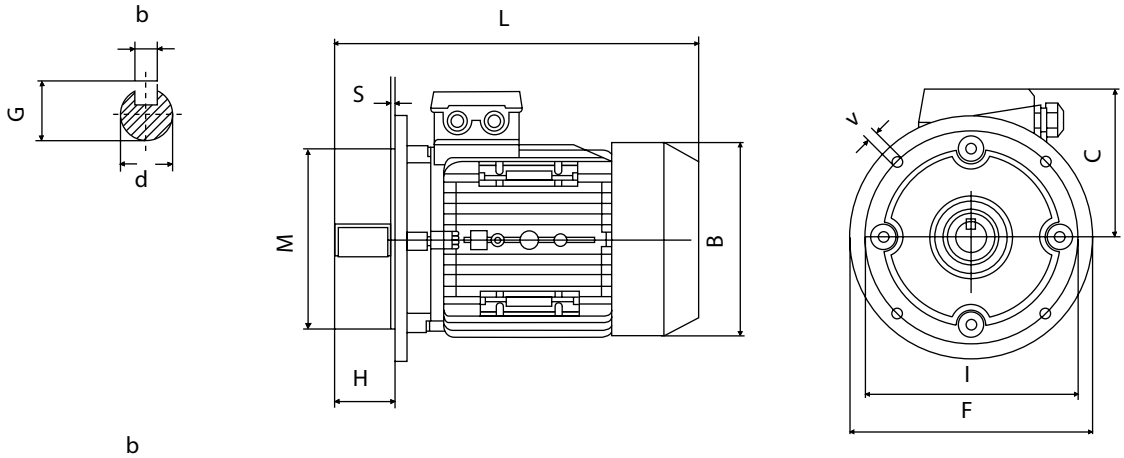
* Motors size 160 up to 355 on request

* Volt 400/690 standard from 160 up to 355 on request for other sizes.

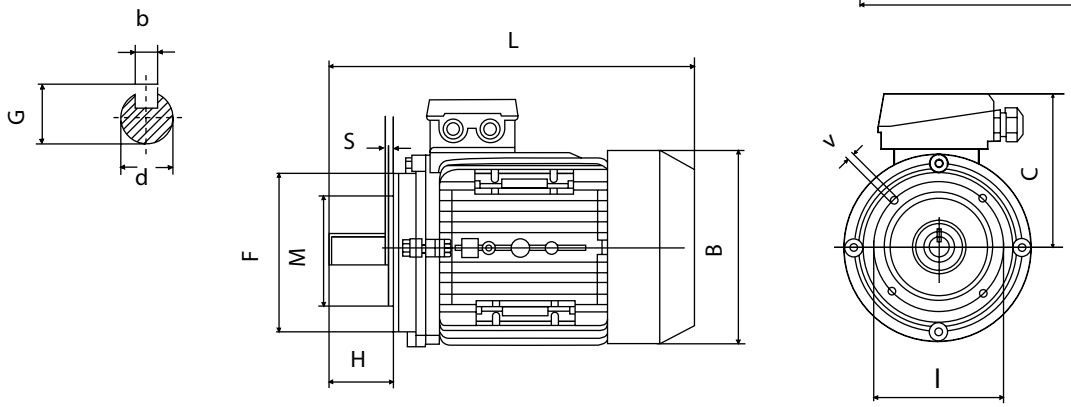
* **ABB** motor available on request

* **MGM** brake motor available on request

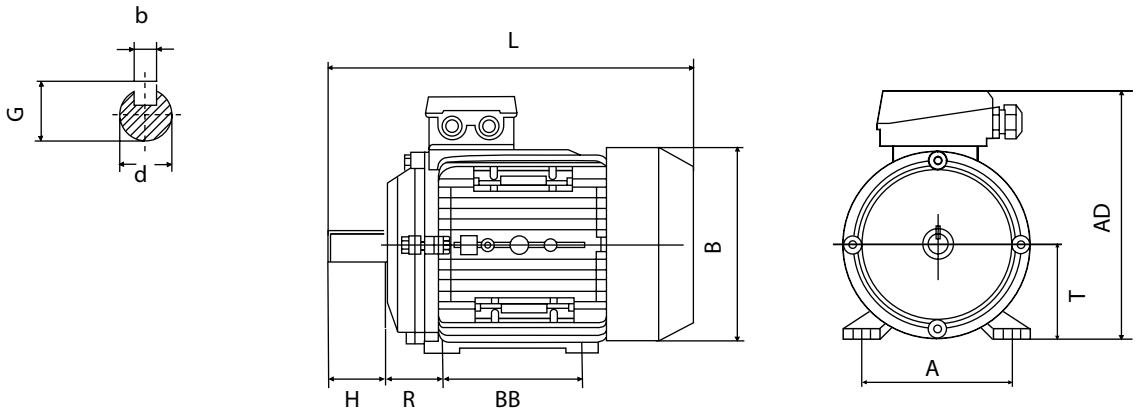
B5



B14



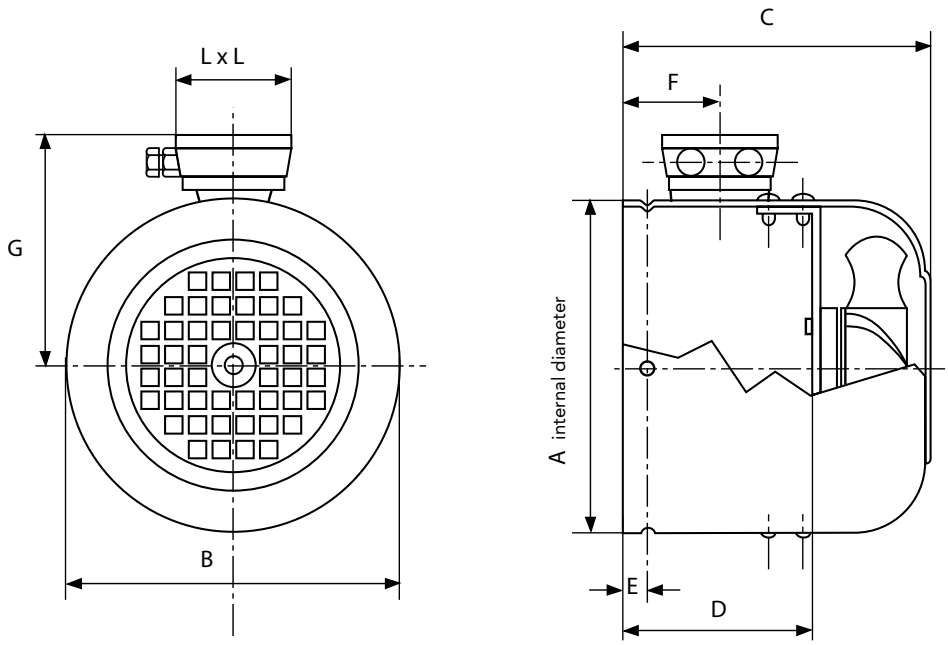
B3



SIZES AND DIMENSIONS

TYPE	MOUNTING DIMENSIONS (mm)																		DIMENSIONS		
					B5					B14					B3							
	d	H	b	G	I	M	F	V	S	I	M	F	V	S	R	BB	A	T	AD	B	C	L
56	9	20	3	10.2	100	80	120	7	3.0	65	50	80	M5	2.5	36	71	90	56	156	110	100	195
63	11	23	4	12.5	115	95	140	10	3.0	75	60	90	M5	2.5	40	80	100	63	173	123	110	215
71	14	30	5	16	130	110	160	10	3.5	85	70	105	M6	2.5	45	90	112	71	188	138	117	255
80	19	40	6	21.5	165	130	200	12	3.5	100	80	120	M6	3.0	50	100	125	80	217	155	137	290
90S	24	50	8	27	165	130	200	12	3.5	115	95	140	M8	3.0	56	100	140	90	235	176	145	310
90L/90LL	24	50	8	27	165	130	200	12	3.5	115	95	140	M8	3.0	56	125	140	90	235	176	145	335
100L	28	60	8	31	215	180	250	15	4.0	130	110	160	M8	3.5	63	140	160	100	252	197	152	386
112M	28	60	8	31	215	180	250	15	4.0	130	110	160	M8	3.5	70	140	190	112	292	220	180	395
132S	38	80	10	41	265	230	300	15	4.0	165	130	200	M10	4.0	89	140	216	132	325	257	195	436
132M	38	80	10	41	265	230	300	15	4.0	165	130	200	M10	4.0	89	178	216	132	325	257	195	475

FORCED VENTILATION KIT* SINGLE-PHASE MODELS



Single-phase dimensions with IP55 terminal box

SIZE	VOLTAGE	HZ	NOM. SPEED MIN/1	ABSORB. WATT	CURRENT M.A.	AIR FLOW M 3/H
GR.63	230	50 / 60	2750	15 / 14	120 / 100	180
GR.71	230	50 / 60	2750	15 / 14	120 / 100	180
GR.80	230	50 / 60	2750	15 / 14	120 / 100	180
GR.90	230	50 / 60	2900	42 / 36	190 / 180	340
GR.100	230	50 / 60	2900	42 / 36	190 / 180	340
GR.112	230	50 / 60	2900	42 / 36	190 / 180	340
GR.132	230	50 / 60	2900	42 / 36	190 / 180	340

SIZE	COD. IP55	A	B	C	D	E	F	G	L x L
GR.63	AS063230	121	123	102	58	6	50	104	75
GR.71	AS071230	136	138	120	70	6	50	111	75
GR.80	AS080230	153	155	130	80	6	55	125	100
GR.90	AS090230	172	176	145	75	6	60	135	100
GR.100	AS100230	195	197	158	85	8	60	150	100
GR.112	AS112230	218	220	160	100	10	60	160	100
GR.132	AS132230	255	257	180	120	8	65	175	100

* forced ventilation kit three-phase models available on request