
ST1000 AIR STARTER ENGINEERING DATA SPECIFICATION SHEET

GENERAL DATA

Maximum HP	70 HP	(52 kW)
Maximum Stall Torque	557 ft-Lb	(755 Nm)
Maximum Flow	1290 SCFM	(609 L/s)
Maximum Operating Pressure	150 PSIG	(10.3 barg)
Minimum Operating Pressure	30 PSIG	(2.1 barg)
Speed Range	0-4100 RPM	
Pinion Rotation	Right or Left Hand	
Sealed for use in Gas and Air applications	Yes	
Engagement type	Pre-engaged or Inertia	
Flange type	SAE 3	

OPERATING TEMPERATURE DATA

Maximum Ambient Temperature	200 F	(93 C)
Minimum Ambient Temperature	-40 F	(-40 C)

LUBRICATION DATA

Offset Gears Grease Type	Ingersoll Rand 8LB-130	
Amount of Grease	7.6 oz.	(225 mL)
Planetary Gear Oil	80W90	
Amount of Gear Oil	5.4 oz.	(160 mL)

MANUFACTURING

Location	Southern Pines, NC USA	
Quality	ISO 9001:2015	

PIPING CONNECTIONS

Air Inlet	1 ½" NPT/SAE J518 Code 61 Flange	
Air Outlet	4" NPT	
Engagement Inlet	¼" NPT	
Engagement Outlet	¼" NPT	

DIMENSIONS (B and C Ratios)

Length/Width/Height	26" x 7" x 11.5" (660 mm x 178 mm x 292 mm)	
Weight	76 Lb	(34 kg)

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MATERIALS OF CONSTRUCTION

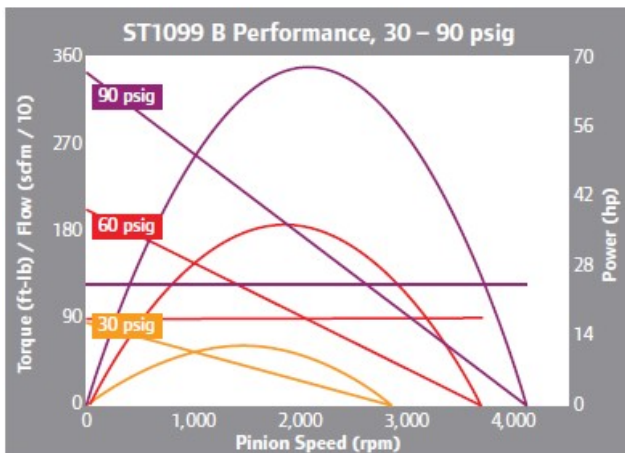
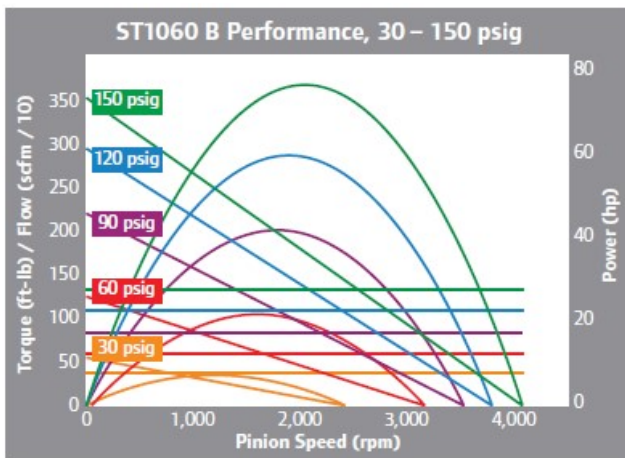
Exhaust Cover	Aluminum Alloy
Motor Housing	Aluminum Alloy
Offset Gear Case	Cast Iron
Offset Gears	Alloy Steel
Planetary Gears	Alloy Steel
Drive Housing	Cast Iron
Turbine Rotor	Aluminum Alloy
Turbine Nozzle	Aluminum Alloy

RECOMMENDED ACCESSORIES

Solenoid Valve	150BMP-1051B	12 Volt
	150BMP-2451B	24 Volt
Push Button	SMB-618	
Relay Valve	SRV150	1 ½" NPT

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Pressure psi (bar)	Breakaway Torque ft-lb (Nm)	Speed @ Max HP rpm	Max Power hp (kW)	Flow @ Max hp scfm (L/s)
ST1060 B Ratio				
30 (2)	53 (71)	1,175	7 (5)	370 (175)
60 (4)	115 (156)	1,550	20 (15)	590 (278)
90 (6)	298 (258)	1,780	39 (29)	820 (387)
120 (8)	295 (400)	1,900	53 (39)	1,050 (496)
150 (10)	353 (478)	2,050	70 (52)	1,290 (609)
ST1099 B Ratio				
30 (2)	82 (111)	1,425	13 (10)	540 (255)
60 (4)	200 (271)	1,850	36 (27)	890 (420)
90 (6)	347 (470)	2,060	68 (51)	1,240 (585)



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Pressure psi (bar)	Breakaway Torque ft-lb (Nm)	Speed @ Max HP rpm	Max Power hp (kW)	Flow @ Max hp scfm (L/s)
ST1060 C Ratio				
30 (2)	62 (84)	1,025	7 (5)	370 (175)
60 (4)	143 (194)	1,350	20 (15)	590 (278)
90 (6)	256 (347)	1,515	39 (29)	820 (387)
120 (8)	342 (463)	1,675	53 (39)	1,050 (496)
150 (10)	409 (554)	1,780	70 (52)	1,290 (609)
ST1099 C Ratio				
30 (2)	98 (133)	1,225	13 (10)	540 (255)
60 (4)	234 (317)	1,580	36 (27)	890 (420)
90 (6)	400 (542)	1,770	68 (51)	1,240 (585)

