

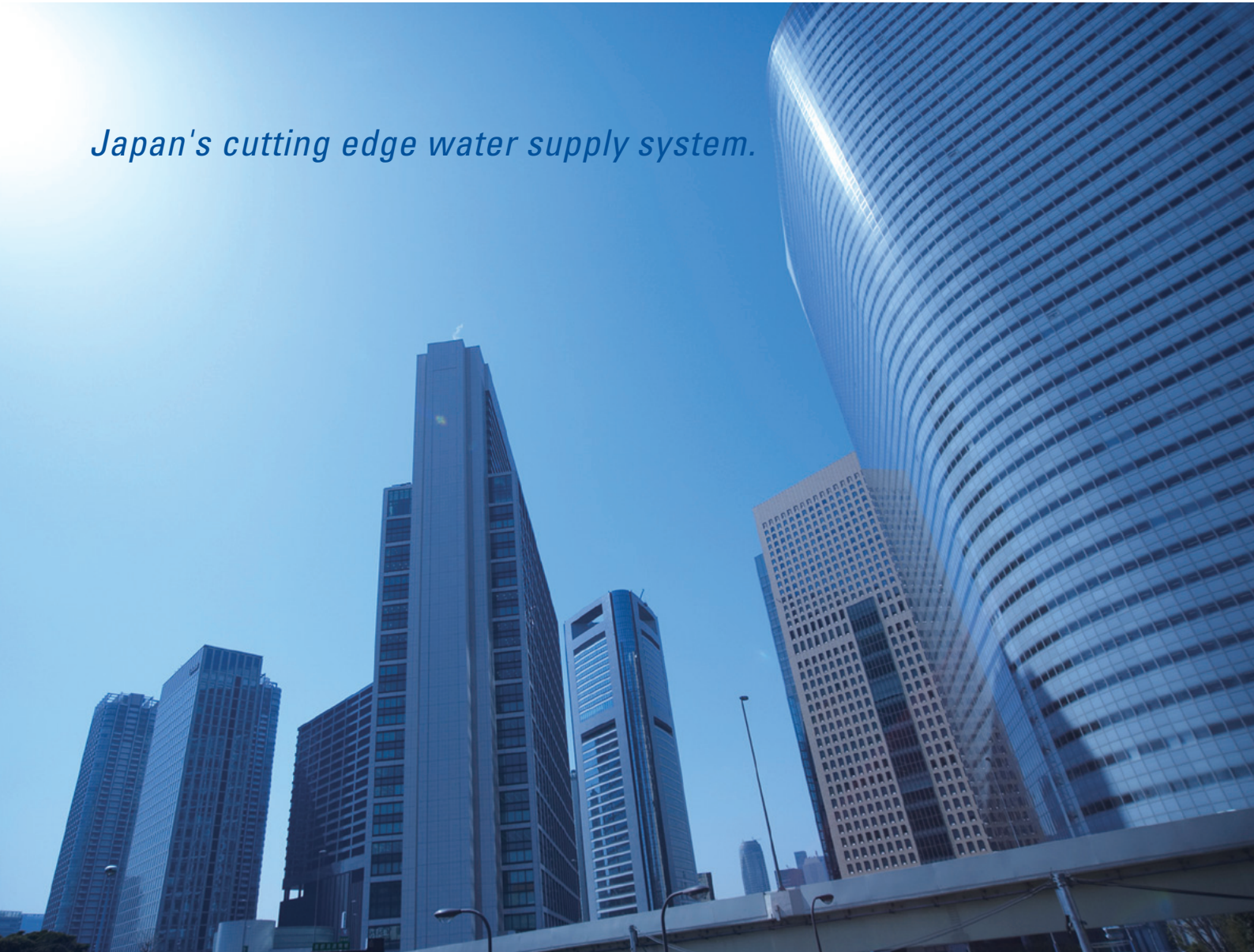
TERAL

TERAL WATER SUPPLY SERIES

NX-VFC

50Hz/60Hz

Japan's cutting edge water supply system.



TERAL INC.

Japan since 1918

TERAL WATER

TERAL's newest water supply system for the world.

Estimated constant terminal-pressure control



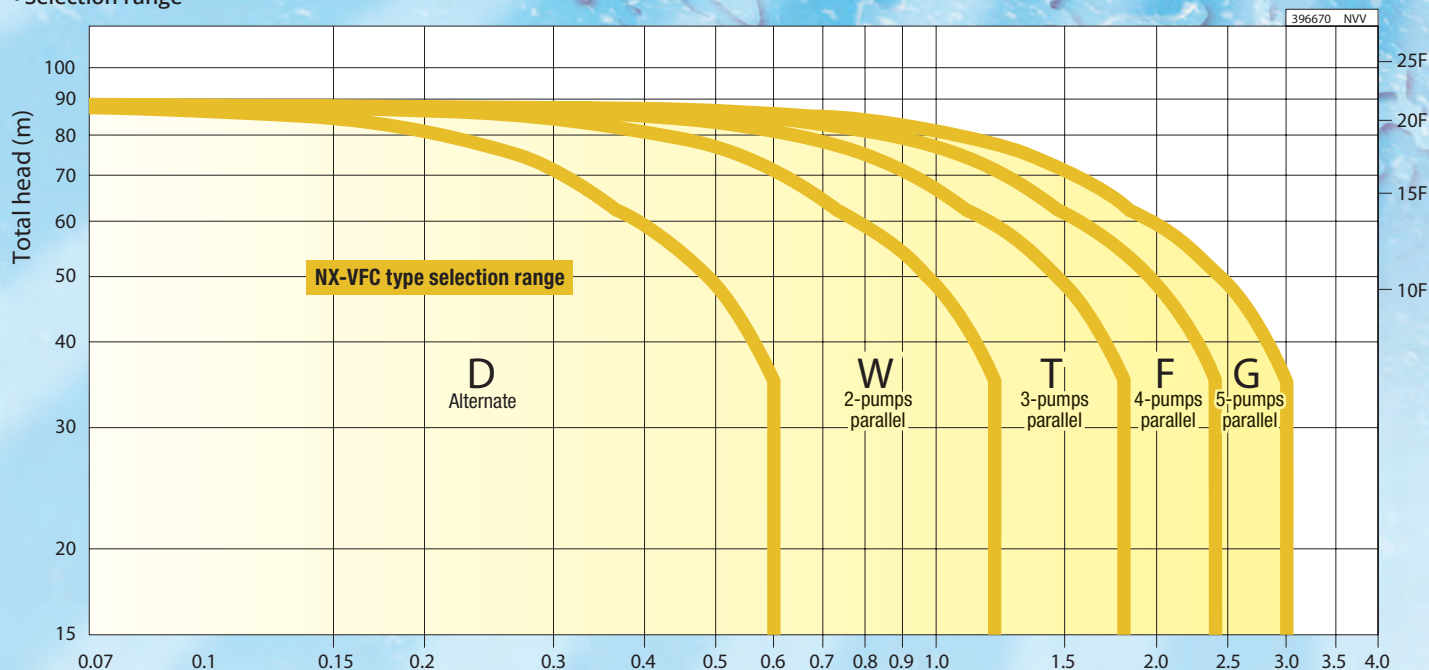
Small type



Multiple pump control

	NX - VFC	NX-VFC multiple pump control
Max number of operable pumps	2	5
Voltage (V)	3-phase • 380/400/440	3-phase • 380/400/440
Output range (kW)	0.4~7.5	1.1~7.5
Flow (m3/min)	0.02~1.13	0.04~3.04
Head (m)	12~90	15~71
Operating sound	Low	Low
Installation space	Very compact	Compact
Installation site	w/outdoor cover	Indoors only
Features	Space saving Energy saving Quite Complete pump protection Clean water	Perfect for large facilities Energy saving Quite Complete pump protection Clean water

• Selection range



S U P P L Y S E R I E S

In population centres the life style of the people becomes increasingly diverse, and they put higher demands on the availability of safe water.

When a short term solution is installed, it inevitably leads to high maintenance and running costs.

This catalog introduces the wide range of water supply systems offered by TERAL, Japan's leading water supply systems maker.

Advanced technological power that beats the severe Japanese competition from small home pumps to large volume or high head pumps, providing you with a comfortable and anxiety- and trouble-free future.

	ON/OFF control	Small inverter pump
		
	Small type water supply	Domestic Water Supply
	NX-LAT	THP5-V
Max number of operable pumps	2	1
Voltage (V)	3-phase • 380/400/440	Single-phase • 100/200
Output range (kW)	1.1~7.5	0.15~0.75
Flow (m3/min)	0.02~1.2	0.019~0.058
Head (m)	12~81	12~20
Operating sound	Low	Low
Installation space	Very compact	Very Compact
Installation site	w/outdoor cover	w/outdoor cover
Features	Space saving Complete pump protection Clean water	Perfect for large facilities Energy saving Quite Clean water

Today is the age to the estimated constant

Estimated constant terminal-pressure control water supply system

NX-VFC

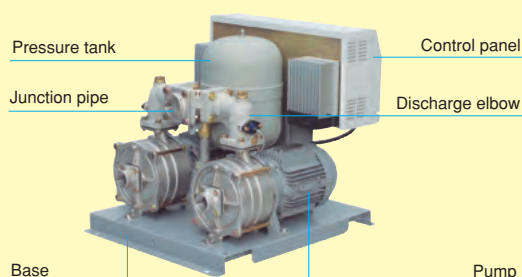
This compact! This high performance!

In 1975, TERAL was the first in the world to unitize a water supply system. Substantial compactness was achieved by integrating the pump, control panel, pressure tank, and base that previously were manufactured separately. Installation space and volume became smaller and the range of applications also spread widely. The use of high quality materials and precision finish increases reliability even more.



TERAL, the pump maker, has unitized the pump, control panel, pressure tank, and base.

- >> All parts are high-quality.
- >> Cutting edge functions and performance
- >> Long product life and low maintenance costs



Can be installed anywhere because of its compact size.

- >> Can even be installed under a stairs or under the receiving tank.
- >> Replacing an existing pump provides a surplus of machinery room space.
- >> If there is no machinery room, the unit can be installed outdoors by using a special outdoor cover (option).



Special outdoor cover (option)

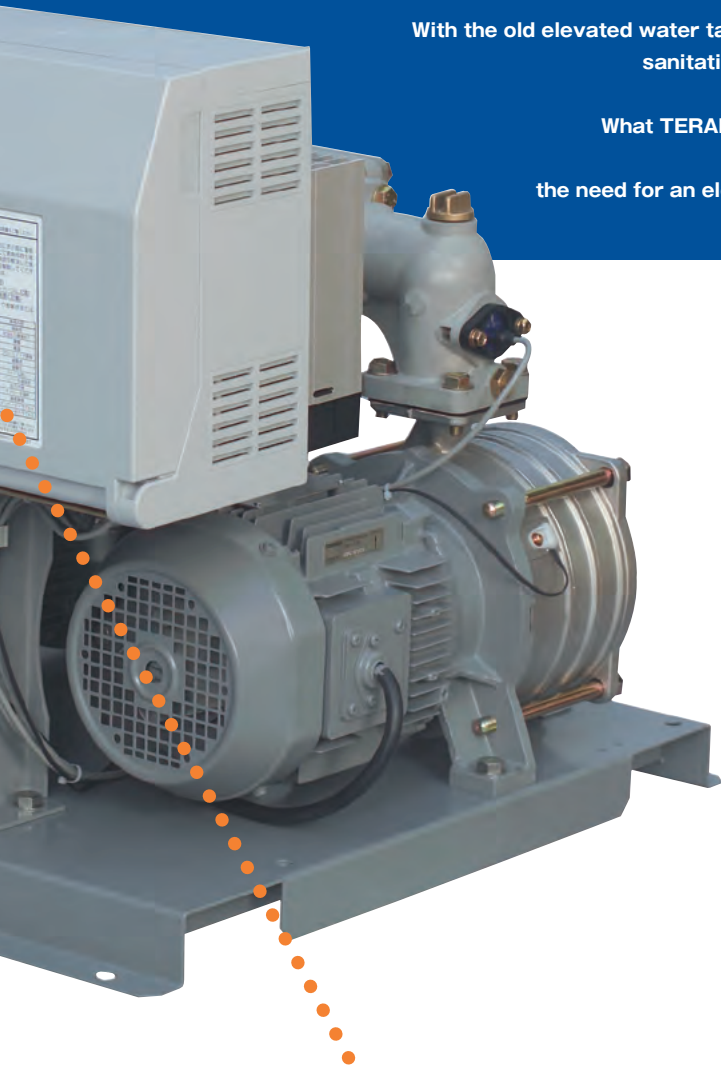
terminal-pressure control water supply system.

This is the age to the clean, safe, and energy saving estimated constant terminal-pressure control water supply system.

All eyes are on the new TERAL water supply system.

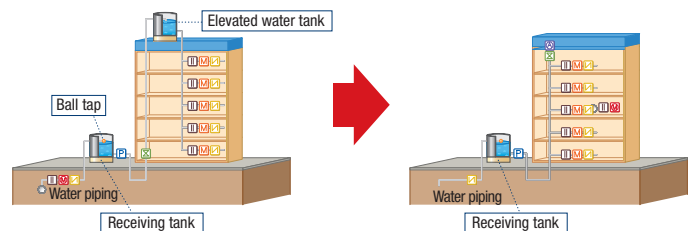
With the old elevated water tank system popularized by its simple mechanism and ease of installation, sanitation and construction cost problems are encountered and it can no longer meet the complex and advanced needs of current times.

What TERAL proposes here is the <<NX-VFC Series>> estimated terminal pressure constant control water supply unit. This unit eliminates the need for an elevated water tank and also makes a large contribution to electricity and energy saving by using an inverter for exact control of the pump speed.



Sanitation and construction cost with the conventional elevated water tank system.

This system collects water in an elevated water tank on the roof of the building and supplies it to users by gravity. It is popular because both its mechanism and control are simple. However, the water tank is easily contaminated by birds, insects, and the mixing in of dust. In addition, rooftop installation work is large scale, the piping is 2 systems (up and down) and complex, and the larger the building, the more difficult work becomes.

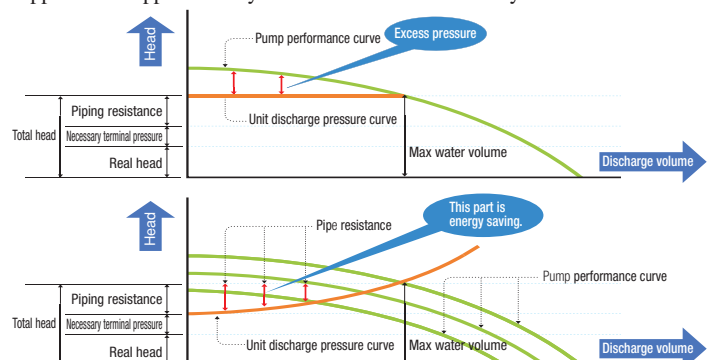


The mainstream of the future will be a water pressure system that does not require an elevated water tank.

System that supplies water not by gravity, but by pressurizing by pump. A rooftop elevated water tank is unnecessary, and the demerits of the elevated water tank system are all overcome. However, since stopping of the pump immediately leads to water interruption, the introduction of a highly reliable maker who consistently provides everything from design to manufacture is recommended.

Estimated constant terminal-pressure control system saves energy and eliminates CO₂!

"Discharge pressure constant control" keeps the discharge pressure constant even if the amount of water used changes by controlling the speed of each pump by means of an inverter. "Estimated constant terminal-pressure control" used with the <<NX-VFC Series>> is more advanced and also adjusts the piping resistance pressure. Since surplus pressure is not generated, electricity and energy saving characteristics are excellent and the electricity consumption is suppressed to approximately 50% that of a conventional system.

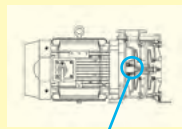


Unit for trustworthy, clean drinking water.

- >> Pump uses "rust-free" precision stainless steel Investment casting.
- >> All wet parts other than the pump are made of stainless steel, resin, or "rust-free" material.
- >> Leakage-free mechanical seal, resulting in clean and water free surroundings.



Conventional casting



Mechanical seal

NX-VFC Fully loaded with advance functions

>> Quiet and ease of installation.

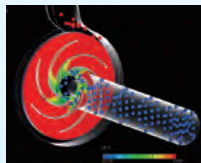
This system is aimed on the future by minimizing the burden on the environment.

Precision finish contributes to noise reduction.

As a result of the use of high precision stainless steel forging and pump fluid analysis and design with a 3-dimensional model, the noise generated by the pump has been substantially reduced. In addition, inverter control of pump speed reduces noise during low speed operation still more, thus allowing confident installation even in densely populated areas.

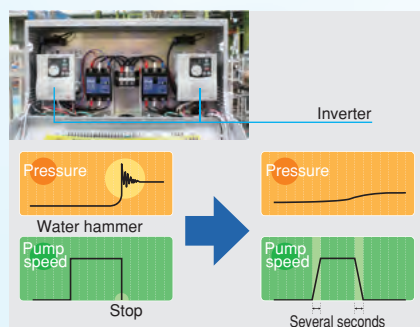


Silence check



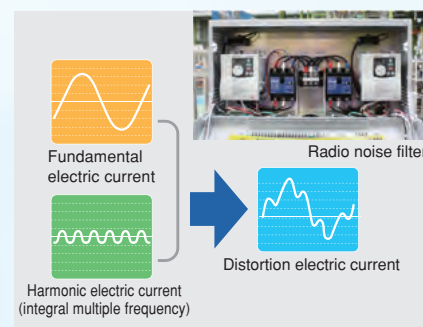
Inverter control reduces noise and also prevents water hammer.

The biggest advantage of inverter control is the low noise during starting and stopping. Soft start and stop also prevent water hammer by reducing the sudden pressure applied to the piping.



Complete harmonics countermeasures suppress ambient electromagnetic interference.

The harmonics generated by the inverter are reduced by various innovative measures and the unit and surrounding devices are protected against burnout. In addition, a radio noise filter is equipped as standard to further suppress ambient electromagnetic interference.



>> Operability and maintainability.

Easy-to-use interface continually improved by anticipating site needs.

Easy-to-use, easy-to-read operation panel.

Pump operating states such as pump operation mode, water tank and solenoid valve operation, various settings can be checked with one glance at the operation panel. Automatic operation can be continued with confidence. Most settings can also be made at the operation panel without opening the control panel cover. Maintenance ease is highly evaluated by maintenance personnel.



Various alarms and information are displayed on the operation panel.

Error information is displayed on the operation panel together with generation of a buzzer sound and Caution is raised. Because the error history of the last 5 errors can be called at any time, troublesome referencing of operation recordings is unnecessary. The operating time and accumulated number of time each pump was started, which are the criteria for consumables replacement, can also be displayed and action can be taken before trouble occurs.



Various innovations make maintenance easy.

Innovation of the layout of the control panel and its internal control devices make access to the inside of the control panel extremely easy.



that meet the needs of all users.

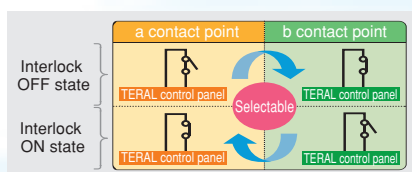


>> Advanced control and confidence.

Precision control and complete trouble countermeasures eliminate various operational misgivings.

Emergency stop, backup operation, and other trouble countermeasures are perfect.

An interlock function that protects the pump by automatically stopping it when trouble or a disaster occurs is provided. Five different emergency signal transmission patterns are available. The pattern most suitable for the environment and operation can be selected. The system is also equipped with an operation backup function that automatically switches to a standby pump if trouble is detected.



Retry function recovers from trouble by self-diagnosis.

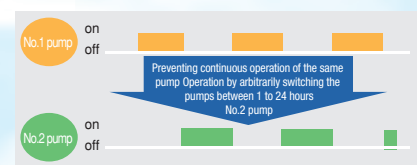
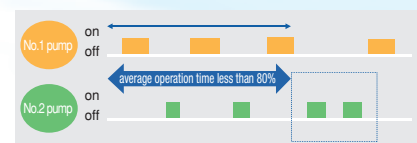
The unit is equipped with a retry function that emergency-stops the pump and immediately switches to backup operation

if a trouble is heavy, but repeats restarting and automatically recovers to normal operation if the problem is solved when the trouble is light. Since troubles are handled automatically, there is no inconvenience to the user and maintenance trouble and costs are also substantially reduced.

Various pump protection functions extend the life of the product.

A continuous operation prevention function that protects the pump by preventing continuous operation of the pump is provided. In addition, equalizing the operating time of 2 pumps is also possible by operating time equalization function. In addition, the life of the product is extended by racing prevention function that stops

operation beforehand when the water in the tank decreases, etc. and preventing large troubles in advance.



>> High quality and reliability.

The reliability that can be achieved due to the high quality of the product meets the requirements of the new age.

Absolute reliability based on severe standards.

Quality, performance, after-sales service — TERAL has played the role of an industry leader in positive improvement of quality and proposal of official certification standards within Japan. We have received extremely high praise from vary government agencies and consumers of Japan. The TERAL factory has also acquired the international quality management standard ISO9000 and is continuing efforts in quality management and improvement.

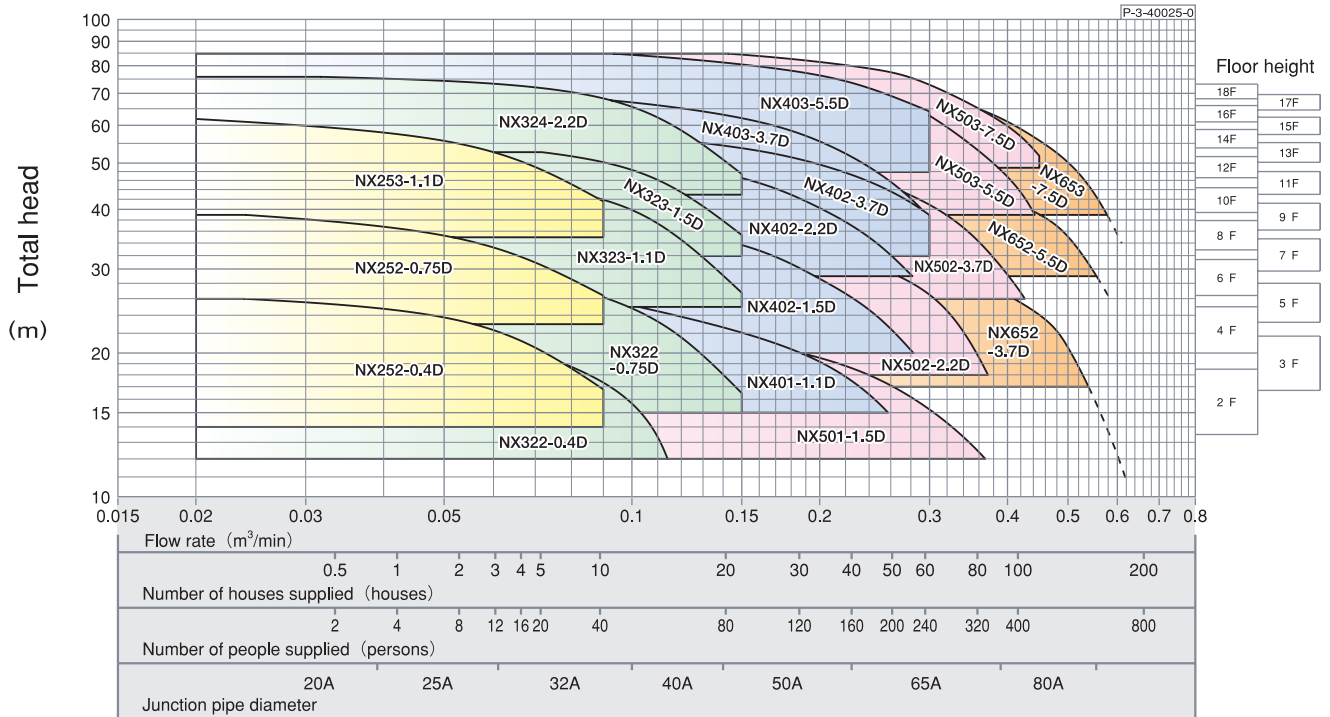
Consistent manufacture and service system with clear responsibilities.

Even if a system is assembled with a variety of parts, you can hardly ask for more than advanced control. When trouble occurs, determining the cause such as which part has failed or whether or not the control software is faulty is especially difficult. Since the <<NX-VFC Series>> is consistently manufactured and sold by TERAL, the area of responsibility is clear. There is almost no fear of the system stopping and water interruption continuing because the faulty part is quickly located and replaced with a spare based on our abundant experience in maintenance service.



NX-VFC-D Alternate

▼ Positive suction



(Notes)

1. Total head indicates the pump total head when the water level was made the standard instead of the pressure set value.
2. When selecting the model from the selection chart, calculate the total head based on the water level.
3. The pressure set value (total head and minimum sustained head) is the value with the head from the water level to the pressure transmitter installation position adjusted.
(When the water level is lower than the pressure transmitter installation position, only that portion is subtracted and when it is higher, only that portion is added.)

Suction conditions	Nominal dia. mm		Model	Output kW	Phase and voltage V	Standard specifications				Specifications range		Pressure tank loading MPa (kgf/m²)
	Pump suction	Unit discharge				Max. flow rate m³/min	Total head m	Min. sustained head m	Stop pressure (approximate value) MPa (kgf/m²)	Flow rate m³/min	Discharge head selection range m	
Positive suction	25	25	NX-VFC250-0.4D	0.4	3-phase, 380-440	0.06	22	19	0.24 (2.4)	0.02~0.09	14~26	0.12 (1.2)
			NX-VFC250-0.75D	0.75		0.06	33	28	0.32 (3.3)	0.02~0.09	23~39	0.20 (2.0)
			NX-VFC250-1.1D	1.1		0.06	52	44	0.51 (5.2)	0.02~0.09	35~62	0.30 (3.1)
	32	32	NX-VFC320-0.4D	0.4		0.10	15	13	0.18 (1.8)	0.02~0.11	12~21	0.10 (1.0)
			NX-VFC320-0.75D	0.75		0.10	24	20	0.25 (2.5)	0.02~0.15	15~26	0.12 (1.2)
			NX-VFC320-1.1D	1.1		0.10	40	34	0.39 (4.0)	0.02~0.15	25~42	0.22 (2.2)
			NX-VFC323-1.5D	1.5		0.10	48	41	0.47 (4.8)	0.02~0.15	32~53	0.27 (2.8)
			NX-VFC324-2.2D	2.2		0.10	65	55	0.64 (6.5)	0.02~0.15	43~76	0.37 (3.8)
			NX-VFC401-1.1D	1.1		0.20	19	16	0.21 (2.1)	0.02~0.25	15~26	0.12 (1.2)
	40	40	NX-VFC402-1.5D	1.5		0.20	28	24	0.28 (2.9)	0.02~0.28	20~34	0.17 (1.7)
			NX-VFC402-2.2D	2.2		0.20	40	34	0.39 (4.0)	0.02~0.28	29~48	0.25 (2.5)
			NX-VFC402-3.7D	3.7		0.20	49	42	0.48 (4.9)	0.02~0.30	32~57	0.27 (2.8)
			NX-VFC403-3.7D	3.7		0.20	55	47	0.54 (5.5)	0.02~0.30	39~70	0.33 (3.4)
			NX-VFC403-5.5D	5.5		0.20	76	65	0.75 (7.6)	0.02~0.30	48~85	0.42 (4.3)
			NX-VFC501-1.5D	1.5		0.30	15	13	0.18 (1.8)	0.02~0.36	12~20	0.10 (1.0)
	50	50	NX-VFC502-2.2D	2.2		0.30	26	22	0.26 (2.7)	0.02~0.37	18~31	0.15 (1.5)
			NX-VFC502-3.7D	3.7		0.30	41	35	0.40 (4.1)	0.02~0.42	26~47	0.23 (2.3)
			NX-VFC503-5.5D	5.5		0.30	61	52	0.60 (6.1)	0.02~0.44	39~64	0.34 (3.5)
			NX-VFC503-7.5D	7.5		0.30	73	62	0.72 (7.3)	0.02~0.45	49~85	0.42 (4.3)
			NX-VFC652-3.7D	3.7		0.45	24	20	0.25 (2.5)	0.02~0.54	17~31	0.15 (1.5)
			NX-VFC652-5.5D	5.5		0.45	39	33	0.38 (3.9)	0.02~0.55	29~48	0.25 (2.5)
	65	65	NX-VFC653-7.5D	7.5		0.45	55	47	0.54 (5.5)	0.02~0.58	39~64	0.34 (3.5)

Note 1) When the water level is more than 5m below the pump inlet, please consult us.

Note 2) The pressure tank loading may vary depending on the total discharge head.

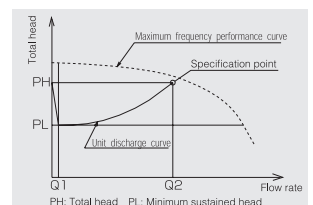
Note 3) 1kgf/cm²=0.098MPa.

How to read the selection chart and specifications table

1. The total head is displayed by the difference of the unit piping pressure loss subtracted from the pump performance.
2. The displayed head shows the case of 0 m push-in head. The value varies depending on the suction side conditions.
3. The discharge head specifications range is the settable range of the total head and minimum sustained head.

Description of operation (automatic alternate pump operation)

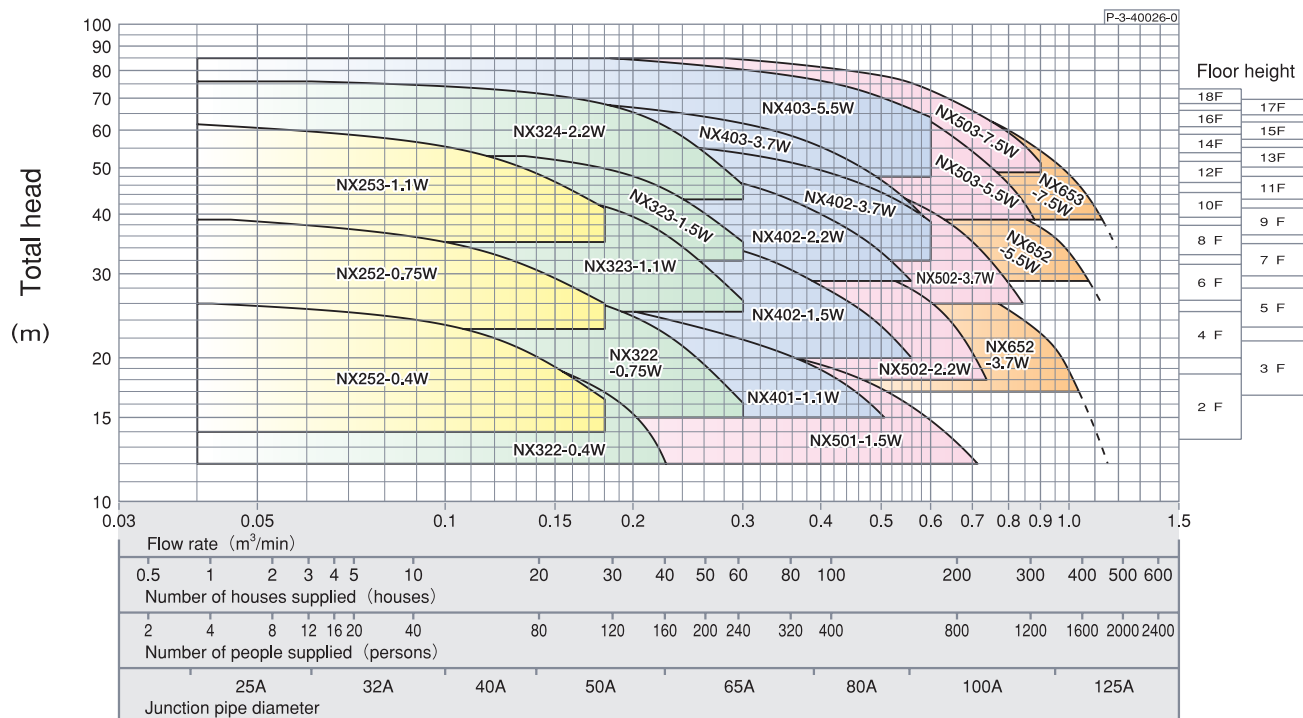
1. When water is not used, the pump stops.
2. When water is used and the pressure inside the piping drops below the specified pressure, the pump immediately starts.
3. Up to maximum flow rate Q2, the speed is controlled by an inverter to match the change of the amount of water used and estimated end pressure fixed control is implemented.
4. If the amount of water used decreases and drops below the specified flow rate for operation, the pump stops.
5. When water is used again, the pump that previously entered the standby state starts and the same operation as that described above is performed.



Selection chart / specifications table < Automatic parallel pump operation Positive suction >

NX-VFC-W_{Parallel}

▼ Positive suction



(Notes)

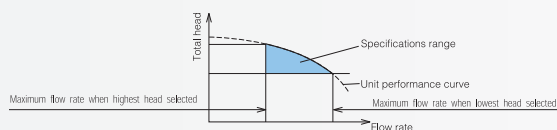
1. Total head indicates the pump total head when the water level was made the standard instead of the pressure set value.
2. When selecting the model from the selection chart, calculate the total head based on the water level.
3. The pressure set value (total head and minimum sustained head) is the value with the head from the water level to the pressure transmitter installation position adjusted.
(When the water level is lower than the pressure transmitter installation position, only that portion is subtracted and when it is higher, only that portion is added.)

Suction conditions	Nominal dia. mm		Model	Output kWx2	Phase and voltage V	Standard specifications				Specifications range		Pressure tank loading MPa (kgf/m²)
	Pump suction	Unit discharge				Max. flow rate m³/min	Total head m	Min. sustained head m	Stop pressure (approximate value) MPa (kgf/m²)	Flow rate m³/min	Discharge head selection range m	
Positive suction	25	40	NX-40VFC252-0.4W	0.4	3-phase, 380~440	0.12	22	19	0.24 (2.4)	0.04~0.18	14~26	0.12 (1.2)
			NX-40VFC252-0.75W	0.75		0.12	32	27	0.31 (3.2)	0.04~0.18	23~39	0.20 (2.0)
			NX-40VFC253-1.1W	1.1		0.12	52	44	0.51 (5.2)	0.04~0.18	35~62	0.30 (3.1)
			NX-50VFC322-0.4W	0.4		0.20	15	13	0.18 (1.8)	0.04~0.22	12~21	0.10 (1.0)
			NX-50VFC322-0.75W	0.75		0.20	24	20	0.25 (2.5)	0.04~0.30	15~26	0.12 (1.2)
			NX-50VFC323-1.1W	1.1		0.20	39	33	0.38 (3.9)	0.04~0.30	25~42	0.22 (2.2)
	32	50	NX-50VFC323-1.5W	1.5		0.20	48	41	0.47 (4.8)	0.04~0.30	32~53	0.27 (2.8)
			NX-50VFC324-2.2W	2.2		0.20	65	55	0.64 (6.5)	0.04~0.30	43~76	0.37 (3.8)
			NX-65VFC401-1.1W	1.1		0.40	18	15	0.20 (2.0)	0.04~0.50	15~26	0.12 (1.2)
			NX-65VFC402-1.5W	1.5		0.40	28	24	0.28 (2.9)	0.04~0.56	20~34	0.17 (1.7)
			NX-65VFC402-2.2W	2.2		0.40	40	34	0.39 (4.0)	0.04~0.56	29~48	0.25 (2.5)
			NX-65VFC402-3.7W	3.7		0.40	49	42	0.48 (4.9)	0.04~0.60	32~57	0.27 (2.8)
	40	65	NX-65VFC403-3.7W	3.7		0.40	55	47	0.54 (5.5)	0.04~0.60	39~70	0.33 (3.4)
			NX-65VFC403-5.5W	5.5		0.40	76	65	0.75 (7.6)	0.04~0.60	48~85	0.42 (4.3)
			NX-65VFC501-1.5W	1.5		0.60	14	12	0.17 (1.7)	0.04~0.71	12~20	0.10 (1.0)
			NX-65VFC502-2.2W	2.2		0.60	26	22	0.26 (2.7)	0.04~0.73	18~31	0.15 (1.5)
			NX-65VFC502-3.7W	3.7		0.60	40	34	0.39 (4.0)	0.04~0.84	26~47	0.23 (2.3)
			NX-65VFC503-5.5W	5.5		0.60	61	52	0.60 (6.1)	0.04~0.87	39~64	0.34 (3.5)
	50	65	NX-65VFC503-7.5W	7.5		0.60	73	62	0.72 (7.3)	0.04~0.90	49~85	0.42 (4.3)
			NX-80VFC652-3.7W	3.7		0.90	22	19	0.24 (2.4)	0.04~1.04	17~31	0.15 (1.5)
			NX-80VFC652-5.5W	5.5		0.90	37	31	0.36 (3.7)	0.04~1.07	29~48	0.25 (2.5)
			NX-80VFC653-7.5W	7.5		0.90	54	46	0.53 (5.4)	0.04~1.12	39~64	0.34 (3.5)

Note 1) When the water level is more than 5m below the pump inlet, please consult us.

Note 2) The pressure tank loading may vary depending on the total discharge head.

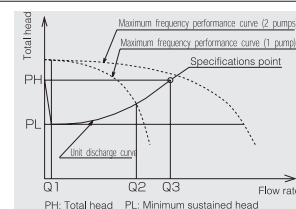
Note 3) 1kgf/cm²=0.098MPa.



Selection chart display range

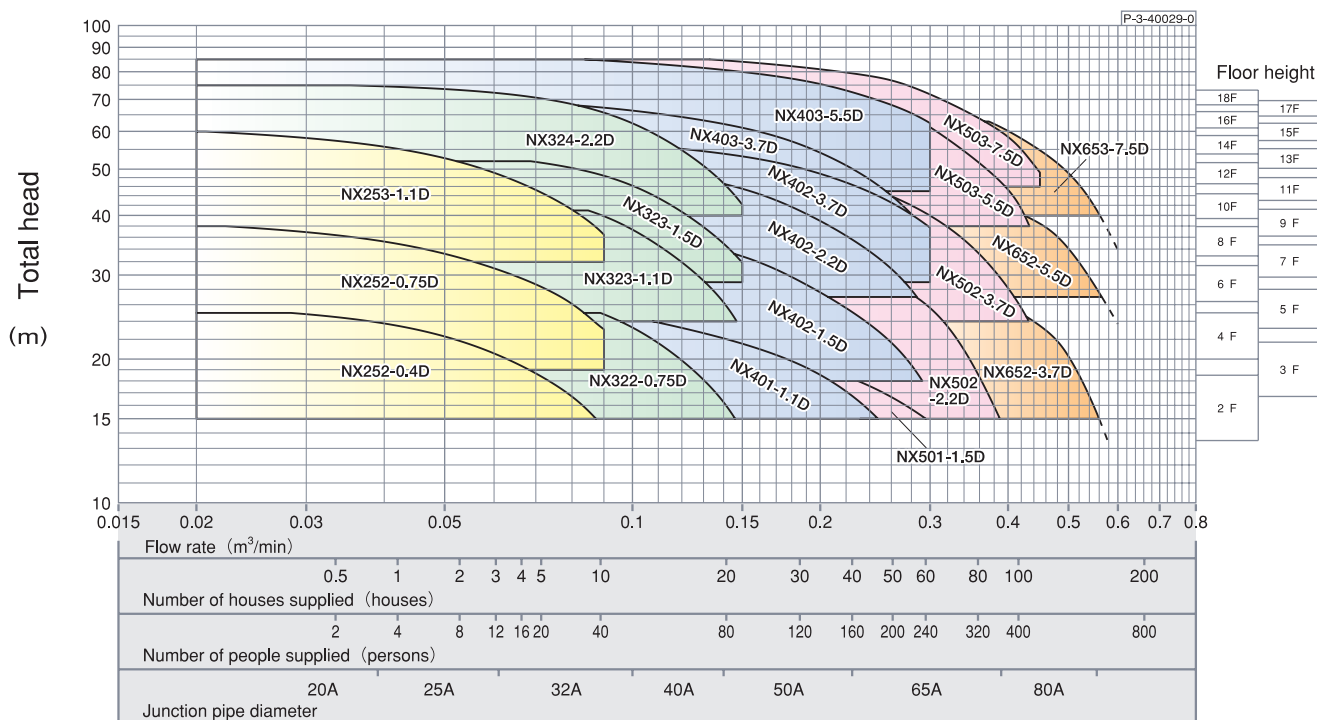
Description of operation
(Automatic alternate and parallel pump operation)

1. When water is not used, the pump stops.
2. When water is used and the pressure in the piping drops below the specified pressure, the pump is immediately started.
3. Up to maximum flow rate Q3, the speed is controlled by an inverter to match the change of the amount of water used and estimated end pressure fixed control is implemented.
4. When the amount of water used during independent operation increases and reaches parallel flow rate Q2, the pump that is standing by is tracking started and estimated end pressure fixed control is continued.
5. When the amount of water used drops below the parallel flow rate Q2 during parallel operation, the pump that was tracking started is stopped.
6. When the amount of water used during independent operation drops below the specified flow rate, the pump stops.
7. When water is used again, the pump that was previously standing by starts and the same operation as that described above is performed.



NX-VFC-D Alternate

▼ Negative suction



(Notes)

- Total head indicates the pump total head when the water level was made the standard instead of the pressure set value.
- When selecting the model from the selection chart, calculate the total head based on the water level.
- The pressure set value (total head and minimum sustained head) is the value with the head from the water level to the pressure transmitter installation position adjusted. (When the water level is lower than the pressure transmitter installation position, only that portion is subtracted and when it is higher, only that portion is added.)

Suction conditions	Nominal dia. mm		Model	Output kW	Phase and voltage V	Standard specifications				Specifications range		Pressure tank loading MPa (kgf/m ²)
	Pump suction	Unit discharge				Max. flow rate m ³ /min	Total head m	Min. sustained head m	Stop pressure (approximate value) MPa (kgf/m ²)	Flow rate m ³ /min	Discharge head selection range m	
Negative suction	25	25	NX-VFC252-0.4D	0.4	3-phase, 380-440	0.06	21	18	0.23 (2.3)	0.02~0.085	15~25	0.09 (0.9)
			NX-VFC252-0.75D	0.75		0.06	31	26	0.30 (3.1)	0.02~0.09	19~38	0.17 (1.7)
			NX-VFC253-1.1D	1.1		0.06	52	44	0.51 (5.2)	0.02~0.09	32~60	0.27 (2.8)
	32	32	NX-VFC322-0.75D	0.75		0.10	23	20	0.25 (2.5)	0.02~0.14	15~25	0.12 (1.2)
			NX-VFC323-1.1D	1.1		0.10	37	31	0.36 (3.7)	0.02~0.14	24~41	0.21 (2.1)
			NX-VFC323-1.5D	1.5		0.10	46	39	0.45 (4.6)	0.02~0.15	29~52	0.25 (2.5)
			NX-VFC324-2.2D	2.2		0.10	62	53	0.61 (6.2)	0.02~0.15	40~75	0.34 (3.5)
			NX-VFC401-1.1D	1.1		0.20	18	15	0.20 (2.0)	0.02~0.24	15~25	0.10 (1.0)
			NX-VFC402-1.5D	1.5		0.20	27	23	0.27 (2.8)	0.02~0.29	18~34	0.16 (1.6)
	40	40	NX-VFC402-2.2D	2.2		0.20	38	32	0.37 (3.8)	0.02~0.28	27~48	0.24 (2.4)
			NX-VFC402-3.7D	3.7		0.20	48	41	0.47 (4.8)	0.02~0.30	29~57	0.25 (2.5)
			NX-VFC403-3.7D	3.7		0.20	54	46	0.53 (5.4)	0.02~0.30	36~70	0.31 (3.2)
			NX-VFC403-5.5D	5.5		0.20	73	62	0.72 (7.3)	0.02~0.30	45~85	0.39 (4.0)
			NX-VFC501-1.5D	1.5		0.29	15	13	0.18 (1.8)	0.02~0.29	15~20	0.07 (0.7)
			NX-VFC502-2.2D	2.2		0.30	25	21	0.25 (2.6)	0.02~0.38	15~31	0.13 (1.3)
	50	50	NX-VFC502-3.7D	3.7		0.30	40	34	0.39 (4.0)	0.02~0.44	23~47	0.20 (2.0)
			NX-VFC503-5.5D	5.5		0.30	61	52	0.60 (6.1)	0.02~0.43	38~64	0.33 (3.4)
			NX-VFC503-7.5D	7.5		0.30	71	60	0.70 (7.1)	0.02~0.45	46~85	0.40 (4.1)
			NX-VFC652-3.7D	3.7		0.45	23	20	0.25 (2.5)	0.02~0.56	15~31	0.12 (1.2)
			NX-VFC652-5.5D	5.5		0.45	39	33	0.38 (3.9)	0.02~0.56	27~47	0.24 (2.4)
			NX-VFC653-7.5D	7.5		0.45	54	46	0.53 (5.4)	0.02~0.56	40~63	0.34 (3.5)

Note 1) At water temperature 20°C, the suction head becomes total head -6m (actual head -4m).

Note 2) The pressure tank loading may vary depending on the total discharge head.

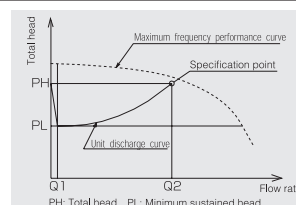
Note 3) 1kgf/cm²=0.098MPa.

How to read the selection chart and specifications table

- The total head is displayed by the difference of the unit piping pressure loss subtracted from the pump performance.
- The displayed head shows the case of 0 m push-in head. The value varies depending on the suction side conditions.
- The discharge head specifications range is the settable range of the total head and minimum sustained head.

Description of operation (automatic alternate pump operation)

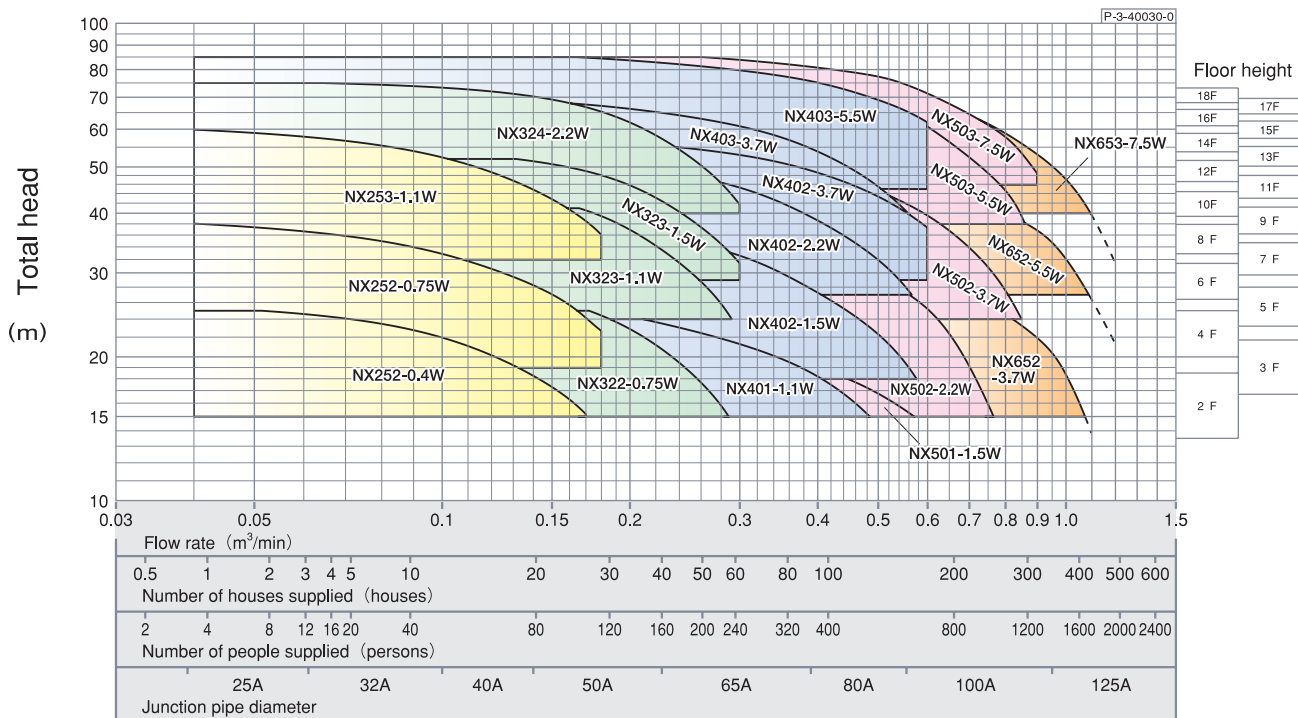
- When water is not used, the pump stops.
- When water is used and the pressure inside the piping drops below the specified pressure, the pump immediately starts.
- Up to maximum flow rate Q2, the speed is controlled by an inverter to match the change of the amount of water used and estimated end pressure fixed control is implemented.
- If the amount of water used decreases and drops below the specified flow rate for operation, the pump stops.
- When water is used again, the pump that previously entered the standby state starts and the same operation as that described above is performed.



Selection chart / specifications table < Automatic parallel pump operation Negative suction >

NX-VFC-W_{Parallel}

▼ Negative suction



(Notes)

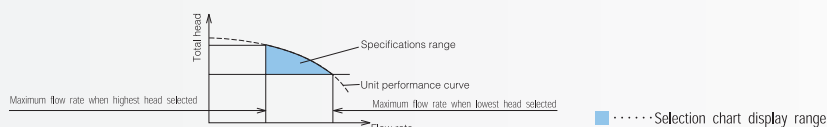
1. Total head indicates the pump total head when the water level was made the standard instead of the pressure set value.
2. When selecting the model from the selection chart, calculate the total head based on the water level.
3. The pressure set value (total head and minimum sustained head) is the value with the head from the water level to the pressure transmitter installation position adjusted.
(When the water level is lower than the pressure transmitter installation position, only that portion is subtracted and when it is higher, only that portion is added.)

Suction conditions	Nominal dia. mm		Model	Output kWx2	Phase and voltage V	Standard specifications				Specifications range		Pressure tank loading MPa (kgf/m²)
	Pump suction	Unit discharge				Max. flow rate m³/min	Total head m	Min. sustained head m	Stop pressure (approximate value) MPa (kgf/m²)	Flow rate m³/min	Discharge head selection range m	
Negative suction	25	40	NX-40VFC252-0.4W	0.4	3-phase, 380-440	0.12	20	17	0.22 (2.2)	0.04~0.17	15~25	0.09 (0.9)
			NX-40VFC252-0.75W	0.75		0.12	30	26	0.30 (3.1)	0.04~0.18	19~38	0.17 (1.7)
			NX-40VFC253-1.1W	1.1		0.12	48	41	0.47 (4.8)	0.04~0.18	32~60	0.27 (2.8)
		50	NX-50VFC322-0.75W	0.75		0.20	23	20	0.25 (2.5)	0.04~0.28	15~25	0.12 (1.2)
			NX-50VFC323-1.1W	1.1		0.20	37	31	0.36 (3.7)	0.04~0.29	24~41	0.21 (2.1)
			NX-50VFC323-1.5W	1.5		0.20	45	38	0.44 (4.5)	0.04~0.30	29~52	0.25 (2.5)
	40	65	NX-50VFC324-2.2W	2.2		0.20	62	53	0.61 (6.2)	0.04~0.30	40~75	0.34 (3.5)
			NX-65VFC401-1.1W	1.1		0.40	18	15	0.20 (2.0)	0.04~0.48	15~25	0.10 (1.0)
			NX-65VFC402-1.5W	1.5		0.40	27	23	0.27 (2.8)	0.04~0.57	18~34	0.16 (1.6)
			NX-65VFC402-2.2W	2.2		0.40	38	32	0.37 (3.8)	0.04~0.56	27~48	0.24 (2.4)
			NX-65VFC402-3.7W	3.7		0.40	48	41	0.47 (4.8)	0.04~0.60	29~57	0.25 (2.5)
			NX-65VFC403-3.7W	3.7		0.40	54	46	0.53 (5.4)	0.04~0.60	36~70	0.31 (3.2)
		80	NX-65VFC403-5.5W	5.5		0.40	73	62	0.72 (7.3)	0.04~0.60	45~85	0.39 (4.0)
			NX-65VFC501-1.5W	1.5		0.57	14	12	0.17 (1.7)	0.04~0.57	15~20	0.07 (0.7)
			NX-65VFC502-2.2W	2.2		0.60	25	21	0.25 (2.6)	0.04~0.76	15~31	0.13 (1.3)
			NX-65VFC502-3.7W	3.7		0.60	39	33	0.38 (3.9)	0.04~0.85	23~47	0.20 (2.0)
			NX-65VFC503-5.5W	5.5		0.60	60	51	0.59 (6.0)	0.04~0.86	38~64	0.33 (3.4)
			NX-65VFC503-7.5W	7.5		0.60	71	60	0.70 (7.1)	0.04~0.90	46~85	0.40 (4.1)
	65	80	NX-80VFC652-3.7W	3.7		0.90	22	19	0.24 (2.4)	0.04~1.06	15~31	0.12 (1.2)
			NX-80VFC652-5.5W	5.5		0.90	36	31	0.35 (3.6)	0.04~1.08	27~47	0.24 (2.4)
			NX-80VFC653-7.5W	7.5		0.90	53	45	0.52 (5.3)	0.04~1.10	40~63	0.34 (3.5)

Note 1) At water temperature 20°C, the suction head becomes total head ~6m (actual head ~4m).

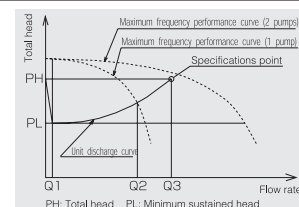
Note 2) The pressure tank loading may vary depending on the total discharge head.

Note 3) 1kgf/cm²=0.098MPa.



Description of operation
(Automatic alternate and parallel pump operation)

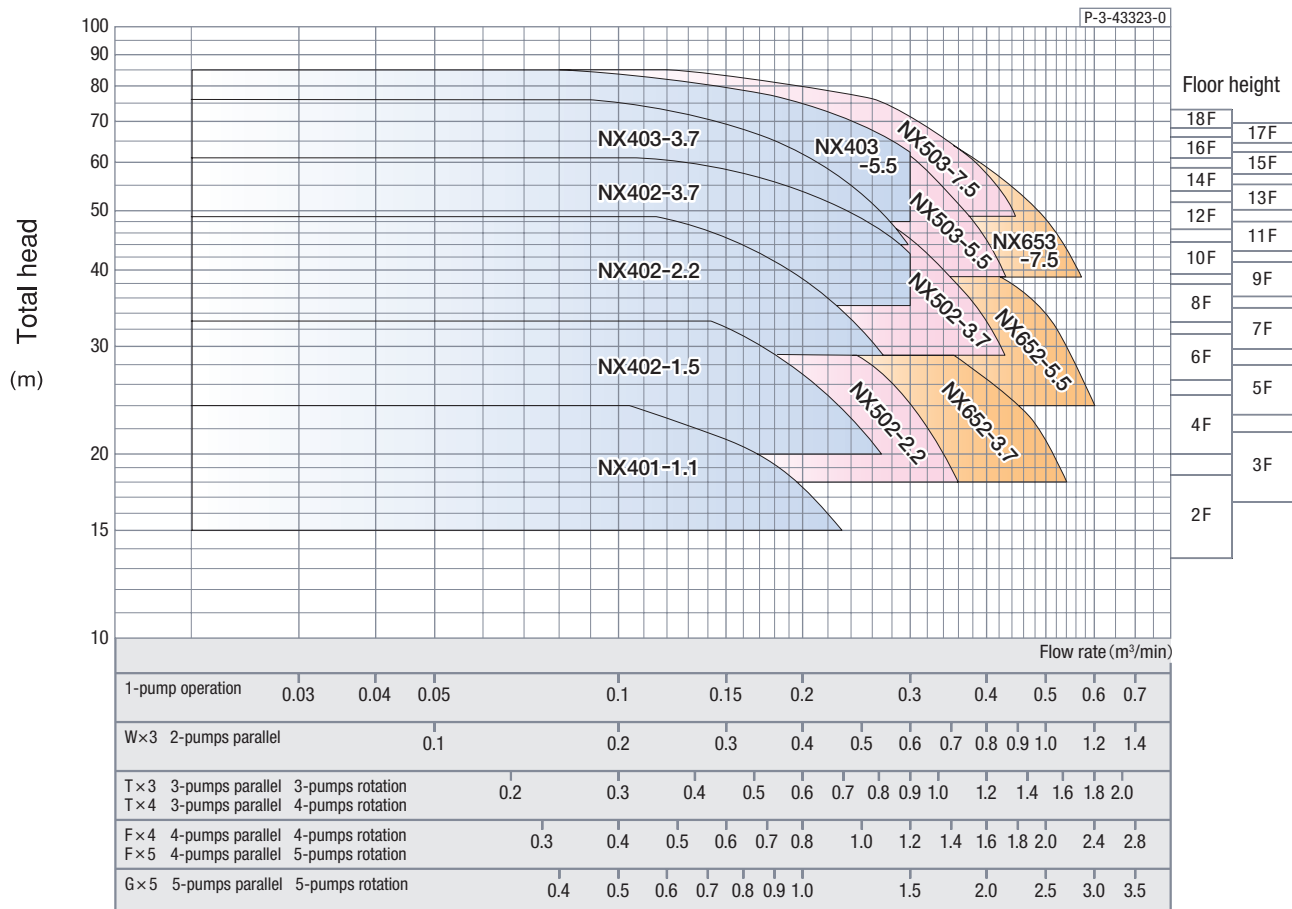
1. When water is not used, the pump stops.
2. When water is used and the pressure in the piping drops below the specified pressure, the pump is immediately started.
3. Up to maximum flow rate Q3, the speed is controlled by an inverter to match the change of the amount of water used and estimated end pressure fixed control is implemented.
4. When the amount of water used during independent operation increases and reaches parallel flow rate Q2, the pump that is standing by is tracking started and estimated end pressure fixed control is continued.
5. When the amount of water used drops below the parallel flow rate Q2 during parallel operation, the pump that was tracking started is stopped.
6. When the amount of water used during independent operation drops below the specified flow rate, the pump stops.
7. When water is used again, the pump that was previously standing by starts and the same operation as that described above is performed.



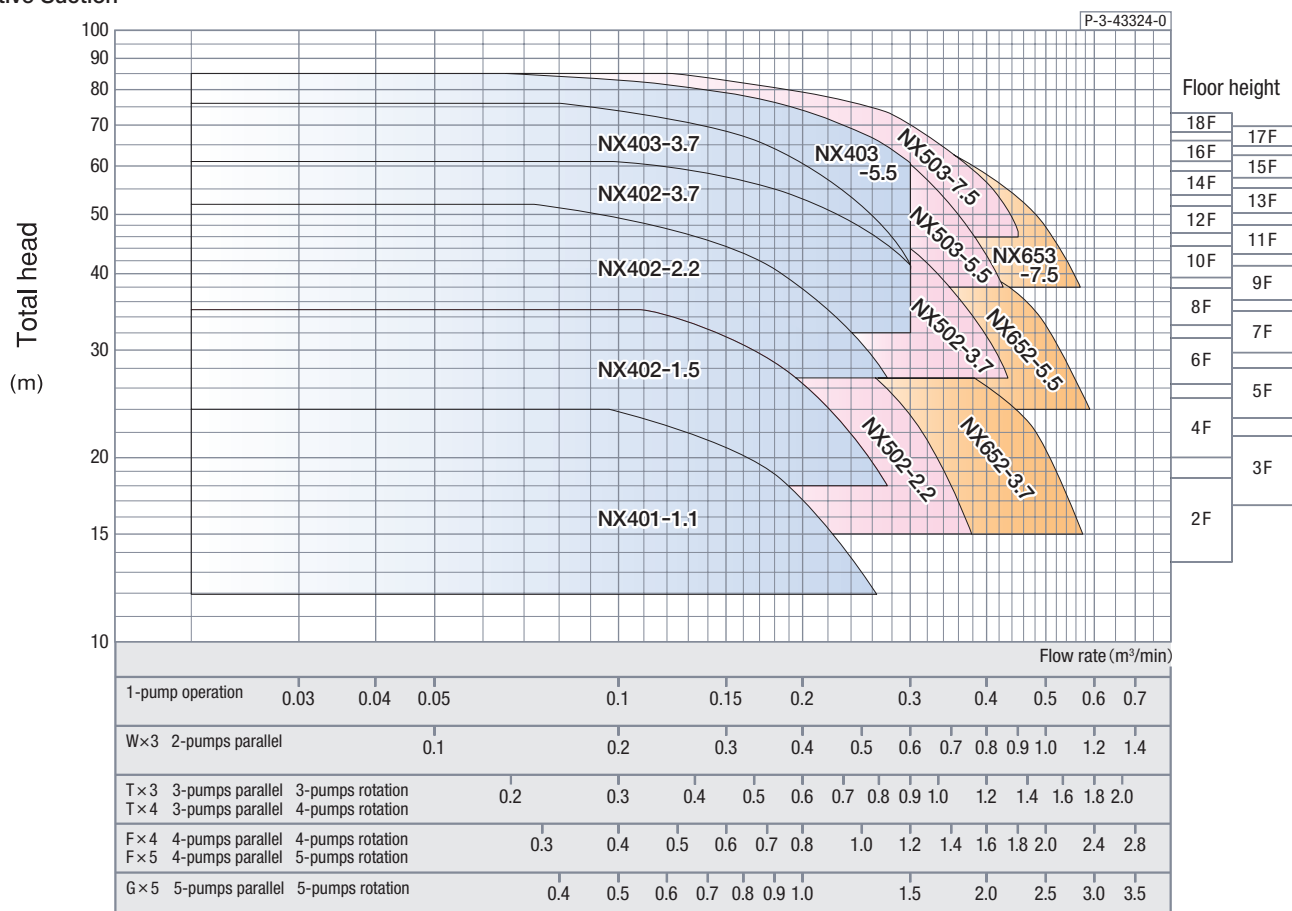
Selection chart < Multiple pump control >

NX-VFC-Wx3 2-Pumps Parallel / 3-Pumps Rotation / **Tx3** 3-Pumps Parallel / 3-Pumps Rotation / **Tx4** 3-Pumps Parallel / 4-Pumps Rotation / **Fx4** 4-Pumps Parallel / 4-Pumps Rotation / **Fx5** 4-Pumps Parallel / 5-Pumps Rotation / **Gx5** 5-Pumps Parallel / 5-Pumps Rotation

▼ Positive suction



▼ Negative Suction



Specifications table < Multiple pump control >

NX-VFC-Wx3 2-Pumps Parallel / 3-Pumps Rotation / **Tx3** 3-Pumps Parallel / 3-Pumps Rotation / **Tx4** 3-Pumps Parallel / 4-Pumps Rotation / **Fx4** 4-Pumps Parallel / 4-Pumps Rotation / **Fx5** 4-Pumps Parallel / 5-Pumps Rotation / **Gx5** 5-Pumps Parallel / 5-Pumps Rotation

▼ Positive suction

Suction condition	Diameter (mm)		Model	Output (kW)	Phase and Voltage	Standard Specifications					Specified range		Pressure tank loading MPa(kgf/cm ²)
	Pump suction	Unit discharge				Max. flow rate (m ³ /min)	Total head (m)	Min. sustained head (m)	Stop pressure (approximate value)		Flow rate (m ³ /min)	Discharge head selection range(m)	
Positive suction	40	65	2-Pumps Parallel	NX-65VFC401-1.1Wx3	1.1	0.4	17	14	0.19	(1.9)	0.04~0.46	15~24	0.12 (1.2)
				NX-65VFC402-1.5Wx3	1.5	0.4	27	23	0.27	(2.8)	0.04~0.53	20~33	0.17 (1.7)
				NX-65VFC402-2.2Wx3	2.2	0.4	38	32	0.37	(3.8)	0.04~0.54	29~49	0.25 (2.5)
				NX-65VFC402-3.7Wx3	3.7	0.4	53	45	0.52	(5.3)	0.04~0.60	35~61	0.30 (3.1)
				NX-65VFC403-3.7Wx3	3.7	0.4	61	52	0.60	(6.1)	0.04~0.59	44~76	0.38 (3.9)
				NX-65VFC403-5.5Wx3	5.5	0.4	74	63	0.73	(7.4)	0.04~0.60	48~85	0.42 (4.3)
				NX-65VFC502-2.2Wx3	2.2	0.6	24	20	0.25	(2.5)	0.04~0.71	18~29	0.15 (1.5)
				NX-65VFC502-3.7Wx3	3.7	0.6	45	38	0.44	(4.5)	0.04~0.85	29~47	0.25 (2.6)
				NX-65VFC503-5.5Wx3	5.5	0.6	61	52	0.60	(6.1)	0.04~0.85	39~61	0.34 (3.5)
				NX-65VFC503-7.5Wx3	7.5	0.6	71	60	0.70	(7.1)	0.04~0.89	49~85	0.42 (4.3)
				NX-80VFC652-3.7Wx3	3.7	1.0	21	18	0.23	(2.3)	0.04~1.08	18~29	0.15 (1.5)
				NX-80VFC652-5.5Wx3	5.5	1.0	34	29	0.33	(3.4)	0.04~1.20	24~39	0.21 (2.1)
	50	80	2-Pumps Parallel	NX-80VFC653-7.5Wx3	7.5	1.0	48	41	0.47	(4.8)	0.04~1.14	39~64	0.34 (3.5)
				NX-80VFC401-1.1Tx3(4)	1.1	0.6	17	14	0.19	(1.9)	0.06~0.69	15~24	0.12 (1.2)
				NX-80VFC402-1.5Tx3(4)	1.5	0.6	27	23	0.27	(2.8)	0.06~0.80	20~33	0.17 (1.7)
				NX-80VFC402-2.2Tx3(4)	2.2	0.6	38	32	0.37	(3.8)	0.06~0.81	29~49	0.25 (2.5)
				NX-80VFC402-3.7Tx3(4)	3.7	0.6	53	45	0.52	(5.3)	0.06~0.90	35~61	0.30 (3.1)
				NX-80VFC403-3.7Tx3(4)	3.7	0.6	61	52	0.60	(6.1)	0.06~0.89	44~76	0.38 (3.9)
				NX-80VFC403-5.5Tx3(4)	5.5	0.6	74	63	0.73	(7.4)	0.06~0.90	48~85	0.42 (4.3)
				NX-100VFC502-2.2Tx3(4)	2.2	0.9	24	20	0.25	(2.5)	0.06~1.07	18~29	0.15 (1.5)
				NX-100VFC502-3.7Tx3(4)	3.7	0.9	45	38	0.44	(4.5)	0.06~1.28	29~47	0.25 (2.6)
				NX-100VFC503-5.5Tx3(4)	5.5	0.9	61	52	0.60	(6.1)	0.06~1.29	39~61	0.34 (3.5)
				NX-100VFC503-7.5Tx3(4)	7.5	0.9	71	60	0.70	(7.1)	0.06~1.33	49~85	0.42 (4.3)
				NX-125VFC652-3.7Tx3(4)	3.7	1.5	21	18	0.23	(2.3)	0.06~1.62	18~29	0.15 (1.5)
	65	125	3-Pumps Parallel	NX-125VFC652-5.5Tx3(4)	5.5	1.5	34	29	0.33	(3.4)	0.06~1.80	24~39	0.21 (2.1)
				NX-125VFC653-7.5Tx3(4)	7.5	1.5	48	41	0.47	(4.8)	0.06~1.71	39~64	0.34 (3.5)
				NX-80VFC401-1.1Fx4(5)	1.1	0.8	17	14	0.19	(1.9)	0.08~0.92	15~24	0.12 (1.2)
				NX-80VFC402-1.5Fx4(5)	1.5	0.8	27	23	0.27	(2.8)	0.08~1.07	20~33	0.17 (1.7)
				NX-80VFC402-2.2Fx4(5)	2.2	0.8	38	32	0.37	(3.8)	0.08~1.08	29~49	0.25 (2.5)
				NX-80VFC402-3.7Fx4(5)	3.7	0.8	53	45	0.52	(5.3)	0.08~1.20	35~61	0.30 (3.1)
				NX-80VFC403-3.7Fx4(5)	3.7	0.8	61	52	0.60	(6.1)	0.08~1.19	44~76	0.38 (3.9)
				NX-80VFC403-5.5Fx4(5)	5.5	0.8	74	63	0.73	(7.4)	0.08~1.20	48~85	0.42 (4.3)
				NX-100VFC502-2.2Fx4(5)	2.2	1.2	24	20	0.25	(2.5)	0.08~1.43	18~29	0.15 (1.5)
				NX-100VFC502-3.7Fx4(5)	3.7	1.2	45	38	0.44	(4.5)	0.08~1.71	29~47	0.25 (2.6)
				NX-100VFC503-5.5Fx4(5)	5.5	1.2	61	52	0.60	(6.1)	0.08~1.71	39~61	0.34 (3.5)
				NX-100VFC503-7.5Fx4(5)	7.5	1.2	71	60	0.70	(7.1)	0.08~1.78	49~85	0.42 (4.3)
	50	100	4-Pumps Parallel	NX-125VFC652-3.7Fx4(5)	3.7	2.0	21	18	0.23	(2.3)	0.08~2.16	18~29	0.15 (1.5)
				NX-125VFC652-5.5Fx4(5)	5.5	2.0	34	29	0.33	(3.4)	0.08~2.40	24~39	0.21 (2.1)
				NX-125VFC653-7.5Fx4(5)	7.5	2.0	48	41	0.47	(4.8)	0.08~2.28	39~64	0.34 (3.5)
				NX-100VFC401-1.1Gx5	1.1	1.0	17	14	0.19	(1.9)	0.1~1.15	15~24	0.12 (1.2)
				NX-100VFC402-1.5Gx5	1.5	1.0	27	23	0.27	(2.8)	0.1~1.34	20~33	0.17 (1.7)
				NX-100VFC402-2.2Gx5	2.2	1.0	38	32	0.37	(3.8)	0.1~1.35	29~49	0.25 (2.5)
				NX-100VFC402-3.7Gx5	3.7	1.0	53	45	0.52	(5.3)	0.1~1.50	35~61	0.30 (3.1)
				NX-100VFC403-3.7Gx5	3.7	1.0	61	52	0.60	(6.1)	0.1~1.48	44~76	0.38 (3.9)
				NX-100VFC403-5.5Gx5	5.5	1.0	74	63	0.73	(7.4)	0.1~1.50	48~85	0.42 (4.3)
				NX-125VFC502-2.2Gx5	2.2	1.5	24	20	0.25	(2.5)	0.1~1.79	18~29	0.15 (1.5)
				NX-125VFC502-3.7Gx5	3.7	1.5	45	38	0.44	(4.5)	0.1~2.14	29~47	0.25 (2.6)
				NX-125VFC503-5.5Gx5	5.5	1.5	61	52	0.60	(6.1)	0.1~2.14	39~61	0.34 (3.5)
	65	150	5-Pumps Parallel	NX-125VFC503-7.5Gx5	7.5	1.5	71	60	0.70	(7.1)	0.1~2.23	49~85	0.42 (4.3)
				NX-150VFC652-3.7Gx5	3.7	2.5	21	18	0.23	(2.3)	0.1~2.70	18~29	0.15 (1.5)
				NX-150VFC652-5.5Gx5	5.5	2.5	34	29	0.33	(3.4)	0.1~3.00	24~39	0.21 (2.1)
				NX-150VFC653-7.5Gx5	7.5	2.5	48	41	0.47	(4.8)	0.1~2.85	39~64	0.34 (3.5)

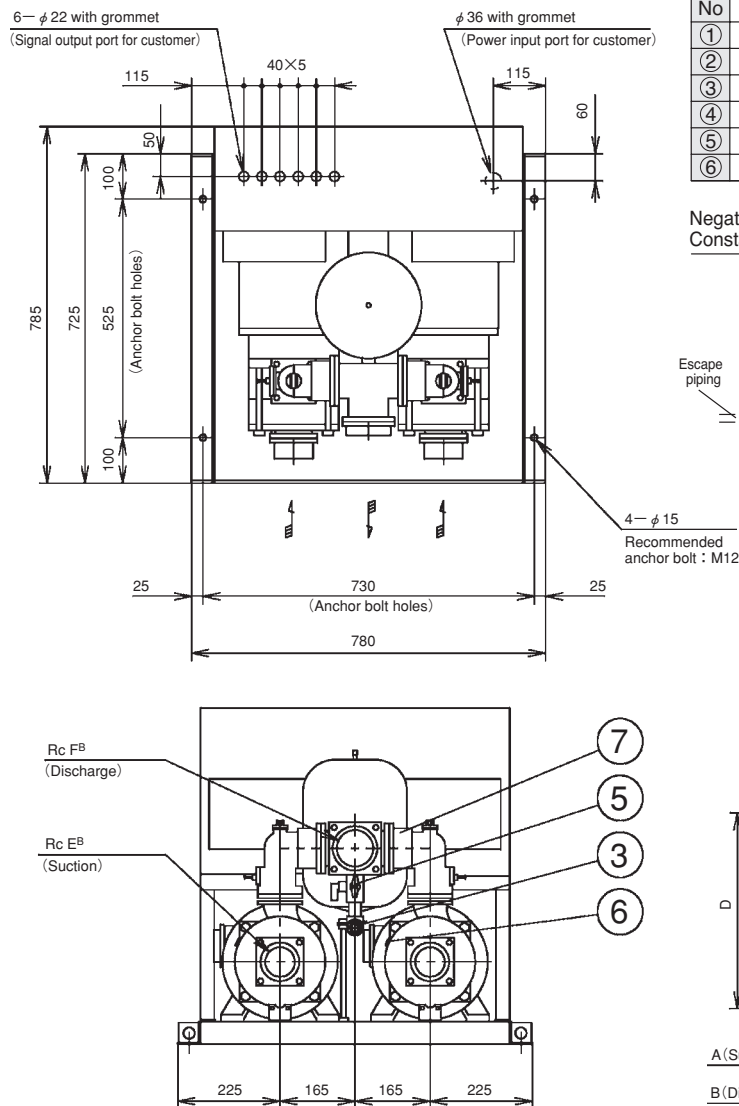
▼ Negative Suction

Suction condition	Diameter (mm)		Model	Output (kW)	Phase and Voltage	Standard Specifications				Specified range		Pressure tank loading MPa (kgf/cm²)	
	Pump suction	Unit discharge				Max. flow rate (m³/min)	Total head (m)	Min. sustained head (m)	Stop pressure (approximate value)	Flow rate (m³/min)	Discharge head selection range (m)		
Negative Suction	40	65	2-Pumps Parallel	NX-65VFC401-1.1Wx3	1.1	0.4	17	14	0.19	(1.9)	0.04~0.52	12~24	0.10 (1.0)
				NX-65VFC402-1.5Wx3	1.5	0.4	26	22	0.26	(2.7)	0.04~0.54	18~35	0.16 (1.6)
				NX-65VFC402-2.2Wx3	2.2	0.4	37	31	0.36	(3.7)	0.04~0.54	27~52	0.24 (2.4)
				NX-65VFC402-3.7Wx3	3.7	0.4	53	45	0.52	(5.3)	0.04~0.60	32~61	0.28 (2.9)
				NX-65VFC403-3.7Wx3	3.7	0.4	60	51	0.59	(6.0)	0.04~0.60	41~76	0.35 (3.6)
				NX-65VFC403-5.5Wx3	5.5	0.4	73	62	0.72	(7.3)	0.04~0.60	41~85	0.39 (4.0)
	50	80		NX-65VFC502-2.2Wx3	2.2	0.6	23	20	0.25	(2.5)	0.04~0.75	15~27	0.13 (1.3)
				NX-65VFC502-3.7Wx3	3.7	0.6	43	37	0.42	(4.3)	0.04~0.86	27~43	0.24 (2.4)
				NX-65VFC503-5.5Wx3	5.5	0.6	60	51	0.59	(6.0)	0.04~0.85	38~60	0.33 (3.4)
				NX-65VFC503-7.5Wx3	7.5	0.6	70	60	0.69	(7.0)	0.04~0.89	46~85	0.40 (4.1)
				NX-80VFC652-3.7Wx3	3.7	1.0	20	17	0.22	(2.2)	0.04~1.14	15~27	0.13 (1.3)
				NX-80VFC652-5.5Wx3	5.5	1.0	32	27	0.31	(3.2)	0.04~1.18	24~38	0.21 (2.1)
	65	100	NX-80VFC653-7.5Wx3	7.5	1.0	47	40	0.46	(4.7)	0.04~1.13	38~62	0.33 (3.4)	
			3-Pumps Parallel	NX-80VFC401-1.1Tx3(4)	1.1	0.6	17	14	0.19	(1.9)	0.06~0.79	12~24	0.10 (1.0)
				NX-80VFC402-1.5Tx3(4)	1.5	0.6	26	22	0.26	(2.7)	0.06~0.82	18~35	0.16 (1.6)
				NX-80VFC402-2.2Tx3(4)	2.2	0.6	37	31	0.36	(3.7)	0.06~0.82	27~52	0.24 (2.4)
				NX-80VFC402-3.7Tx3(4)	3.7	0.6	53	45	0.52	(5.3)	0.06~0.90	32~61	0.28 (2.9)
				NX-80VFC403-3.7Tx3(4)	3.7	0.6	60	51	0.59	(6.0)	0.06~0.90	41~76	0.35 (3.6)
	NX-80VFC403-5.5Tx3(4)	5.5		0.6	73	62	0.72	(7.3)	0.06~0.90	41~85	0.39 (4.0)		
	NX-100VFC502-2.2Tx3(4)	2.2		0.9	23	20	0.25	(2.5)	0.06~1.13	15~27	0.13 (1.3)		
	NX-100VFC502-3.7Tx3(4)	3.7		0.9	43	37	0.42	(4.3)	0.06~1.30	27~43	0.24 (2.4)		
	NX-100VFC503-5.5Tx3(4)	5.5		0.9	60	51	0.59	(6.0)	0.06~1.27	38~60	0.33 (3.4)		
	NX-100VFC503-7.5Tx3(4)	7.5		0.9	70	60	0.69	(7.0)	0.06~1.35	46~85	0.40 (4.1)		
	65	125		NX-125VFC652-3.7Tx3(4)	3.7	1.5	20	17	0.22	(2.2)	0.06~1.72	15~27	0.13 (1.3)
				NX-125VFC652-5.5Tx3(4)	5.5	1.5	32	27	0.31	(3.2)	0.06~1.76	24~38	0.21 (2.1)
NX-125VFC653-7.5Tx3(4)			7.5	1.5	47	40	0.46	(4.7)	0.06~1.70	38~62	0.33 (3.4)		
4-Pumps Parallel			NX-80VFC401-1.1Fx4(5)	1.1	0.8	17	14	0.19	(1.9)	0.08~1.05	12~24	0.10 (1.0)	
			NX-80VFC402-1.5Fx4(5)	1.5	0.8	26	22	0.26	(2.7)	0.08~1.10	18~35	0.16 (1.6)	
			NX-80VFC402-2.2Fx4(5)	2.2	0.8	37	31	0.36	(3.7)	0.08~1.09	27~52	0.24 (2.4)	
	NX-80VFC402-3.7Fx4(5)	3.7	0.8	53	45	0.52	(5.3)	0.08~1.20	32~61	0.28 (2.9)			
	NX-80VFC403-3.7Fx4(5)	3.7	0.8	60	51	0.59	(6.0)	0.08~1.20	41~76	0.35 (3.6)			
	NX-80VFC403-5.5Fx4(5)	5.5	0.8	73	62	0.72	(7.3)	0.08~1.20	41~85	0.39 (4.0)			
	50	100	NX-100VFC502-2.2Fx4(5)	2.2	1.2	23	20	0.25	(2.5)	0.08~1.51	15~27	0.13 (1.3)	
			NX-100VFC502-3.7Fx4(5)	3.7	1.2	43	37	0.42	(4.3)	0.08~1.73	27~43	0.24 (2.4)	
			NX-100VFC503-5.5Fx4(5)	5.5	1.2	60	51	0.59	(6.0)	0.08~1.70	38~60	0.33 (3.4)	
			NX-100VFC503-7.5Fx4(5)	7.5	1.2	70	60	0.69	(7.0)	0.08~1.80	46~85	0.40 (4.1)	
			NX-125VFC652-3.7Fx4(5)	3.7	2.0	20	17	0.22	(2.2)	0.08~2.29	15~27	0.13 (1.3)	
			NX-125VFC652-5.5Fx4(5)	5.5	2.0	32	27	0.31	(3.2)	0.08~2.30	24~38	0.21 (2.1)	
65	125	NX-125VFC653-7.5Fx4(5)	7.5	2.0	47	40	0.46	(4.7)	0.08~2.27	38~62	0.33 (3.4)		
		5-Pumps Parallel	NX-100VFC401-1.1Gx5	1.1	1.0	17	14	0.19	(1.9)	0.1~1.32	12~24	0.10 (1.0)	
			NX-100VFC402-1.5Gx5	1.5	1.0	26	22	0.26	(2.7)	0.1~1.37	18~35	0.16 (1.6)	
			NX-100VFC402-2.2Gx5	2.2	1.0	37	31	0.36	(3.7)	0.1~1.37	27~52	0.24 (2.4)	
			NX-100VFC402-3.7Gx5	3.7	1.0	53	45	0.52	(5.3)	0.1~1.50	32~61	0.28 (2.9)	
			NX-100VFC403-3.7Gx5	3.7	1.0	60	51	0.59	(6.0)	0.1~1.50	41~76	0.35 (3.6)	
NX-100VFC403-5.5Gx5	5.5		1.0	73	62	0.72	(7.3)	0.1~1.50	41~85	0.39 (4.0)			
50	125		NX-125VFC502-2.2Gx5	2.2	1.5	23	20	0.25	(2.5)	0.1~1.88	15~27	0.13 (1.3)	
			NX-125VFC502-3.7Gx5	3.7	1.5	43	37	0.42	(4.3)	0.1~2.16	27~43	0.24 (2.4)	
			NX-125VFC503-5.5Gx5	5.5	1.5	60	51	0.59	(6.0)	0.1~2.12	38~60	0.33 (3.4)	
			NX-125VFC503-7.5Gx5	7.5	1.5	70	60	0.69	(7.0)	0.1~2.25	46~85	0.40 (4.1)	
			NX-150VFC652-3.7Gx5	3.7	2.5	20	17	0.22	(2.2)	0.1~2.87	15~27	0.13 (1.3)	
			NX-150VFC652-5.5Gx5	5.5	2.5	32	27	0.31	(3.2)	0.1~2.94	24~38	0.21 (2.1)	
65	150	NX-150VFC653-7.5Gx5	7.5	2.5	47	40	0.46	(4.7)	0.1~2.84	38~62	0.33 (3.4)		

NX-VFC

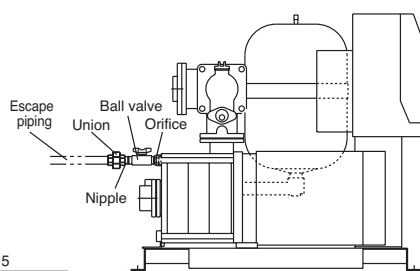
Dimensional outline drawing

NX-VFC-D Alternate /W Parallel

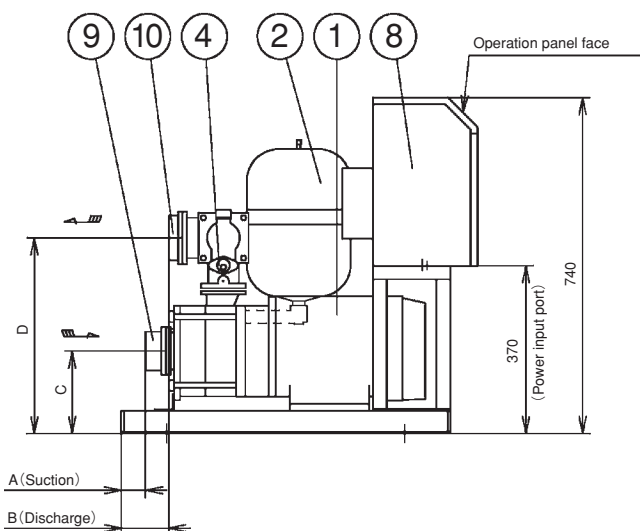


No	Parts Name	Q'ty	No	Parts Name	Q'ty
①	Pump	2	⑦	Discharge elbow(damping type reverse check valve built-in)	2
②	Pressure tank (10ℓ)	1	⑧	Control panel	1
③	Pressure transmitter	1	⑨	Special companion flange (suction)	2
④	Flow switch	2	⑩	Special companion flange (discharge)	1
⑤	TJ valve	1			
⑥	High temperature sensor	2			

Negative suction: Constant escape piping example



- Pump suction and discharge header connections are special. Several type of companion flanges can be provided with the system.
- Anchor bolts for fixing the pump set are optionally available.
- The system for negative suction includes standard a Constant escape kit. This kit consists of orifice+ball valve+nipple+union. Customer shall provide escape piping, and the end of this pipe shall be always submerged. The ball valve shall be fully opened during operation, such that the flow rate exceeds 10l/min.
- The TJ-valve is suitable to connect dia 10mm (3/8") hose.



Caution

- The drawings are typical, shape may vary somewhat depending on the pump type and specifications.
- Specifications may change due to design modifications. Updated delivery specifications are available upon request.

(Units mm)

Nominal dia	Model	A	B	C	D	E inch	F inch	Approx. weight kg
Suction Discharge								
25 25	NX-VFC252-0.4D	116	133			1	1	104
	NX-VFC252-0.75D							113
	NX-VFC253-1.1D	84						121
32 32	NX-VFC322-0.4D※	114			387	1 1/4	1 1/4	104
	NX-VFC322-0.75D							112
	NX-VFC323-1.1D	82	131	162				121
	NX-VFC323-1.5D							122
	NX-VFC324-2.2D	51						135
	NX-VFC401-1.1D	136						115
	NX-VFC402-1.5D							121
	NX-VFC402-2.2D	89	116		411	1 1/2	1 1/2	132
	NX-VFC402-3.7D							148
	NX-VFC403-3.7D	42						154
	NX-VFC403-5.5D	42		182	431			194
40 40	NX-VFC501-1.5D	132						116
	NX-VFC502-2.2D			162	411	2	2	126
	NX-VFC502-3.7D	85	112					148
	NX-VFC503-5.5D	38		182	431			195
	NX-VFC503-7.5D							199
50 50	NX-VFC652-3.7D	54		162	411			145
	NX-VFC652-5.5D	54	108			2 1/2	2 1/2	191
	NX-VFC653-7.5D	-2		182	431			202

※ This model is only for positive suction use.

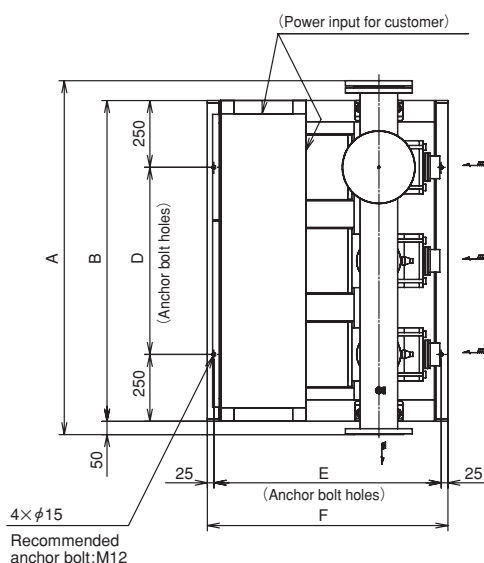
(Units mm)

Nominal dia	Model	A	B	C	D	E inch	F inch	Approx. weight kg
Suction Discharge								
25 40	NX-40VFC252-0.4W	116	121			1	1	104
	NX-40VFC252-0.75W							113
	NX-40VFC253-1.1W	84						121
32 50	NX-50VFC322-0.4W※	114			387	1 1/4	2	104
	NX-50VFC322-0.75W							112
	NX-50VFC323-1.1W	82	127	162				121
	NX-50VFC323-1.5W							122
	NX-50VFC324-2.2W	51						135
	NX-65VFC401-1.1W	136						115
	NX-65VFC402-1.5W							121
	NX-65VFC402-2.2W	89		411		1 1/2	2 1/2	132
	NX-65VFC402-3.7W							148
	NX-65VFC403-3.7W	42						154
	NX-65VFC403-5.5W	42	109	182	431			194
	NX-65VFC501-1.5W	132						116
	NX-65VFC502-2.2W			162	411	2	2.5	126
	NX-65VFC502-3.7W	85						148
	NX-65VFC503-5.5W	38		182	431			194
	NX-65VFC503-7.5W							199
50 65	NX-80VFC652-3.7W	54		162	411			145
	NX-80VFC652-5.5W	54	105			2 1/2	3	191
	NX-80VFC653-7.5W	-2		182	431			202

※ This model is only for positive suction use.

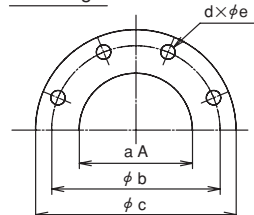
Dimensional outline drawing

NX-VFC-W×3 2-Pumps Parallel / 3-Pumps Rotation / TX3 3-Pumps Parallel / 3-Pumps Rotation



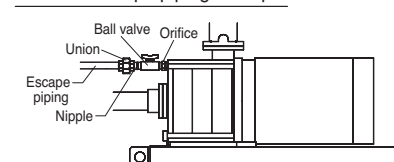
No	Parts Name	Q'ty	No	Parts Name	Q'ty
①	Pump	3	⑦	Check valve (with flow switch)	3
②	Pressure tank (20ℓ)	1	⑧	Stop valve	3
③	Pressure transmitter	1	⑨	Control panel	1
④	Flow switch	3	⑩	Special flange (Suction)	3
⑤	TJ valve	1	⑪	Blind Flange	1
⑥	High temperature sensor	3			

Dis. flange

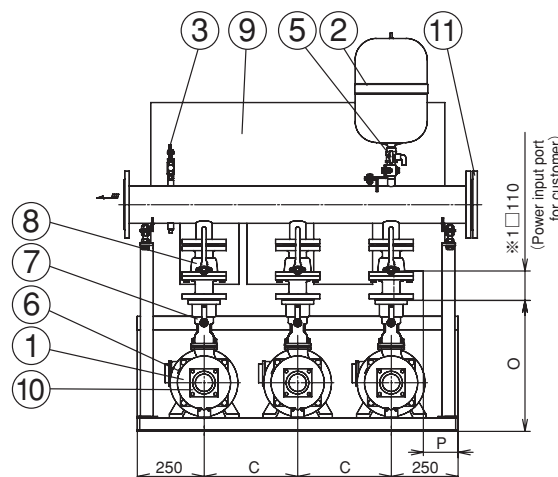
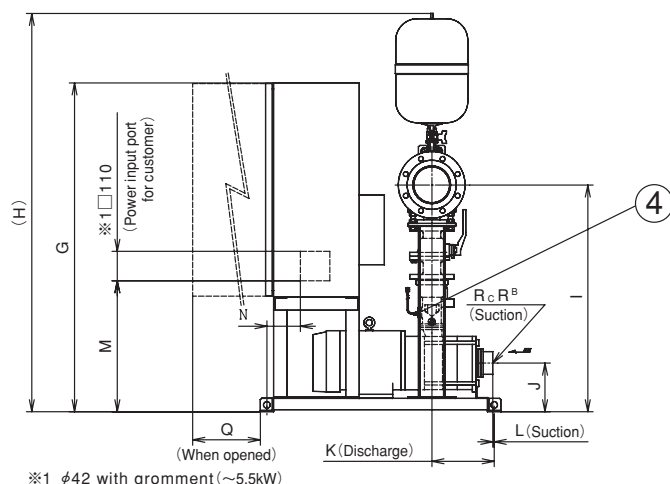


dis. flange	a	b	c	d	e
DN65	65	145	185	4	18
DN80	80	160	200	8	18
DN100	100	180	220	8	18
DN125	125	210	250	8	18

Negative suction:
Constant escape piping example



- Pump suction and discharge header connections are special. Several type of companion flanges can be provided with the system.
- Anchor bolts for fixing the pump set are optionally available.
- The system for negative suction includes standard a Constant escape kit. This kit consists of orifice+ball valve+nipple+union. Customer shall provide escape piping, and the end of this pipe shall be always submerged. The ball valve shall be fully opened during operation, such that the flow rate exceeds 10ℓ/min.
- The TJ-valve is suitable to connect dia 10mm (3/8") hose.



Caution

- The drawings are typical, shape may vary somewhat depending on the pump type and specifications.
- Specifications may change due to design modifications. Updated delivery specifications are available upon request.

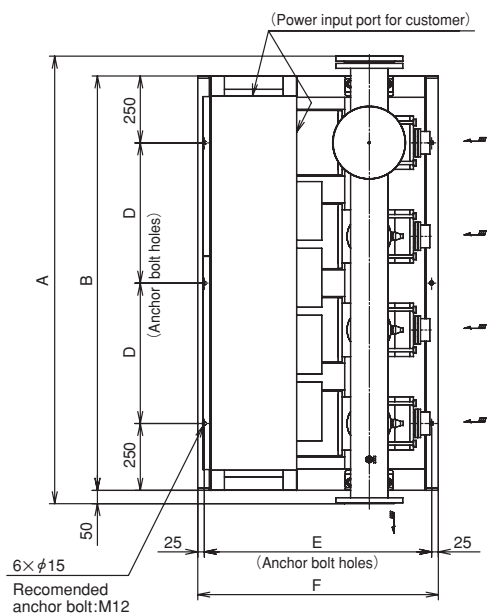
(Units mm)

Operation mode	Nominal dia.	Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	Approx. weight
	Suction	Discharge																		inch	kg
2-Pumps Parallel • 3-Pumps Rotation	40	65	NX-65VFC401-1.1W×3											111.5						1 1/2	339
			NX-65VFC402-1.5W×3																		349
			NX-65VFC402-2.2W×3	1122	1000	250	500	750	800	1070	1438	828	162	202	64.5	515		510	150		356
			NX-65VFC402-3.7W×3																		381
			NX-65VFC403-3.7W×3																		389
			NX-65VFC403-7.5W×3																		445
	50	65	NX-65VFC502-2.2W×3	1322	1200	350	700	800	850	1100	1458	848	182	233	48.5	545		540	250		356
			NX-65VFC502-3.7W×3																		381
			NX-65VFC503-5.5W×3																		445
			NX-65VFC503-7.5W×3	1322	1200	350	700	800	850	1100	1458	848	182	233	44.5	545		540	250		488
			NX-80VFC652-3.7W×3																		388
			NX-80VFC652-5.5W×3																		443
3-Pumps Parallel • 3-Pumps Rotation	40	80	NX-80VFC401-1.1T×3																		342
			NX-80VFC402-1.5T×3																		352
			NX-80VFC402-2.2T×3	1122	1000	250	500	750	800	1070	1447	828	162	202	64.5	515		510	150		359
			NX-80VFC402-3.7T×3																		384
			NX-80VFC403-3.7T×3																		392
			NX-80VFC403-5.5T×3	1322	1200	350	700	800	850	1100	1465	848	182	233	48.5	545		540	250		447
	50	100	NX-100VFC502-2.2T×3	1124	1000	250	500	750	800	1070	1458	828	162	202	60.5	515		510	150		365
			NX-100VFC502-3.7T×3																		389
			NX-100VFC503-5.5T×3																		453
			NX-100VFC503-7.5T×3	1324	1200	350	700	800	850	1100	1478	848	182	233	44.5	545		540	250		496
			NX-125VFC652-3.7T×3																		402
			NX-125VFC652-5.5T×3	1124	1000	250	500	750	800	1070	1470	828	162	202	30.5	515		510	150		402
	65	125	NX-125VFC652-5.5T×3																		458
			NX-125VFC653-7.5T×3	1324	1200	350	700	800	850	1100	1490	848	182	233	61.5	545		540	250		511

NX-VFC

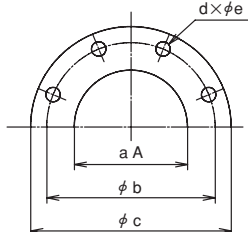
Dimensional outline drawing

NX-VFC-T×4 3-Pumps Parallel / F×4 4-Pumps Parallel 4-Pumps Rotation 4-Pumps Rotation



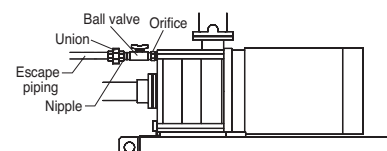
No	Parts Name	Q'ty	No	Parts Name	Q'ty
①	Pump	4	⑦	Check valve (with flow switch)	4
②	Pressure tank (20ℓ)	1	⑧	Stop valve	4
③	Pressure transmitter	1	⑨	Control panel	1
④	Flow switch	4	⑩	Special flange (Suction)	4
⑤	TJ valve	1	⑪	Blind Flange	1
⑥	High temperature sensor	4			

Dis. flange

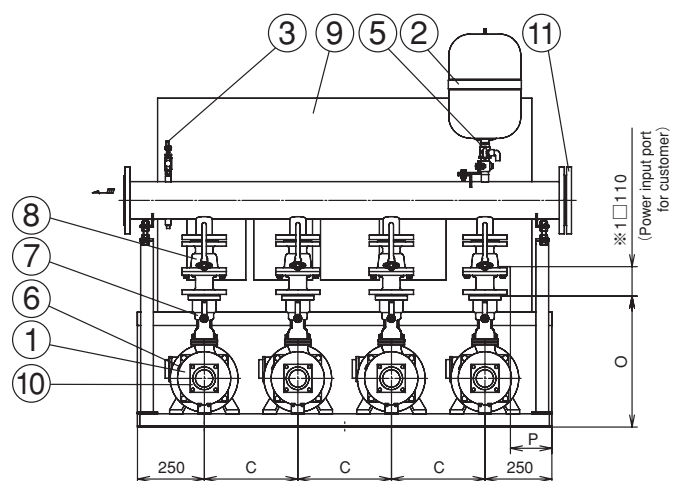
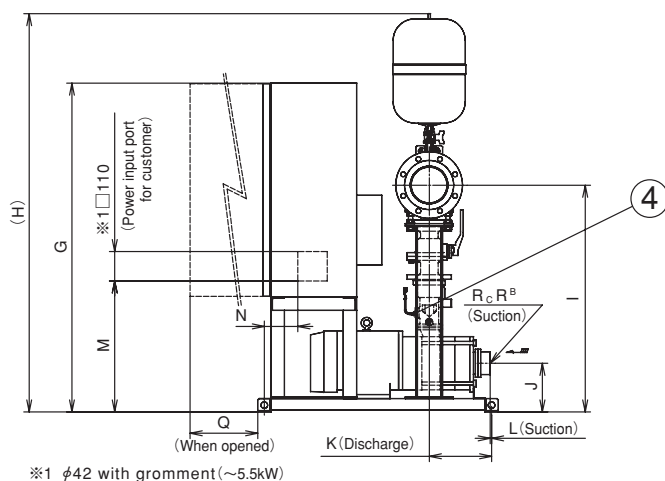


dis. flange	a	b	c	d	e
DN80	80	160	200	8	18
DN100	100	180	220	8	18
DN125	125	210	250	8	18

Negative suction:
Constant escape piping example



- Since suction flanges of this unit are special, use the companion flange supplied. Discharge flanges are not supplied.
- The TJ valve can connect φ10mm (3/8") hose.
- The anchor bolts are special accessories.
- When negative suction specification is selected, the constant escape kit (orifice + ball valve + nipple + union) is added to the standard specifications. Always provide escape piping and submerge the end of the piping into a water tank. During operation, fully open the ball valve so water escapes to the water tank at a flow rate of 10 l/min or greater.



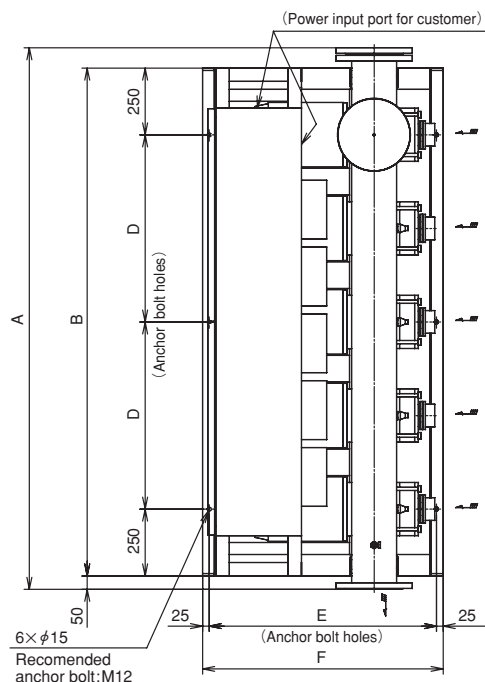
Caution

- The drawings are typical, shape may vary somewhat depending on the pump type and specifications.
- Specifications may change due to design modifications. Updated delivery specifications are available upon request.

(Units mm)																									
Operation mode	Nominal dia.		Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R inch	Approx. weight kg			
	Suction	Discharge																							
3-Pumps Parallel • 4-Pumps Rotation	40	80	NX-80VFC401-1.1T×4	1372	1250	250	375	750	800	1070	1447	828	162	202	111.5	515	160	510	225	558	1 1/2	426			
			NX-80VFC402-1.5T×4												440										
			NX-80VFC402-2.2T×4												449										
			NX-80VFC402-3.7T×4												482										
			NX-80VFC403-3.7T×4												493										
			NX-80VFC403-5.5T×4												564										
	50	100	NX-100VFC502-2.2T×4	1374	1250	250	375	750	800	1070	1458	828	162	202	60.5	515		510	225	2	451				
			NX-100VFC502-3.7T×4														540	375	483						
			NX-100VFC503-5.5T×4	1674	1550	350	525	800	850	1100	1478	848	182	233	44.5	545		540	375		569				
			NX-100VFC503-7.5T×4					850	900	1230					490	125	490	155	758		618				
			NX-125VFC652-3.7T×4	1374	1250	250	375	750	800	1070	1470	828	162	202	30.5	515	160	510	255		558	500			
			NX-125VFC652-5.5T×4					800	850	1100					61.5	545		540	375		578				
4-Pumps Parallel • 4-Pumps Rotation	40	80	NX-125VFC653-7.5T×4	1674	1550	350	525	850	900	1230	1490	848	182	233	5.5	490	125	490	155	758	2 1/2	640			
			NX-80VFC401-1.1F×4											111.5						426					
			NX-80VFC402-1.5F×4																	440					
			NX-80VFC402-2.2F×4	1372	1250	250	375	750	800	1070	1447	828	162	202	64.5	515	160	510	225	558		1 1/2	449		
			NX-80VFC402-3.7F×4																						482
			NX-80VFC403-3.7F×4												17.5										493
	50	100	NX-80VFC403-5.5F×4	1672	1550	350	525	800	850	1100	1465	848	182	233	48.5	545		540	375		564				
			NX-100VFC502-2.2F×4	1374	1250	250	375	750	800	1070	1458	828	162	202	60.5	515		510	225		2	451			
			NX-100VFC502-3.7F×4																					483	
			NX-100VFC503-5.5F×4	1674	1550	350	525	800	850	1100	1478	848	182	233	44.5	545							540	375	569
			NX-100VFC503-7.5F×4					850	900	1230					490	125	490	155	758	618					
			65	125	NX-125VFC652-3.7F×4	1374	1250	250	375	750	800	1070	1470	828	162	202	30.5	515	160	510	225	558	2 1/2	500	
NX-125VFC652-5.5F×4							800	850	1100					61.5	545		540	375	578						
NX-125VFC653-7.5F×4	1674	1550			350	525	850	900	1230	1490	848	182	233	5.5	490	125	490	155	758	640					

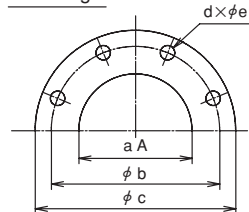
Dimensional outline drawing

NX-VFC-Fx5 4-Pumps Parallel / 5-Pumps Rotation / Gx5 5-Pumps Parallel / 5-Pumps Rotation



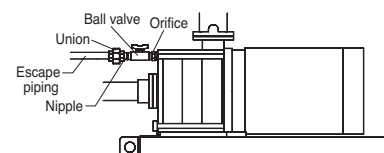
No	Parts Name	Q'ty	No	Parts Name	Q'ty
①	Pump	5	⑦	Check valve (with flow switch)	5
②	Pressure tank (20ℓ)	1	⑧	Stop valve	5
③	Pressure transmitter	1	⑨	Control panel	1
④	Flow switch	5	⑩	Special flange (Suction)	5
⑤	TJ valve	1	⑪	Blind Flange	1
⑥	High temperature sensor	5			

Dis. flange

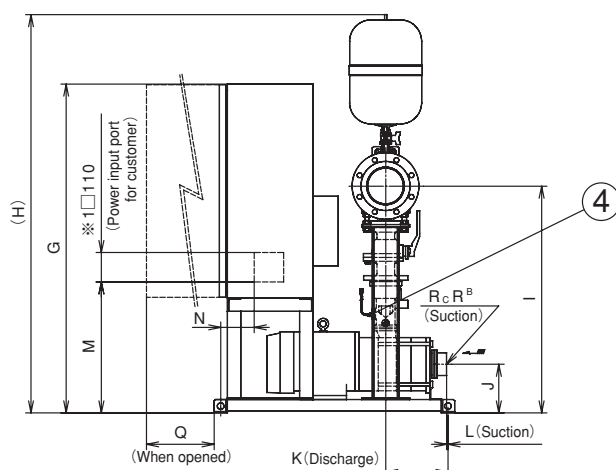


dis. flange	a	b	c	d	e
DN80	80	160	200	8	18
DN100	100	180	220	8	18
DN125	125	210	250	8	18
DN150	150	240	285	8	22

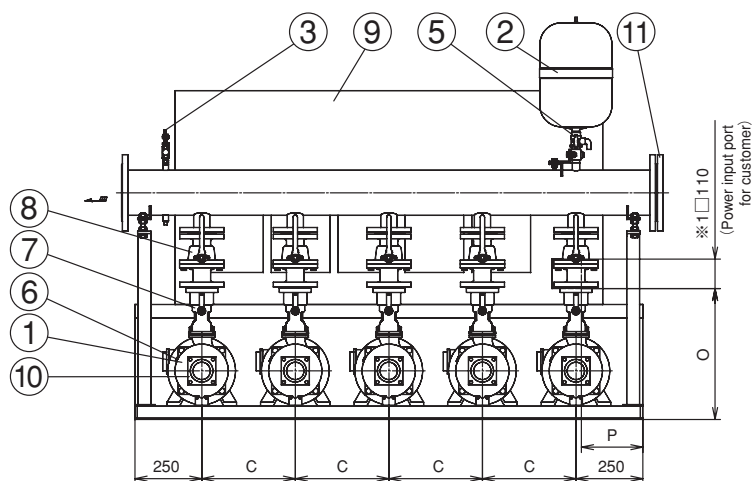
Negative suction:
Constant escape piping example



- Since suction flanges of this unit are special, use the companion flange supplied. Discharge flanges are not supplied.
- The TJ valve can connect φ10mm(3/8") hose.
- The anchor bolts are special accessories.
- When negative suction specification is selected, the constant escape kit (orifice + ball valve + nipple + union) is added to the standard specifications. Always provide escape piping and submerge the end of the piping into a water tank. During operation, fully open the ball valve so water escapes to the water tank at a flow rate of 10 l/min or greater.



※1 φ42 with grommet (~5.5kW)



Caution

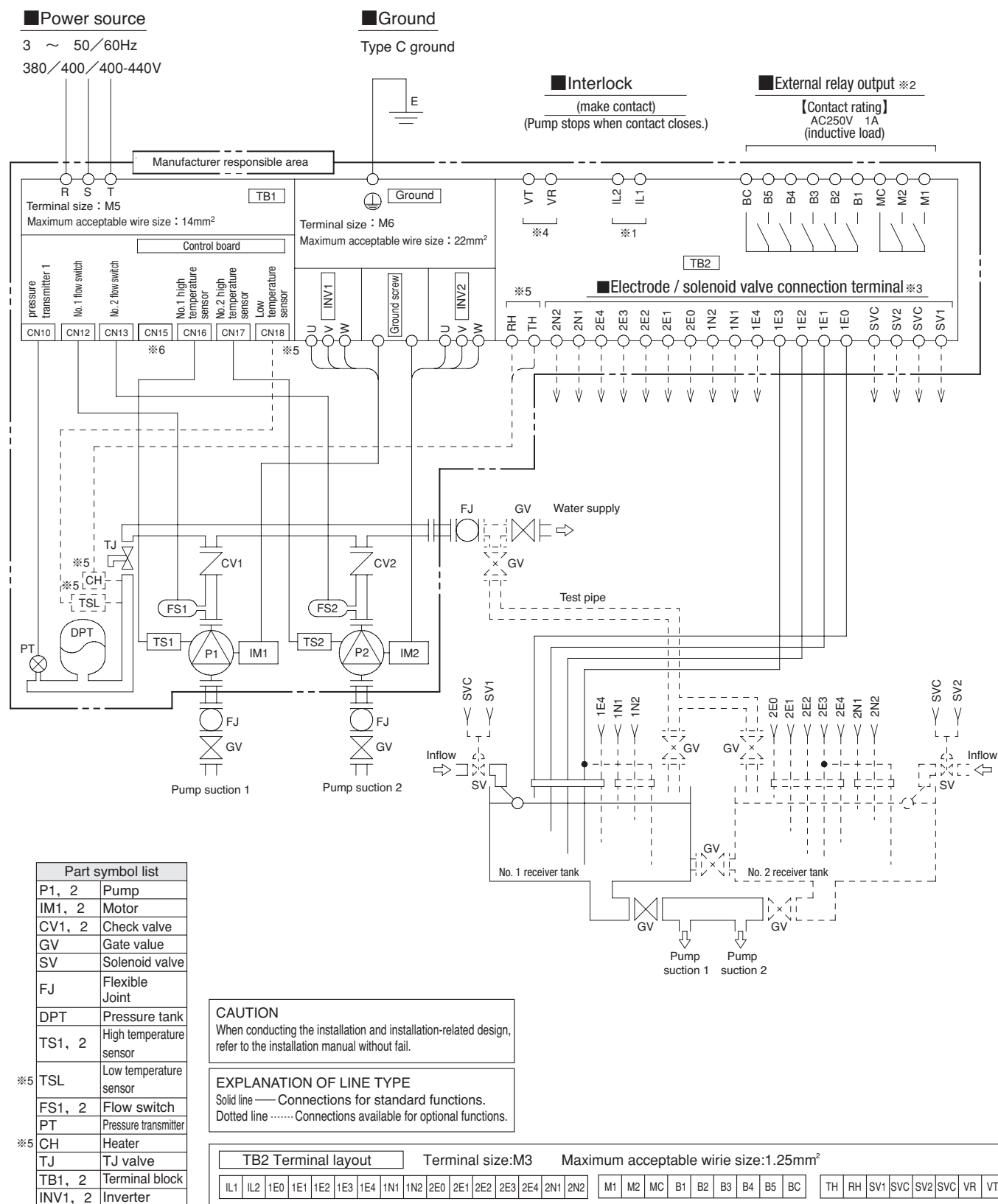
- The drawings are typical, shape may vary somewhat depending on the pump type and specifications.
- Specifications may change due to design modifications. Updated delivery specifications are available upon request.

(Units mm)

Operation mode	Nominal dia.		Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R inch	Approx. weight kg
	Suction	Discharge																				
4-Pumps Parallel • 5-Pumps Rotation	40	80	NX-80VFC401-1.1F×5												111.5						1 1/2	503
			NX-80VFC402-1.5F×5																		1 1/2	520
			NX-80VFC402-2.2F×5	1622	1500	250	500	750	800	1070	1447	828	162	202	64.5	515		510	250		1 1/2	531
			NX-80VFC402-3.7F×5																		1 1/2	573
			NX-80VFC403-3.7F×5																		1 1/2	586
	50	100	NX-80VFC403-5.5F×5	2022	1900	350	700	800	850	1100	1465	848	182	233	48.5	545		540	450		1 1/2	678
			NX-100VFC502-2.2F×5																		2	537
			NX-100VFC502-3.7F×5	1624	1500	250	500	750	800	1070	1458	828	162	202	60.5	515		510	250		2	578
			NX-100VFC503-5.5F×5					800	850	1100		1478	848	182	233	44.5	545		450	450		685
			NX-100VFC503-7.5F×5	2024	1900	350	700	850	900	1230						490	125	490	230	758	2	749
5-Pumps Parallel • 5-Pumps Rotation	40	100	NX-125VFC652-3.7F×5	1624	1500	250	500	750	800	1070	1470	828	162	202	30.5	515	160	510	250		2 1/2	597
			NX-125VFC652-5.5F×5					800	850	1100					61.5	545		540	450		2 1/2	689
			NX-125VFC653-7.5F×5	2024	1900	350	700	850	900	1230	1490	848	182	233	5.5	490	125	490	230	758	2 1/2	769
	50	125	NX-100VFC401-1.1G×5												111.5						1 1/2	508
			NX-100VFC402-1.5G×5																		1 1/2	525
			NX-100VFC402-2.2G×5	1622	1500	250	500	750	800	1070	1458	828	162	202	64.5	515		510	250		1 1/2	536
			NX-100VFC402-3.7G×5																		1 1/2	578
			NX-100VFC403-3.7G×5												17.5		160				1 1/2	591
5-Pumps Parallel • 5-Pumps Rotation	50	125	NX-100VFC403-5.5G×5	2022	1900	350	700	800	850	1100	1478	848	182	233	48.5	545		540	450		1 1/2	684
			NX-125VFC502-2.2G×5																		2	549
			NX-125VFC502-3.7G×5	1624	1500	250	500	750	800	1070	1470	828	162	202	60.5	515		510	250		2	589
			NX-125VFC503-5.5G×5					800	850	1100		1490	848	182	233	44.5	545		450	450		697
			NX-125VFC503-7.5G×5	2024	1900	350	700	850	900	1230					490	125	490	230	758		2	760
	65	150	NX-150VFC652-3.7G×5	1626	1500	250	500	750	800	1070	1484	828	162	202	30.5	515	160	510	250		2 1/2	606
			NX-150VFC652-5.5G×5					800	850	1100					61.5	545		540	450		2 1/2	701
			NX-150VFC653-7.5G×5	2026	1900	350	700	850	900	1230					5.5	490	125	490	230	758	2 1/2	780

Water supply unit connection diagram (ex. D/W type, Positive suction)

[Caution] For installation-related design and installation, please refer to the drawings.



- ※1 This is connected when the interlock function is used. Though the interlock input signal is the make contact when delivered, it can be changed to the break contact by settings.
- ※2 Content of the external relay output can be change by settings. For further details, see the connection pattern diagram.
- ※3 Depending on the setting, the system can be expanded to double receiver tanks, 5P electrodes and solenoid valves. For further details on the wiring, see the connection pattern diagram. Voltage of solenoid valve is 200V. Total current of solenoid valve must not exceed 0.3A.
- ※4 This terminal is for the cooling fan of outdoor guard. Please do not use other equipment.
- ※5 The low temperature sensor and heater for the freeze prevention system are provided as part of special specifications.
- ※6 Please do not use this connector.

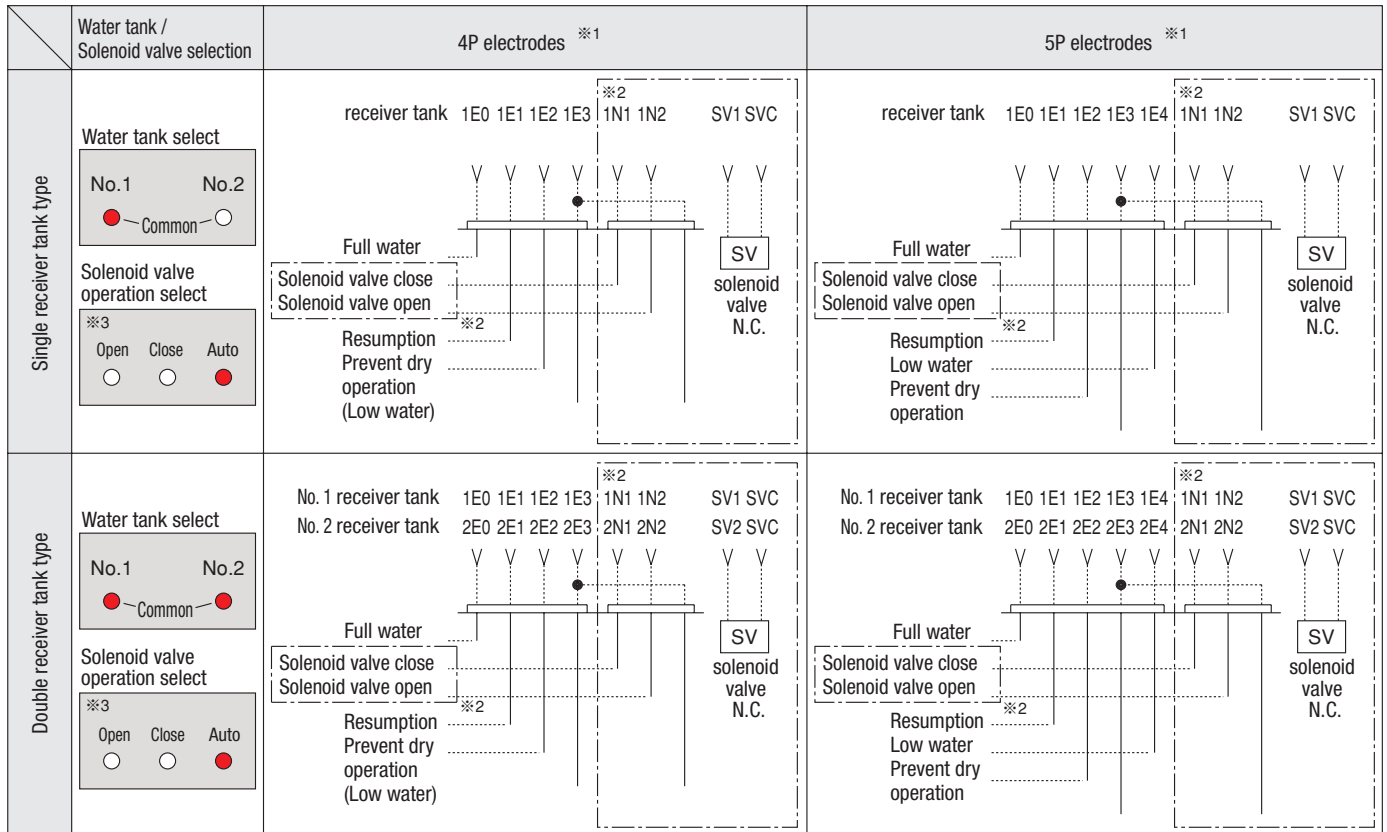
Water supply unit connection pattern diagram

Electrode/solenoid valve connection pattern

For the receiver tank level control, the following combinations are available as user selectable options.

The unit just delivered is not given no selection about the water tank and the solenoid valve operation.

The customer is requested to select them according to their usage after the wiring work. In the water tank and solenoid valve operation selection columns, ● circle shows lighting and ○ circle shows lighting off.



※1 The selection of 4P or 5P must be set in the micro processor through the control panel operation.(Setting before delivery : 4P)

※2 To be connected if a solenoid valve is used.The voltage of solenoid valve output is 200V.Total current of solenoid valve must not exceed 0.3A.

※3 Select Auto if a solenoid valve is used or close if a solenoid valve is not used.

External relay output pattern

For the external relay output, the following patterns are available. (Setting before delivery : pattern=0)

Set No.	Pattern 0	Pattern 1	Pattern 2	Pattern 3	Pattern 4
M1	No. 1 run	No. 1 run	No. 1 run	No. 1 run	Run
M2	No. 2 run	No. 2 run	No. 2 run	No. 2 run	On inspection
B1	No. 1 failure ※4	Serious failure ※7	Overload	Inverter trip ※5	No. 1 failure ※4
B2	No. 2 failure ※4	Slightly failure ※8	Discharge pressure abnormal drop	Discharge pressure abnormal drop	No. 2 failure ※4
B3	Full water	—	Electric leakage	Electric leakage	Full water
B4	Low water / Prevent dry operation	—	Abnormal water level ※9	Abnormal water level ※9	Low water / Prevent dry operation
B5	Trouble ※6	Any failures ※10	Any failures ※10	Any failures ※10	Trouble ※6

※4 Contents of No.X failure: No.X discharge pressure abnormal drop, No.X electric leakage, No.X high temperature, No.X flow switch abnormal, No.X inverter trip※5.

※5 Contents of inverter trip: Motor overload, overcurrent, overvoltage, Stall prevention, inverter overload, inverter overheat, communication alarm, inverter trouble 1, inverter trouble 2.

※6 Contents of trouble: start up frequency abnormal, pressure transmitter 1 abnormal, electrode abnormal, EEPROM error,

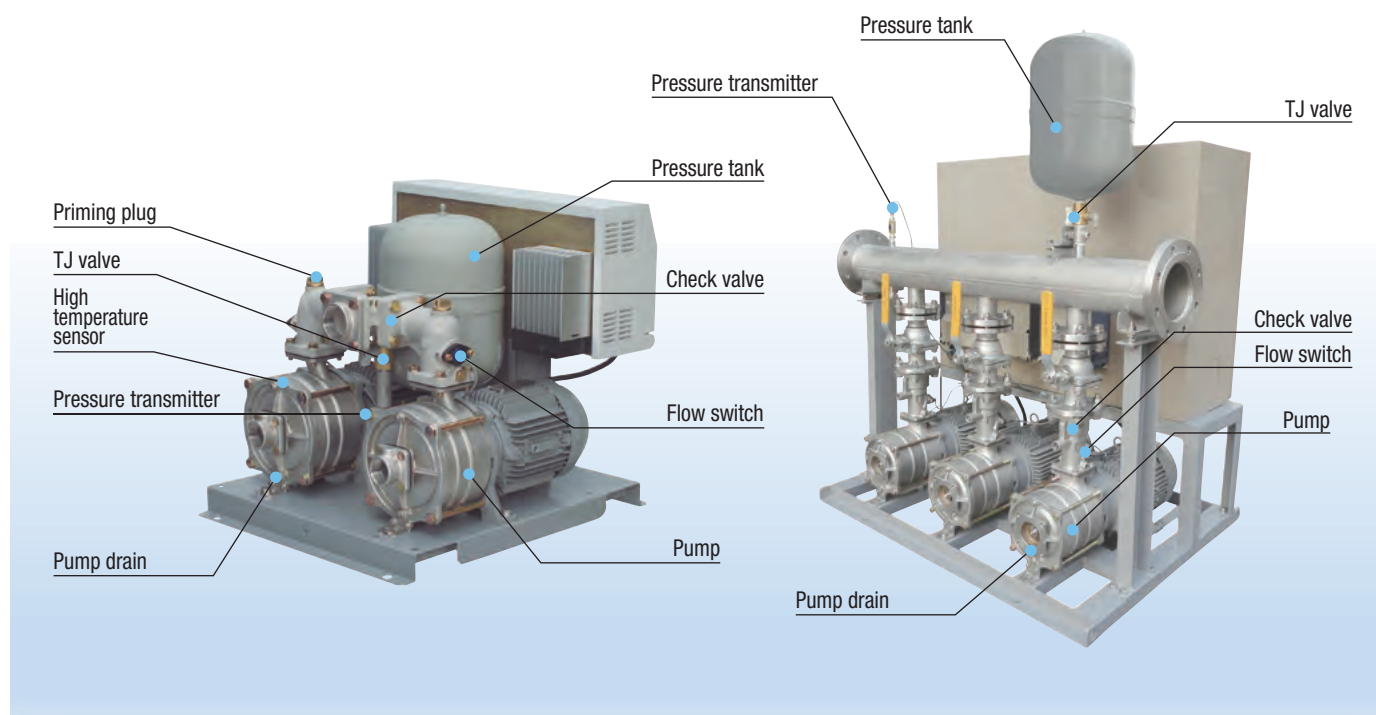
※7 Contents of serious failure: This is output if an error occurrence leads to water supply stop.

※8 Contents of slightly failure: This is output if an error occurs but it does not cause water supply stop.

※9 Contents of abnormal water level: full water, low water, prevent dry operation, electrode abnormal.

※10 Any failures is outputted irrelevant of the contents if an abnormal occurs.

Water supply unit specifications



▼ Water supply unit specification

Operation mode		D : Automatic alternate W : Automatic alternate parallel WX3 : 2-pumps Parallel, 3-pumps Rotation TX3 : 3-pumps Parallel, 3-pumps Rotation TX4 : 3-pumps Parallel, 4-pumps Rotation FX4 : 4-pumps Parallel, 4-pumps Rotation FX5 : 4-pumps Parallel, 5-pumps Rotation GX5 : 5-pumps Parallel, 5-pumps Rotation
Control system		Estimated end pressure constant control /Discharge pressure constant control by frequency control
Liquid to be handled	Quality	Clear water
	Temperature	0 to 40°C
Installation environment		Indoor (0 to 40°C, RH 85% or less, No dew condensation allowed), Altitude 1,000m or less
Suction condition		Positive suction model: up to 5m for Inflow head Negative suction model: 4m for actual head and 6m (at a water temperature of 20°C) for total head
Pump (material)		NX type stainless horizontal multistage centrifugal pump (Impeller:SUS304, Casing:SCS13, Main shaft:SUS304)
Motor	Type	Totally-enclosed-fan-cooled motor (TEFC) for indoor use
	Protection meted	IP44
	Pole number	2 poles
Flange	Suc.	Frang for exclusive use
	Dis.	D/W: Flange for exclusive use W3/T3/T4/F4/F5/G5: DN flange (PN10)
Power supply		3-phase 380-400/400-440V (50/60Hz)
Pressure tank		D/W: DPT10 (10L Diaphragm tank) W3/T3/T4/F4/F5/G5: DPT20 (20L Diaphragm tank)
Pressure detector		Pressure transmitter Transmission method: DC5V 3-line type Output voltage: Between 0.5 and 3.5V DC

Control panel specifications

▼ Control panel specification

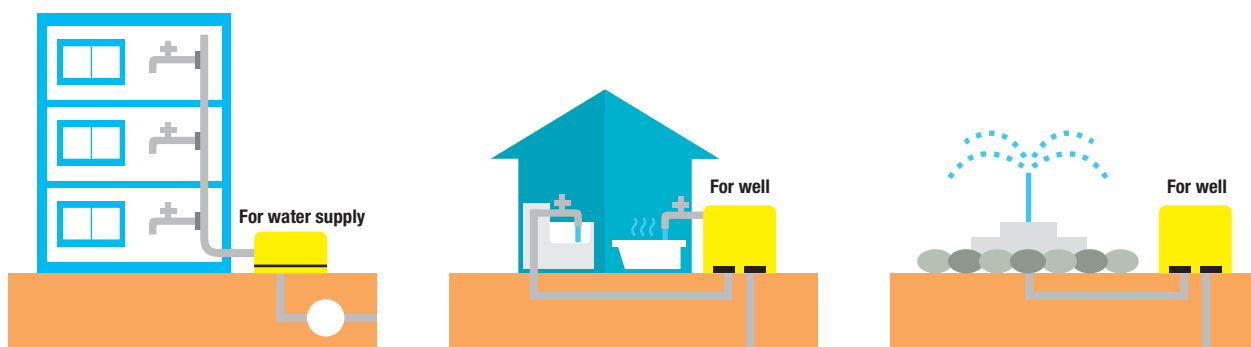
Control panel type			BQNXC		BQEC
Item			Specification 1	Specification 2	Standard specification
Operation mode			Automatic alternate (D) Automatic parallel (W)		Automatic rotation (W3/T3/T4/F4/F5/G5)
Casing material and external color			Steel plate (Munsell 5Y7/1 semi-gloss/baking paint)		
Output range	3-phase, 380-400/400-440V (50/60Hz)		0.4 – 7.5 kW		1.1 – 15 kW
Circuit structure	Earth leakage breaker	ea. pump system	○		
	Power factor improvement reactor (DCR)	ea. pump system	—		
	Motor protection	—	Inverter (electronic thermal)		
	Double receiver tank circuit	Changeable from the operation panel	○		
	Inflow solenoid valve circuit	Operable from the operation panel	○		
	Electrode 5P circuit	—	○		
Function	Pump preventing dry operation	—	○		
	Automatic change at fault	—	○		
	Pump continuous operation preventing function	—	○		
	Function to equalize the pump operating time	—	○		
	Applicable for external stop signal (interlock)	Applicable for “a” / “b” contact	○		
	Buzzer stop timer setting	1 to 60minutes, ∞, no buzzer	○		
	Full/low water level alarm automatic return setting	—	○		
	Inflow solenoid valve automatic alternate operation setting	—	○		
	Inspection mode	—	○		
	Alarm buzzer	—	○		
Display on the control panel	Indicator lamp	Power supply	○		
		Run (ea. pump)	○		
		Inhibition (ea. pump)	○		
		Abnormal (all)	○		
	Other displays	Discharge pressure	Unit:m•H2O ○		
		Supply voltage	Unit:V ○		
		Working current (ea. pump)	Unit:0.1A ○		
		Working frequency (ea. pump)	Unit:0.1Hz (only in the automatic mode) ○		
		Accumulated run time (ea. pump)	Unit:hour ○		
		Accumulated number of start (ea. pump)	Unit:one time ○		
		Number of unit start	Starting frequency on the previous day ○		
		Alarm history	Past 5 histories ○		
		Interlocking applied	— ○		
		Full water	No.:E001 ○		
	Alarm display	Low water	No.:E002 ○		
		Preventing dry operation	No.:E003 ○		
		Abnormal electrode	No.:E004 ○		
		Abnormal starting frequency	No.:E006 ○		
		Abnormal pressure transmitter 1	No.:E051 ○		
		EEPROM error	No.:E080 ○		
		Overload (ea.)	No.:E#01 ○		
		Discharge pressure abnormal drop (ea.)	No.:E#02 ○		
		Electric leakage (ea.)	No.:E#03 ○		
		High temperature (ea.)	No.:E#04 ○		
		Abnormal flow switch (ea.)	No.:E#05 ○		
		Over-current (ea.)	No.:E#11 ○		
		Over voltage (ea.)	No.:E#12 ○		
		Low voltage (ea.)	No.:E#13 —		○
		Stall prevention (ea.)	No.:E#14 ○		—
		Input open phase (ea.)	No.:E#14 —		○
		Inverter overload (ea.)	No.:E#15 ○		
		Output open phase (ea.)	No.:E#16 —		○
		Inverter overheating (ea.)	No.:E#17 ○		
		Abnormal inverter communication (ea.)	No.:E#18 ○		
		Inverter trouble 1 (ea.)	No.:E#19 ○		
		Inverter trouble 2 (ea.)	No.:E#20 ○		
External output	Power supply for alarm		AC200V	—	○
	nflow solenoid valve output		AC200V	○ (Open/close type is selectable)	
	Operation signal		No-voltage “a” contact	○ (ea.)	
	Fault signal		No-voltage “a” contact	○ (5 points: patterns 0 to 4)	

※1. Powe voltage and operating current values are estimated. An approximately 10% difference exists against full scale.
 ※2. “#” is the number of particular pump.

Home Pumps

Small pumps

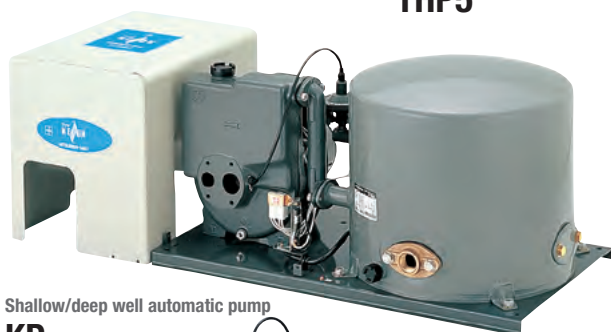
Household pumps used in houses and housing complexes. We offer ideas for pressure pumps, deep well pumps, submersible pumps, etc. that are tailored to installation sites and conditions of use.



Shallow well constant pressure water supply pump
THP5



Shallow well automatic pump
WP



Shallow/deep well automatic pump
KP



Deep well multistage inverter turbine submersible pump
TWS-V



Shallow/deep submersible pump
HKP



Shallow well inverter pump
THP5 -V



Shallow well manual pump
CP

Shallow well inverter pump THP5-V

Abundant suction volume

Inverter control supplies constant discharge pressure water even when the volume of water used fluctuates!!



New DC brushless molded motor used

An advanced functions (safety, low noise, compact size, rust-free) pump has been realized by using an all-new high performance brushless molded motor.



Easier construction work

Since two inlet and two outlet ports are provided, piping and installation freedom has been increased.

Use of sealed cover

The entry of harmful insects and dust has been prevented and noise has been reduced by sealing the outdoor cover.

Low noise

**It is a quiet pump.
Noise has been lowered to**

43dB

(20% reduction at 150W,)
(TERAL products comparison)

Energy saving

Electricity cost is reduced considerably.

50%

(TERAL products comparison)

Safety measures

**Greater safety
has been achieved
by using a molded motor.**

Compactness

Overall size has been made smaller and lighter.

25%reduction

(at 250W, TERAL products comparison)

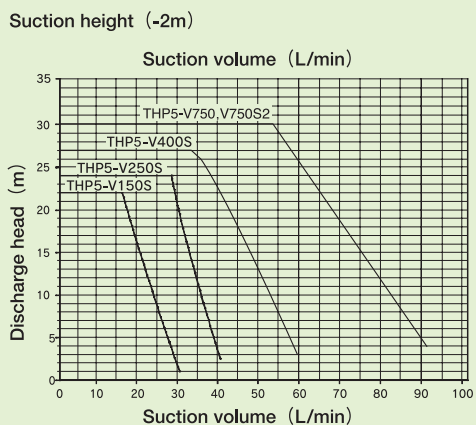
Freezing prevention

To prevent the pump body from freezing, the motor is run at low speed at 5°C or lower and is stopped at 7°C.

- Rust-free

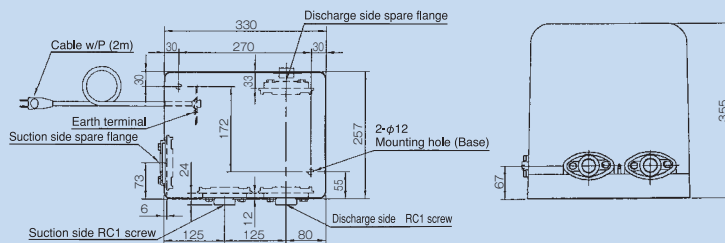
The plumbing and base are made of resin to prevent rust.

Model No.	Output (W)	Voltage (V)	Frequency (Hz)	Suction height (m)	Push-up height (m)	Suction volume (L/min) (Total head (Suction height 2m)	Inlet port dia. (mm)	Outlet port dia. (mm)	Product weight (kg)
THP2-V150S	150	100	50/60	8	12	19	25	25	12
THP2-V250S	250	100	50/60	8	14	30	25	25	12
THP2-V400S	400	100	50/60	8	17	38	25	25	12.5
THP2-V750	750	200	50/60	8	20	58	32	32	19.5

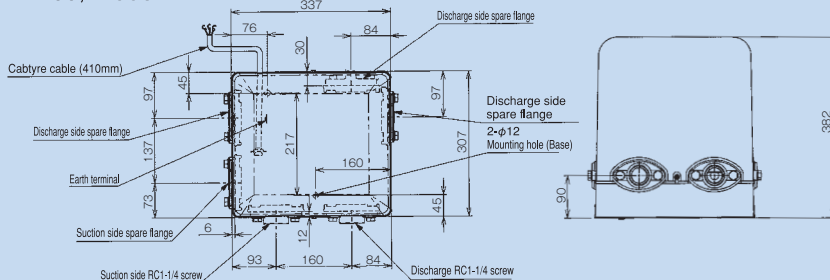


■ Outline dimensions

V150S,V250S,V400S



V750,V750S2



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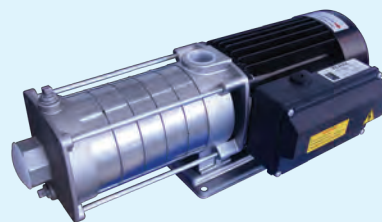
Pumps and Fans



End-suction Pumps



In-Line Pumps



Horizontal Multistage Pumps



Horizontal Split Case Pumps



Freshwater &
Sewage Submersible Pumps



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Pumps



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