Technical Data

SPCO Stainless Steel Submersible motors (UGM Series)

SPCO Stainless Steel submersible motors (UGM Series) are designed as rewindable, wet stator type motors lubricated and cooled with the water filled in. They are three phase squirrel cage motors for clean water deep well submersible pumps.

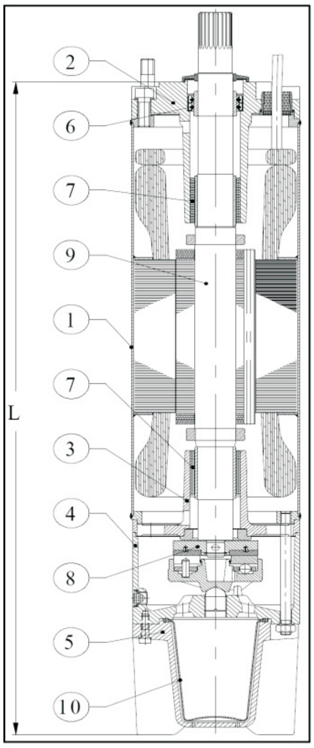
During the material selection and design of **SPCO** Stainless Steel submersible motors the negative influences of supply valtage fluctuation, bad well quality and other environmental effects are aimed to be tolerated.

SPCO Stainless Steel submersible motors with mechanical seal designed especially for sandy water and have a proven success in the field are filled with water before shipment to be ready for operation.

SPCO Stainless Steel submersible motors operate at up to 70°C well water temperature by using special materials and Y80 wire.

OPTIONS :

- Different voltage and frequencies
- Different type of starting
- Other cast materials
- 70 °C Max. water temperature
- Pt 100 Temperature sensor
- IP 68 .   option * SiC
- Hi capacity Thrust Bearing

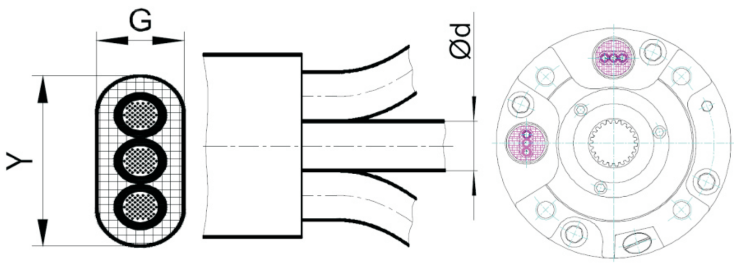


Material		
No.	**PART**	**Stainless Steel**
1	Shell	1.4301
2	Upper Bearing Body	SS 304
3	Lower Bearing Support	SS 304
4	Thrust Bearing Support	SS 304
5	Membrane Body	SS 304
6		SIC M. Seal
7	Radial Bearing	Graphite
8	Thrust Bearing	Graphite + 1.4034
9	Shaft	1.4034
10	Membrane	EPDM

Technical Specification

TYPE	D	kW	HP	D.O.L		Y/D		kN	Starts/h	L mm	kg
				mm²	n	mm²	n				
UGM6/5,5	6"	4	5.5	3x2,5	1	3x2,5	2	20	20	643	45
UGM6/7,5	6"	5.5	7.5	3x2,5	1	3x2,5	2	20	20	672	48
UGM6/10	6"	7.5	10	3x2,5	1	3x2,5	2	20	20	752	54
UGM6/12,5	6"	9.3	12.5	3x2,5	1	3x2,5	2	20	20	792	58
UGM6/15	6"	11	15	3x4	1	3x2,5	2	20	20	845	62
UGM6/17,5	6"	13	17.5	3x4	1	3x2,5	2	20	20	905	67
UGM6/20	6"	15	20	3x4	1	3x2,5	2	20	20	967	73
UGM6/25	6"	18.5	25	3x4	1	3x4	2	20	20	1080	82
UGM6/30	6"	22	30	3x6	1	3x4	2	20	20	1155	88
UGM6/35	6"	26.5	35	3x6	1	3x4	2	20	20	1190	92
UGM6/40	6"	30	40	3x6	2	3x4	2	26.5	20	1366	106
UGM6/50	6"	37	50	3x6	2	3x6	2	26.5	15	1426	113
UGM8/40	8"	30	40	3x10	1	3x10	2	45	15	1103	130
UGM8/50	8"	37	50	3x10	1	3x10	2	45	15	1168	136
UGM8/60	8"	45	60	3x10	1	3x10	2	45	15	1243	143
UGM8/70	8"	52	70	3x10	1	3x10	2	45	15	1283	149
UGM8/75	8"	55	75	3x16	1	3x10	2	45	15	1333	155
UGM8/80	8"	60	80	3x16	1	3x10	2	45	15	1388	163
UGM8/90	8"	67	90	3x16	1	3x10	2	45	15	1418	162
UGM8/100	8"	75	100	3x16	1	3x16	2	45	15	1493	184
UGM8/110	8"	81	110	3x16	2	3x16	2	45	10	1533	201
UGM8/125	8"	92	125	3x16	2	3x16	2	60	10	1598	215
UGM10/110	10"	81	110	3x25	1	3x16	2	75	10	1378	260
UGM10/125	10"	92	125	3x25	1	3x16	2	75	10	1443	280
UGM10/150	10"	110	150	3x25	1	3x16	2	75	10	1523	305
UGM10/175	10"	129	175	3x25	2	3x25	2	75	10	1628	335
UGM10/200	10"	147	200	3x25	2	3x25	2	75	10	1768	375
UGM10/225	10"	166	225	3x25	2	3x25	2	75	10	1848	398
UGM10/250	10"	185	250	3x25	2	3x25	2	75	10	1913	417

Size (mm²)	G	Y	D
3x2,5	5.6	14.2	3.6
3x4	7.3	15.5	4.2
3x6	7.4	17.5	4.6
3x10	9.8	22.2	6
3x16	12.2	27.1	7.5
3x25	13.6	32.8	9.5



Specifications Motors 6”

TYPE	D	kW	HP	V	rpm	I(n)	I(s)	Efficiency % LOAD			cosphi % LOAD		
						A	A	50	75	100	50	75	100
UGM6/5,5	6"	4	5.5	380	2870	10.2	36	70	71	71	64	73	84
				400	2880	9.9	35	69	71	71	62	72	82
				415	2890	9.5	34	68	71	72	59	70	81
UGM6/7,5	6"	5.5	7.5	380	2870	13.6	51	72	73	73	64	73	84
				400	2880	13.3	50	71	73	73	62	72	82
				415	2890	12.8	48	70	73	74	59	70	81
UGM6/10	6"	7.5	10	380	2870	17.2	76	78	79	79	64	73	84
				400	2880	16.7	74	77	79	79	62	72	82
				415	2890	16.1	71	76	79	80	59	70	81
UGM6/12,5	6"	9.3	12.5	380	2870	21	95	79	80	80	64	73	84
				400	2880	20.5	93	78	80	80	62	72	82
				415	2890	19.7	89	77	80	81	59	70	81
UGM6/15	6"	11	15	380	2870	24	108	81	83	82	68	79	85
				400	2880	24.2	115	79	81	82	61	72	80
				415	2890	24.9	123	78	81	81	57	68	76
UGM6/17,5	6"	13	17.5	380	2870	28.3	139	81	82	82	65	74	85
				400	2880	27.6	136	80	82	82	63	73	83
				415	2890	26.6	131	79	82	83	60	71	82
UGM6/20	6"	15	20	380	2880	31.9	126	83	84	83	70	80	86
				400	2890	32.6	136	80	82	82	62	74	81
				415	2890	32.6	141	80	82	82	58	70	78
UGM6/25	6"	18.5	25	380	2860	40.3	153	83	84	82	70	80	85
				400	2880	39.2	157	82	83	83	64	75	82
				415	2890	40.2	167	80	83	82	59	71	78
UGM6/30	6"	22	30	380	2870	46.3	179	85	85	84	71	81	86
				400	2880	46.7	190	83	85	84	64	75	81
				415	2890	46.7	198	82	84	84	60	71	78
UGM6/35	6"	26.5	35	380	2880	55.7	191	85	85	84	75	83	86
				400	2890	54.9	198	84	85	84	68	78	83
				415	2900	54.9	205	83	84	84	64	74	80
UGM6/40	6"	30	40	380	2910	61.6	211	86	86	85	78	85	87
				400	2920	59.9	216	85	86	85	73	81	85
				415	2920	59.9	224	84	85	85	68	77	82
UGM6/50	6"	37	50	380	2890	76	245	87	86	84	84	88	88
				400	2900	72.2	245	86	86	85	79	85	87
				415	2910	69.6	245	86	87	86	76	83	86

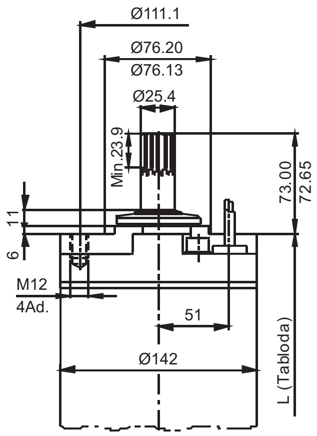
Specifications Motors 8”

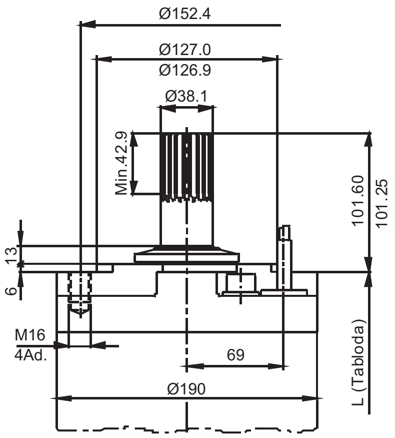
TYPE	D	kW	HP	V	rpm	I(n)	I(s)	Efficenciy			cosphi		
								% LOAD			% LOAD		
						A	A	50	75	100	50	75	100
UGM8/40	8"	30	40	380	2910	61.6	211	86	86	85	78	85	87
				400	2920	59,9	216	85	86	85	73	81	85
				415	2920	59,9	224	84	85	85	68	77	82
UGM8/50	8"	37	50	380	2890	76	245	87	86	84	84	88	88
				400	2900	72,2	245	86	85	85	79	85	87
				415	2910	69,6	245	86	87	86	76	83	86
UGM8/60	8"	45	60	380	2900	90	307	88	87	85	84	88	89
				400	2910	87	310	87	87	86	79	85	87
				415	2920	85	314	86	87	86	75	83	86
UGM8/70	8"	52	70	380	2890	104	385	88	87	85	83	88	89
				400	2910	100	390	87	87	86	79	85	87
				415	2920	98	394	87	87	86	76	83	86
UGM8/75	8"	55	75	380	2880	113	417	88	87	84	85	88	88
				400	2900	107	417	88	87	85	80	86	87
				415	2910	105	422	87	87	85	78	84	86
UGM8/80	8"	60	80	380	2890	119	408	88	88	86	84	89	89
				400	2910	113	408	88	88	87	81	86	88
				415	2910	110	412	88	88	87	76	84	87
UGM8/90	8"	67	90	380	2880	135	457	88	88	85	85	89	89
				400	2900	128	456	89	88	86	81	87	88
				415	2910	122	451	89	88	87	79	85	88
UGM8/100	8"	75	100	380	2880	151	493	89	88	85	85	89	89
				400	2900	143	493	89	88	86	80	86	88
				415	2900	139	499	89	89	87	77	84	86
UGM8/110	8"	81	110	380	2880	163	618	89	87	85	84	89	89
				400	2890	154	618	89	88	86	79	86	88
				415	2900	152	632	89	88	86	76	84	86
UGM8/125	8"	92	125	380	2910	177	610	89	88	87	90	92	91
				400	2920	166	603	88	89	88	88	91	91
				415	2930	160	603	88	89	88	86	90	91

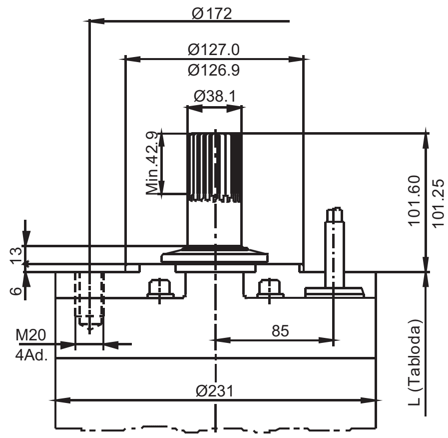
Specifications Motors 10”

TYPE	D	kW	HP	V	rpm	I(n)	I(s)	Efficiency % LOAD			cosphi % LOAD		
						A	A	50	75	100	50	75	100
UGM10/110	10"	81	110	380	2880	163	618	89	87	85	84	89	89
				400	2890	154	618	89	88	86	79	86	88
				415	2900	152	632	89	88	86	76	84	86
UGM10/125	10"	92	125	380	2910	177	610	89	88	87	90	92	91
				400	2920	166	603	88	89	88	88	91	91
				415	2930	160	603	88	89	88	86	90	91
UGM10/150	10"	110	150	380	2890	221	763	89	88	85	90	91	89
				400	2900	205	746	89	88	86	89	91	90
				415	2910	195	737	89	89	87	87	90	90
UGM10/175	10"	129	175	380	2900	253	1094	89	89	86	90	91	90
				400	2910	238	1080	89	89	87	88	91	90
				415	2920	227	1070	89	89	88	87	90	90
UGM10/200	10"	147	200	380	2900	285	1232	90	90	87	90	91	90
				400	2910	268	1216	90	89	88	88	90	90
				415	2920	255	1200	90	90	89	86	89	90
UGM10/225	10"	166	225	380	2910	318	1375	90	90	88	90	91	90
				400	2920	303	1375	90	90	88	87	90	90
				415	2930	288	1360	90	90	89	85	89	90
UGM10/250	10"	185	250	380	2920	359	1550	90	90	88	88	90	89
				400	2930	341	1550	90	90	89	83	87	88
				415	2940	332	1568	91	91	89	80	86	87

Dimensions







Operating Instructions

TRANSPORTATION AND WAREHOUSING :
Do not drop the motors and avoid any impact on them during transportation. If by accident that occurs the motor should be checked by one of our approved services.

Take care of the supply cable during opening the packing.

Discharge the water in the motor during warehousing if there is the danger of freezing.

MOUNTING TO THE PUMP :
The pump should be equipped with a check valve. The suction body of the pump should be designed so that there is no sand accumulation on the sand ring of the motor.

Before mounting the pump on the motor check that the rotor rotates freely by hand.

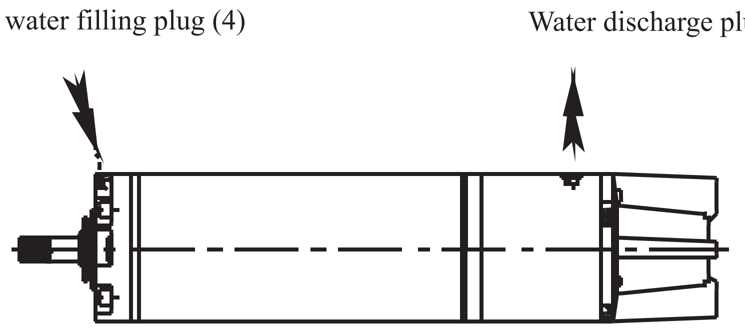
To prevent vibration the motor and pump axis should coincide. Do not use any means of fixing(e.g. setscrew) the pump coupling to the motor shaft.

The rotating parts of the pump should be balanced. Do not remove sand ring and the seal rings of the motor.

MAINTENANCE :
The motors do not need maintenance. But everytime the pump is removed from the well due to the
water filling plug (4) water filling plug (4)
maintenance of the pump the motor should also be checked.

FILLING THE MOTOR WITH WATER :
1. Place the motor to the horizontal position. Open the water filling plug (4) and the water discharge plug (7). Fill the motor with clean drinkable water until there is no air in it. Close the water discharge plug (7).

2. Place the motor to vertical position. Wait for 20-30 minutes and add water through the water filling plug (4) if needed. If you are convinced that there is no air in the motor anymore close the water discharge plug (7).



Cable Size

MOTOR RATING (HP)	D.O.L. MAX. CABLE LENGTH (m)										
	CABLE SIZE (mm²)										
	3x1,5	3x2,5	3x4	3x6	3x10	3x16	3x25	3x35	3x50	3x70	3x95
5,5	65	108	172	258	431	689	1077	1507	2153	3014	4091
7,5	48	80	129	193	322	515	805	1127	1610	2254	3059
10	38	64	102	153	256	409	639	894	1278	1789	2428
12,5		52	83	125	209	334	522	730	1043	1461	1982
15		45	72	109	181	289	452	633	904	1266	1718
17,5			61	92	153	245	383	536	765	1071	1454
20			52	79	131	210	327	458	655	917	1244
25					106	170	266	372	531	744	1009
30					90	145	226	316	452	633	859
35					76	122	190	266	380	532	722
40					67	107	168	235	336	470	638
50						89	139	195	279	390	529
60							115	160	229	321	435
70								139	198	278	377
75								131	187	262	356
80								120	172	241	326
90									154	215	292
100									137	192	261
110									127	178	242
125										157	213
150											182
175											155
200											
210											

Star - Delta Operation (Y/D) MAX. CABLE LENGTH (m)											
MOTOR RATING (HP)	**CABLE SIZE (mm²)**										
	3x1,5	**3x2,5**	**3x4**	**3x6**	**3x10**	**3x16**	**3x25**	**3x35**	**3x50**	**3x70**	**3x95**
5.5	97	161	258	388	646	1033	1615	2261	3230	4521	6136
7.5	72	121	193	290	483	773	1207	1690	2415	3381	4588
10	57	96	153	230	383	613	958	1342	1916	2683	3641
12.5	47	78	125	188	313	501	783	1096	1565	2191	2974
15	41	68	109	163	271	434	678	949	1356	1899	2577
17.5	34	57	92	138	230	367	574	803	1148	1607	2181
20	29	49	79	118	196	314	491	688	982	1375	1867
25		40	64	96	159	255	398	558	797	1115	1514
30			54	81	136	217	339	475	678	949	1288
35			46	68	114	182	285	399	570	798	1083
40				60	101	161	252	352	503	705	956
50					84	134	209	293	418	585	794
60					69	110	172	241	344	481	653
70					59	95	149	208	297	416	565
75						90	141	197	281	394	534
80						82	129	180	258	361	490
90						74	115	162	231	323	439
100							103	144	206	289	392
110							95	134	191	267	363
125								118	168	235	319
150								101	144	201	273
175									123	172	233
200										152	207
210										145	196