

## FEATURES

TECHNICAL DATA										
<b>MODEL : SMA C1 HI-POWER</b>										
Nominal displacement cc/rev (1)	200	290	350	480	500	650	670*	750	850	1000
Geometric displacement cc/rev	207.8	289.3	339.3	480.7	502.4	662.9	669.9	756.7	856.5	996.2
Max. speed cont. rev/min	1000	1000	1000	710	700	700	525	620	620	600
Max. speed int. rev/min (2)	1250	1250	1250	890	880	880	840	780	780	750
Max. speed freewheel rev/min	1250	1250	1250	890	880	880	840	780	780	750
Min speed rev/min (std motor)	20	20	20	20	20	20	5-10	20	20	20
Max. torque cont. N.m	1157	1611	1890	2677	2798	2215	3731	4215	4770	5549
Max. torque intermittent N.m (2)	1620	2256	2646	3748	3918	3101	5224	5900	6679	7768
Max. power cont. K.w	54	76	89	126	101	135	135	172	245	187
Max power int. K.w (2)	108	152	178	252	202	270	270	344	490	374
Max diff. pressure cont. bar (3)	350	350	350	350	350	210	350	350	350	350
Max diff. pressure int bar (2)	490	490	490	490	490	294	490	490	350	490
Max flow cont L/min.	208	289	339	341	352	464	352	469	531	598
Max flow int L/min. (2)	260	362	424	428	442	583	563	590	668	747
Return pressure min. bar (3)	7	7	7	7	7	7	7	7	7	7
Return pressure max. bar (3)	350	350	350	350	350	210	350	350	250	350
Case pressure max. bar (4)	8	8	8	8	8	8	8	8	8	8
Fluid type (5)	HL;HLP TO DIN 51524 (for alternatives contact Rotary Power)									
Min/ Max viscosity cSt	15-1000 cSt									
Optimum viscosity cSt (6)	20-200 cSt									
Min / Max operating temp (7)	-20 + 90 Degrees centigrade									
Optimum operating temp	50 Degrees centigrade									
Fluid cleanliness	To NAS 1638 Class 9 ISO code 18/13 or better									
Filtration	B25 ratio 75 or better for simple closed loop systems									
Starting torque N.m : (8)										
Min@Max. cont. pressure	1053	1466	1720	2437	2547	2016	3396	3836	4342	5050
Avr@Max. cont. pressure	1077	1499	1758	2490	2603	2060	3470	3920	4437	5161
Min@Max. int. pressure	1475	2053	2408	3411	3565	2823	4754	5370	6078	7070
Avr@ Max. int. pressure (2)	1507	2098	2461	3486	3644	2885	4859	5488	6212	7225
Polar moment of inertia kg.sq.m	0.0052	0.0052	0.0052	TBA	0.0094	0.0094	TBA	0.0174	0.0174	0.0199
Approx. weight kg (9)	83	83	83	88	110	110	TBA	170	170	170

### NOTES FOR TECHNICAL DATA TABLE

- Motors indicated with an asterisk (\*) are to be introduced shortly.
- Intermittent values up to the maximum shown, may occur for up to 10% of every minute, as part of a known duty cycle, subject to approval by ROTARY POWER.
- Maintain positive gauge pressure at both main ports at all times while the motor is under load, whether or not the motor shaft is rotating. Boost pressure should not be less than 7 bar above case pressure, with a fluid viscosity of 30 cSt. When utilising higher viscosities, higher boost pressures will be required. For over-running conditions consult ROTARY POWER.
- Case pressure should be kept to the minimum possible. Continuously high case pressure will adversely affect the life of the shaft seal system. Motor drain lines should be independently returned to the tank.



## SMA ROTATING SHAFT MOTOR TYPE C1 HIGH POWER

TECHNICAL DATA										
MODEL : SMA C1 HI-POWER										
Nominal displacement cc/rev (1)	1230*	1340	1600	2200*	2000	2500	3200	3500	4350	4300*
Geometric displacement cc/rev	1233.4	1342.9	1602.4	2227.3	2003.0	2507.2	3215.0	3504.3	4349.0	4310.8
Max. speed cont. rev/min	485	565	565	406	380	380	380	350	240	285
Max. speed int. rev/min (2)	776	700	700	650	475	475	475	438	384	456
Max. speed freewheel rev/min	776	700	700	650	475	475	475	438	384	456
Min speed rev/min	5-10	20	20	5-10	20	20	20	20	20	5-10
Max. torque cont. N.m	6870	7480	8925	12405	11156	13964	10744	19518	17302	24010
Max. torque intermittent N.m (2)	9618	10471	12495	17368	15619	19550	14837	27325	24223	33614
Max. power cont. K.w	232	224	271	377	222	277	355	390	304	595
Max power int. K.w (2)	464	448	542	754	444	554	710	780	608	1190
Max diff. pressure cont. bar (3)	350	350	350	350	350	350	210	350	250	350
Max diff. pressure int bar (2)	490	490	490	490	490	490	294	490	350	490
Max flow cont L/min.	598	759	905	904	761	953	1222	1227	1044	1229
Max flow int L/min. (2)	957	940	1122	1447	951	1191	1527	1535	1670	1966
Return pressure min. bar (3)	7	7	7	7	7	7	7	7	7	7
Return pressure max. bar (3)	350	350	350	350	350	350	210	350	250	350
Case pressure max. bar (4)	8	8	8	8	8	8	8	8	8	8
Fluid type (5)	HL;HLP TO DIN 51524 (for alternatives contact Rotary Power)									
Min/ Max viscosity cSt	15-1000 cSt									
Optimum viscosity cSt (6)	20-200 cSt									
Min / Max operating temp (7)	-20 + 90 Degrees centigrade									
Optimum operating temp	50 Degrees centigrade									
Fluid cleanliness	To NAS 1638 Class 9 ISO code 18/13 or better									
Filtration	B25 ratio 75 or better for simple closed loop systems									
Starting torque N.m : (8)										
Min@Max. cont. pressure	6252	6807	8123	11290	10153	12709	9778	17764	15747	21852
Avr@Max. cont. pressure	6390	6957	8301	11538	10377	12989	9993	18154	16093	22332
Min@Max. int. pressure	8753	9530	11372	15806	14215	17793	13503	24869	22045	30592
Avr@ Max. int. pressure (2)	8945	9740	11622	16154	14527	18184	13800	25416	22530	31265
Polar moment of inertia kg.sq.m	TBA	0.0487	0.0487	TBA	0.0715	0.0715	0.0715	0.2293	0.2293	TBA
Approx. weight kg (9)	180	290	290	TBA	440	440	440	790	790	TBA

### NOTES FOR TECHNICAL DATA TABLE

- SMAmotors will operate successfully on a wide variety of hydraulic fluids. Contact ROTARY POWER for further details.
- For very high or low speed operation, fluid viscosity should be as high as possible within the optimum viscosity limits.
- Higher temperatures may be possible if required, through the use of alternative seal materials, providing fluid viscosity remains within the optimum range, subject to approval by ROTARY POWER.
- Many factors affect starting efficiencies. Figures shown are a reasonable approximation for most conditions. Please contact ROTARY POWER for a more detailed assessment of a specific application.
- Weights shown are an approximation and depend on final specification supplied.