



**SPEED VARIATORS CHV SERIES**

**CHIARAVALLI** CE  
3 PH MOTOR ICE 60034 NP 052831  
P.W. TYPE CHV 6384 IP 55 (S CL. F. A)  
0.18 kW 0.25 HP Vn ±10% Conv 0.85  
230 Δ / 400 Y 50 Hz 1.220 T A 1350 RPM  
250 Δ / 440 Y 60 Hz 1.250 T A 1525 RPM



## SPEED VARIATORS CHV SERIES

Chiaravalli Group S.p.A. introduces his mechanical speed variators line with oil bath lubrication CHV series sizes 02-05-10-20-30-50, the main characteristics are the following:

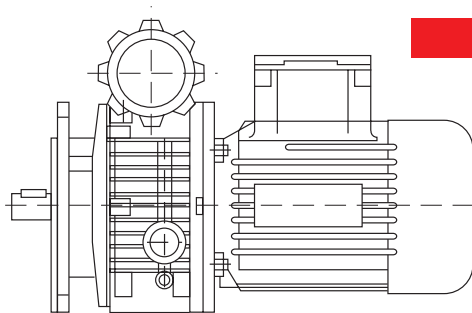
- Speed range 1:5
- Smooth and silent running
- Increasing torque at low speed
- High efficiency
- Input and output flange B5
- Compact design
- Aluminium cases sizes 02-05-10
- RAL 9022 grey painted



## DESIGNATION

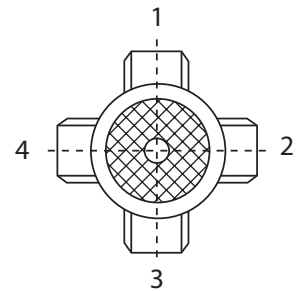
TYPE	SIZE	POWER Kw	POLES	VOLTAGE	FREQUENCY	T.BOX POS.	MOUNT. POS.
CHV	02	0.18 - 0.22	4	230/400	50HZ	1	B5
	05	0.37				2	V1
	10	0.75				3	V3
	20	1.1 - 1.5				4	
	30	2.2					
	50	3.0 - 4.0					

Mounting position

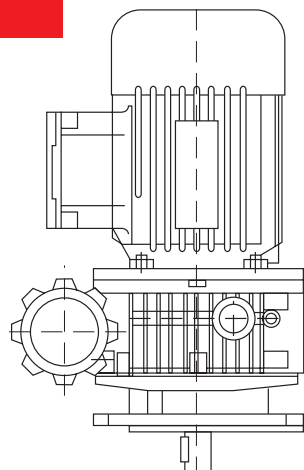


**B5**

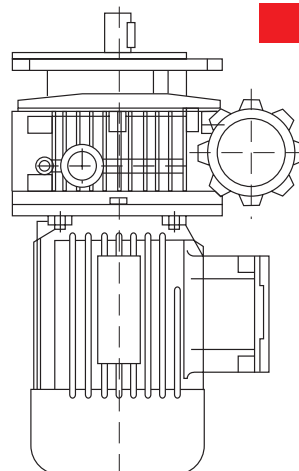
Terminal box position



**V1**



**V3**





## PERFORMANCES WITH 4 POLES MOTORS

SPEED VARIATOR	POWER Kw	OUTPUT SPEED	OUTPUT TORQUE Nm
CHV 02	0.18	170 - 880	3.0 - 1.5
CHV 02	0.22	170 - 880	3.8 - 1.9
CHV 05	0.37	200 - 1000	6.0 - 3.0
CHV 10	0.75	200 - 1000	12 - 6.0
CHV 20	1.10	200 - 1000	18 - 9.0
CHV 20	1.50	200 - 1000	24 - 12
CHV 30	2.20	200 - 1000	36 - 18
CHV 50	3.00	200 - 1000	48 - 24
CHV 50	4.00	200 - 1000	64 - 32



## LUBRICATION

Speed variators are supplied with lubrication oil for assembly position B5, for other positions it will be necessary to add oil, see following table.

OIL QUANTITY Kg						
CHV	02	05	10	20	30	50
B5	0.13	0.15	0.33	0.8	1.20	1.20
V1	0.3	0.4	0.85	1.40	2.15	2.15
V3	0.2	0.25	0.45	0.90	1.30	1.30



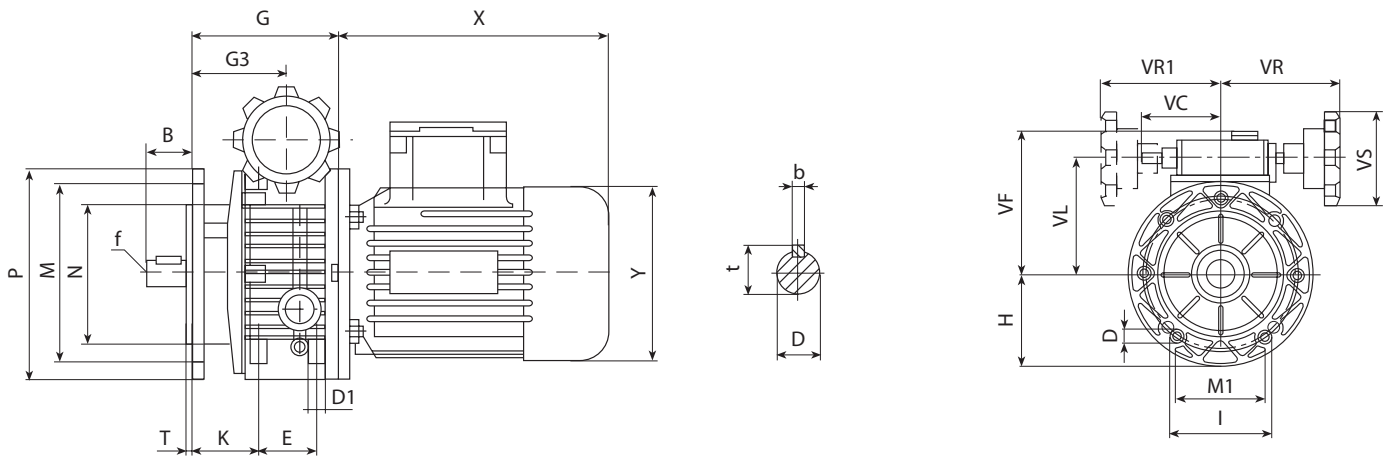
## RECOMMENDED OILS

AGIP	A.T.F. DEXRON
ESSO	A.T.F. DEXRON
SHELL	A.T.F. DEXRON
BP	A.T.F. DEXRON

2D and 3D drawings available on the web site [www.chiaravalli.com](http://www.chiaravalli.com)  
Quantity, availability and prices with Chiaravalli B2B



# CHV 02/05/10/20/30/50 DIMENSIONS



	B	D(j6)	E	G	G3	H	I	M	M1	N	D	D1	P	T	K	VC	VF	VL	VR	VR1	VS	b	f	t	kg
<b>CHV 02</b>	23	11	50	112.5	64.5	70	72	115	60	95	9	M6	140	3.5	46	71	111	78	110	110	85	4	M5	12.5	3.4
<b>CHV 05</b>	30	14	40	110	74	80	90	130	76	110	9	M8	160	3.5	52.5	71	123	90	110	110	85	5	M6	16	4.7
<b>CHV 10</b>	40	19	58	139	85.5	100	98	165	84	130	11	M8	200	3.5	60	79	140	107	120	120	110	6	M6	21.5	7.8
<b>CHV 20</b>	50	24	-	188	115	126	241	165	-	130	11	-	200	3.5	-	-	144	122	150	-	110	8	M8	27	31
<b>CHV 30</b>	60	28	-	208	131	150	270	215	-	180	15	-	250	4	-	-	188	150	160	-	110	8	M10	33	55
<b>CHV 50</b>	60	28	-	208	131	150	270	215	-	180	15	-	250	4	-	-	188	150	160	-	110	8	M10	33	57



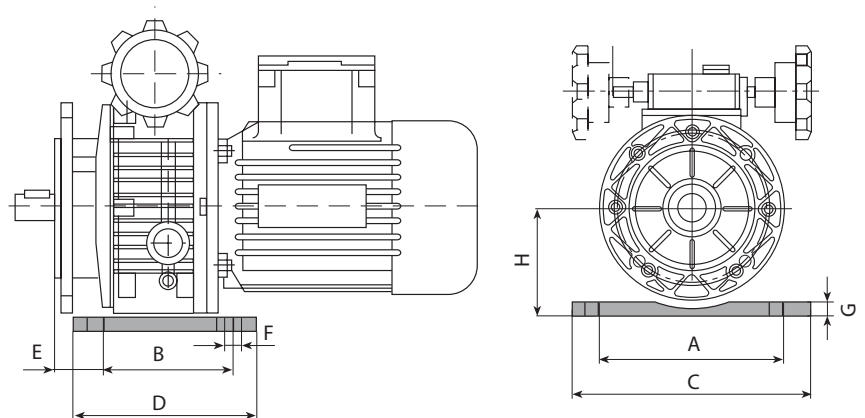
# ACCESSORIES

## Gravitational indicator

The gravitational indicator must be inserted into the handwheel and with a numerical scale it shows a reference link to the speed. Set the indicator moving the two hands to zero and put it into the handwheel after setting the variators to minimum speed. The gravitational indicator doesn't work with vertical handwheel axis.

## Feet kit

CHV	02	05	10
<b>A</b>	110	120	160
<b>B</b>	105	104	125
<b>C</b>	145	149	190
<b>D</b>	120	125	150
<b>E</b>	15.5	20.5	26.5
<b>F</b>	9	9	11
<b>G</b>	10	12	14
<b>H</b>	82	93	113





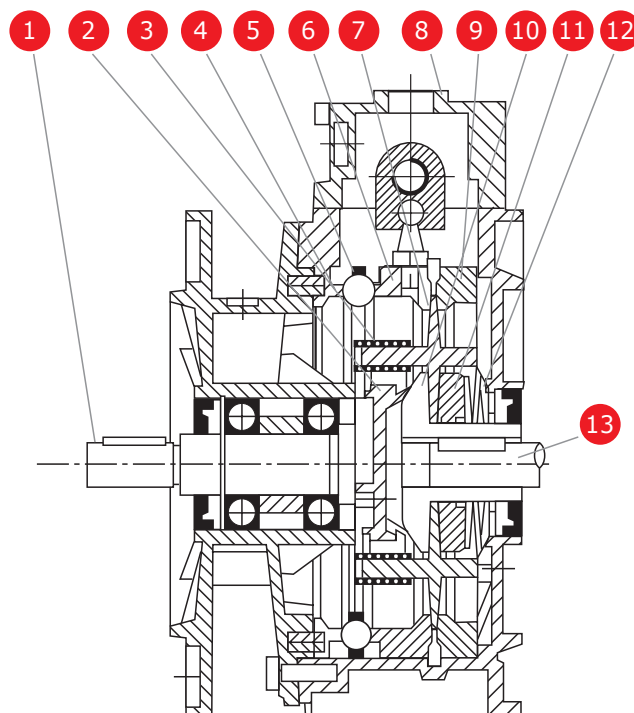
## USE AND MAINTENANCE

- The screws under the handwheel are well adjusted, don't touch them.
- Don't adjust the handwheel when the motor is off, this can cause internal breaking.
- Speed variators are filled with oil, check the level before running.
- After the running-in the oil must be changed, check the level periodically.
- The temperature after the running-in can reach 50/55°C over room temperature.
- When the variator is supplied without motor make sure that the assembled one is at least "normal" class quality and the connection is not forced.
- Speed variators are supplied with closed oil plugs. When the variator is used for continuous work replace the closed plug with the supplied breather plug.



## SPARE PART LIST

- |    |                                 |
|----|---------------------------------|
| 1  | OUTPUT SHAFT                    |
| 2  | PLANET SUPPORT                  |
| 3  | SLIDE BLOCK                     |
| 4  | REGULATING ORBIT                |
| 5  | BALL RING                       |
| 6  | MOVING OUTER PLANETARY ORBIT    |
| 7  | PLANET WHEEL                    |
| 8  | OPERATING BOX                   |
| 9  | FIXED OUTER PLANETARY ORBIT     |
| 10 | FIXED INFERIOR PLANETARY ORBIT  |
| 11 | MOVING INFERIOR PLANETARY ORBIT |
| 12 | BUTTERFLY SPRING                |
| 13 | MOTOR SHAFT                     |



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