GLOBAL PUMP SOLUTION DOOCH

50Hz


• XQP


• MQ


• N747D


• NSQP


• HNSQP

BOOSTER PUMP SYSTEM

XQP, MQ, N747D, (H)NSQ(P) SERIES

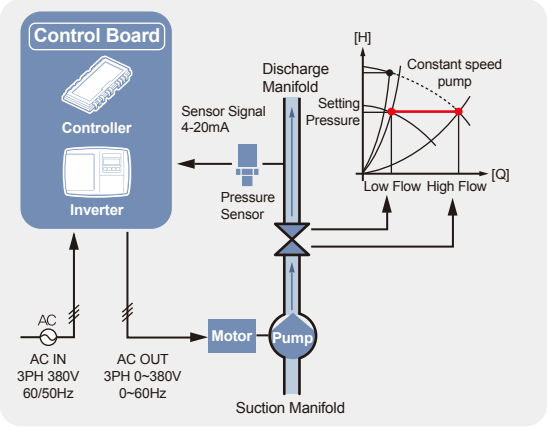
dooch
두크펌프

Booster System

Dooch's Booster Systems provides contant pressured water where it is required wheather in residential buildings or high rise office buildings. It maintains the lowest possible energy consumption in accordance with the water demand to control the No. of pumps and the speed of the motor

Features

Outstanding reliability
High efficiency
Fully integrated, all-in-one systems
Systems to match every need and requirement
Easy installation and operation



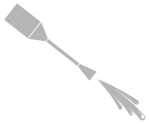
Applications

- Apartments,
- Residential Buildings
- Office Buildings
- Hotels
- Industry


Pressurization


Boiler System


Industrial Circulation Pump Cooling System


High Pressure Washing System

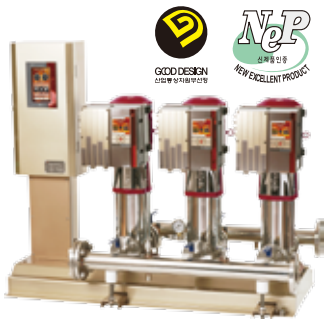

Sprinkler


R/O Filtration

System Specification

Method of Control	Individual VFD	General Inverter
Models	XQP, NSQ(P), HNSQ(P) MQ - Series	747D - Series
Operation Method	Controlled by a VFD installed on each and every pumps	Controlled by one inverter on one pump
Installation	Indoor	
Temperature	-10℃~+40℃	
Liquid Type	Clean Water	
Liquid Temp.	0℃~70℃	
Pump	Vertical/Horizontal Multi-stage Centrifugal Pump	
No. Of Pumps	2~6	
Power	3PH×380V×50Hz 1PH×220V×50Hz (XQP Exception)	3PH×220/380V×50Hz
Inlet/Outlet Manifold	Stainless Steel	

Control Specifications/Features

	XQP-Series Individual Inverter Booster System	MQ-Series Multi-Inverter Booster System	747D-Series Single Inverter Booster System
Appearance			
Features	• All pumps are fitted with an integrated V.F.D. which are directly mounted unto the motor • Newly designed V.F.D. hardware (XQ Drive) • Pumps ranges from 0.75kW~22kW • 2~6 Electronically speed controlled pumps • Equipped with a 7.0" Touch Monitor Low energy consumption (Above 30kW, 747D-Series is required)	• All pumps are connected via an integrated integrated V.F.D. which are located within the MQ Panel • Pumps ranges from 0.75kW~22kW • 2~6 Electronically speed controlled pumps • Constant discharge pressure • Low energy consumption (Above 30kW, 747D-Series is required)	• Control panel is integrated with a general inverter which controls the pumps within the system. • Pumps ranges from 0.75kW~110kW • 2~6 Electronically speed controlled pumps • Constant discharge pressure • Low energy consumption • Equipped with Dooch's own 747D controller
Inverters	V.F.D. for pumps(XQ-Drive) 	V.F.D. installed within the Panels(MQ) 	General Inverter 
Type of Manifolds	 Standard Manifold	 Standard Manifold	 Standard Manifold
Panel	  7" LCD Touch Screen Monitor	 V.F.D. within the panel	 General Inverter within the Panel

Control Specifications/Features

	NSQP-Series Individual Inverter Booster System	NSQ-Series Individual Inverter Booster System
Appearance		
Features	• All pumps are fitted with an integrated V.F.D. which are directly mounted unto the motor • Newly designed V.F.D. hardware (NSQ Drive) • Pumps ranges from 0.75kW~22kW • 2~6 Electronically speed controlled pumps • Equipped with a 7.0" Touch Monitor • Low energy consumption	• All pumps are fitted with an integrated V.F.D. which are directly mounted unto the motor • Newly designed V.F.D. hardware (NSQ Drive) • Pumps ranges from 0.75kW~22kW • 2~6 Electronically speed controlled pumps • Low energy consumption
Inverters	V.F.D. for pumps(NSQ-Drive) 	V.F.D. for pumps(NSQ-Drive) 
Type of Manifolds	 Standard Manifold	 Standard Manifold
Panel	  7" LCD Touch Screen Monitor	 Side Panel with individual circuit breakers

Control Specifications/Features

	HNSQP-Series Individual Inverter Booster System (In-line Type Manifolds)	HNSQ-Series Individual Inverter Booster System (In-line Type Manifolds)
Appearance		
Features	• All pumps are fitted with an integrated V.F.D. which are directly mounted unto the motor • Newly designed V.F.D. hardware (NSQ Drive) • Pumps ranges from 0.75kW~22kW • 2~6 Electronically speed controlled pumps • Equipped with a 7.0" Touch Monitor • Low energy consumption	• All pumps are fitted with an integrated V.F.D. which are directly mounted unto the motor • Newly designed V.F.D. hardware (NSQ Drive) • Pumps ranges from 0.75kW~22kW • 2~6 Electronically speed controlled pumps • Low energy consumption
Inverters	V.F.D. for pumps(NSQ-Drive) 	V.F.D. for pumps(NSQ-Drive) 
Type of Manifolds	 In-Line Type Manifolds	 In-Line Type Manifolds
Panel	  7" LCD Touch Screen Monitor	 Side Panel with individual circuit breakers

Control Specifications/Features

	XQ-XR(L) Series Premium V.F.D. Multi-stage Vertical Pump	NSQ-XR(L) Series V.F.D. Multi-stage Vertical Pump
Appearance		
Features	• Integrated V.F.D. which are directly mounted unto the motor • Newly designed V.F.D. hardware (XQ Drive) • Low energy consumption • Compact Design, no need for additional control panels	• Integrated V.F.D. which are directly mounted unto the motor • Newly designed V.F.D. hardware (NSQ Drive) • Low energy consumption • Compact Design, no need for additional control panels
Inverters	 Premium V.F.D. for pumps (XQ-Drive)	 V.F.D. for pumps (NSQ-Drive)
Manifolds	 Exclusive piping for V.F.D. pumps	 Exclusive piping for V.F.D. pumps

History Of Dooch's Booster Systems

Generation: 1

Pressure Control Booster System

- Pressure ON/OFF switch
- Pressure Diviation
- Pressure Differences : ± 1.2 kgf/cm^2

1985~

Generation: 2

General Inverter Booster System

- Single pump RPM controlled
- General Inverter
- Centeralized Control
- Stable Pressure
- Pressure Differences : ± 0.7 kgf/cm^2

1995~

Generation: 2.5

V.F.D. Booster System (Partial)

- Specific pumps RPM controlled via V.F.D.
- Stable Pressure
- Pressure Differences : ± 0.5 kgf/cm
- Half pump system
- Max. power saving

2005~

Generation: 3

Individual V.F.D. Booster System

- All pumps equipped with V.F.D.
- Stable Pressure
- Color 7" LCD Touch Monitor
- High Reliability
- Pressure Differences : ± 0.3 kgf/cm^2

2005~

Generation: 3.5

Individual Premium V.F.D. Booster System

- All pumps RPM controlled
- All pumps equipped with V.F.D.
- EMC Filter/DC reactor internally installed
- Color 7" LCD Touch Monitor
- Stable Pressure, power saving
- Pressure Differences : ± 0.3 kgf/cm^2

2015~

XQ-DRIVE
VARIABLE FREQUENCY DRIVE

Premium XQ-Drive

XQ-DRIVES are pump specific variable frequency drive that manages pump performance to match a wide range of system conditions and requirements. Adjusting the pump speed is the most efficient means of controlling pump flow and reducing the energy consumption As the drives are self-cooling and motorindependent structure, it can be mounted directly on the motor or on the wall. XQ DRIVES are equipped with the lastest GUI 3.5" color LCD display. A noice filtering EMC filter and DC reactor is also installed within the XQ DRIVES.

Technical Specification

Available Power	0.75~22kW
Input Power	3Φ×380V~440V
Output Power	3Φ×380V~440V
Frequency	50/60Hz
Max. Frequency	60Hz
IP Class	IP 55
Max. Distance Of Pressure Transmitter	Max. 10m
Ambient Temp.	-10℃~+40℃

Protections

- Dry Running
- Low Water Level Detection
- Over/Under Voltage Inverter
- Min. Flow Stop
- Temp. Pressure Setting
- Sensor Failure
- Pump Freezing
- Pump Overload

XQ-Drive Features

1. 3.5” LCD Display (Graphical User Interface)
2. Energy Savings up to 70%
3. Multi-pump control capacity of up to 6 pumps
4. Hydraulic control functions included
5. Electrical and hydraulic pump protections
6. Automatic recovery after power failure
7. Easy retrofitting on existing pump system
8. Flexible installation either directly on a standard I.E.C. motors or on walls
9. EMC filter and DC reactor built-in

   -Reduce noise and harmonic distortion

NSQ-Drive

NSQ-DRIVES are pump specific variable frequency drive that manages pump performance to match a wide range of system conditions and requirements. Adjusting the pump speed is the most efficient means of controlling pump flow and reducing the energy consumption
As the drives are self-cooling and motor-independent structure, it can be mounted directly on the motor or on the wall.

Technical Specification

Available Power	0.75~22kW
Input Power	1Φ×200~230V (0.75~2.2kW) 3Φ×380~440V (0.75~22kW)
Output Power	3Φ×380V
Frequency	50/60Hz
Max. Frequency	60Hz
IP Class	IP 55
Max. Distance Of Pressure Transmitter	Max. 10m
Ambient Temp.	-10℃~+40℃

Protections

- Dry Running
- Low Water Level Detection
- Over/Under Voltage Inverter
- Min. Flow Stop
- Temp. Pressure Setting
- Sensor Failure
- Pump Freezing
- Pump Overload

NSQ-Drive Features

1. Energy Savings up to 70%
2. Multi-pump control capacity of up to 6 pumps
3. Hydraulic control functions included
4. Electrical and hydraulic pump protections
5. Automatic recovery after power failure
6. Easy retrofitting on existing pump system
7. Flexible installation either directly on a standard I.E.C. motors or on walls

SQ-DRIVE
VARIABLE FREQUENCY DRIVE

SQ-Drive

SQ-DRIVE is a single phrase variable frequency drive that manages pump performance to match a wide range of system conditions and requirements. Adjusting the pump speed is the most efficient means of controlling the pump flow and reducing the energy consumption

SQ-Drive is a motor-independent structure, it can be mounted directly on the motor or on the wall.

Technical Specification

Available Power	0.55~1.1kW
Input Power	1Φ×220V
Output Power	3Φ×220V
Frequency	50/60Hz
Max. Frequency	60Hz
IP Class	IP 55
Max. Distance Of Pressure Transmitter	Max. 10m
Ambient Temp.	-10℃~+40℃

Protections

- Dry Running
- Low Water Level Detection
- Over/Under Voltage Inverter
- Min. Flow Stop
- Temp. Pressure Setting
- Sensor Failure
- Pump Freezing
- Pump Overload

SQ-Drive Features

1. Stand alone inverter for a single pump
2. Hydraulic control functions included
3. Electrical and hydraulic pump protections
4. Hydraulic control functions included
5. Easy retrofitting on existing pump systems
6. Flexible installations(motor, wall)
7. Small compact design and space saving
8. FND display for easy status monitoring and programing

Features

- Full Color Display
- Touch Screen Interface
- User-Friendly/Easy to function
- Icons includes; History of Run/Alarm and other various information
- Languages include; Korean/Chinese/English
- RS 485: Integrated commumication UX & GUI USB
- USB PORT: Firmware upgrade port

Specification

- 7" TFT LCD
- Touch Screen Monitor
- RS-485 PORT : 2 ports
- CAN COM. PORT : 1
- Run/Alarm contact
- Power: 220~440V
- Temp. & Humidity : -10~40℃ / 90%Under
- USB PORT

Model Application

Models	Available	Unavailable
NSQ-Series		●
NSQP-Series	●	
HNSQ-Series		●
HNSQP-Series	●	

※ P: Indicates a TM 7.0" Touch Monitor is inluded with the system

GUI(Graphic User Interface) Introduction

1. Current Date and Time
2. Setting Pressure Value
3. Current Pressure Value
4. Current Output Ratio
5. Icon/Current condition of each pumps (Up to 6 pumps)

Ratio Current operating ratio		**Current** Current Value	
Power Current power consumption		**Frequency** Current operating frequency	
Acumulated Power Current Power accumlation		**Output Power** Current Output Power	

6. Status
7. Run History
8. Set-Up

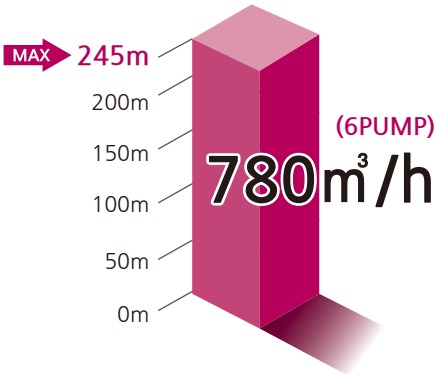
XQP Series System

GOOD DESIGN 산업통상자원부선정

NEP 신제품인증 NEW EXCELLENT PRODUCT

Specification

- Max. Flow(Q) : 780m³/h
- Max. Head (H) : 245m
- Pump Connection : Up to 6 Pumps
- Motor Power: 0.75~22kW (1~30HP)

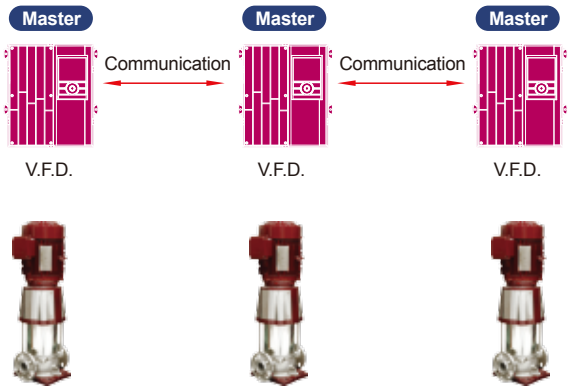


Functions

- Pressure settings
- Alternative operation
- Pump Freeze Protection
- Automactic detection of low flow on discharge
- Automactic recovery after power outage
- XQ drive will protect the pump
- Operation display and storage
- Equipped with an RS485

Features

- 7" color LCD touch monitor
- Each pump are individually controlled by a XQ drive
- High reliability (Multi-master control)
- Constant discharge pressure
- Reduced tank and panel sizes
- Less wear of the system during operation
- Compact assembly and installation
- High reliability with an installation of two pressure transmitter
- Lowest possible energy consumption
- Up to 22kW and connection of up to 6 pumps



- Alternative Opertion
  - Alternative operation refers to the total sum of the power accumulated
  - This in-return ensures that the operating of each pump will be the same and extends the life-line of each pump as the wear is evenly distributed amongst the pumps.

Main Componets

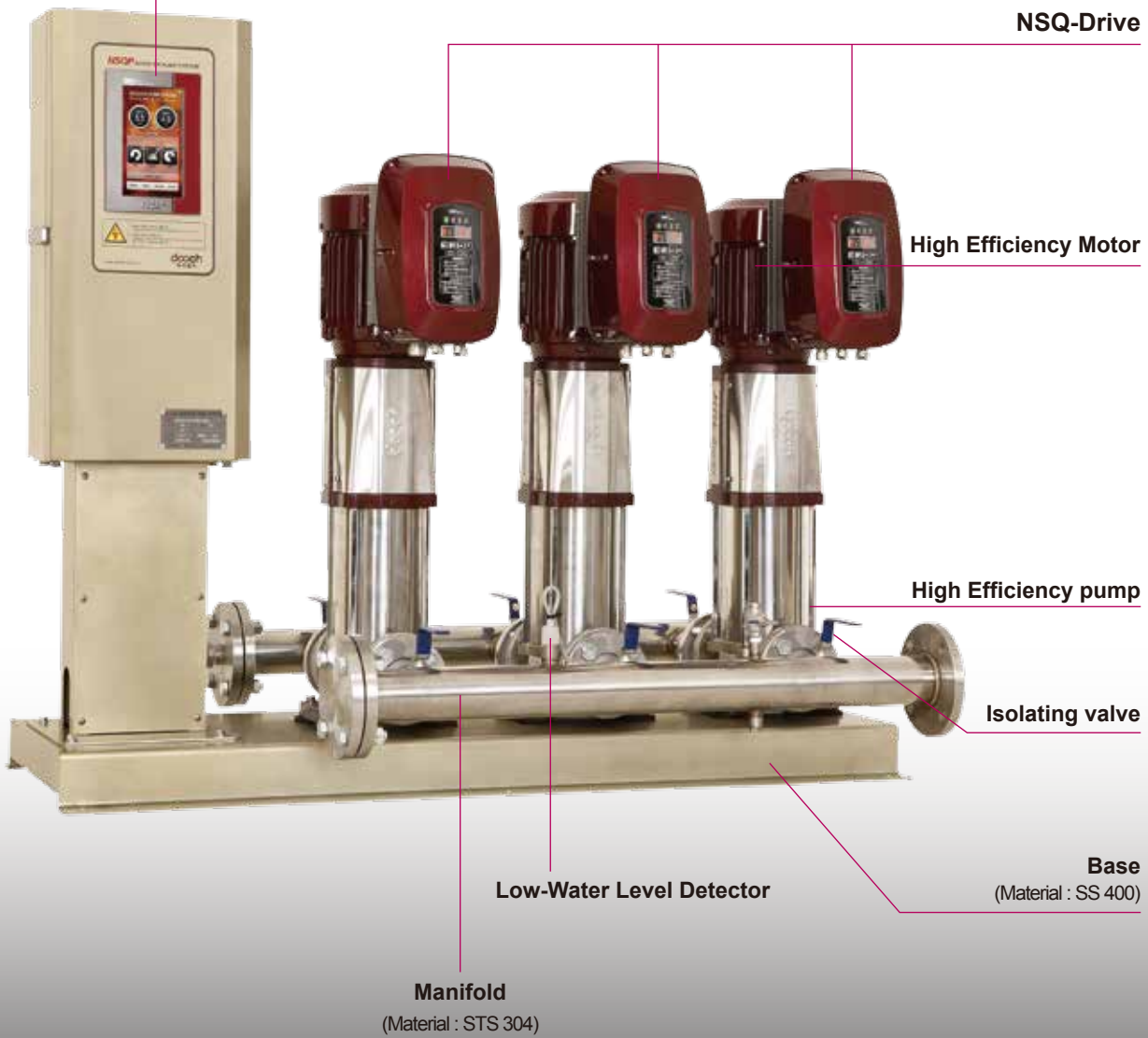
7" LCD Touch Screen Monitor embedded into the Panel

V.F.D. XQ-Drive

High Efficiency Pump XRL Series

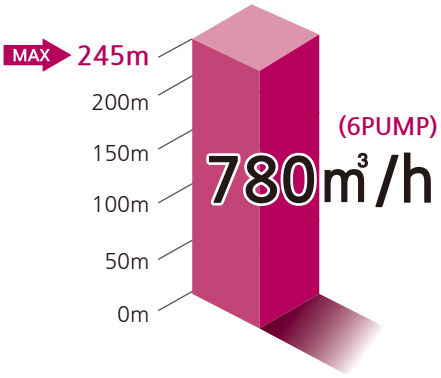
Standard Manifold

NSQP Series System



Specification

- Max. Flow(Q) : 780m³/h
- Max. Head (H) : 245m
- Pump Connection : Up to 6 Pumps
- Motor Power: 0.75~22kW (1~30HP)

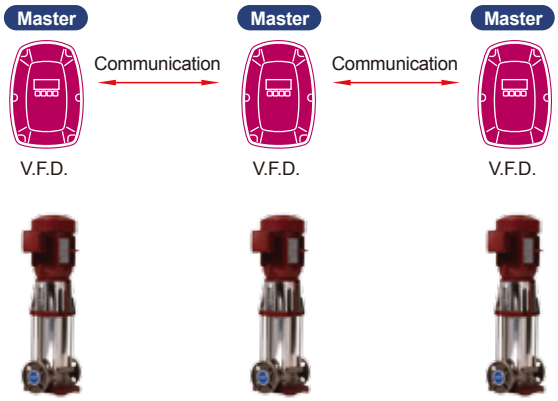


Features

- Pressure settings
- Alternative operation
- Pump Freeze Protection
- Automactic detection of low flow on discharge
- Automactic recovery after power outage
- NSQ drive will protect the pump
- Operation display and storage
- Equipped with an RS485

Features

- 7" color LCD touch monitor
- Each pump are individually controlled by a NSQ drive
- High reliability (Multi-master control)
- Constant discharge pressure
- Reduced tank and panel sizes
- Less wear of the system during operation
- Compact assembly and installation
- High reliability with an installation of two pressure transmitter
- Lowest possible energy consumption
- Up to 22kW and connection of up to 6 pumps



- Alternative Opertion
  - Alternative operation refers to the total sum of the power accumulated
  - This in-return ensures that the operating of each pump will be the same and extends the life-line of each pump as the wear is evenly distributed amongst the pumps.

Main Componets

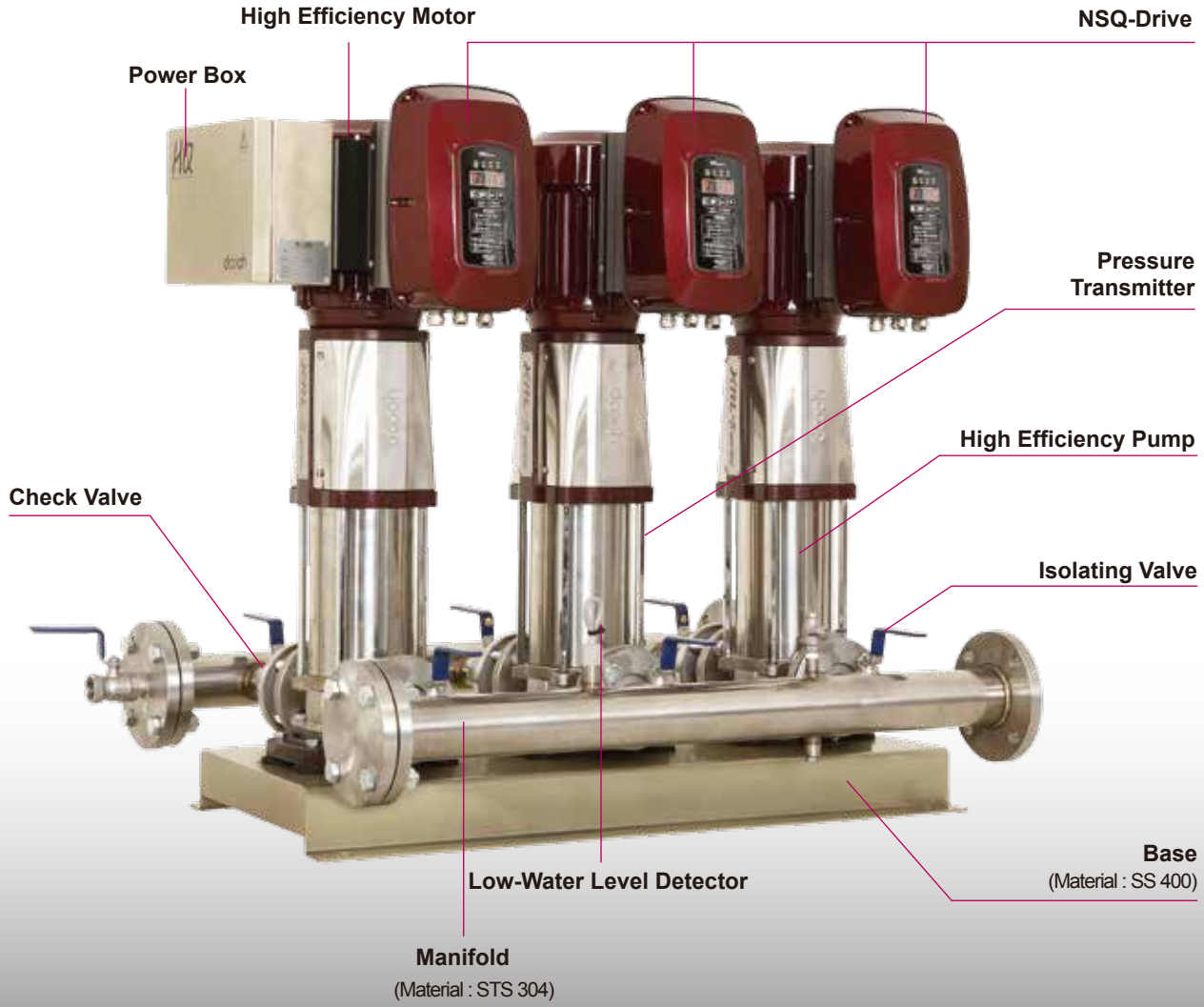
7" LCD Touch Screen Monitor embedded into the Panel

V.F.D. NSQ-Drive

High Efficiency Pump XRL Series

Standard Manifold

NSQ Series System

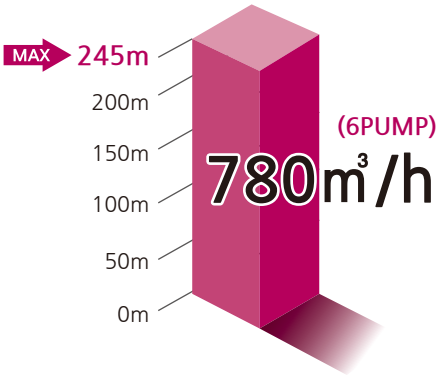


NSQ Series

VARIABLE SPEED CONTROLLED BOOSTER SYSTEM

Specification

- Max. Flow(Q) : 780m³/h
- Max. Head (H) : 245m
- Pump Connection : Up to 6 Pumps
- Motor Power: 0.75~22kW (1~30HP)

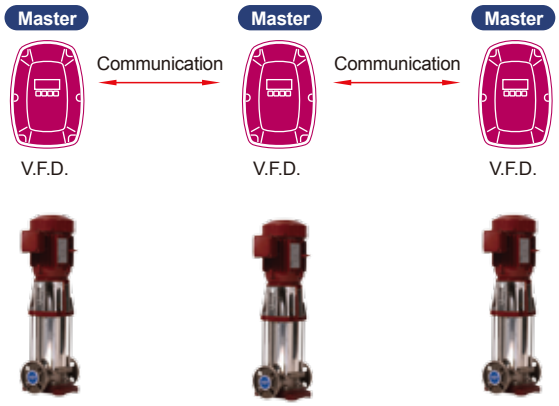


Functions

- Pressure settings
- Alternative operation
- Pump Freeze Protection
- Automactic detection of low flow on discharge
- Automactic recovery after power outage
- NSQ drive will protect the pump
- Operation display and storage
- Equipped with an RS485

Features

- 7" color LCD touch monitor
- Each pump are individually controlled by a NSQ drive
- High reliability (Multi-master control)
- Constant discharge pressure
- Reduced tank and panel sizes
- Less wear of the system during operation
- Compact assembly and installation
- High reliability with an installation of two pressure transmitter
- Lowest possible energy consumption
- Up to 22kW and connection of up to 6 pumps

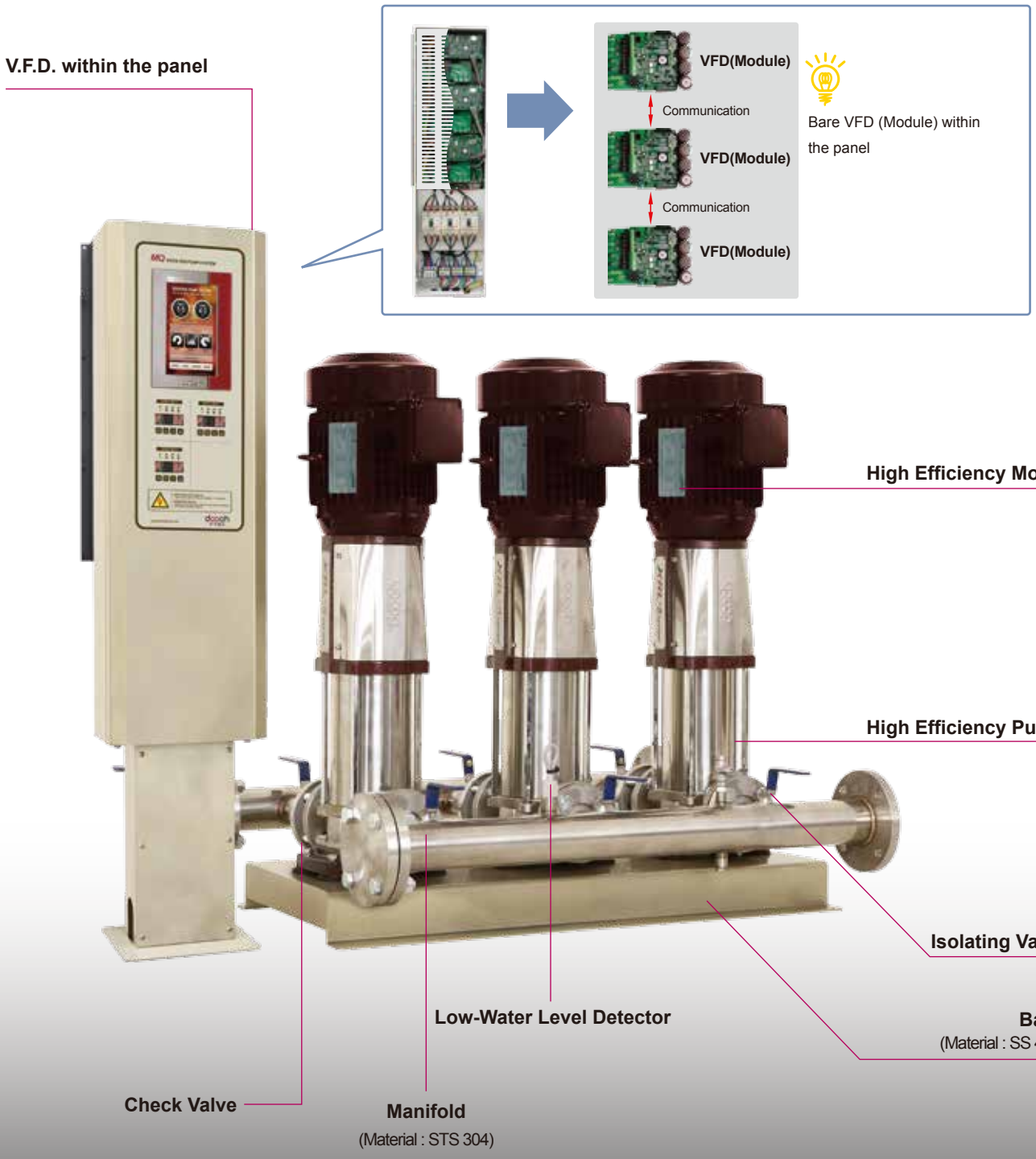


- **Alternative Opertion**
  - Alternative operation refers to the total sum of the power accumulated
  - This in-return ensures that the operating of each pump will be the same and extends the life-line of each pump as the wear is evenly distributed amongst the pumps.

Main Componets

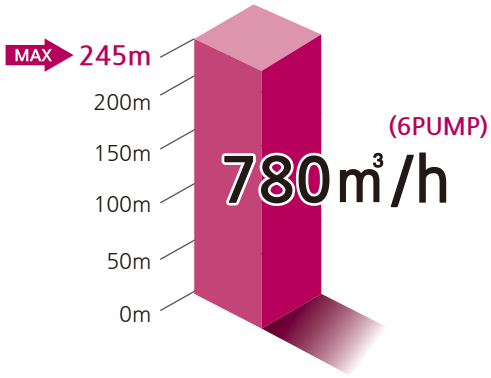
Power Box | **NSQ-Drive** | **High Efficiency Pump XRL Series** | **Standard Manifold**

MQ Series System



Specification

- Max. Flow(Q) : 780m³/h
- Max. Head (H) : 245m
- Pump Connection : Up to 6 Pumps
- Motor Power: 0.75~22kW (1~30HP)

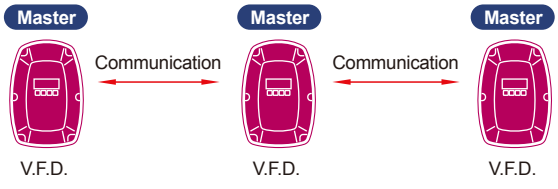


Functions

- Pressure settings
- Alternative operation
- Pump Freeze Protection
- Automactic detection of low flow on discharge
- Automactic recovery after power outrage
- Operation display and storage
- Equipped with an RS485

Features

- 7" color LCD touch monitor
- Each pump are individually controlled by a VFD module within the panel
- High reliability (Multi-master control)
- Constant discharge pressure
- Reduced tank and panel sizes
- Less wear of the system during operation
- Compact assembly and installation
- High reliability with an installation of two pressure transmitter
- Lowest possible energy consumption
- Up to 22kW and connection of up to 6 pumps



- **Alternative Opertion**
  - Alternative operation refers to the total sum of the power accumulated
  - This in-return ensures that the operating of each pump will be the same and extends the life-line of each pump as the wear is evenly distributed amongst the pumps.

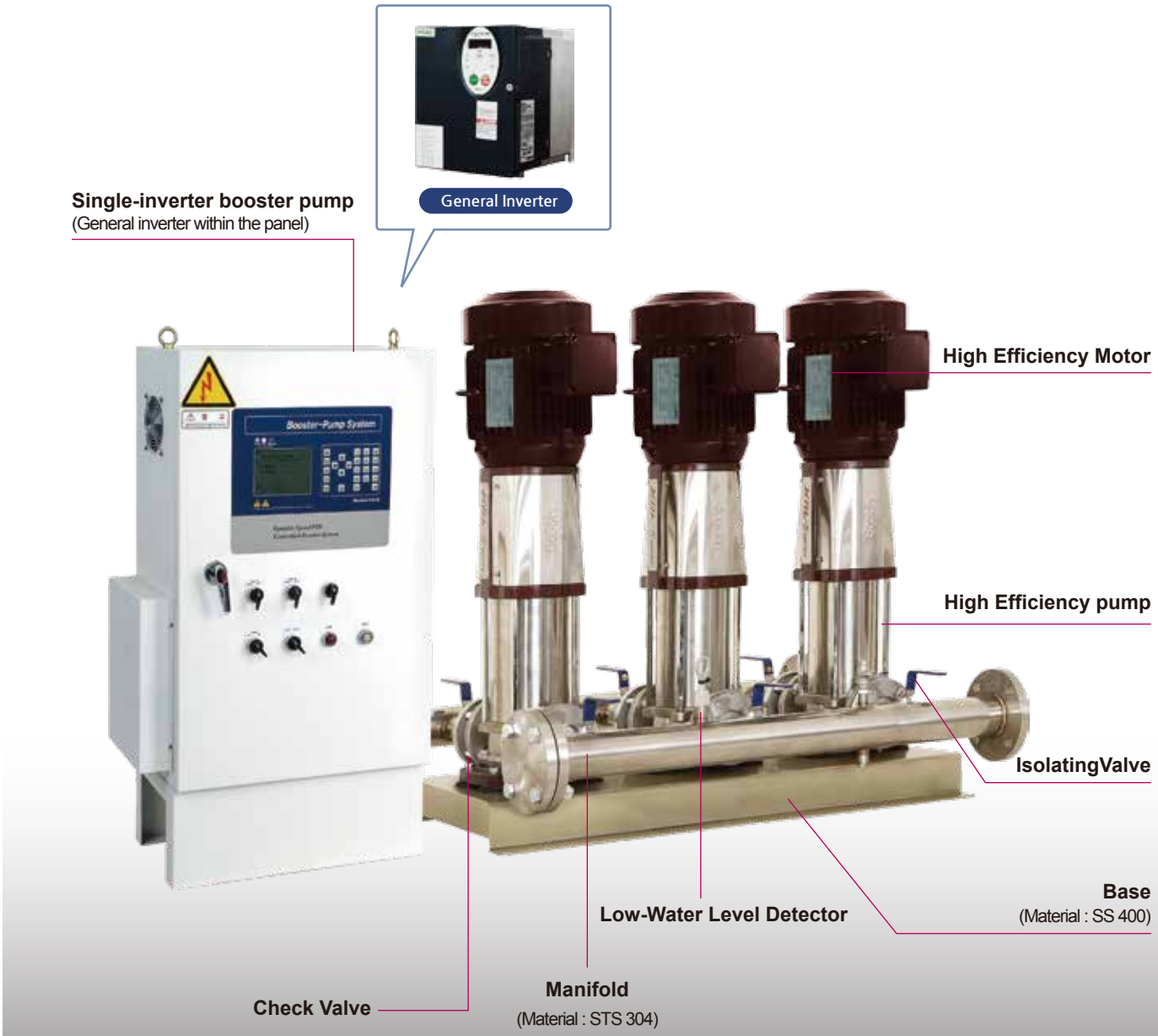
Main Componets

VFD Module within the panel

High Efficiency Pump
XRL Series

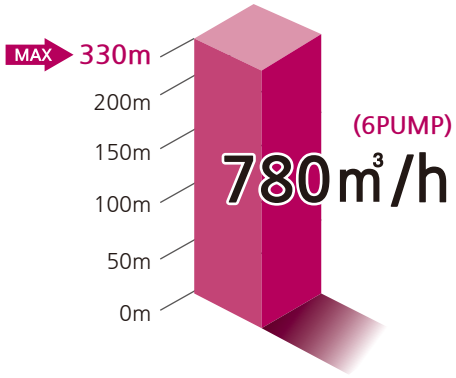
Standard Manifold

N747D Series System



Specification

- Max. Flow(Q) : 780m³/h
- Max. Head (H) : 330m
- Pump Connection : Up to 6 Pumps
- Motor Power: 0.75~110kW (1~150HP)



Specification

- N747D Controller built witin the panel
- System is operated by a single general inverter
- Up to 110kW with a general inverter
- Constant discharge pressure
- Reduced tank and panel sizes
- Less wear of the system during operation
- Compact assembly and installation
- High reliability with an installation of two pressure transmitter
- Lowest possible energy consumption

Functions

- Pressure settings
- Alternative operation
- Pump Freeze Protection
- Automactic detection of low flow on discharge
- Automactic recovery after power outrage
- LCD Monitor
- Operation display and storage
- Equipped with an RS485

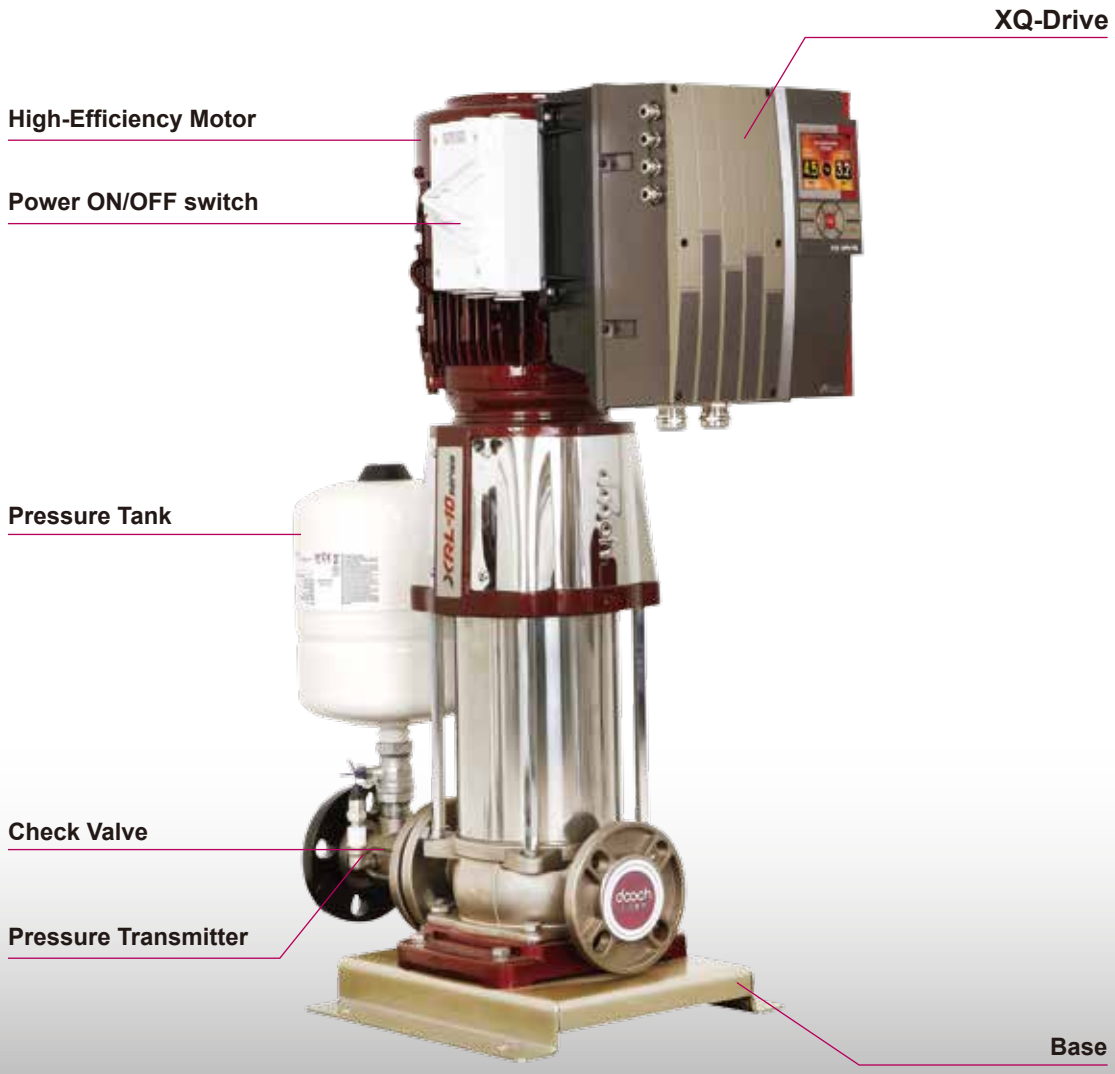
Main Componets

General Inverter within the panel

High Efficiency Pump
XRL Series

Standard Manifold

XQ-XR(L)


XQ-Drive
High-Efficiency Motor
Power ON/OFF switch
Pressure Tank
Check Valve
Pressure Transmitter
Base

XQ-XR(L) Series

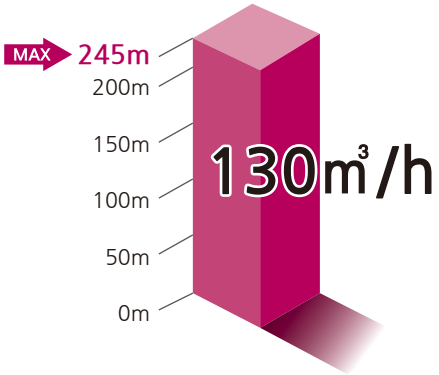
PREMIUM VFD MULTI-STAGE PUMP

XQ-XR(L)

XQ-XR(L) pumps are built on the basis of XR(L) pumps. Enhanced with the XQ-Drive, the XR(L) pump together with the appropriate sensor is turned into an intelligent, variable speed pumping system. The XQ-Drives are frequency converter integrated into the pump which adjusts the motor speed to provide constant pressure or differential pressure to the flow rate.

Specification

- Max. Flow : 130m³/h
- Max. Head: 245m
- Motor Power : 0.75~22kW (1~30HP)
- Input Power: 3Φ×380V~440V / 50 & 60Hz
- Ouput Power: 3Φ×380V / 50 & 60Hz



Functions

- Pressure settings
- Alternative operation
- Pump Freeze Protection
- Automactic detection of low flow on discharge
- Automactic recovery after power outage
- XQ drive will protect the pump
- Operation display and storage
- Equipped with an RS485

XQ-XR(L) Benefits

- 3.5" color display
- Built-in EMC filter/DC reactor
  - Reduce noise and harmonic distortion
- Energy Saving (Up to 50%)
- Maintains constant pressure
- Simplicity (Eliminates seperate control panels)
- Soft start functionality to minimize mechanical stress on the pumping system

Main Components

XR(L) Series

+

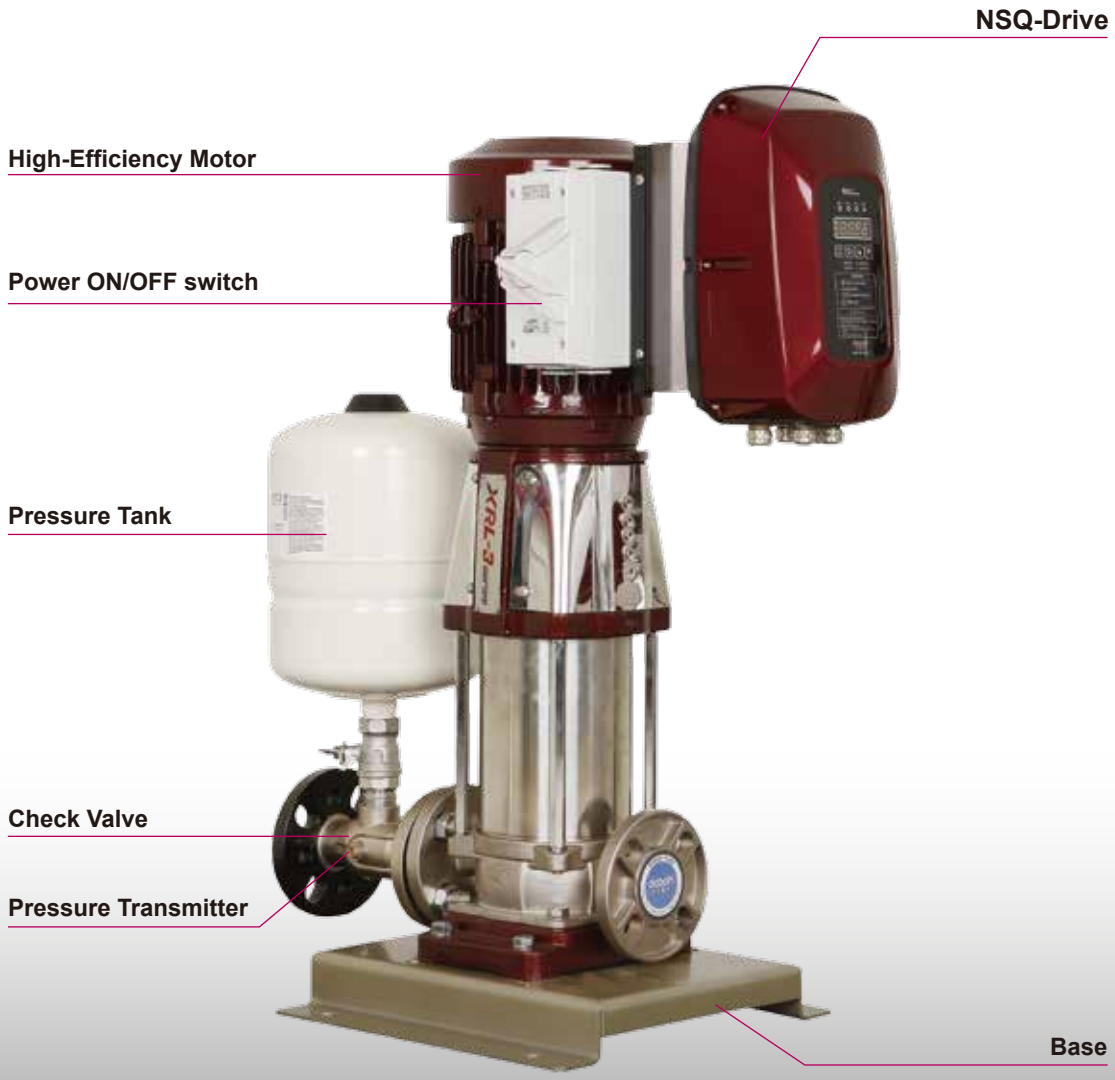
XQ-Drive

+

Pressure tank

Check Valve

NSQ-XR(L)

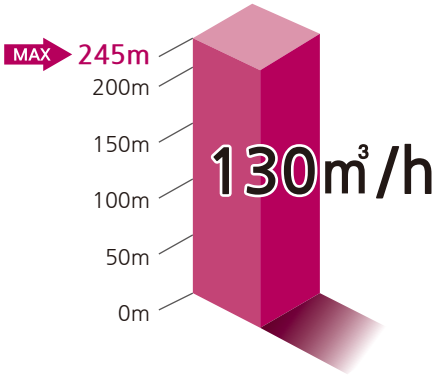

NSQ-Drive
High-Efficiency Motor
Power ON/OFF switch
Pressure Tank
Check Valve
Pressure Transmitter
Base

NSQ-XR(L)

NSQ-XR(L) pumps are built on the basis of XR(L) pumps. Enhanced with the NSQ-Drive, the XR(L) pump together with the appropriate sensor is turned into an intelligent, variable speed pumping system. The NSQ-Drives are frequency converter integrated into the pump which adjusts the motor speed to provide constant pressure or differential pressure to the flow rate.

Specification

- Max. Flow : 130m³/h
- Max. Head : 245m
- Motor Power : 0.75~22kW (1~30HP)
- Input Power : 3Φ×380V~440V / 50 & 60Hz
  1Φ×220V~230V / 50 & 60Hz
- Ouput Power : 3Φ×220V~380V / 50 & 60Hz



Functions

- Pressure settings
- Alternative operation
- Pump Freeze Protection
- Automactic detection of low flow on discharge
- Automactic recovery after power outage
- NSQ drive will protect the pump
- Operation display and storage
- Equipped with an RS485

NSQ-XR(L) Benefits

- Energy Saving (Up to 50%)
- Maintains constant pressure
- Simplicity (Eliminates seperate control panels)
- Soft start functionality to minimize mechanical stress on the pumping system

Main Components

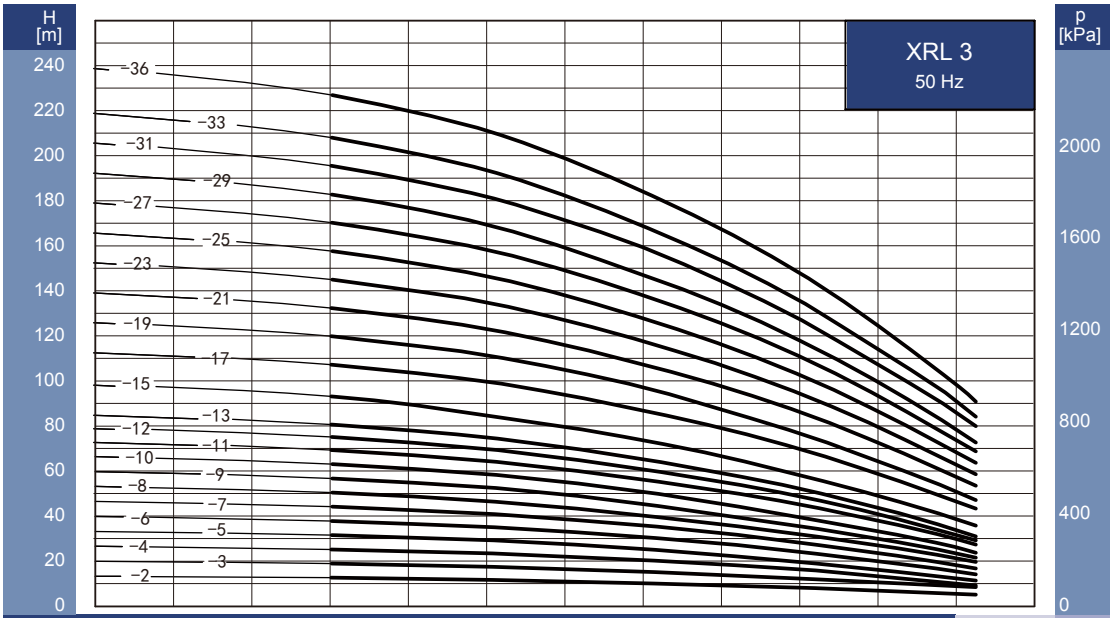
XR(L) Series

NSQ-Drive

Pressure tank

Check Valve

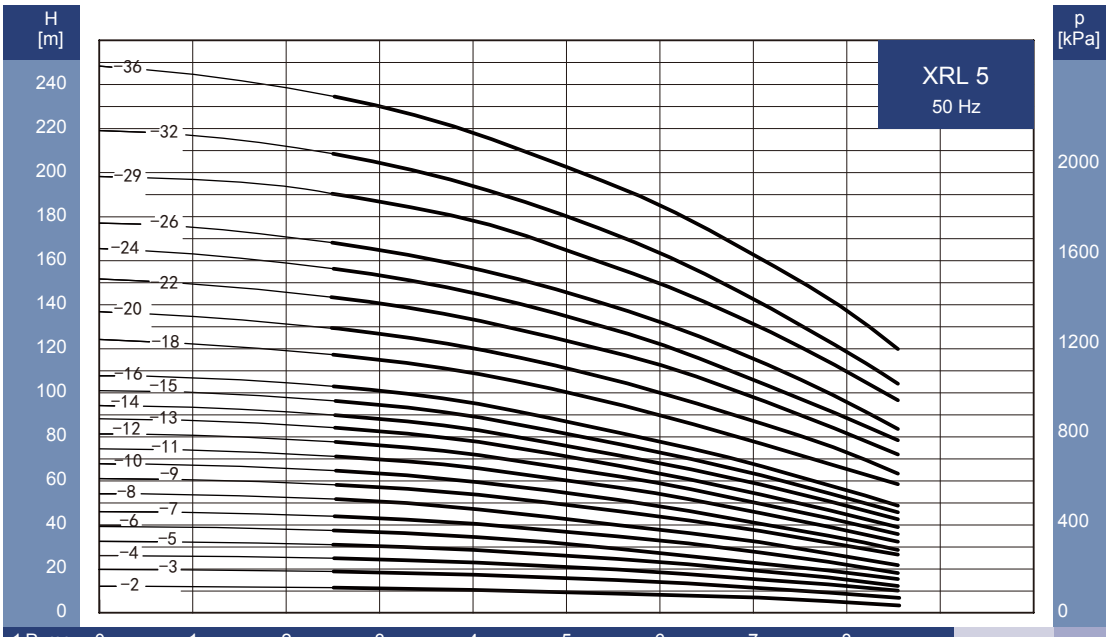
XRL 3 Series



1 Pump	0	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0
2 Pump	0	0.8	1.6	2.4	3.2	4.0	4.8	5.6	6.4	7.2	8.0
3 Pump	0	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0
4 Pump	0	1.6	3.2	4.8	6.4	8.0	9.6	11.2	12.8	14.4	16.0
5 Pump	0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
6 Pump	0	2.4	4.8	7.2	9.6	12.0	14.4	16.8	19.2	21.6	24.0

Q [m³/h]

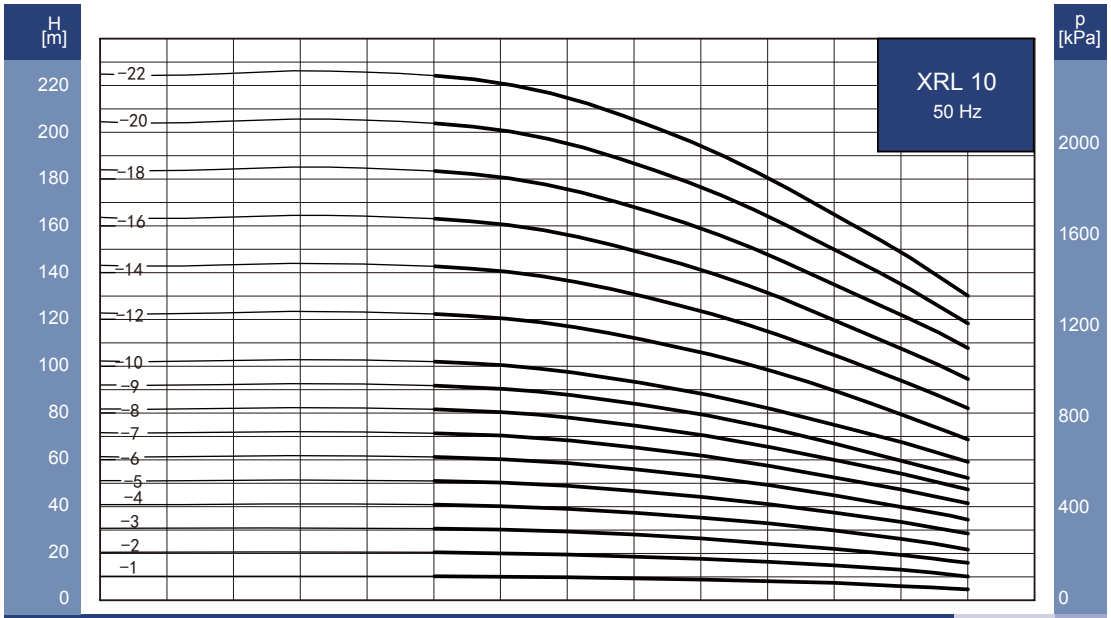
XRL 5 Series



1 Pump	0	1	2	3	4	5	6	7	8
2 Pump	0	2	4	6	8	10	12	14	16
3 Pump	0	3	6	9	12	15	18	21	24
4 Pump	0	4	8	12	16	20	24	28	32
5 Pump	0	5	10	15	20	25	30	35	40
6 Pump	0	6	12	18	24	30	36	42	48

Q [m³/h]

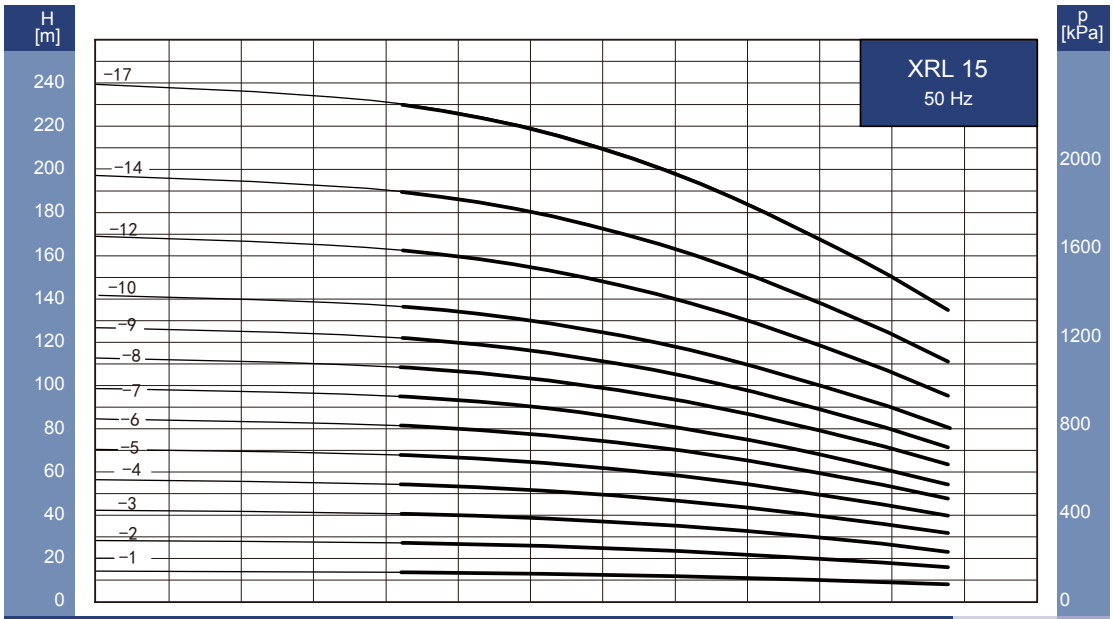
XRL 10 Series



1 Pump	0	1	2	3	4	5	6	7	8	9	10	11	12
2 Pump	0	2	4	6	8	10	12	14	16	18	20	22	24
3 Pump	0	3	6	9	12	15	18	21	24	27	30	33	36
4 Pump	0	4	8	12	16	20	24	28	32	36	40	44	48
5 Pump	0	5	10	15	20	25	30	35	40	45	50	55	60
6 Pump	0	6	12	18	24	30	36	42	48	54	60	66	72

Q [m³/h]

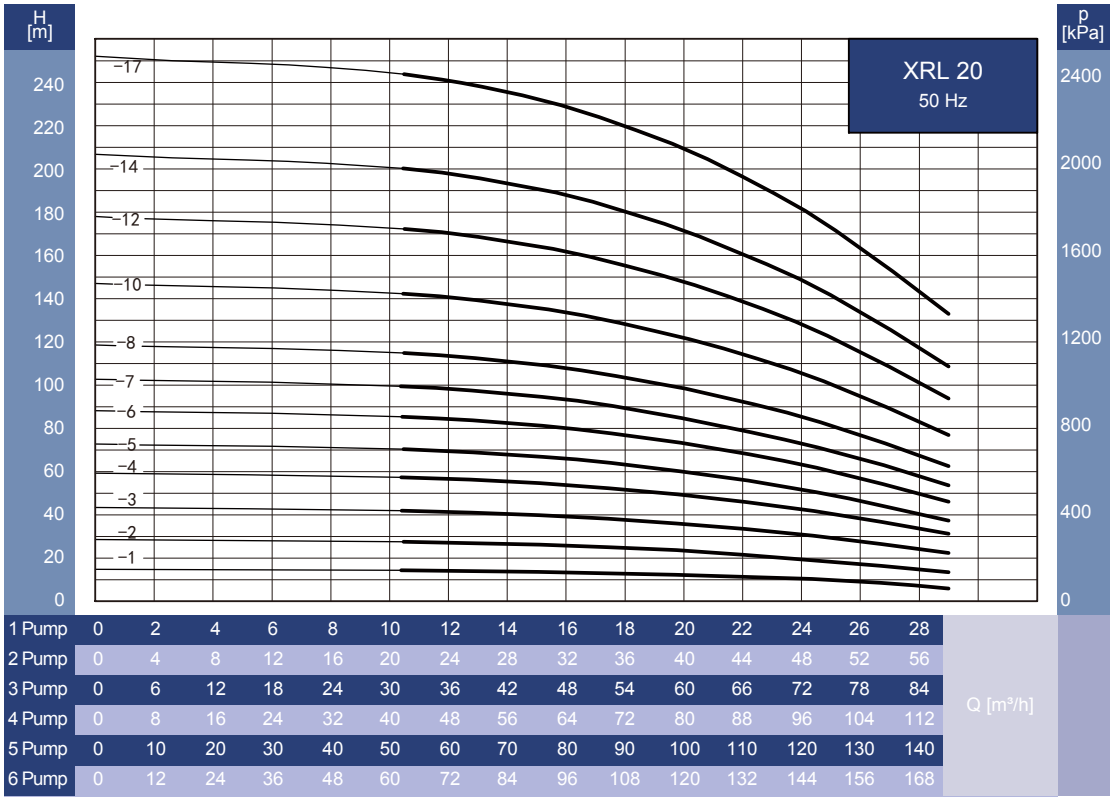
XRL 15 Series



1 Pump	0	2	4	6	8	10	12	14	16	18	20	22
2 Pump	0	4	8	12	16	20	24	28	32	36	40	44
3 Pump	0	6	12	18	24	30	36	42	48	54	60	66
4 Pump	0	8	16	24	32	40	48	56	64	72	80	88
5 Pump	0	10	20	30	40	50	60	70	80	90	100	110
6 Pump	0	12	24	36	48	60	72	84	96	108	120	132

Q [m³/h]

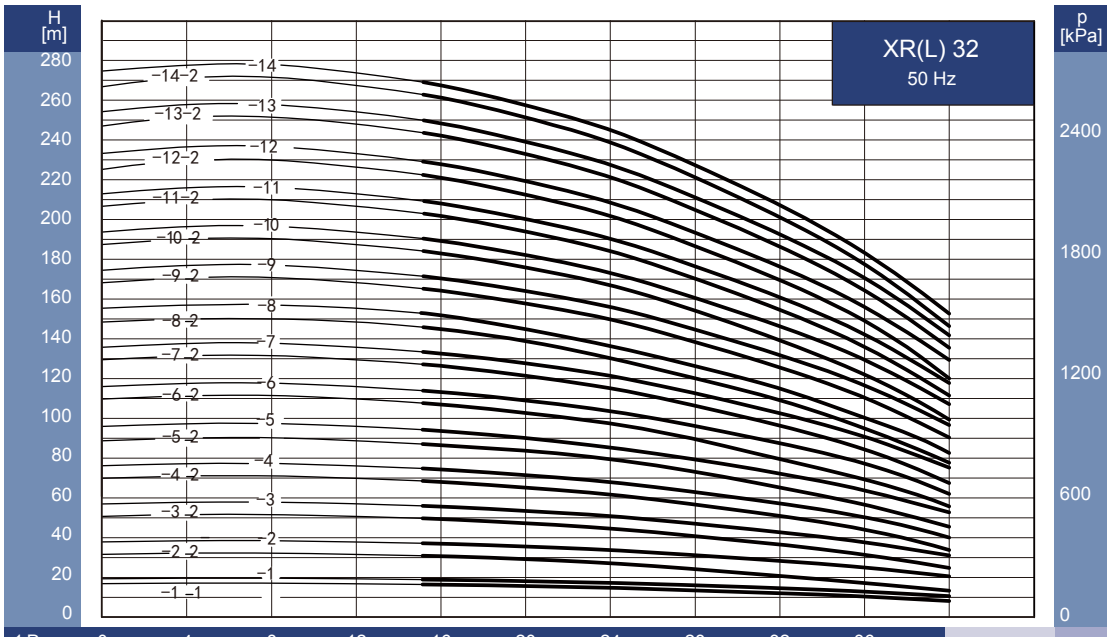
XRL 20 Series



1 Pump	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28
2 Pump	0	4	8	12	16	20	24	28	32	36	40	44	48	52	56
3 Pump	0	6	12	18	24	30	36	42	48	54	60	66	72	78	84
4 Pump	0	8	16	24	32	40	48	56	64	72	80	88	96	104	112
5 Pump	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140
6 Pump	0	12	24	36	48	60	72	84	96	108	120	132	144	156	168

Q [m³/h]

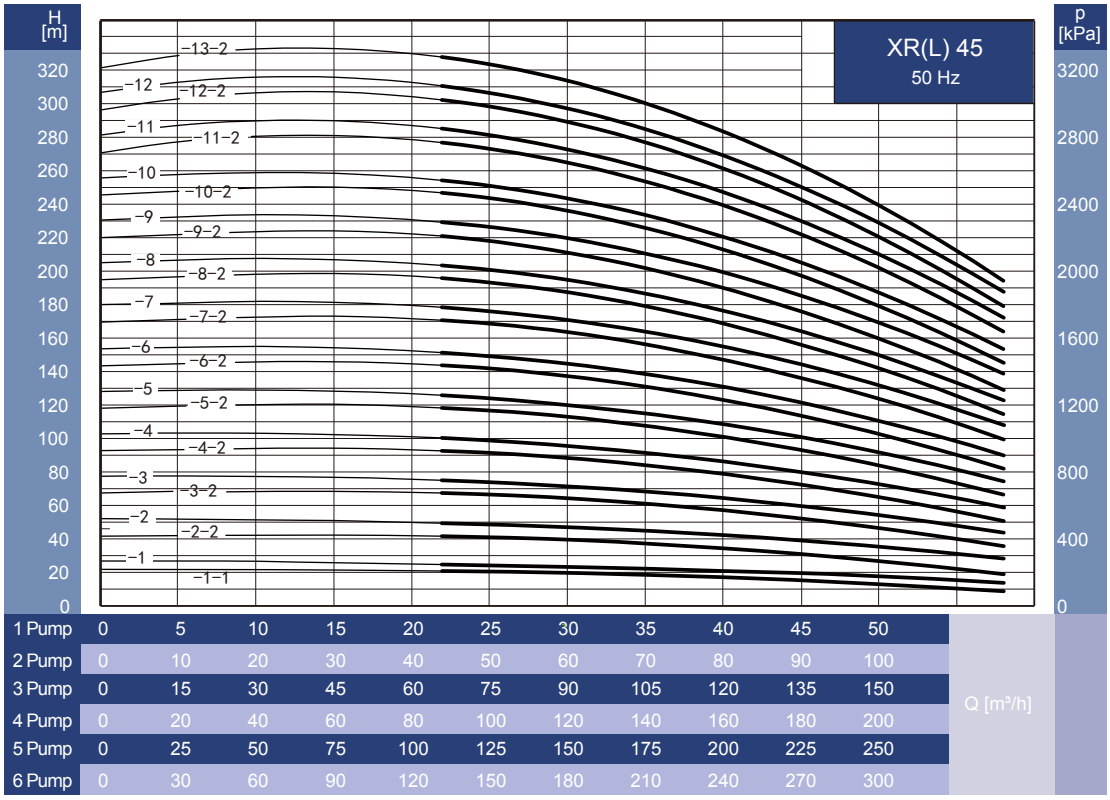
XR(L) 32 Series



1 Pump	0	4	8	12	16	20	24	28	32	36
2 Pump	0	8	16	24	32	40	48	56	64	72
3 Pump	0	12	24	36	48	60	72	84	96	108
4 Pump	0	16	32	48	64	80	96	112	128	144
5 Pump	0	20	40	60	80	100	120	140	160	180
6 Pump	0	24	48	72	96	120	144	168	192	216

Q [m³/h]

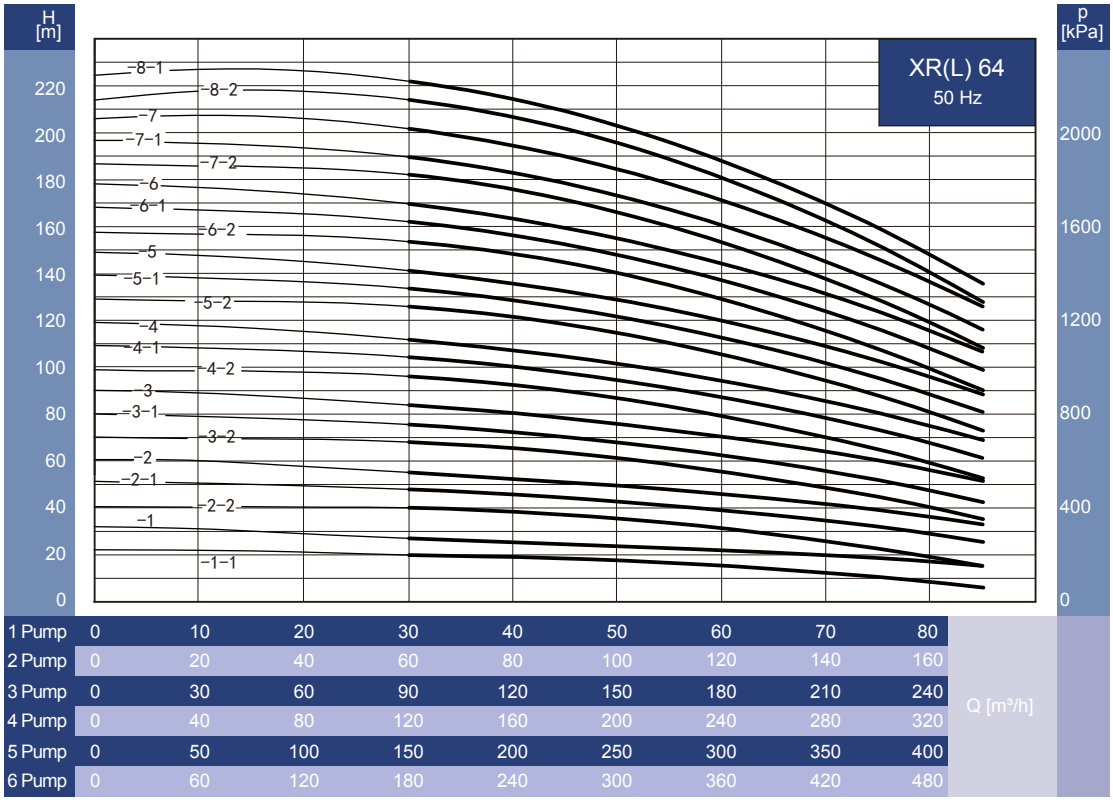
XR(L) 45 Series



1 Pump	0	5	10	15	20	25	30	35	40	45	50
2 Pump	0	10	20	30	40	50	60	70	80	90	100
3 Pump	0	15	30	45	60	75	90	105	120	135	150
4 Pump	0	20	40	60	80	100	120	140	160	180	200
5 Pump	0	25	50	75	100	125	150	175	200	225	250
6 Pump	0	30	60	90	120	150	180	210	240	270	300

Q [m³/h]

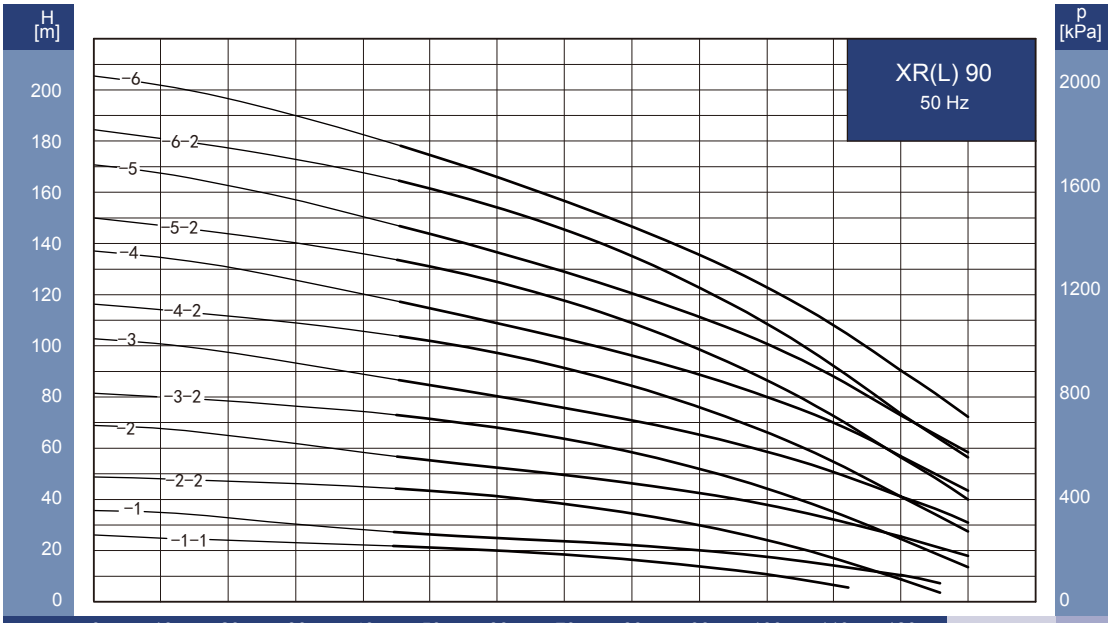
XR(L) 64 Series



1 Pump	0	10	20	30	40	50	60	70	80
2 Pump	0	20	40	60	80	100	120	140	160
3 Pump	0	30	60	90	120	150	180	210	240
4 Pump	0	40	80	120	160	200	240	280	320
5 Pump	0	50	100	150	200	250	300	350	400
6 Pump	0	60	120	180	240	300	360	420	480

Q [m³/h]

XR(L) 90 Series



1 Pump	0	10	20	30	40	50	60	70	80	90	100	110	120
2 Pump	0	20	40	60	80	100	120	140	160	180	200	220	240
3 Pump	0	30	60	90	120	150	180	210	240	270	300	330	360
4 Pump	0	40	80	120	160	200	240	280	320	360	400	440	480
5 Pump	0	50	100	150	200	250	300	350	400	450	500	550	600
6 Pump	0	60	120	180	240	300	360	420	480	540	600	660	720

Q [m³/h]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