

2087 Series Diaphragm Pumps

Automatic-Demand Pump 12 VDC with Electrical Package



2087-593-135
(Front and Back Shown)

- Self-priming up to 12 vertical feet [3.7m]
- Chemical-resistant materials
- Can run dry without damage
- Rocker switch protected from the elements by a clear boot
- Built-in on/off switch included
- 2 pin connector on power lead

These models include an aesthetically-pleasing molded assembly, housing a rocker-type manual switch with international on/off switch symbols. Wiring is neatly routed into the molded assembly through form fitted entries and strain relieved inside the housing.

Order Information

Part #	Description	Max GPM	Max PSI	Port Size	Max Draw
2087-593-135	Standard Demand Pump: Viton valves, Santoprene diaphragm, 45 PSI demand switch	3	50	1/2" MSPT* Male	8

* 1/2" - 14 National American Straight Pipe Thread

Model	PSI	BAR	GPM	L/min	Amps
2087-593-135	10	0.7	2.80	10.6	5.3
	20	1.4	2.69	10.2	5.5
	30	2.1	2.36	8.9	6.7
	40	2.8	2.05	7.8	7.7
	50	3.4	1.42	5.4	8.0

2088 Series Diaphragm Pumps

Automatic-Demand Pumps 12 VDC



2088-343-135

- Self-priming up to 12 vertical feet [3.7m]
- Chemical-resistant materials
- Can run dry without damage
- Automatic demand
- Built-in check valve (varies by model) prevents back flow of fluid into the solution tank
- Continuous duty motor on fin-cooled version

SHURflo 2088 Series diaphragm pumps deliver reliable performance in high flow, moderate pressure applications. They are used in a variety of spot spraying, multi-tip spraying and fertilizer drip applications that require flows of up to 3.6 GPM [13.6 L/min]. They are available in a variety of chemical-resistant materials.

Order Information

Part #	Description	Max GPM	Max PSI	Port Size	Max Draw
2088-313-145	Standard Pump: with fin cooled motor Viton valves, Santoprene diaphragm, 45 PSI demand switch	3.6	40	1/2" MSPT* Male	9.5
2088-443-144	Standard Pump: Santoprene valves, Santoprene diaphragm, 45 PSI demand switch	3.5	45	1/2" MSPT* Male	9.1
2088-343-135†	Standard Pump: Viton valves, Santoprene diaphragm, 45 PSI demand switch	3	40	1/2" MSPT* Male	7.7

** 1/2" - 14 National American Straight Pipe Thread

† Packaged in quantities of 6. For single pack, replace "135" with "435."

Model	PSI	BAR	GPM	L/min	Amps
2088-313-145	10	0.7	3.09	11.7	6.4
	20	1.4	2.82	10.7	7.6
	30	2.1	2.49	9.4	8.7
	40	2.8	2.15	8.1	9.5
2088-443-144	10	0.7	2.83	10.7	5.8
	20	1.4	2.56	9.7	7.0
	30	2.1	2.31	8.7	8.0
	40	2.8	2.02	7.6	9.1
2088-343-135	10	0.7	2.80	10.6	5.3
	20	1.4	2.69	10.2	5.5
	30	2.1	2.36	8.9	6.7
	40	2.8	2.05	7.8	7.7

SPECIFICATIONS:

MODEL NUMBER: 2088-313-145

PUMP DESIGN: Positive Displacement 3 Chamber Diaphragm Pump

CHECK VALVE: (1-Way Operation) Prevents Reverse Flow

CAM: 3.0 Degree

MOTOR: Permanent Magnet, P/N 11-185-06, Thermally Protected

VOLTAGE: 12 VDC Nominal

PRESSURE SWITCH: Adjustable from 30 to 50 PSI. Factory Set @ 45 PSI Shut-Off,
Turn On 25 PSI \pm 5 PSI

LIQUID TEMPERATURE: 170 Degrees Fahrenheit (77 Degrees Centigrade) Max.

PRIME: Self-Priming Up To 8.0 Ft. Vertical,
Max. Inlet Pressure 30 PSI (2.1 Bar)

PORTS: 1/2"-14 Male Parallel Thread

MATERIAL OF CONSTRUCTION:

PLASTICS- Polypropylene

VALVES- Viton

DIAPHRAGM- Santoprene

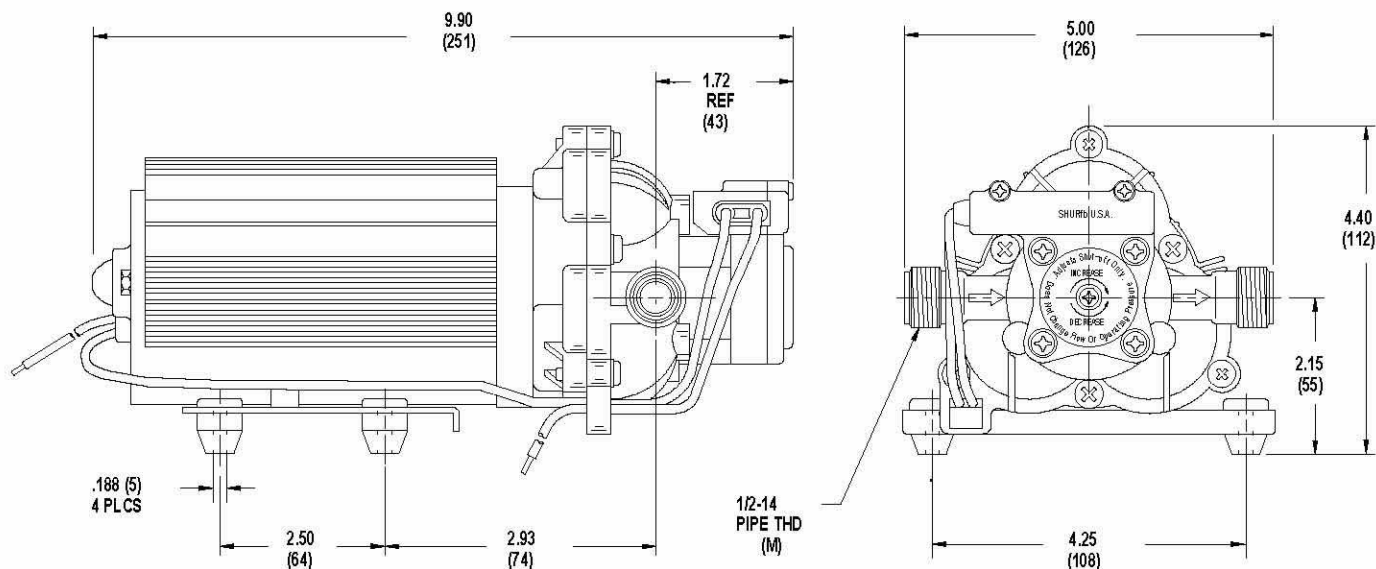
FASTENERS- Stainless Steel

NET WEIGHT: 6.8 Lbs (3.1 Kg)

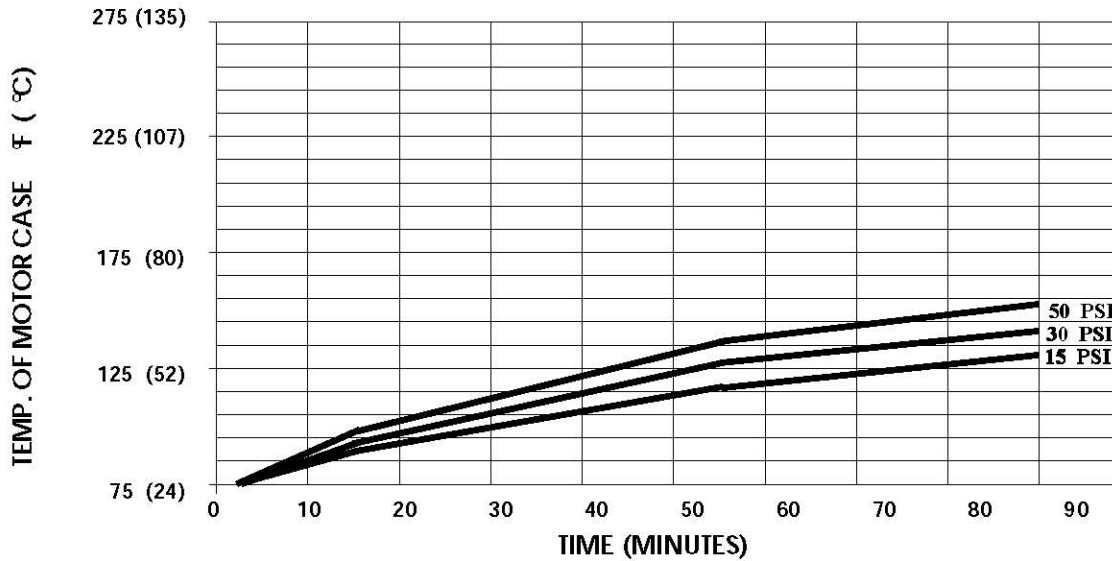
DUTY CYCLE: Continuous (See Temperature Rise Chart)

TYPICAL APPLICATIONS: Agricultural Spraying

DIMENSIONS:

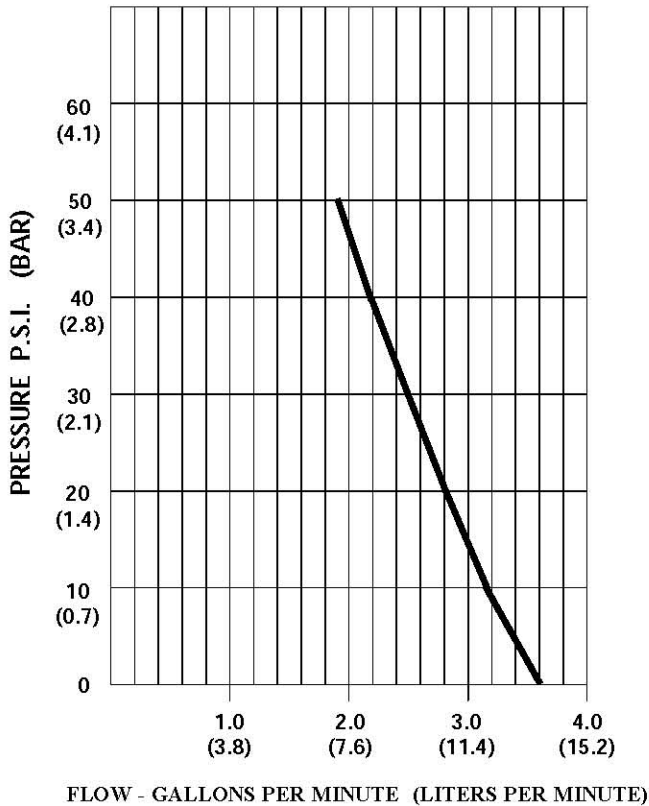


TEMPERATURE RISE



THIS GRAPH IS FOR USE AS A DESIGN GUIDE. IT IS BASED ON RUNNING CONTINUOUSLY WITH AN AMBIENT TEMPERATURE OF 70° F IN STILL AIR. THE THERMAL BREAKER WILL OPEN WHEN THE CASE TEMPERATURE REACHES 280 ° F.

TYPICAL PERFORMANCE



PRESSURE (PSI)	FLOW (GPM/LIT)	RPM MIN/MAX	CURRENT (AMPS)	VOLTAGE (VOLTS)
OPEN	3.60/13.6	2185/2300	6.1	12VDC
10	3.09/11.7	2160/2290	6.4	"
20	2.82/10.7	2125/2215	7.6	"
30	2.49/9.4	2095/2140	8.7	"
40	2.15/8.1	2080/2085	9.5	"
50	1.90/7.2	2060/2070	10.1	"

*-SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.
-ALL DATA BASED ON TESTING WITH WATER.*