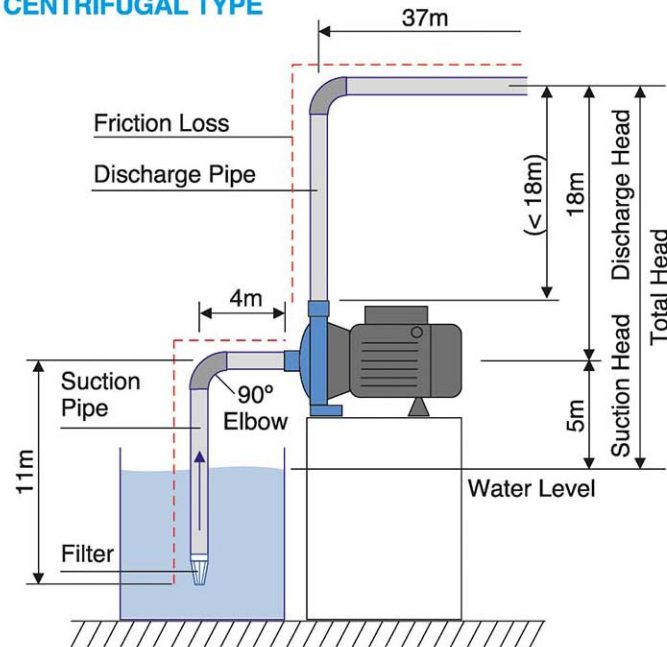


How to Calculate Required Pressure

CENTRIFUGAL TYPE



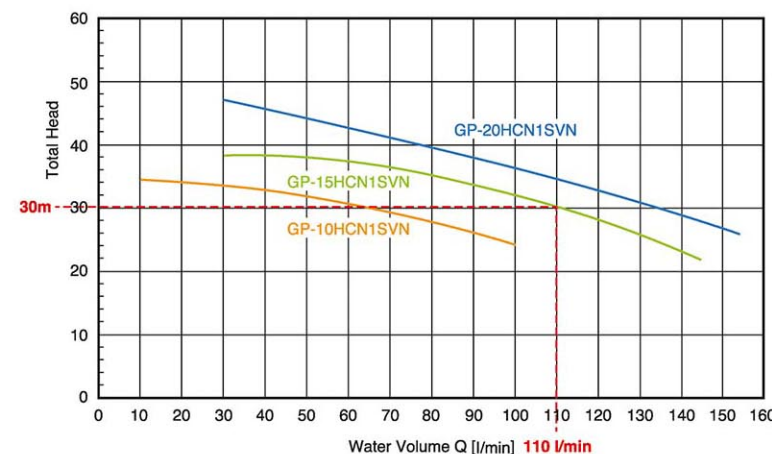
Example

- 1 Required volume of water = 110 liters/min.
- 2 Suction Head = 5m(a)
- 3 Discharge Head = 18m(b)
- 4 Friction Loss (as of 10%)
 - (a) Pipe Length (Suction)
 $= (4m + 11m) \times 0.1$
 $= 1.5m$ (c)
 - (b) Pipe Length (Discharge)
 $= (18m + 37m) \times 0.1$
 $= 5.5m$ (d)
- 5 Total Dynamic Head
 $= 5m (a) + 18m (b) + 1.5m (c) + 5.5m (d)$
 $= 30m$

For choosing the right pump, following criteria should be determined:

- 1) Required volume of water
 - 2) Suction Head - The vertical distance from water level to the centerline of the pump
 - 3) Discharge Head - The vertical distance from the centerline of the pump to final discharge outlet
 - 4) Friction Loss - Resistance and loss of pressure due to the flow of water pass through the pipes and fittings within the pump system
 - 5) Total Dynamic Head - Suction Head + Discharge Head + Friction Loss
- Once the values are determined, the pump can be sized according to Required Volume of Water and Total Dynamic Head from Pump Characteristic Chart.

How to Select Model From Characteristic Chart



- Find the required flow rate (110 l/min.) along the bottom axis
- Find the required total head (30m) along the vertical axis
- Find the intersect point where the vertical line from flow rate and horizontal line from the total head
- Find the curve that is immediately above this point
- The model for this curve (GP-15HCN1SVN) will be the suitable one for the requirement
- Specifications are subject to change without prior notice.
- Actual colors may vary slightly from those shown.

Panasonic

Panasonic Ecology Systems Co., Ltd.
<http://www.plshk.panasonic.hk>

• Specifications are subject to change without prior notice.
 • Actual colors may vary slightly from those shown.

CATALOG NO: P-PU001C1
 PRINTED IN HONG KONG (05/20)

Water Pump

NEW

GA-125FAK

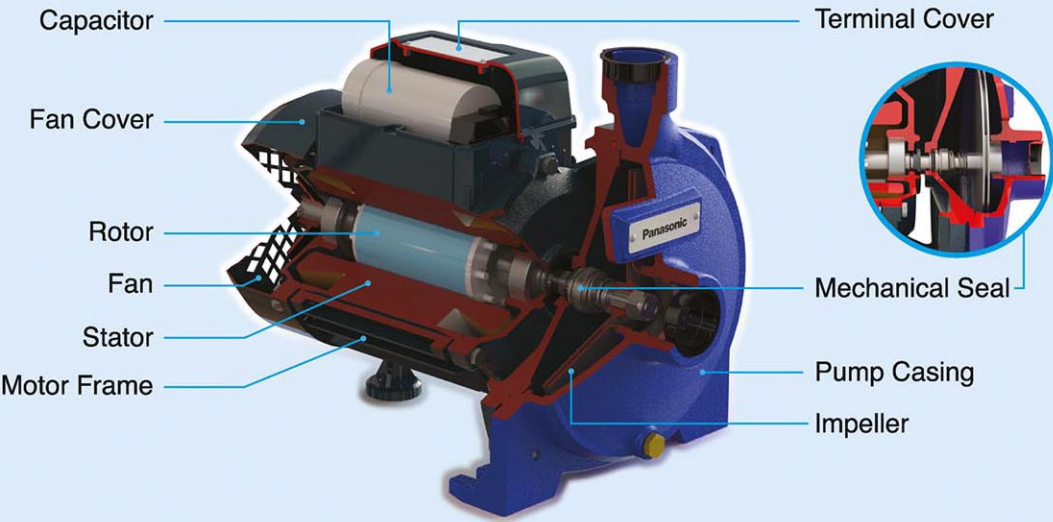


CENTRIFUGAL TYPE

Feature Highlight

- Highly Durable
- Stainless steel impeller and motor shaft, as well as cast iron casing with paint coated housing allow rust resistance for water stream channel.
- IP54 Ingress protection prevents dust ingress and water splashing which may impair safety of the product.
- Reliable
- Equipped with thermal protector enhances security against burning.
- High Performance
- Smooth curve design provides smoother water stream resulting high efficiency with low power consumption.

Product Structure



Advantage of Panasonic Water Pump

Pump Casing
Smooth curve design provides smoother water stream resulting high efficiency with low power consumption. Double paint coated housing effectively prevent rusting in the stream channel.

Impeller
Made with Stainless steel that prevents rusting within water stream.

Rotor
Anti-rust layer with accuracy of 30 microns that can work up to 8,000 hours without stopping. Seal type bearing adopted for ensures ingress protection.

Stator
Copper wire is used in stator coil for good quality

Thermal protector (Stator)
Enhances safety against burning by turning off the pump directly as rated temperature is exceeded.

Mechanical Seal
Compared with rubber seal, mechanical seal is more reliable for preventing water leakage to the motor.

CENTRIFUGAL TYPE

Centrifugal type water pump uses a rotating impeller to move water by using centrifugal force. It is generally used in the application for handling large amount of fluid to provide high flow rate.



MODEL NO.	GP-10HCN1SVN	GP-15HCN1SVN	GP-20HCN1SVN
Maximum Capacity [l/min]	10 - 99	30 - 145	30 - 154
Maximum Total Head [m]	34 - 25	38.7 - 22	46.2 - 26
Maximum Suction [m] (*)	9	9	9
Input Power [kW]	1.16	1.66	2.22
Output Power [kW]	0.75	1.1	1.5
IP Rating	IP54	IP54	IP54
Suction Pipe [inch (mm)]	1 (25)	1-1/4 (32)	1-1/4 (32)
Discharge Pipe [inch (mm)]	1 (25)	1 (25)	1 (25)
Size (L x W x H) [mm]	299 x 196 x 246	336 x 210 x 258	363 x 242 x 290
Weight [kg]	15	20	25
Characteristic Chart			

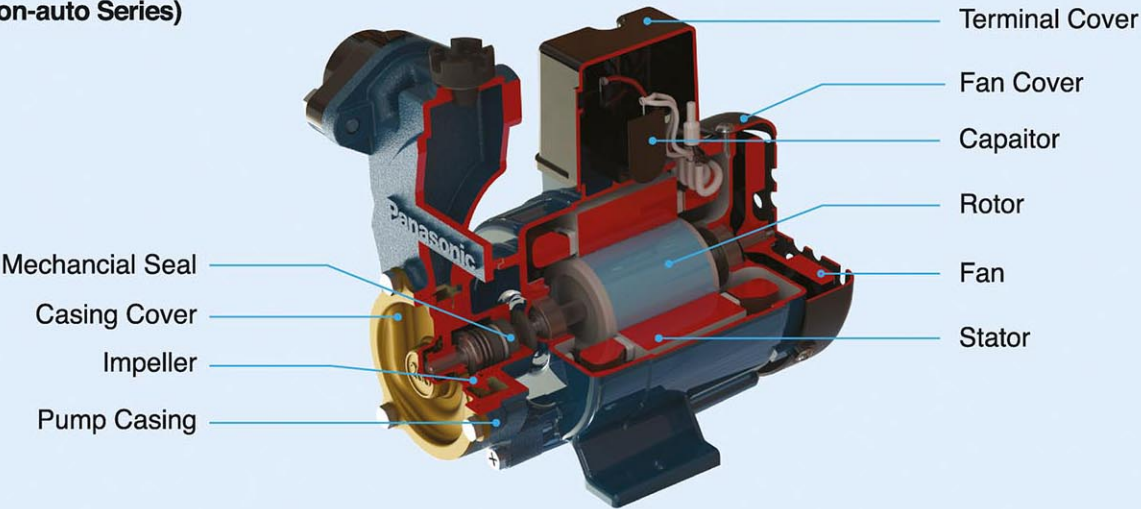
(*) The suction result is subject to the pipe installation

PERIPHERAL TYPE

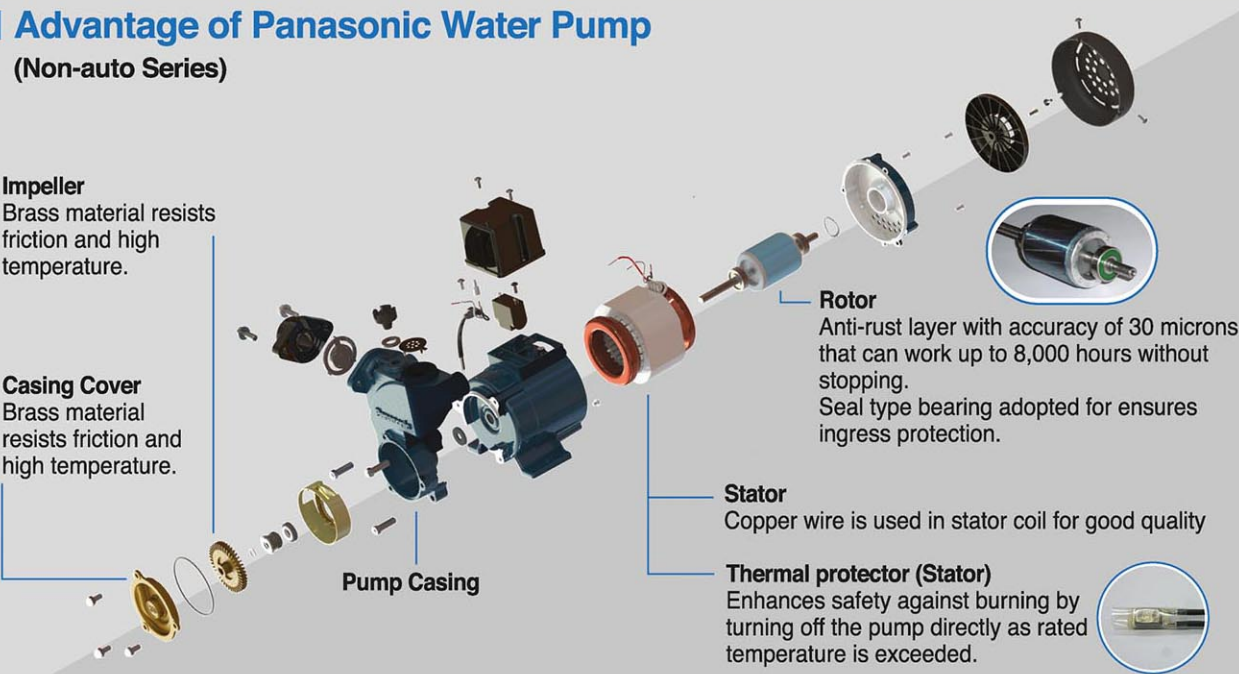
Feature Highlight

- Highly Durable**
High accurate rotor with anti-rust layer allows operation up to 8,000 hours without stopping
- Reliable and Safe**
Equipped with thermal protector (130°C) enhances security against burning. Double stator protection resists abrasion against short circuit.
- Compact and Energy Efficient**
Brass-made casing cover and impeller are resistance to friction and high temperature that allow smoother water stream.

Product Structure (Non-auto Series) • GP-200JXK



Advantage of Panasonic Water Pump (Non-auto Series)



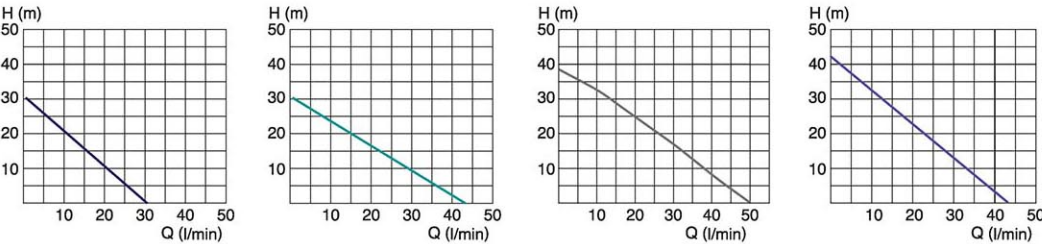
Non-Auto Series | PERIPHERAL TYPE

Peripheral type water pump is capable of moving water at high discharge head at low flow rate.
Compact-size and high performance of Non-auto Series allow easy installation and maintenance in different applications.



MODEL NO.	GP-129JXK	GP-200JXK	GP-250JXK	GP-350JA
Maximum Capacity [l/min]	30	45	50	45
Capacity at 12m [l/min]	18	29	36	30
Maximum Total Head [m]	30	30	38	45
Power Suction [m]	9	9	9	9
Motor Power [W]	125	200	250	350
Suction Pipe [inch (mm)]	1 (25)	1 (25)	1 (25)	1 (25)
Push Pipe [inch (mm)]	1 (25)	1 (25)	1 (25)	1 (25)
Size (L x W x H) [mm]	206 x 152 x 212	225 x 182 x 215	233 x 168 x 236	253 x 170 x 258
Weight [kg]	5.4	7.0	8.0	13.5

Characteristic Chart

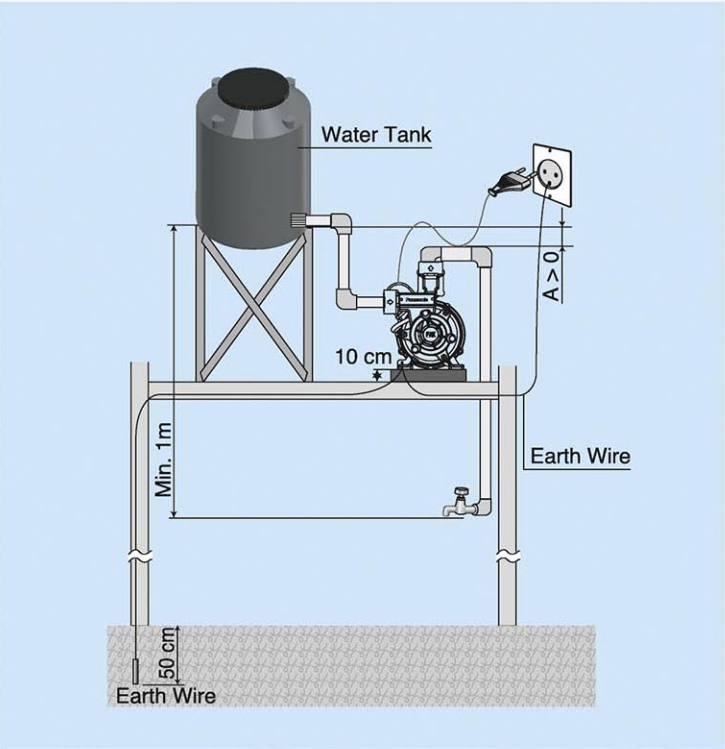


Flow Switch Booster Series | PERIPHERAL TYPE

The water pressure may drop due to various factors, and as a result, the flow of water is slow. It causes much inconvenience to your daily life. The Panasonic Flow Switch Booster Series water pump would be the perfect solutions.

The Flow Switch Booster provides an extra boost needed to raise the water pressure to the desired level. It forces the water to move at a faster flow rate. In addition, the flow switch features low noise (*1) operation as compared with pressure switch.

(*1) Intermittent ON/OFF noise (chattering) at certain condition of pressure



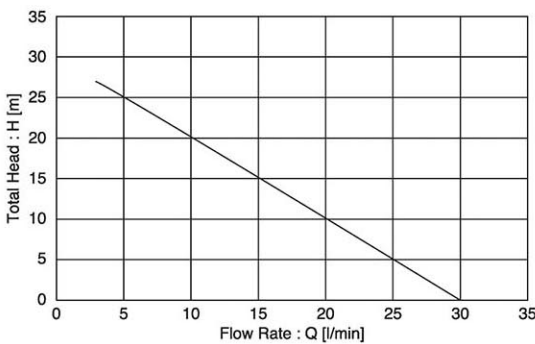
Installation Example

- Install the pump on a flat surface and tighten on a base about 10 cm high to avoid flooding.
- Install a protective cover to protect the water pump from heat and rain, if installing the pump outdoors,
- Apply pipe sealant to prevent water leakage.
- Be sure to set grounding to water pump
- If the pump does not start, be sure to have a height difference of 1 m or more from the bottom of the water tank to the water supply location.

MODEL NO.	GA-125FAK
Maximum Capacity [l/min]	30
Capacity at 12m [l/min]	18
Maximum Total Head [m]	27
Motor Power [W]	125
Suction Pipe [inch (mm)]	1 (25)
Push Pipe [inch (mm)]	1 (25)
Size (L x W x H) [mm]	202 x 150 x 198
Weight [kg]	4.8

* Minimum water flow to operate the water pump is 2-3 l/min

Characteristic Chart



Auto Series | PERIPHERAL TYPE

- Nitrogen Gas is adopted in accumulator for stable and optimum performance. (*1)
- Rubber Bladder made of pliable material Butyl that is strong enough to produce a more stable pressure. (*1)
- Auto system with platinum equipped switch can operate 1 million on/off test without performance reduced.

(*1) except A-130JTX



MODEL NO.	A-130JTX	A-130JACK	A-130JAK	A-200JAK
Maximum Capacity [l/min]	30	30	32	45
Capacity at 12m [l/min]	18	18	18	29
Maximum Total Head [m]	25	27	27	27
Power Suction [m]	9	9	9	9
Motor Power [W]	125	125	125	200
Switch On Pressure [Kg/cm²]	1.0	1.1	1.1	1.1
Switch Off Pressure [Kg/cm²]	1.6	1.8	1.8	1.8
Suction Pipe [inch (mm)]	3/4 (19)	1 (25)	1 (25)	1 (25)
Push Pipe [inch (mm)]	3/4 (19)	1 (25)	1 (25)	1 (25)
Size (L x W x H) [mm]	300 x 425	330 x 255 x 340	246 x 225 x 240	257 x 238 x 245
Weight [kg]	13.0	8.8	6.4	7.8

Characteristic Chart

