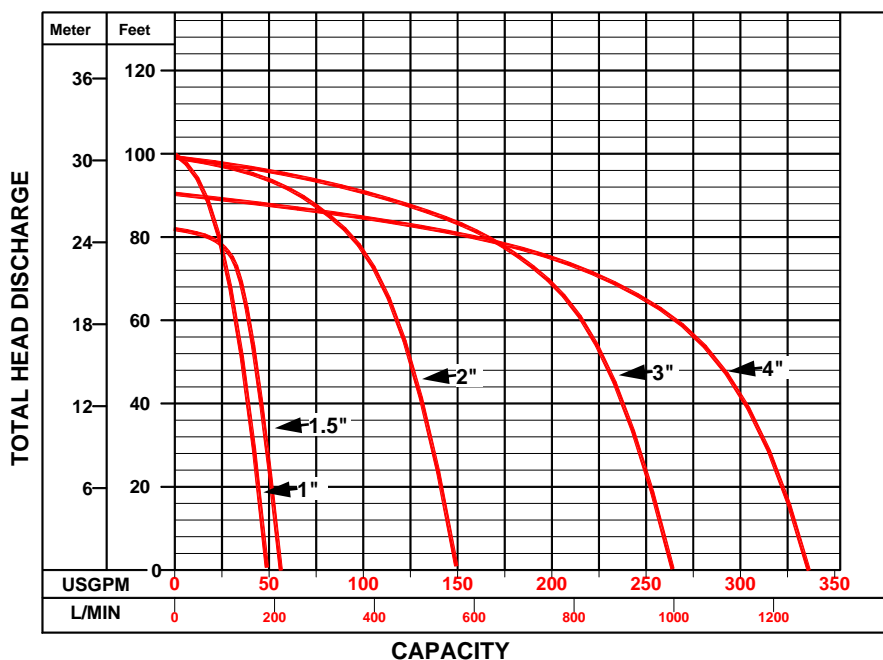




GASOLINE PUMP - EPA approved



Model	147-0075	147-1050	147-1130	147-1180
Suction / discharge (in)	1.5	2	3	4
Max. lift (ft)	60	98	98	92
Max. suction (ft)	20	23	26	23
Max flow (GPM)	53	154	264	330
Engine (OHV)	2.5 - 152F	5.5 - 168F-A	6.5 - 168F-1A	9 - 177F-A
Type	4 stroke / air cooled / single cylinder			
Cylinder (cc)	98	163	196	270
Starting mode	recoil			
Fuel tank capacity (L)	1.3	3.6	3.6	6.1
Oil volume (L) - SAE10W30	0.3	0.6	0.6	1.1
Oil level switch	yes			
Length (in)	12	16	17	26
Width (in)	14	17	18	24
Height (in)	16	19	21	21
Weight (lbs)	29	60	68	105
Suggested list price	409.00	450.00	545.00	960.00



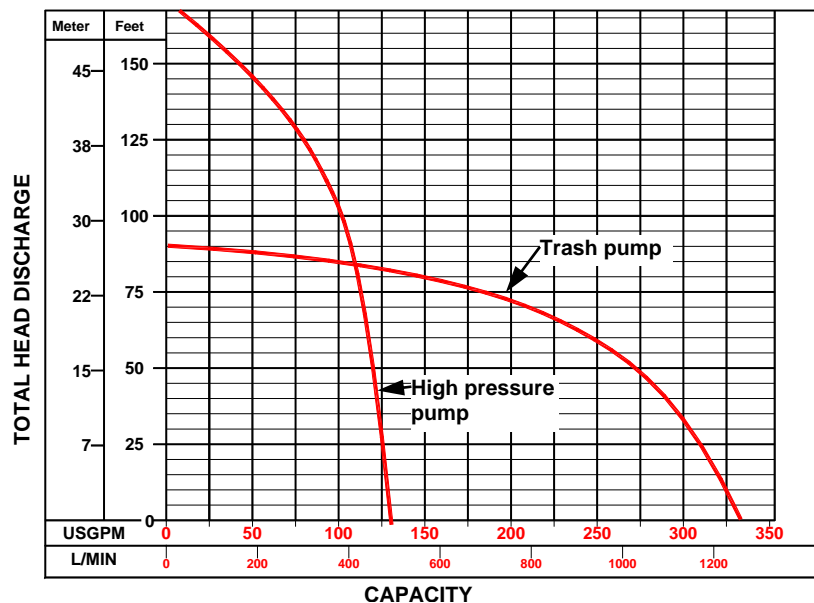


HIGH PRESSURE GASOLINE PUMP and TRASH PUMP

EPA approved



Model	147-1525 HIGH PRESSURE PUMP	147-1700 TRASH PUMP
Suction / discharge (in)	2	3
Max. lift (ft)	187	85
Max. suction (ft)	10	26
Max flow (GPM)	127	330
Engine (OHV)	6.5 - 168F-1A	
Type	4 stroke / air cooled / single cylinder	
Cylinder (cc)	196	
Starting mode	recoil	
Fuel tank capacity (L)	3.6	
Oil volume (L) - SAE10W30	0.6	
Oil level switch	oui	
Length (in)	17	22
Width (in)	18	18
Height (in)	22	19
Weight (lbs)	67	91
Suggested list price	647.00	690.00



ROBO



GASOLINE GENERATOR

3 000w with voltage selector
6 500w & 9000w with auto idle



3 000 w



6 500 w with auto idle



9 000 w with auto idle

	Model	147-4290	147-4670	147-4900
		3000 w	6500 w	9000 w
Generator	Max. output (starting)	3000	6500	9000
	Rated output	2800	5500	7000
	AC - 120 V	2 receptacles	4 receptacles	4 receptacles
	Combined currant / 120 V	23.4 A	45.8 A	58.4 A
	Max. currant available from each double receptacle / 120 V	11.7 A	22.9 A	29.2
	AC - 240 V	1 receptacle 11.7 A / twist	1 receptacle 22.9 A / twist	2 receptacles 29.2 A / twist
	DC output	12V - 8.3A		
	Voltmeter	yes		
	Breaker	Double 15 A	Double 23 A	Double 32 A
	Auto idle	no	yes	yes
Motor	Engine (OHV)	6.5 HP	13 HP	
	Type	4 stroke / air cooled / single cylinder		
	Cylinder (cc)	196	389	419
	Max. output (HP/rpm)	6.5/3600	13/3600	15/3600
	Recoil start	yes		
	Electric starter / battery included	No	yes	Yes
	Gas tank capacity (L)	15	25	25
	Oil volume (L) - SAE10W30	0.6	1.1	
	Oil level switch	yes		
	Continuous working time (h)	9	7.5	8.0
Noise level (7m) (dbA)	69	74	75	
Dimension	4 wheel kit	no	yes	2 inflated tires
	Length (mm/in)	24	28	29
	Width (mm/in)	19	21	22
	Height (mm/in)	19	23	28
	Weight (kg/lbs)	104	197	220
	Suggested list price	925.00	1 680.00	2 455.00



GENERATOR - WELDER



	Model	147-5000
		Generator - Welder
Generator	Max. output	2.5
	Rated output	2.0
	AC - 120 V	1 receptacle / twist
	Automatic idle	yes
	Voltmeter	yes
	Breaker	Simple 15 A
Motor	Engine (OHV)	13 HP
	Type	4 stroke / air cooled / single cylinder
	Cylinder (cc)	389
	Max. output (HP/rpm)	13/3600
	Recoil start	yes
	Electric starter / battery included	yes
	Gas tank capacity (L)	25
	Oil volume (L) - SAE10W30	1.1
	Oil level switch	yes
	Continuous working time (h)	12.0
Noise level (7m) (dbA)	75	
Welder	Idle voltage (V)	50 - 80
	Rated current (A)	140
	Working voltage (V)	20 - 30
	Max. welding current (A)	190
	Adjusting current range (A)	50 - 190
	Diameter of welding rod (mm / in)	2.0 - 5.0
Dimension	4 wheel kit	yes
	Length (in)	35
	Width (in)	22
	Height (in)	26
	Weight (lbs)	230
	Suggested list price	2 520.00

ROBO

EPA GASOLINE ENGINE - straight shaft



Model	147-2025	147-2075
Engine (OHV)	2.5 - 152F	6.5 - 168F-A1
Type	4 stroke / air cooled / single cylinder	
Cylinder (cc)	98	196
Motor speed (RPM)	3 600	
Shaft diameter	5/8"	3/4"
Starter	recoil	
Gas tank capacity (L)	1.3	3.6
Oil volume (L) - SAE10W30	0.3	0.6
Oil level switch	yes	
Length (in)	15	14
Width (in)	12	16
Height (in)	12	17
Weight (lbs)	22	37
Suggested list price	350.00	340.00

Model	147-2125	147-2130	147-2200	147-2210
Engine (OHV)	9.0 - 177F-A		13.0 - 188F-A	
Type	4 stroke / air cooled / single cylinder			
Cylinder (cc)	270		389	
Motor speed (RPM)	3 600			
Shaft diameter	1"			
Starter	recoil	starter	recoil	starter
Gas tank capacity (L)	6		6.5	
Oil volume (L) - SAE10W30	1.1			
Oil level switch	yes			
Length (in)	18	18	18	18
Width (in)	19	19	19	19
Height (in)	21	21	21	21
Weight (lbs)	62	67	76	81
Suggested list price	570.00	700.00	640.00	760.00



GENERATORS: MOST FREQUENTLY ASKED QUESTIONS & ANSWERS

Question: Is it always safe to use a generator anywhere and under any conditions?

Answer: No.

Never use a generator in a closed environment like a house, cottage, garage or any other type of building.

Always place your generator at least 3 feet from the building or any other objects.

A generator must always run in a dry environment.

Question: How can I determine the power and size of my future generator ?

Answer: To be ready in the event of a power outage, you must evaluate the electricity needs of all your electrical appliances in your house or building. Please note that it is impossible to run all appliances with just a portable generator. You must decide which appliances are more important for your needs and then add the running wattage for each appliance (including the starting wattage). Once this is done you'll have a good idea of the size of generator you will need. Please refer to the safety guide on the next page to obtain the approximate wattage required at the running and starting stage of most common electrical appliances.

Question: What is the difference between maximum running power and nominal running power ?

Answer: The maximum running power term is used to describe the maximum capacity of electricity a generator can produce. Please note that a generator can work at its maximum capacity only for a certain period of time (about 30 minutes depending on the model).

The nominal running power is the power that a generator can produce at a continuous running level during a long period of time. In general this power works at about 20% less than the maximum running power.

Note: The maximum running power is usually incorporated in the name of the model.

SAFETY TIPS FOR YOU GENERATOR

- 1) Never use a generator in a closed environment like a house or garage. The carbon monoxide found in the exhaust gases are deadly. All generators are not made to run under conditions such as snow and rain.
- 2) Your generator must be placed outside your building (minimum 3 feet) and near the electrical box panel. Please note that you must keep all objects at least 3 feet away (on all sides) from the generator.
- 3) A ground wire should be connected from the exterior outlet, all the way to a steel stem planted firmly into the ground.
- 4) If you choose to connect your generator to the electrical box panel, you need to have it connected by a certified electrician, complying with every rule, laws and building codes.
- 5) Always turn the generator off before filling up the gas tank; Check out the oil level as well before filling it up with gas. Use an appropriate funnel to prevent gas spilling. Never start or run your generator without the gas cap properly closed. Do not start it if a gas spill occurred while filling up the gas tank. Make sure the generator is totally dry and free from any gasoline spills before starting it up.
- 6) Gasoline must be stored in an approved tank, located more than 30 feet away from a running generator.
- 7) Never make any modifications to the generator. The CSA certification requires that a generator, to be valid, must be used in its original configuration only.
- 8) Do not overcharge your generator. Find out first how much wattage you will need to start and run your selected household appliances.



GUIDE TO AVERAGE POWER (WATTS) REQUIRED (AMPS X VOLTAGE = WATTS)

Electric Tools - Appliances	Running Wattage (numeric)	Additional Wattage required at starting stage	Electric Tools - Appliances	Running Wattage (numeric)	Additional Wattage required at starting stage
Basic items			LAUNDRY-ROOM		
60 watt bulb	60	-	Clothes iron	1200	-
100 watt bulb	100	-	Electric clothes dryer	5400	1350
Refrigerator/freezer	700	2200	Automatic clothes washer	1150	2250
Sump pump - 1/3 H.P.	800	1300	KITCHEN		
Sump pump - 1/2 H.P.	1050	2200	Coffee maker	1000	-
Submersible pump - 1/2 H.P.	1450	1500	Electric stove - 8 inch element	2100	-
Submersible pump - 3/4 H.P.	1950	2100	Toaster	850	-
Submersible pump - 1 H.P.	2300	2700	Toaster-Oven	1200	-
Injection pump - 1/2 H.P.	1150	2500	HANDYMAN / CONTRACTOR		
Injection pump - 3/4 H.P.	1650	3000	Drill 3/8" - 4 amps.	440	600
Injection pump - 1 H.P.	1950	4000	Skill saw - 7"	1400	2300
Electrical water heater	4000	-	Bench saw 10"	1800	4500
HEATING AND COOLING			Belt grinder	1200	2400
Boiler furnace fan 1/8 H.P.	500	1000	Compressor 1/2 H.P.	1000	2000
Boiler furnace fan 1/6 H.P.	750	1500	Compressor 1 HP	1600	4500
Boiler furnace fan 1/4 H.P.	900	1800	Bench grinding machine 8"	1400	2500
Boiler furnace fan 1/3 H.P.	1000	1800	OTHERS		
Boiler furnace fan 1/2 H.P.	1200	2500	Radio AM-FM	100	-
Central air conditioner 10 000 BTU	1500	2200	Self working ventilator 20"	200	200
Central air conditioner 24 000 BTU	3800	4950	Garage door opener 1/3 H.P.	725	1400
Central air conditioner 40 000 BTU	6000	7800	Vacuum cleaner	800	1100
Thermo pump	4700	4500			

The running and starting wattage on this list are based on required power estimates only.
Please check your tools and appliances to know the exact power requirements.

GENERATORS: QUESTIONS & ANSWERS

Question: What is the difference between starting wattage and working wattage generator and a generator at the starting stage ?

Answer: The working wattage are the watts required to make a machine or an appliance work continuously. The starting wattage are the additional watts required for about 2 to 3 seconds to help start a machine or an appliance powered by a motor like a refrigerator or a scale saw.

Question: If I don't have the working nor the starting wattage requirements how can I determine them ?

Answers: You just need to apply this simple equation: **WATTS = VOLTAGE x AMPS**
The only appliances that require additional wattage at the starting stage are the ones powered by a motor. To estimate this starting wattage you need to multiply the working one by two.