



Sunfab's SCM 010-130 SAE is a range of robust axial piston motors especially suitable for mobile hydraulics.

SCM 010-130 SAE is of the bent-axis type with spherical pistons. The design results in a compact motor with few moving parts, high starting torque and high reliability. It covers the entire displacement range 10-130 cm³/rev. at a maximum pressure of 400 bar. It features double tapered roller bearings, which permits high shaft loads and gives superb speed performance.

The high level of reliability is based on the choice of materials, hardening methods, surface structures and the quality assured manufacturing process.

Sunfab also offers a two-bolt flange, SAE B2 010- 034 in the SCM family. The design features double tapered roller bearings, which permits high shaft loads and gives superb speed performance.

Other advantages:

- High maximum speed
- Smooth operation over the entire speed range
- Available in many different configurations of shafts and connections
- High efficiency
- Speed sensor available as option
- Suitable for applications with high angular accelerations due to its high rotary stiffness

Versions, main data

Example

SC	M	-	012	W	-	P	-	SB4	-	B13	-	S3	U	-	1	00
Line	1		2	3		4		5		6		7	8		9	10

Line	SC	Sunfab Compact, bent-axis design
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1. Type	M	Motor
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2. Displacement	010 010 012 017 025 034 040 047 056 064 084 090 108 130
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3. Direction of rotation	W	Independent
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4. Sealing	P	FPM, high pressure, high temperature
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For low temperature applications, below -25 °C please contact Sunfab.

5. Mounting flange	SAE J-744	010 012 017 025 034 040 047 056 064 084 090 108 130
SB2	SAE B-2 hole	X X X X X - - - - - - - - - -
SB4	SAE B-4 hole	X X X X X - - - - - - - - - -
SC4	SAE C-4 hole	- - - X X X X X X X X X X X -
SD4	SAE D-4 hole	- - - - - - - - - X X X X X

6. Shaft	010 012 017 025 034 040 047 056 064 084 090 108 130	
Spline SAE J498b 30° Class 5		
B13	13T 16/32***	X X X X X - - - - - - - - - -
C14	14T 12/24*	- - - X X X X X X X X O O -
C21	21T 16/32*	- - - - - X X X X X X X X -
D13	13T 8/16**	- - - - - - - - - X X X X X
Key SAE J744		
B25	∅ 25.4***	X X X X X - - - - - - - - - -
C32	∅ 31.7*	- - - - - X X X X X O O O -
D44	∅ 44.45**	- - - - - - - - - X X X X X

* Only with SC4 mounting flange
 ** Only with SD4 mounting flange
 *** Only with SB2/SB4 mounting flange

- = Not available
 X = Standard, preferred
 O = Contact Sunfab

7.		010 012 017 025 034 040 047 056 064 084 090 108 130
S1	40° Mount flange vertical *	- - - - - - - - - X X X X
S2	40° Mount flange horizontal *	- - - X X X X X X X - - - -
S3	40° Threaded connection	X X X X X - - - - - - - - -
V1	90° Mount flange vertical *	- - - - - - - - - X X X X
V2	90° Mount flange horizontal *	- - - X X X X X X X X X X X
R1	Side connections, flanged *	- - - X X X X X X X X X X X
K3	Combcovers 90° side conn. thread	X X X X X - - - - - - - - -

* According to SAE J518 code 62

8. Connections		010 012 017 025 034 040 047 056 064 084 090 108 130
G	ISO G*	X X X X X - - - - - - - - -
M	Metric **	- - - X X X X X X X X X X X
U	UN***	X X X X X X X X X X X X X X

* Only threaded connections
 ** Only flanged connections
 *** Not available for K3

9. Accessories	1	External drainage
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10. Speed Sensor		010 012 017 025 034 040 047 056 064 084 090 108 130
00	No Speed Sensor	X X X X X X X X X X X X X
P1	Prepared for Speed Sensor	X X X X X X X X X X X X X
S1	Fitted Speed Sensor type PNP*	X X X X X X X X X X X X X
S2	Fitted Speed Sensor type NPN*	X X X X X X X X X X X X X

* See separate brochure "Speed Sensor hall" for more information.

Motor SCM 010-130 SAE

		010	012	017	025	025	034	034	040	047	056	064	084	084	090	090	108	108	130	
		SAE B	SAE B	SAE B	SAE B	SAE C	SAE B	SAE C	SAE C	SAE C	SAE C	SAE C	SAE C	SAE D	SAE C	SAE D	SAE C	SAE D	SAE D	
Displacement	cm ³ /rev	9.6	12.6	17.0	25.4	25.4	34.2	34.2	41.2	47.1	56.7	63.5	83.6	83.6	90.7	90.7	108.0	108.0	130.0	
Working pressure																				
<i>max intermittent</i>	bar	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	350
<i>max continuous</i>		350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	300
Revolutions																				
<i>max intermittent</i>	rpm	8250	8250	8250	6500	6500	6500	6500	5900	5900	5900	5900	4800	4600	4800	4600	4800	4600	4600	4600
<i>max continuous</i>		7500	7500	7500	5900	5900	5900	5900	5300	5300	5300	5300	4400	4200	4400	4200	4400	4200	4200	4200
<i>min continuous</i>		300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Power																				
<i>max intermittent</i>	kW	41	50	70	80	80	110	110	120	135	165	180	200	190	215	205	255	245	255	255
<i>max continuous</i>		15	20	25	40	40	55	55	60	65	80	90	100	100	110	110	130	130	135	135
Starting torque theoretical value	Nm/bar	0.15	0.20	0.27	0.40	0.40	0.54	0.54	0.66	0.75	0.89	1.00	1.33	1.33	1.44	1.44	1.71	1.71	2.06	2.06
Moment of inertia (x 10 ⁻³)	kg m ²	0.9	0.9	0.9	1.1	1.1	1.1	1.1	2.6	2.6	2.6	2.6	6.3	7.4	6.3	7.4	6.3	7.4	7.4	7.4
Weight	kg	9.0	9.0	9.0	9.0	9.0	9.0	9.0	15.0	15.0	15.0	15.0	18.0	35.0	18.0	35.0	18.0	35.0	35.0	35.0

Data concerning RPM are based on maximum permitted peripheral velocity of the tapered roller bearing.
 Max intermittent power data may vary dependent on application. For further information please contact Sunfab.
 Continuous power data are based on maximum output power without external cooling of the motor housing.
 Intermittent duty is defined as follows: max 6 seconds per minute, e.g peak RPM when unloading or accelerating.

Dimensions SCM 084-108

Connection cover

Millimeter (inch)

