SMA ROTATING CASE MOTOR TYPE E1 HIGH POWER

TECHNICAL DATA								
MODEL : SMA HI POWER	***E1***	***E1***	***E1***	***E1***	***E1***	***E1***	***E1***	***E1***
Nominal displacement cc/rev (1)	290	350	480	670*	750	850	1000	1230*
Geometric displacement cc/rev	289.3	339.3	480.7	669.9	756.7	856.5	996.2	1233.4
Max. speed cont. rev/min	1000	1000	710	525	620	620	600	485
Max. speed int. rev/min (2)	1250	1250	890	840	780	780	750	776
Max. speed freewheel	1250	1250	890	840	780	780	750	776
Min speed rev/min (std motor)	20	20	20	5-10	20	20	20	5-10
Max. torque cont. N.m	1611	1890	2677	3731	4215	4770	5549	6870
Max. torque intermittent N.m (2)	2256	2646	3748	5224	5900	6679	7768	9618
Max. power cont. K.w	76	89	126	135	172	245	187	232
Max power int. K.w (2)	152	178	252	270	344	490	374	464
Max diff. pressure cont. bar (3)	350	350	350	350	350	350	350	350
Max diff. pressure int bar (2)	490	490	490	490	490	490	490	490
Max flow cont L/min.	289	339	341	352	469	531	598	598
Max flow int L/min. (2)	362	424	428	563	590	668	747	957
Return pressure min. bar (3)	7	7	7	7	7	7	7	7
Return pressure max. bar (3)	350	350	350	350	350	350	350	350
Case pressure max. bar (4)	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	1466	1720	2437	3396	3836	4342	5050	6252
Avr@Max. cont. pressure	1499	1758	2490	3470	3920	4437	5161	6390
Min@Max. int. pressure	2053	2408	3411	4754	5370	6078	7070	8753
Avr@ Max. int. pressure (2)	2098	2461	3486	4859	5488	6212	7225	8945
Approx. weight kg (9)	80	80	85	TBA	189	189	189	TBA

NOTES FOR TECHNICAL DATA TABLE

1. Motors indicated with an asterisk (*) are to be introduced shortly.

2. 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.

3. 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.

4. 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.

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TECHNICAL DATA									
MODEL : SMA HI POWER	***E1***	***E1***	***E1***	***E1***	***E1***	***E1***	***E1****	***E1****	***E1****
Nominal displacement cc/rev (1)	1340	1600	2200*	2000	2500	3200	3500	4350	4300*
Geometric displacement cc/rev	1342.9	1602.4	2227.3	2003.0	2507.2	3215.0	3504.3	4349.0	4310.8
Max. speed cont. rev/min	565	565	406	380	380	380	350	240	285
Max. speed int. rev/min (2)	700	700	650	475	475	475	438	384	456
Max. speed freewheel rev/min	700	700	650	475	475	475	438	384	456
Min speed rev/min (std motor)	20	20	5-10	20	20	20	20	20	5-10
Max. torque cont. N.m	7480	8925	12405	11156	13964	10744	19518	17302	24010
Max. torque intermittent N.m (2)	10471	12495	17368	15619	19550	14837	27325	24223	33614
Max. power cont. K.w	224	271	377	222	277	355	390	304	595
Max power int. K.w 2	448	542	754	444	554	710	780	608	1190
Max diff. pressure cont. bar (3)	350	350	350	350	350	350	350	250	350
Max diff. pressure int bar (2)	490	490	490	290	490	460	490	350	490
Max flow cont L/min.	759	905	904	761	953	1222	1227	1044	1229
Max flow int L/min. (2)	940	1122	1447	951	1191	1527	1535	1670	1966
Return pressure min. bar (3)	7	7	7	7	7	7	7	7	7
Return pressure max. bar (3)	350	350	350	350	350	350	350	250	350
Case pressure max. bar (4)	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	6807	8123	11290	10153	12709	16297	17764	15747	21852
Avr@Max. cont. pressure	6957	8301	11538	10377	12989	16655	18154	16093	22332
Min@Max.int. pressure	9530	11372	15806	14215	17793	22816	24869	22045	30592
Avr@ Max. int. pressure (2)	9740	11622	16154	14527	18184	23317	25416	22530	31265
Approx. weight kg (9)	320	320	TBA	490	490	490	880	880	TBA

NOTES FOR TECHNICAL DATA TABLE

5. SMAmotors will operate successfully on a wide variety of hydraulic fluids. Contact ROTARY POWER for further details.

6. For very high or low speed operation, fluid viscosity should be as high as possible within the optimum viscosity limits.

7. 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.

8. 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.

9. Weights shown are an approximation and depend on final specification supplied.