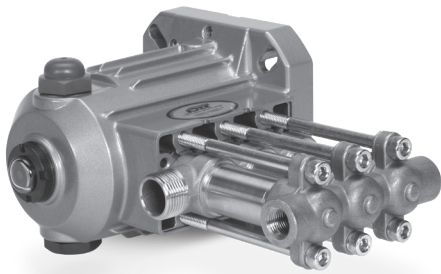


DATA SHEET

DIRECT DRIVE PISTON PUMP



Brass Electric **2SFP500EL**
Model:



FEATURES

- Available in two configurations: hollow-shaft pump for direct mounting to electric motor or as motorized unit.
- Pump comes standard with NBR seals. Alternative seal materials are available for higher temperature or chemical compatibility.

SPECIFICATIONS

	U.S. Measure	Metric Measure
Flow	5.0 gpm	18.9 lpm
Maximum Discharge Pressure	500 psi	34.5 bar
Pump RPM	1750 rpm	1750 rpm
Inlet Pressure Range	Flooded to 75 psi	Flooded to 5.2 bar
Maximum Liquid Temperature	160° F	71° C
Above 130° F call Cat Pumps for inlet conditions and elastomer recommendations		
Bore	0.984"	25 mm
Stroke	0.335"	8.5 mm
Crankcase Capacity	10.1 oz	0.3 l
Inlet Port (1)	¾" NPT(F)	¾" NPT(F)
Discharge Ports (2)	⅜" NPT(F)	⅜" NPT(F)
Shaft Diameter (Hollow Shaft)	⅝"	15.9 mm
Weight (Pump Only)	9.5 lbs	4.3 kg
Dimensions (Pump Only)	5.28 x 6.77 x 10.04"	134 x 172 x 255 mm

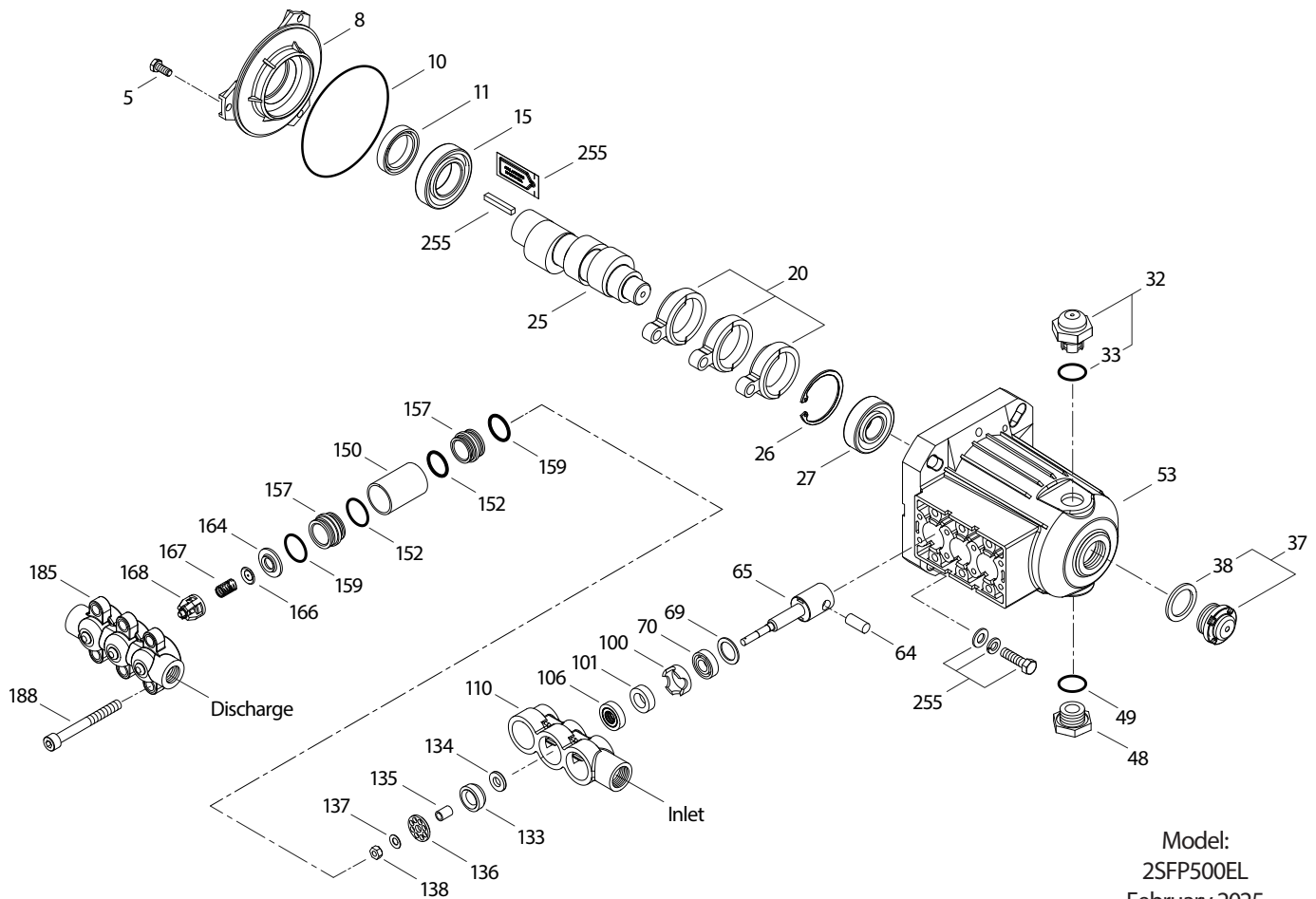
ALTERNATIVE SEAL CONFIGURATION

MATERIAL	SUFFIX CODE	MAXIMUM TEMPERATURE	
NBR	—	160° F	(71° C)
FPM	.0110	180° F	(82° C)
EPDM	.0220	160° F	(71° C)
HT	.3000	180° F	(82° C)

See **Tech Bulletin 002** for inlet conditions and RPM at high-temperature.

Refer to pump **Service Manual** for repair procedures and additional technical information.

EXPLODED VIEW



Model:
2SFP500EL
February 2025

PARTS LIST

ITEM	PN	MATL	DESCRIPTION	QTY	ITEM	PN	MATL	DESCRIPTION	QTY
5	549360	STCPR	Screw, HH (M6 x 14)	3	110	832065	FBB	Manifold, Inlet	1
8	547153	AL	Cover, Bearing, Inner	1	133	116121	FPM	Cup-Piston, Machined	3
10	14041	NBR	O-Ring, Bearing Cover	1	134	14122	S	Valve, Inlet	3
11	55337	NBR	Seal, Oil	1	135	832085	S	Spacer, Piston	3
15	14488	STL	Bearing, Ball, Inner	1	136	119917	S	Retainer, Piston	3
20	547046	TNM	Rod, Connecting	3	137	27006	S	Washer, Conical (M6)	3
25	45914	CM	Crankshaft, 5/8" (M8.5)	1	138	46365	S	Nut, with Nylon Insert (M6)	3
26	12385	STL	Ring, Retaining	1	150	541811	SCP	Cylinder	3
27	15710	STL	Bearing, Ball, Outer	1	152	15862	NBR	O-Ring, Adapter, Inner	6
32	547961	RTP	Cap, Oil Filler with O-Ring	1	157	546617	BB	Adapter with O-Ring	6
33	14179	NBR	O-Ring, Oil Filler Cap	1	159	23172	NBR	O-Ring, Adapter, Outer	6
37	92241	PC	Gauge, Bubble Oil with Gasket	1	164	44881	S	Seat	3
38	44428	NBR	Gasket, Flat, Oil Gauge	1	166	548608	S	Valve	3
48	44842	NY	Plug, Drain (1/2" NPT[M])	1	167	541062	S	Spring	3
49	14179	NBR	O-Ring, Drain Plug	1	168	44565	PVDF	Retainer, Spring	3
53	547285	AL	Crankcase	1	185	44879	BB	Manifold, Discharge	1
64	16948	CM	Pin, Crosshead	3	188	549358	STZP	Screw, HSH (M8 x 110)	6
65	830366	SZZ	Rod, Piston	3	255	30517	STZP R	Assembly, Bolt Mount	1
69	126259	STCPR	Washer (M24)	3	285	80228	STL	Screw, Full Threaded, Engine (M8-1.25 x 80) (Not Shown)	2
70	25461	NBR	Seal, Oil	3				(See Tech Bulletin 055)	
100	44869	PVDF	Retainer, Seal	3	300	76830	NBR	Kit, Seal (Includes: 101, 106, 133, 152, 159)	1
101	11402	—	Wick	3	310	76835	NBR	Kit, Valve (Includes: 152, 159, 164, 166, 167, 168)	1
106	545192	FPM	Seal, Low-Pressure with SS-Spring	3	—	6107	—	Oil, Bottle (21 oz) ISO 68 Hydraulic (Fill to Specified Crankcase Capacity Prior to Start-up)	1

Italics are optional items. R Components comply with RoHS Directive.

For additional technical information see www.catpumps.com/literature/tech-bulletins.

Note: Discard Key which may come standard with most motors and **use only the key included in this kit.**

MATERIAL CODES (Not Part of Part Number): AL=Aluminum BB=Brass CM=Chrome Moly FBB=Forged Brass FPM=Fluorocarbon
NBR=Medium Nitrile (Buna-N) NY=Nylon PC=Polycarbonate PVDF=Polyvinylidene Fluoride RTP=Reinforced Composite S=304SS
SCP=304SS/Chrome Plated STL=Steel STCPR=Steel/Chrome Plated STZP=Steel/Zinc Plated SZZ=304SS/Zamak TNM=Special High Strength

ELECTRIC MOTOR SPECIFICATIONS

Model 8115

Hertz	60	50
Horsepower	1.5	1.5
Shaft Diameter	5/8"	5/8"
Maximum Volts	115/208–230	110/220
Full Load Amps	13.8/7.63–6.90	17.8/8.90
RPM	1750	1450
Weight	53.8 lbs	53.8 lbs
Phase	Single	Single
Frame Size	56C TEFC	56C TEFC
Service Factor	1.85	1.65

Models 8125/8125W

Hertz	60	50
Horsepower	2.5	2.2
Shaft Diameter	5/8"	5/8"
Maximum Volts	115/230	110/220
Full Load Amps	20.8/10.4	22/11
RPM	1750	1450
Weight	53.8 lbs	53.8 lbs
Phase	Single	Single
Frame Size	56HC TEFC	56HC TEFC
Service Factor	1.15	1.15

Model 8120

Hertz	60	50
Horsepower	2.0	2.0
Shaft Diameter	5/8"	5/8"
Maximum Volts	115/208–230	110/220
Full Load Amps	17.2/9.53–8.62	20.8/10.4
RPM	1750	1450
Weight	53.8 lbs	53.8 lbs
Phase	Single	Single
Frame Size	56C TEFC	56C TEFC
Service Factor	1.40	1.25

Model 8126

Hertz	60	50
Horsepower	2.5	2.5
Shaft Diameter	5/8"	5/8"
Maximum Volts	208–230/460	190–220/380–415
Full Load Amps	7.9–7.12/3.56	8.2–7.6/4.08–4.01
RPM	1750	1450
Weight	63 lbs	63 lbs
Phase	Three	Three
Frame Size	56C TEFC	56C TEFC
Service Factor	1.15	1.0

Common Motor Specifications

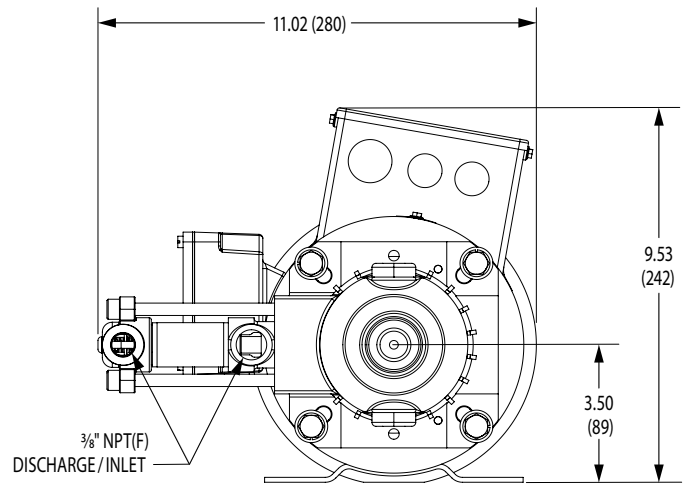
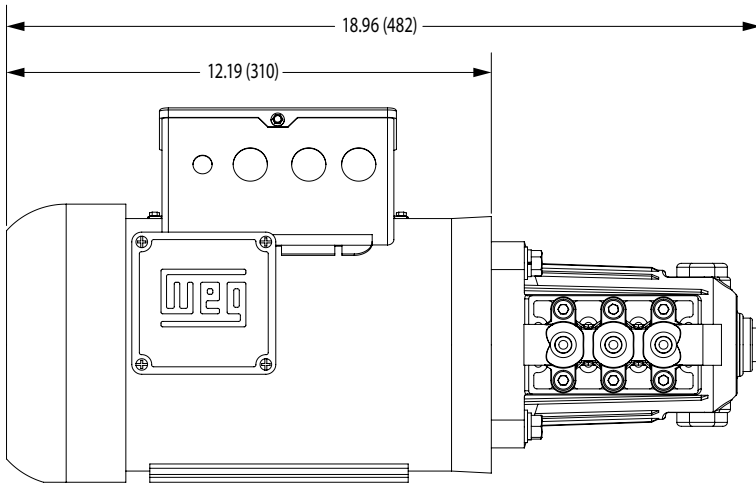
Maximum Ambient Temperature	104° F
Capacitor Start	Yes

Note: Motor start-up Amps may vary, then settle within FULL LOAD AMPS rating after initial run-in time.

Before mounting pump on motor, apply PN 6106 Anti-Seize lubricant to pump shaft.

Refer to **Tech Bulletin 055** for instructions on removing pump electric motor.

MOTOR DIMENSIONS



⚠ CAUTIONS AND WARNINGS

All high-pressure systems require a primary pressure regulating device (e.g. regulator, unloader) and a secondary pressure relief device (e.g. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high-pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high-pressure system. The CAUTIONS and WARNINGS are included in each Service Manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/dynamic-literature/cautions-and-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty online at www.catpumps.com/literature/cat-pumps-limited-warranty