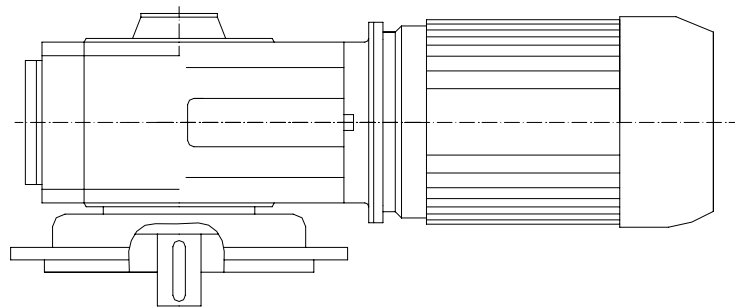
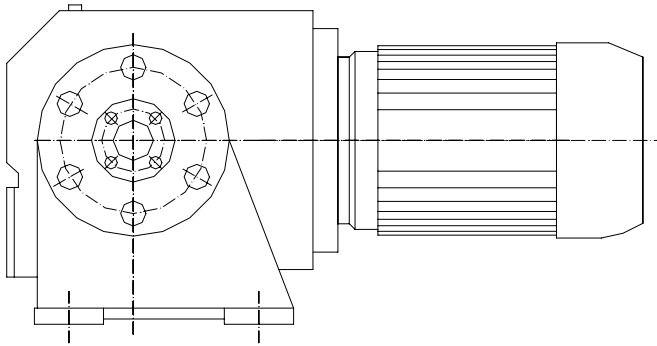


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HELICAL-WORM GEARED MOTORS

MOTOREDUCTOARE CILINDRO-MELCATE



39/2006

CARACTERISTICI GENERALE

Sunt formate dintr-un motor electric si un reductor in doua trepte cu un angrenaj cilindric si un angrenaj melcat.

Motoreductoarele se pot utiliza in urmatoarele conditii:

- sensul de rotatie al arborelui de intrare: indiferent;
- turatie arborelui de turatie mare: max. 1500 rot/min;
- numarul de porniri-opriri: max.6/ora;
- temperatura mediului ambinat: -33°...+45°C;
- umiditatea normala a mediului: max.80% la 20°C (STAS 6692-83);

Motor electric tip B5:
-turatie: 750;1000;1500 rot/min;
-tensiune alimentare: 380/220V la 50Hz;
-tipuri: ASI; ASA (Ex); ASFM (cu frina inglobata); de curent continuu si alte tipuri.

Caracteristici tehnice, dimensiuni conform tab.2,3,5 si variante montaj conf. tab. 4 si 6.

Ungerea se face cu ulei prin barbotare.
Tipul uleiului este aditivat mineral cu indice de viscozitate echivalent ISO VG 100 iarna si ISO VG 320 vara.

ALEGEREA MARIMII MOTOREDUCTORULUI

Marimea constructiva a unui motoreductor se stabileste astfel incit sa se respecte conditia:

$$P_m \geq P_e \text{ in care: } P_e = P_n \times C_s / \eta$$

P_m = puterea motorului, Kw

P_e = puterea echivalenta la intrare, Kw

P_n = puterea nominala de transmis

C_s = coeficientul de serviciu (tabel 1)

η = randamentul motoreductorului (tabel 2).

GREUTATI MAXIME;
MAX. WEIGHT [kg]

GENERAL CHARACTERISTICS

Are composed of one electric motor and a reduction gear unit with a cylindrical gear step and a worm one.

The motor-gear units can be used in the following conditions:

- hand of rotation of the input shaft: any;
- speed of the input shaft: max. 1500 rmp;
- number of strat-stop cycles: max. 6/hour;
- temperature of the atmosphere: -33°...+45°C;
- normal humidity of the atmosphere: max. 80% at 20°C;

Electric motor B5 type:

- speeds: 750;1000;1500 rpm;
- supply voltage: 380/220V at 50Hz;
- type ASI; ASA (Ex); ASFM; d.c.

Technical characteristics, overall & clampind dimensions shown in tables 2,3,5, and mounting variants as per tables 4 and 6.

Gears are lubricated with oil, by bubbling.
The oil to be used is mineral oil additivated, with the viscosity index equivalent to ISO VG 100 in winter and ISO VG 320 in summer.

MOTOR- GEAR SELECTION

The constructive size of a motor gear is chosen so that the condition:

$P_m \geq P_e$ be respected, where: $P_e = P_n \times C_s / \eta$

P_m = motor power, Kw

P_e = puterea echivalenta la intrare, Kw

P_n = nominal power, kW

C_s = service factor (table 1)

η = efficiency (table 2).

Motoreductoare cilindro-melcate / Helical-worm motor-gears M2H(V)M

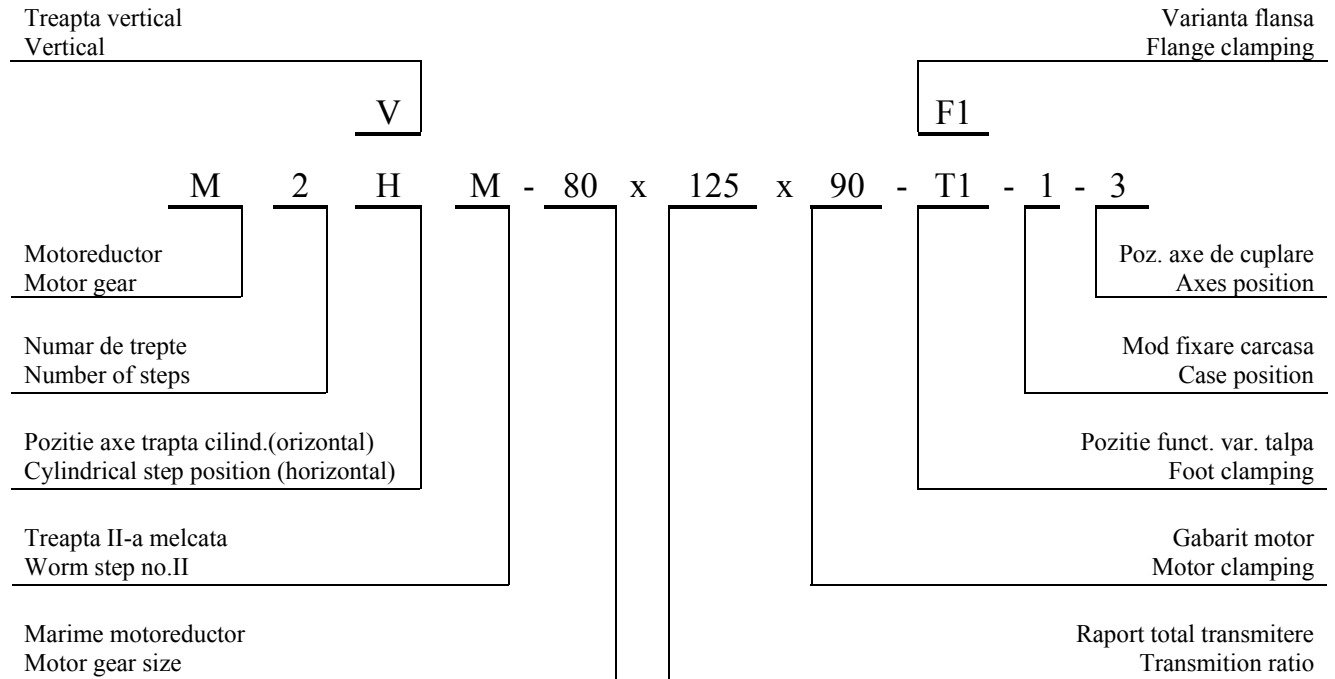
Marime Size	50	63	80	100	125	160
kg	22	28	48	65	105	165

VALORILE COEFICIENTULUI DE SERVICIU Cs
VALUES OF THE DUTY COEFFICIENT Cs

Tabel / Table 1

	Masina motoare Drivind unit	Durata de functionare: ore / zi Duty: hours / day	Categoria gradului de soc Category of the factor of duty		
			I	II	III
A	Motor electric Electric motor	pina la 3 up to 3	0,8	1	1,5
	Turbina Turbine	3 – 10	1	1,25	1,75
	Motor hidraulic Hydraulic	10 – 24	1,25	1,5	2
B	Motor cu 4 – 6 cilindri Four-six cylinder engine	pina la 3 up to 3	1	1,25	1,75
		3 – 10	1,25	1,5	2
		10 – 24	1,5	1,75	2,25
C	Motor cu 1 – 2 cilindri One-six cylinder engine	pina la 3 up to 3	1,25	1,5	2
		3 – 10	1,5	1,75	2,25
		10 – 24	1,75	2	2,5

SIMBOLIZARE / ORDERING CODE



CARACTERISTICI TEHNICE / TECHNICAL CHARACTERISTICS

Tabel / Table 2

		M O T O R E D U C T O A R E / S I Z E O F T H E M O T O R - G E A R S																											
Turatie motor Speed rmp	Turatie iesire Output speed rmp	Raport Ratio i	50				63				80				100				125				160						
			η	Me	Pm	Gm	η	Me	Pm	Gm	η	Me	Pm	Gm	η	Me	Pm	Gm	η	Me	Pm	Gm	η	Me	Pm	Gm			
1500	48	31,25	0,75	3,8	0,25	71	0,77	12	0,75	80	0,79	24	1,5	90	0,82	37	2,2	100	0,82	37	2,2	100	0,83	93	5,5	132			
			0,62	5,6	0,37	80	0,65	17	1,1	90	0,75	33	1,1	90	0,78	50	3	100	0,83	67	4	112	0,83	134	7,5	160			
				8,3	0,55			15	0,55	80																	0,62	28	0,55
1000	32	62,5	0,73	8,2	0,37	80	0,75	13	0,55	80	0,77	26	1,1	90	0,80	36	1,5	100	0,83	76	3	132	0,86	144	5,5	132			
			0,55	11	0,25	71	0,58	17	0,75	90	0,64	29	0,75	90	0,76	51	1,1	90	0,77	103	2,2	112	0,77	140	3	132			
																											9,3	0,37	20
750	16	125	-	-	-	-	ciz ie ina	19,4	0,55	80	0,64	29	0,75	90	0,76	51	1,1	90	0,77	103	2,2	112	0,82	200	4	160			
			0,77	4,2	0,55	36	0,63	57	0,75	90	0,66	120	1,5	100	0,68	243	2,2	132	0,68	243	2,2	132	0,68	243	2,2	132			
																											8	-	-
1725	68	25,5	0,76	6	0,55	1	-	-	-	0,57	34	0,37	90	0,60	74	0,75	100	0,60	55	0,55	90	0,64	114	1,1	100	0,68	243	2,2	132
1725	48	36	0,75	8,3	0,55	-	1	-	-	0,57	34	0,37	90	0,60	74	0,75	100	0,60	55	0,55	90	0,64	114	1,1	100	0,68	243	2,2	132
			0,77	4,2	0,55	36	0,63	57	0,75	90	0,66	120	1,5	100	0,68	243	2,2	132	0,68	243	2,2	132	0,68	243	2,2	132			
																											98	17,6	0,77

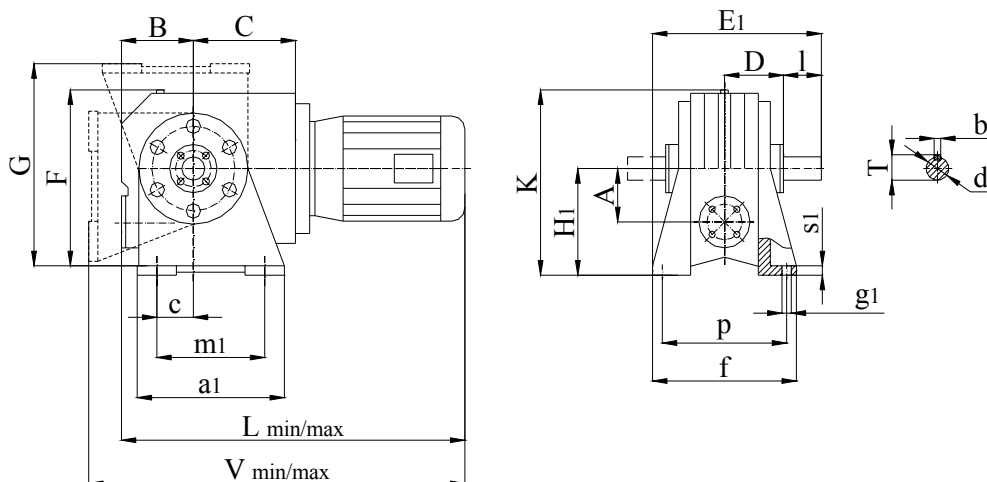
η – randamentul / the efficiency
 Me – momentul de iesire / output torque (da Nm)
 Pm – puterea nominal / nominal power (kw)
 Gm – gabarit motor / motor clamping

Pentru M2H (V) M-50C motor c.c

1725	98	17,6	0,77	4,2	0,55
	68	25,5	0,76	6	
	48	36	0,75	8,3	

DIMENSIUNI DE GABARIT SI LEGATURA OVERALL AND CLAMPING DIMENSIONS

Motoreductoare cu talpa / Foot clamping [mm]



Tabel / Table 3

Marime Size A	B	C	D	E ₁	F	G	H ₁	K	L min max	V min max	a ₁	c	f	g ₁ s ₁	m ₁	p	b T	d l
50	85	120	60	182	212	243	125	219	394 433	434 473	148	35	156	12 12	108	132	8 28	25j6 42
50C	85	120	60	182	212	243	125	219	489	529	148	35	156	12 12	108	132	8 28	25j6 42
63	87	130	70	208	228	266	135	232	413	461	180	45	164	12 12	138	140	8 33,3	30j6 58
80	110	156	90	258	275	315	160	278	525 550	575 600	225	56	220	14 14	165	190	10 38,3	35k6 58
100	132	180	114	300	337	385	195	342	653 670	698 733	275	75	250	18 15	205	214	14 48,5	45k6 82
125	153	223	130	362	387	445	225	392	752 790	824 862	340	92	264	18 18	270	230	14 53,5	50k6 82
160	195	295	160	440	490	565	285	495	832 1022	922 1112	445	130	342	22 24	345	280	18 64	60m6 105

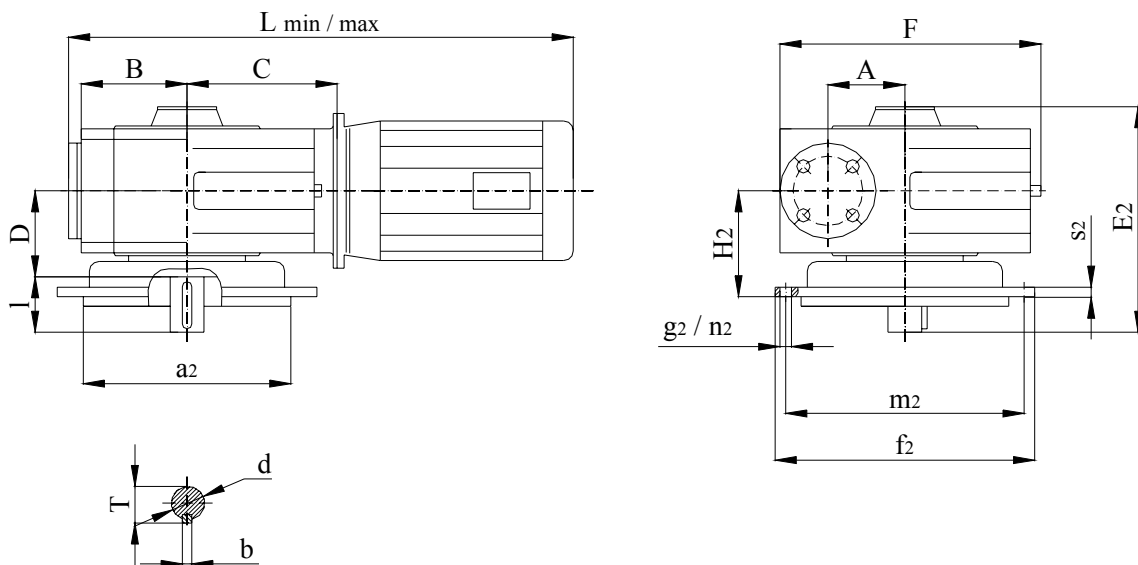
VARIANTE DE MONTAJ / MOUNTING VARIANTS

Tabel / Table 4

	MOD DE FIXARE A CARCASEI			POZITIZ AXELOR		
	1	2	3	0	1	6
T₁	 M2HM	 M2HM	 M2HM	 M2HM	 M2HM	 M2HM
T₃	 M2HM	 M2HM	-	 M2HM	 M2HM	 M2HM
T₂	-	 M2VM	 M2VM	 M2VM	 M2VM	 M2VM

DIMENSIUNI DE GABARIT SI LEGATURA OVERALL AND CLAMPING DIMENSIONS

Motoreductoare cu flansa / Flange clamping [mm]



Tabel / Table 5

Marime Size A	B	C	D	E ₂	F	H ₂	L min max	a ₂	f ₂	g ₂	m ₂	n ₂	s ₂	b T	d l
50	85	120	60	186	212	102	394 433	144	185	9	165	6	12	8 28	25j6 42
50C	85	120	60	186	212	102	- 489	144	185	9	165	6	12	8 28	25j6 42
63	87	129	70	205	228	110	- 413	165	210	9	190	6	12	8 33,3	30j6 58
80	110	156	90	236	274	130	525 550	216	270	12	248	6	14	10 38,3	35k6 58
100	132	179	114	321	337	155	653 670	240	290	11	266	8	15	14 48,5	45k6 82
125	153	223	130	330	387	175	752 790	300	360	14	330	8	18	14 53,5	50k6 82
160	195	295	160	440	490	223	831 1022	375	450	18	412	8	24	18 64	60m6 105

VARIANTE DE MONTAJ / MOUNTING VARIANTS

Tabel / Table 6

	MOD DE FIXARE A CARCASEI		POZITIA AXELOR		
F ₁	1 M2HM	2 M2HM	1 1	2 2	3 3
	F ₂ M2VM		2 2	3 3	7 7