

Revision date: 20231128



Make Pump Inverter Easy



▶ Intelligent Constant Pressure Pump Controller and Spare Parts

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Public

GUANGZHOU BEDFORD ELECTRIC EQUIPMENT CO.,LTD.



Enterprise

Guangzhou Bedford Electric Equipment Co., Ltd. was founded in 2007, a high-tech enterprise integrating R&D, production, sales and service, and is a world-renowned manufacturer of special controllers for pumps and also a provider of intelligent water solutions. Our business covers more than 70 countries and regions.

BEDFORD not only has a strong technical, experienced, efficient and capable R&D team, but also has a complete and scientific quality management system, which has passed ISO9001, ISO14001, ISO45001, CE, RoHS certification, health license, certification of intellectual property implementation management system, and has obtained a number of invention patents, utility model patents, design patents, computer software copyright and SGS certification.

In the process of steady development, BEDFORD never forget to fulfill its social responsibilities, emphasize credibility and business ethics, and benefit mankind. BEDFORD always practice the brand spirit of "Perseverance, Morality, and Full of Happiness".

Vision: Become the World's Leading Manufacturer on Pump Inverters.

Mission: Make Pump Inverter Easy.

Values: Create Value for Customers.

1.Honors	01-02
2. W713B Series	03-06
3. W191 Series	07-08
4. W713 Series	09-13
5. B603 Series	14-19
6.PID Controller	20
7.Spare Parts	21-22
8.Application Cases	23-28



High-tech Enterprise



Tax Credit Grade A



Water-related Health License



ISO



High-tech Products



After-sales Service Certification



Energy Saving Certification



CE



RoHS



Software Certificate



Invention Patent



Utility Model Patent



Appearance Patent



New



W713B (IP54)



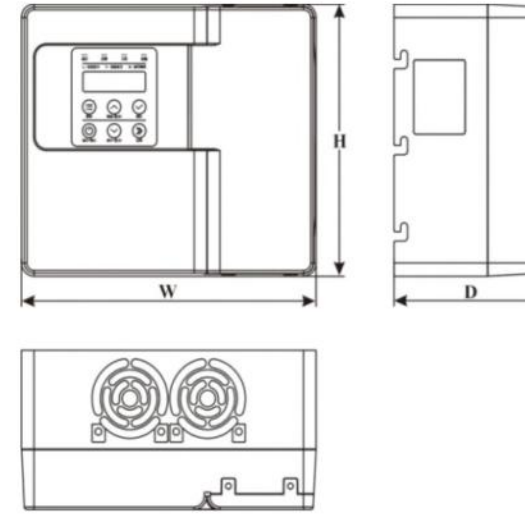
Intelligent constant pressure pump Controller

W713B Series

Input&Output Voltage and Power Range:

- Input: AC 1PH 220V 50/60Hz
- Output: AC 3PH 0~220V 0.75~2.2kW
- Input: AC 3PH 220V 50/60Hz
- Output: AC 3PH 0~220V 0.75~7.5kW
- Input: AC 3PH 380V 50/60Hz
- Output: AC 3PH 0~380V 0.75~18.5kW

External Dimension



Power (kW)	Contour dimension		
	H (mm)	W (mm)	D (mm)
220V: 0.75~2.2	170	190	110
380V: 0.75~3.0			
220V: 3.0~3.7	205	235	120
380V: 4.0~7.5			
220V: 5.5~7.5	220	290	150
380V: 11.0~18.5			

Features



Simple operation



Manual/automatic



Automatic failover



Six-pumps linkage



Real-time fault logging



Synchronous, master-slave etc.,



Built-in PID



Multiple protection features

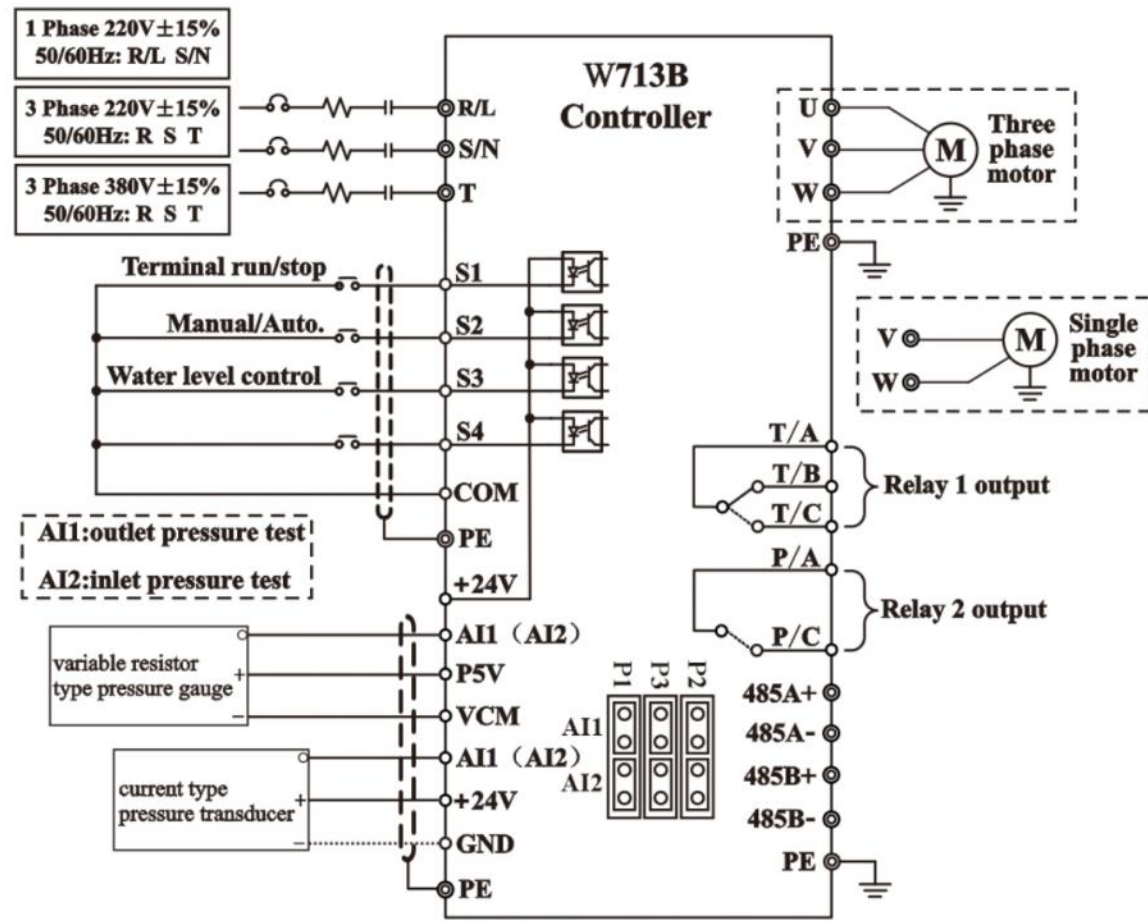
Application Cases



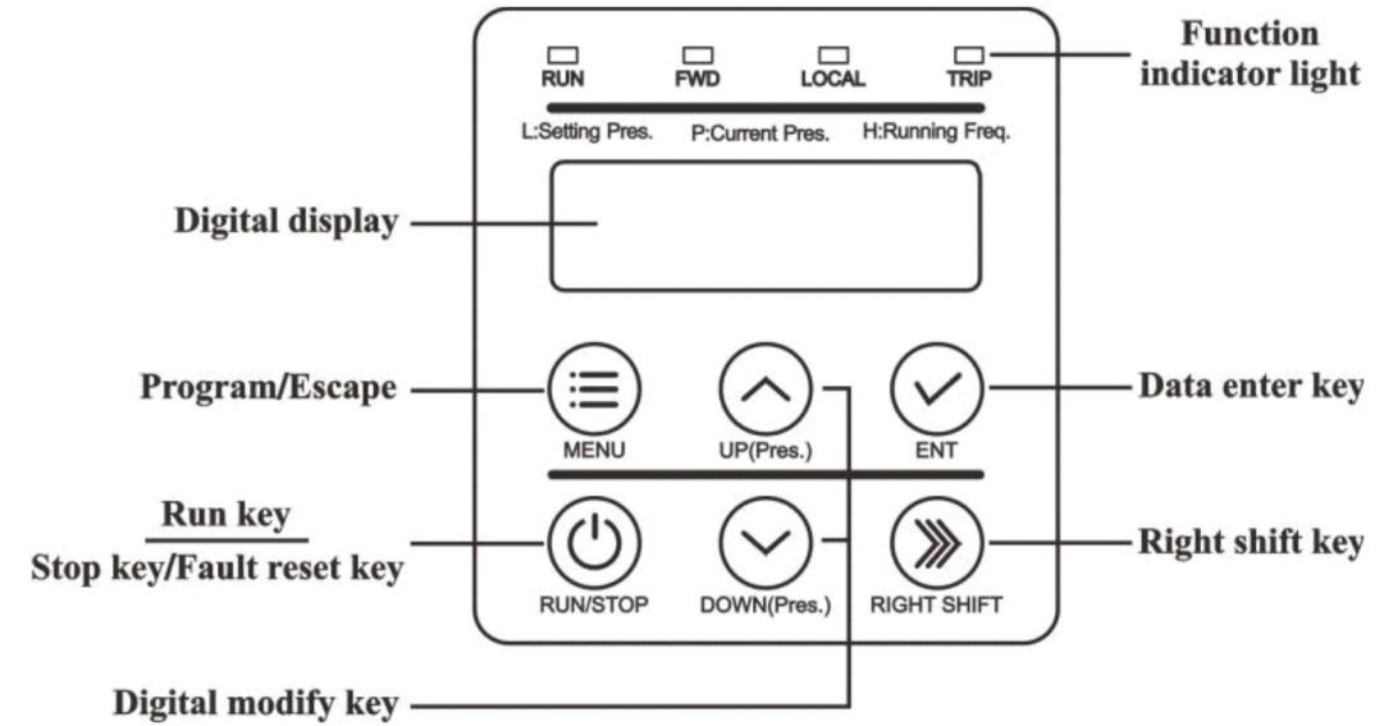
Selection Guide (IP54)

Model No.	Rated Input Voltage (V)	Rated Input Current (A)	Rated Output Current (A)	Motor Power (kW)
W713B-2001	1AC: 220V -15%~+15%	7.1	4.5	0.75
W713B-2002		11.1	7.0	1.5
W713B-2003		15.8	10.0	2.2
W713B-2001	3AC: 220V -15%~+15%	7.1	4.5	0.75
W713B-2002		11.1	7.0	1.5
W713B-2003		15.8	10.0	2.2
W713B-2004		17.6	13.0	3.0
W713B-2005		23.0	17.0	3.7
W713B-2007		32.0	25.0	5.5
W713B-2010		40.0	32.0	7.5
W713B-4001	3AC: 380V -15%~+15%	3.4	2.1	0.75
W713B-4002		5.0	3.8	1.5
W713B-4003		5.8	5.1	2.2
W713B-4004		9.0	6.8	3.0
W713B-4005		13.5	9.5	4.0
W713B-4007		19.5	14.0	5.5
W713B-4010		25.0	18.5	7.5
W713B-4015		32.0	25.0	11.0
W713B-4020		40.0	32.0	15.0
W713B-4025		47.0	38.0	18.5

Wiring Diagram



Keypad Description



Main Circuit Terminal:

PE	R/L	S/N	T	U	V	W	PE
----	-----	-----	---	---	---	---	----

Terminal Block Diagram of main circuit

Function of main circuit terminal

Terminal Name	Function description
L、N	1PH power input terminal
R、S、T	3PH power input terminal
U、V、W	3PH AC output terminal
PE	Ground Terminal

Environmental Requirement



Environment temperature range: -10℃~+40℃. Controller will be derated if ambient temperature exceeds 40℃.



Prevent rain drops, moist environment, oil fog, salt erosion, corrosive gas, and etc.



Prevent violent vibration or sudden impact



Lower than installation altitude, it will be derated is higher than 1000m.

New

Hot Sell

Intelligent constant pressure pump Controller

W191 Series

Input&Output Voltage and Power Range:

Input: 1PH 220V 50/60Hz
 Output: 1PH 0~220V: 1.1kW
 Input: 1PH 220V 50/60Hz
 Output : 3PH 0~220V: 2.2kW



W191 (IP54)

Features



Simple operation



Automatic fault transfer, real-time recording



Incoming call restart function



Built-in PID



Automatic control, constant water pressure



Up boost mode, down boost mode, Water tower mode, manual mode

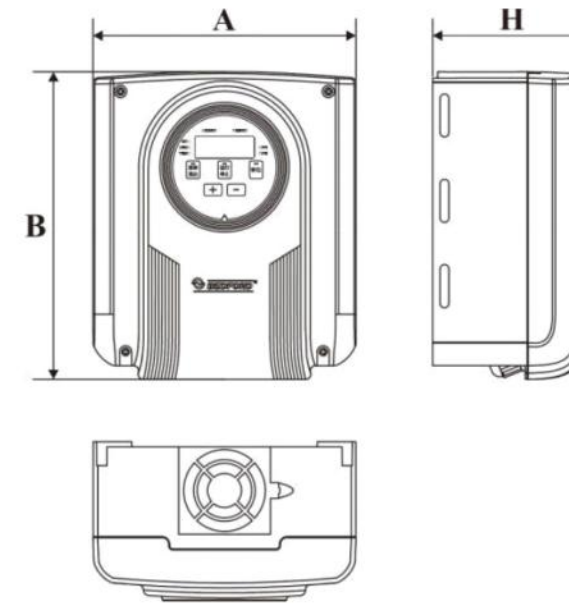
Protection function

Under voltage, over voltage, over current, over heat, phase loss, high water pressure, low water pressure, sensor open circuit and other fault protection functions.

Application Cases



External Dimension

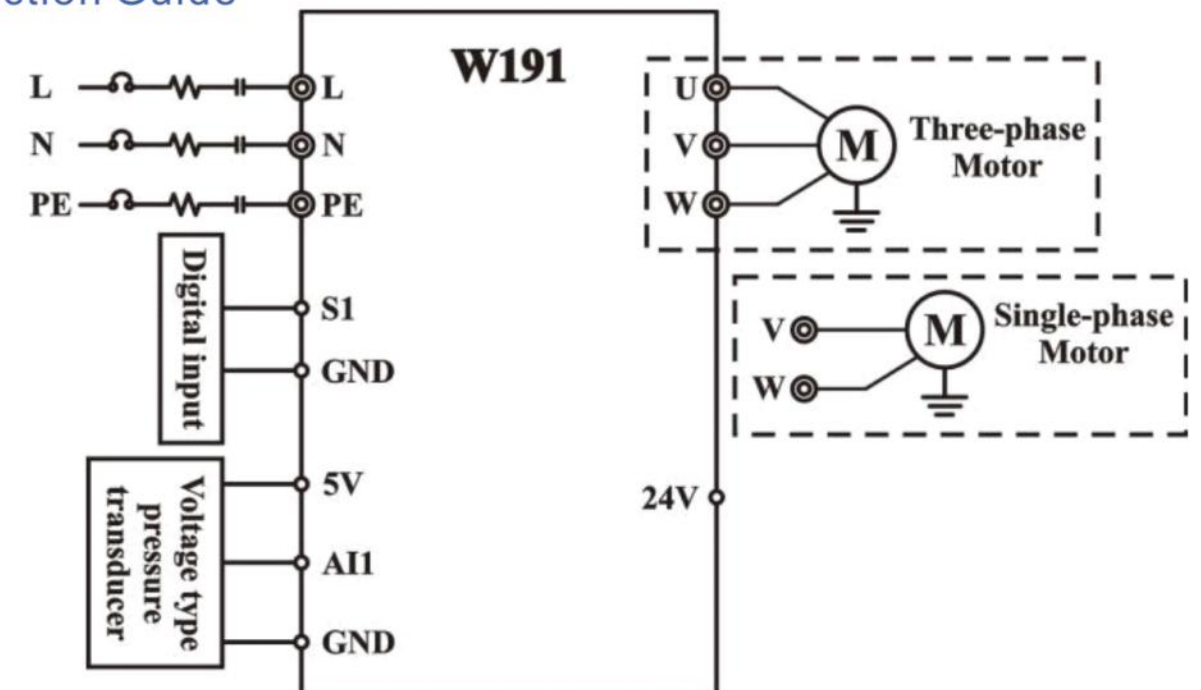


Model No.	Contour dimension		
	A(mm)	B(mm)	H(mm)
W191-2003	154	180	92

Selection Guide (IP54)

Model No.	Rated Input Voltage (V)	Input Current (A)	Max. Output Current (A)	Motor Power (kW)
W191-2003	1PH AC 220±15% 50/60Hz	23.0	10.0	2.2

Selection Guide



Intelligent constant pressure pump Controller

W713 Series

Input&Output Voltage and Power Range:

Input: 1PH 220V 50/60Hz
Output: 3PH 0~220V:0.75~2.2kW
Input: 3PH 220V 50/60Hz
Output: 3PH 0~220V:0.75~55kW
Input: 3PH 380V 50/60Hz
Output: 3PH 0~380V:0.75~220kW



W713 (IP20)

Features



Simple operation



Manual/automatic



Automatic failover



Six-pump linkage



Real-time fault logging



Synchronous, master-slave, large and small pump linkage mode



Built-in PID



Multiple protection features

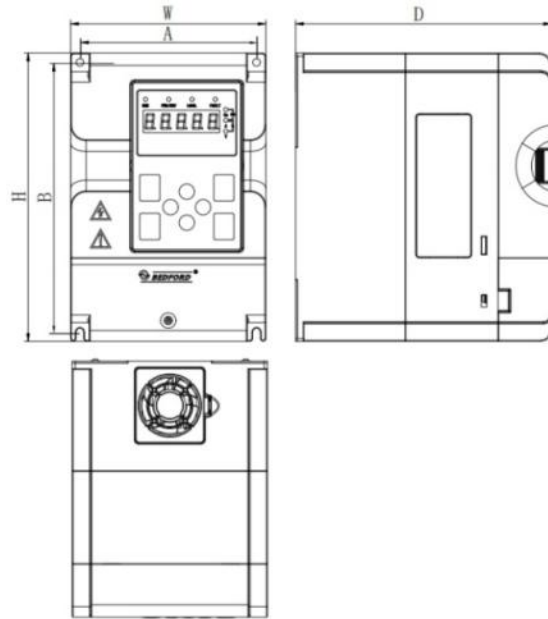
Application Cases



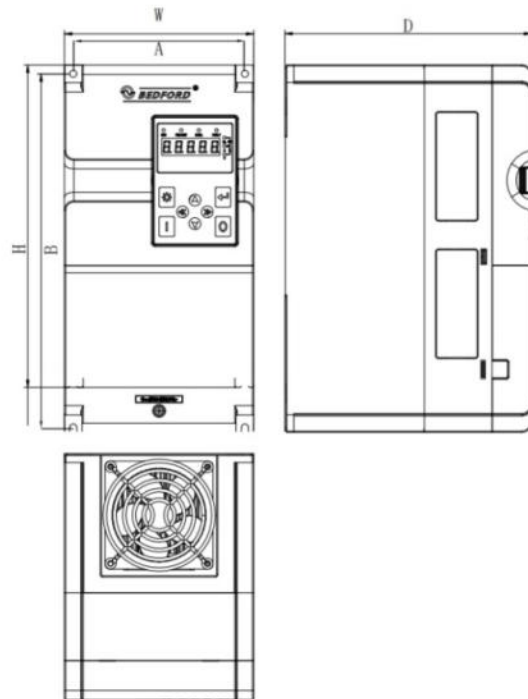
Selection Guide (IP20)

Model	Rated Output Current (A)	Motor Power (kW)	Installation Dimension		External Dimension			Installation Hole (mm)
			A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	
Input: AC 1PH 220V, Output: AC 3PH 0~220V								
W713-2001	4.5	0.75	114	174	186	126	163.8	5
W713-2002	7.0	1.5						
W713-2003	10.0	2.2						
Input: AC 3PH 220V, Output: AC 3PH 0~220V								
W713-2001	4.5	0.75	114	174	186	126	163.8	5
W713-2002	7.0	1.5						
W713-2003	10.0	2.2						
W713-2005	17.0	3.7	114	174	186	126	185	5
W713-2007	25.0	5.5						
W713-2010	32.0	7.5						
W713-2015	45.0	11.0	185	330	342	200	200.5	6
W713-2020	60.0	15.0						
W713-2025	75.0	18.5						
W713-2030	91.0	22.0	233	381	400	251	213	6
W713-2040	112.0	30.0						
W713-2050	150.0	37.0						
W713-2060	176.0	45.0	199	534	554	336	327.5	9
W713-2075	210.0	55.0						
Input: AC 3PH 380V, Output: AC 3PH 0~380V								
W713-4001	2.1	0.75	114	174	186	126	185	5
W713-4002	3.8	1.5						
W713-4003	5.1	2.2						
W713-4005	9.5	4.0	114	174	186	12	163.8	5
W713-4007	14.0	5.5						
W713-4010	18.5	7.5						
W713-4015	25.0	11.0	129	242	258	145	176.5	5.5
W713-4020	32.0	15.0						
W713-4025	38.0	18.5						
W713-4030	45.0	22.0	185	330	342	200	200.5	6
W713-4040	60.0	30.0						
W713-4050	75.0	37.0						
W713-4060	92.0	45.0	233	381	400	251	213	6
W713-4075	115.0	55.0						
W713-4100	152.0	75.0						
W713-4120	180.0	90.0	199	534	554	336	327.5	9
W713-4150	215.0	110.0						
W713-4180	260.0	132.0						
W713-4215	305.0	160.0	360.0	848.0	870.0	503.0	362.0	11.0
W713-4250	340.0	185.0						
W713-4270	380.0	200.0						
W713-4300	426.0	220.0						

External Dimension

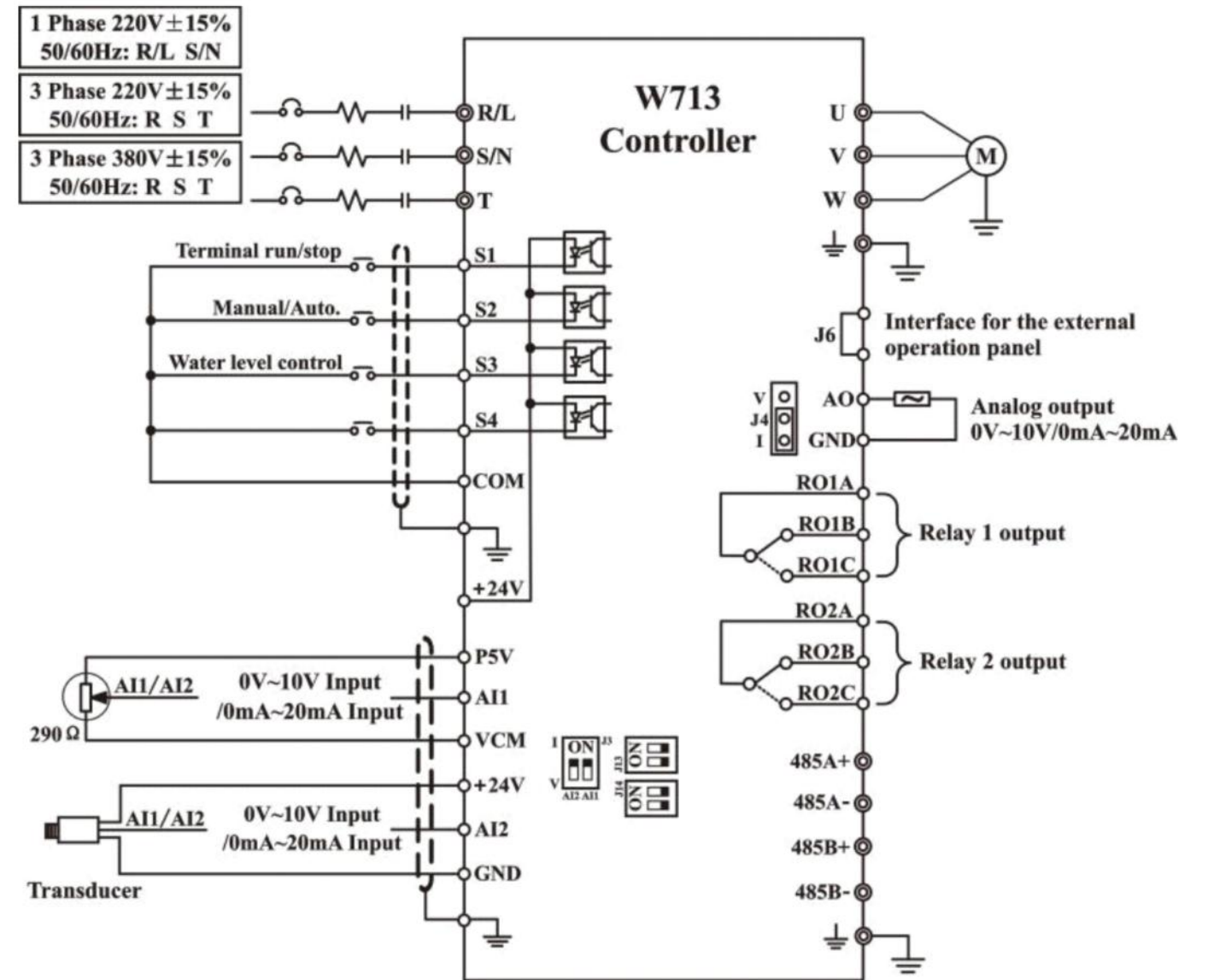


220V 0.75kW~22kW Dimension
380V 0.75kW~45kW Dimension




220V 30kW~55kW Dimension
380V 55kW~220kW Dimension

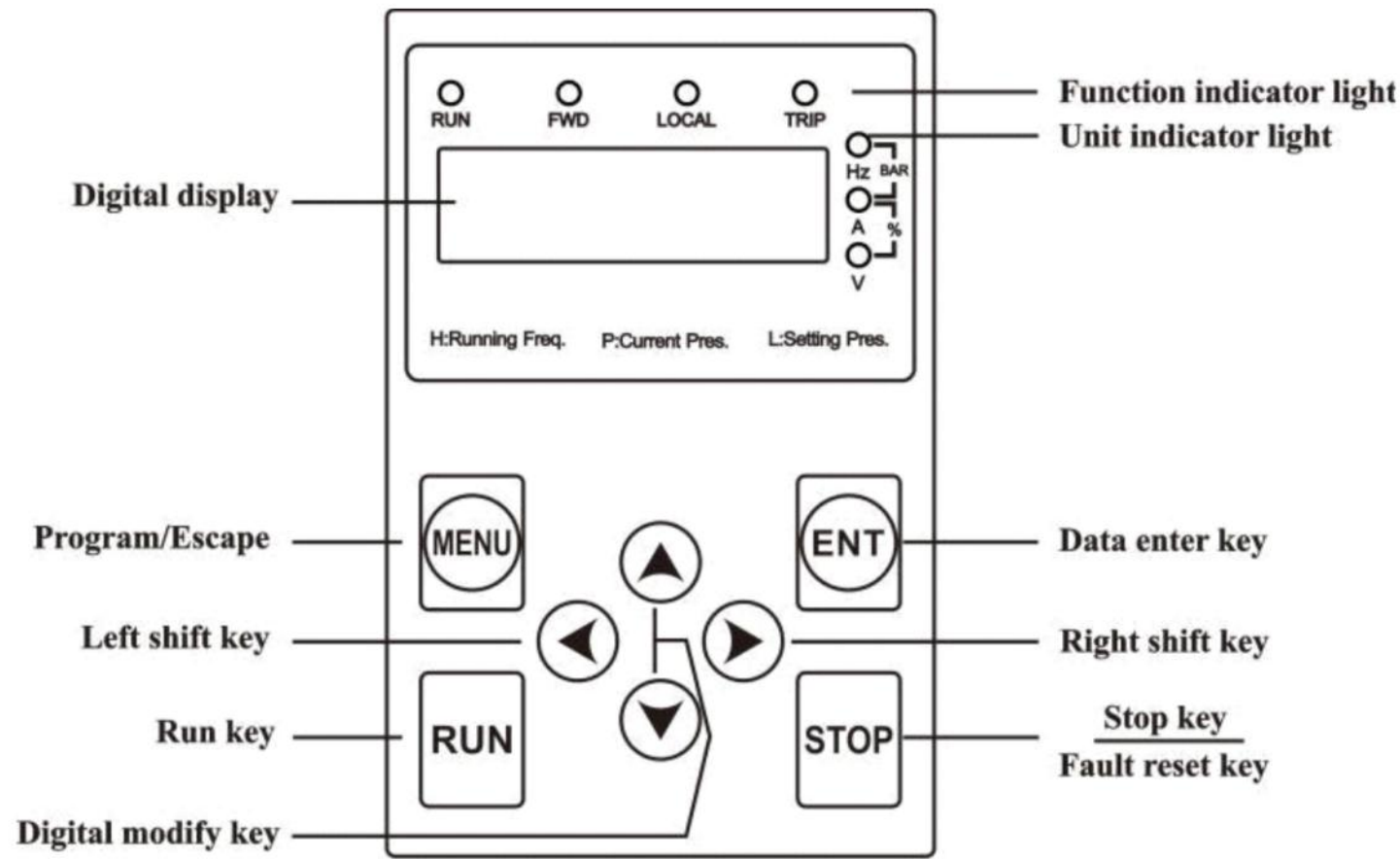
Wiring Diagram



Main Circuit Terminal:

Terminal Symbol	Function Description
L, N	1PH power input terminal
R, S, T	3PH power input terminal
(+), (-)	Terminals of DC bus
U, V, W	3PH AC output terminal
	Ground Terminal

Keypad Description



Environmental Requirement

Environment temperature range: -10°C~+40°C. Controller will be derated if ambient temperature exceeds 40°C.	Prevent rain drops, moist environment, oil fog, salt erosion, corrosive gas, and etc.	Prevent violent vibration or sudden impact	Lower than installation altitude, it will be derated is higher than 1000m.

Intelligent constant pressure pump Controller

B603 Series



(B603PRO:IP20)



(B603B2:IP54)

B603PRO Input&Output Voltage and Power Range:

Input: 1PH 220V 50/60Hz
 Output: 3PH 0~220V:0.75~2.2kW
 Input: 3PH 380V 50/60Hz
 Output: 3PH 0~380V:0.75~200kW

B603B2 Input&Output Voltage and Power Range:

Input: 1PH 220V 50/60Hz
 Output: 3PH 0~220V:0.75~2.2kW
 Input: 3PH 380V 50/60Hz
 Output: 3PH 0~380V:0.75~15kW

Features

<p>Simple operation</p>	<p>Automatic frequency conversion</p>	<p>Restart after power fail</p>	<p>Automatic failover</p>
<p>Direct pressure setting</p>	<p>Multi-pump linkage</p>	<p>Built-in PID</p>	<p>Real-time fault logging</p>

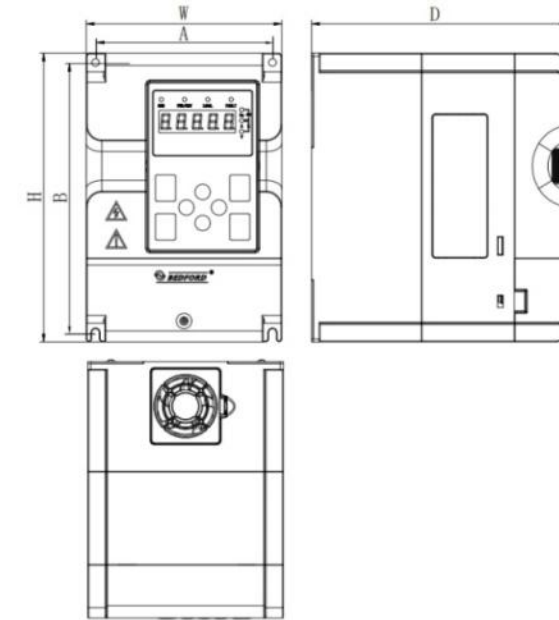
Application Cases



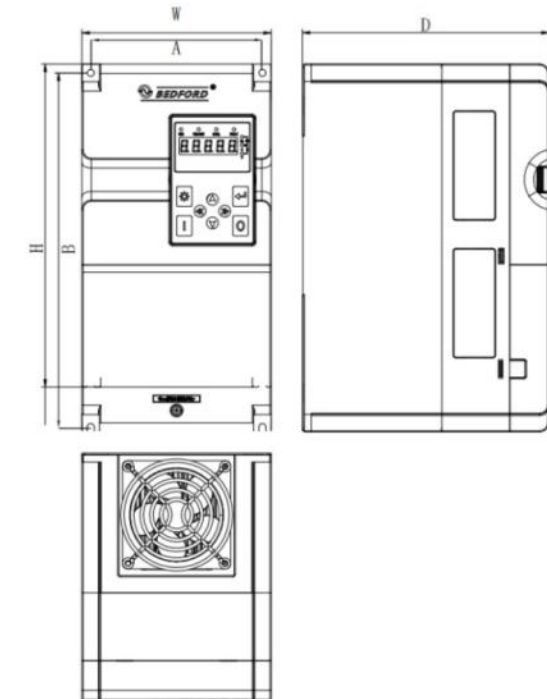
Selection Guide (IP20)

Model	Rated Output Current (A)	Motor Power (kW)	Installation Dimension		External Dimension			Installation Hole (mm)
			A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	
Input: AC 1PH 220V, Output: AC 3PH 0~220V								
B603PRO-2001	4.5	0.75	114	174	186	126	163.8	5
B603PRO-2002	7.0	1.5						
B603PRO-2003	10.0	2.2						
Input: AC 3PH 220V, Output: AC 3PH 0~220V								
B603PRO-2001	4.5	0.75	114	174	186	126	163.8	5
B603PRO-2002	7.0	1.5						
B603PRO-2003	10.0	2.2						
B603PRO-2005	17.0	3.7	114	174	186	126	185	5
B603PRO-2007	25.0	5.5	129	242	258	145	176.5	5.5
B603PRO-2010	32.0	7.5	146	301	313	161	210	6
B603PRO-2015	45.0	11.0	185	330	342	200	200.5	6
B603PRO-2020	60.0	15.0						
B603PRO-2025	75.0	18.5	233	381	400	251	213	6
B603PRO-2030	91.0	22.0						
B603PRO-2040	112.0	30.0	199	534	554	336	327.5	9
B603PRO-2050	150.0	37.0						
B603PRO-2060	176.0	45.0						
B603PRO-2075	210.0	55.0						
Input: AC 3PH 380V, Output: AC 3PH 0~380V								
B603PRO-4001	2.1	0.75	114	174	186	126	163.8	5
B603PRO-4002	3.8	1.5						
B603PRO-4003	5.1	2.2						
B603PRO-4005	9.5	4.0	114	174	186	126	185	5
B603PRO-4007	14.0	5.5	129	242	258	145	176.5	5.5
B603PRO-4010	18.5	7.5	146	301	313	161	210	6
B603PRO-4015	25.0	11.0	185	330	342	200	200.5	6
B603PRO-4020	32.0	15.0						
B603PRO-4025	38.0	18.5	233	381	400	251	213	6
B603PRO-4030	45.0	22.0						
B603PRO-4040	60.0	30.0	199	534	554	336	327.5	9
B603PRO-4050	75.0	37.0						
B603PRO-4060	92.0	45.0						
B603PRO-4075	115.0	55.0						
B603PRO-4100	152.0	75.0						
B603PRO-4120	180.0	90.0	360.0	848.0	870.0	503.0	362.0	11.0
B603PRO-4150	215.0	110.0						
B603PRO-4180	260.0	132.0						
B603PRO-4215	305.0	160.0						
B603PRO-4250	340.0	185.0						
B603PRO-4270	380.0	200.0						

B603PRO External Dimension



220V 0.75kW~22kW Dimension
380V 0.75kW~37kW Dimension

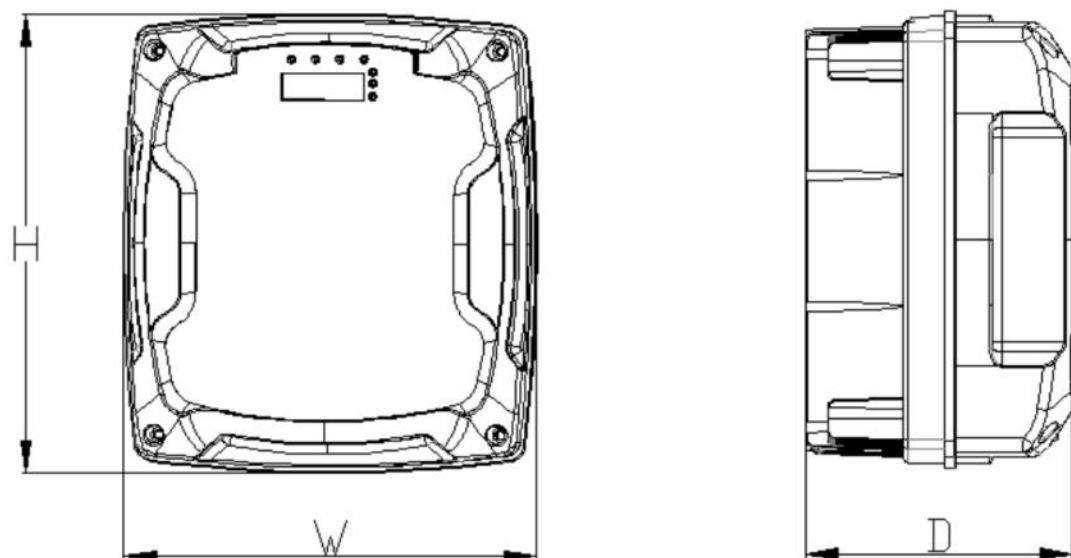


220V 30kW~55kW Dimension
380V 45kW~200kW Dimension

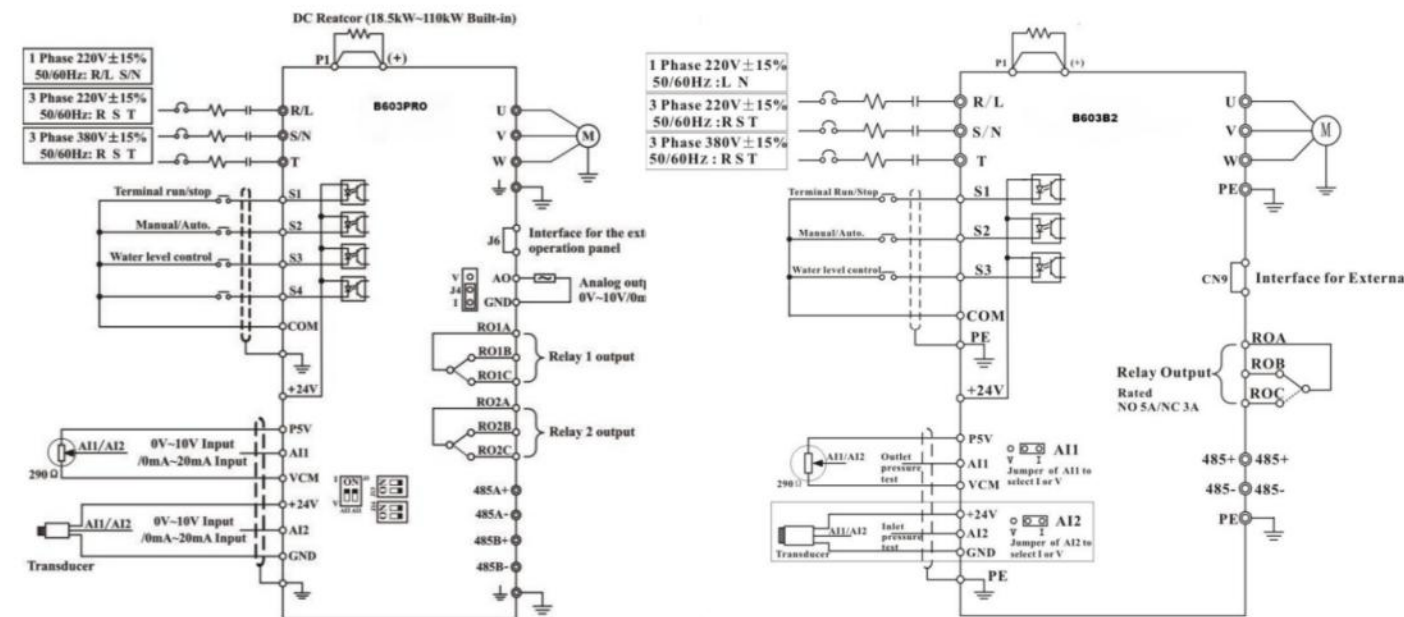
Selection Guide (IP54)

Model	Rated Output Current (A)	Motor Power (kW)	External Dimension		
			H(mm)	W(mm)	D(mm)
Input: AC 1PH 220V, Output: AC 3PH 0~220V					
B603B2-2001	4.5	0.75	216	195	154
B603B2-2002	7.0	1.5			
B603B2-2003	10.0	2.2			
Input: AC 3PH 220V, Output: AC 3PH 0~220V					
B603B2-2001	4.5	0.75	216	195	154
B603B2-2002	7.0	1.5			
B603B2-2003	10.0	2.2			
B603B2-2005	16.0	3.7	282	255	165
B603B2-2007	20.0	5.5			
B603B2-2010	30.0	7.5	370	350	221
B603B2-2010	30.0	7.5			
Input: AC 3PH 380V, Output: AC 3PH 0~380V					
B603B2-4001	2.5	0.75	216	195	154
B603B2-4002	3.7	1.5			
B603B2-4003	5.0	2.2			
B603B2-4005	9.0	4.0	282	255	165
B603B2-4007	13.0	5.5			
B603B2-4010	17.0	7.5	370	350	221
B603B2-4015	25.0	11.0			
B603B2-4020	32.0	15.0			

External Dimension



Wiring Diagram



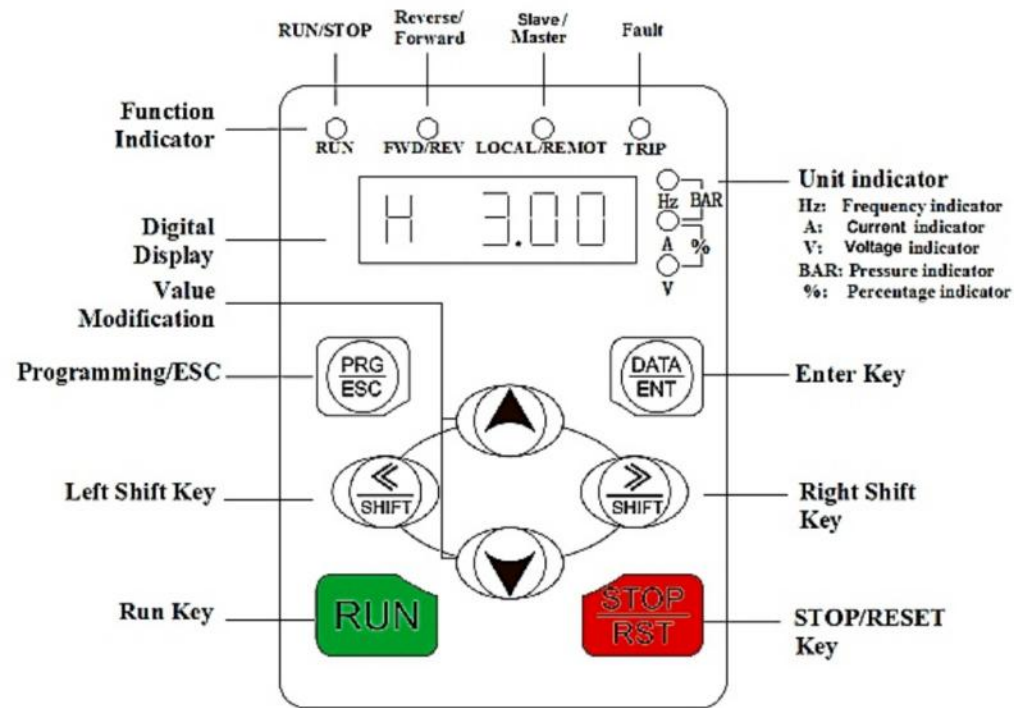
B603PRO

B603B2

Main Circuit Terminal:

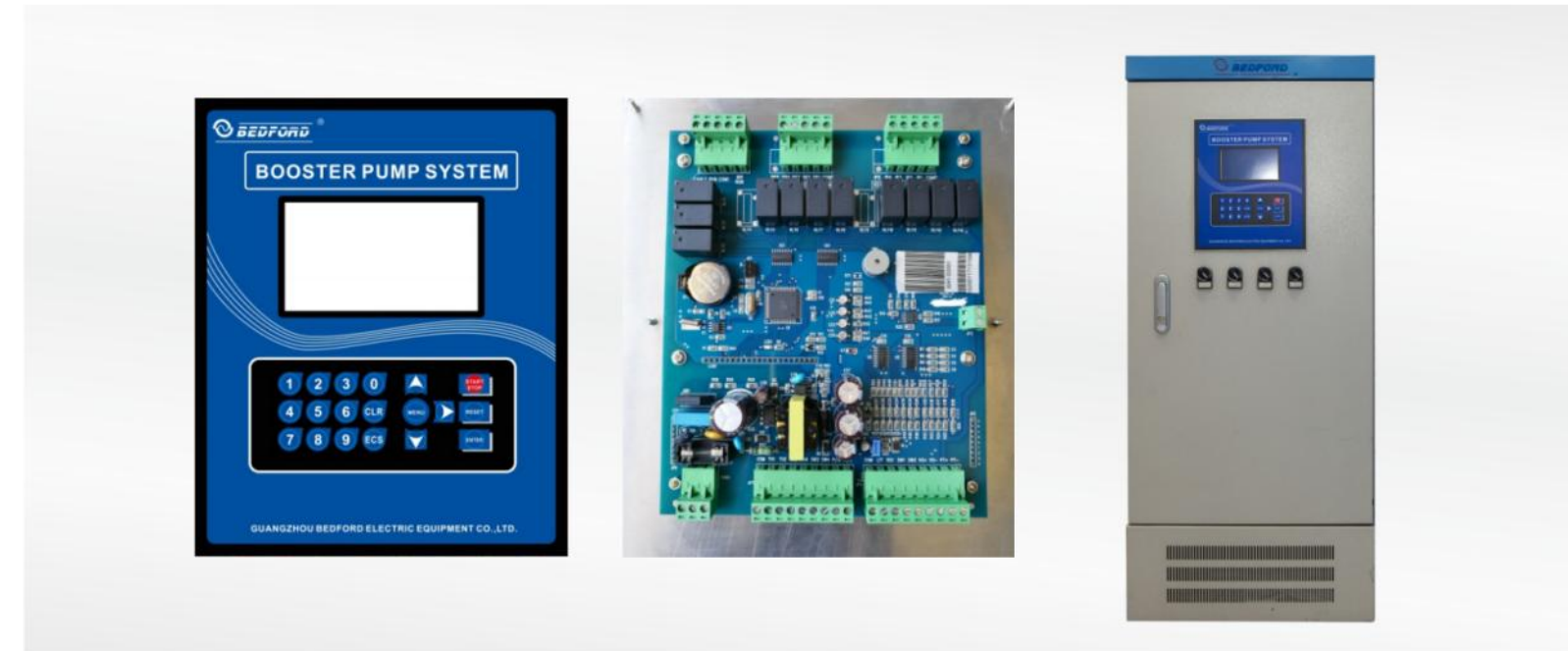
Terminal Symbol	Function Description
L, N	Terminals of single phase AC input
U, V, W	Motor wiring terminal
PE/	Terminals of ground
R, S, T	Terminals of 3 phase AC input
(+), (-)	Reserved external terminals for braking units
(+), PB	Reserved external terminals for braking resistance
P1, (+)	Reserved external terminals for braking DC reactors
(-)	Output terminals for minus DC bus voltage

Keypad Description



Environmental Requirement

<p>Environment temperature range: -10°C~+40°C. Controller will be derated if ambient temperature exceeds 40°C.</p>	<p>Prevent rain drops, moist environment, oil fog, salt erosion, corrosive gas, and etc.</p>	<p>Prevent violent vibration or sudden impact</p>	<p>Lower than installation altitude, it will be derated is higher than 1000m.</p>



Input power range:

Three phase 380V 50/60HZ

Output power range:

Three phase 380V:0.37~350KW

System Outline/Function:

Booster pump type selects upward water supply method getting rid of downward water supply method using the gravity fall of the high water tank as conventional method. Getting out of the lack of water pressure at upper part by downward water supply method by high water tank, water pressure of each story in a building is kept steady. Cleaning water tank due to water pollution at rooftop water tank is unnecessary. Piping construction cost saving and spatial use are possible by upward piping. Expected to improve ineffective problems of downward water supply method, and save energy to the large-capacity pump consuming unnecessary energy.

System Function:

- Control of Rotation Number(Inverter control)
- Sequential Control
- Pressure Control (Control of pumps)
- Alternative Operation
- Prevention of Idle Rotation
- Pump Skip
- Error Management
- Auto Return after Auto Power Failure
- Storage of Pump Operation Time
- Schedule Operation
- Saving Operation
- Alarm Indication

BDF-VTE Series Pressure sensors



Product Features

- Integrated accuracy: $\pm 0.5\%$ FS
- High stability and reliability
- Professional waterproof hammer impact
- Good electrical performance
- Temperature drift: $+0.03\%$ F.S./ $^{\circ}\text{C}$
- Overload pressure: 200%FS
- Protection grade: IP67

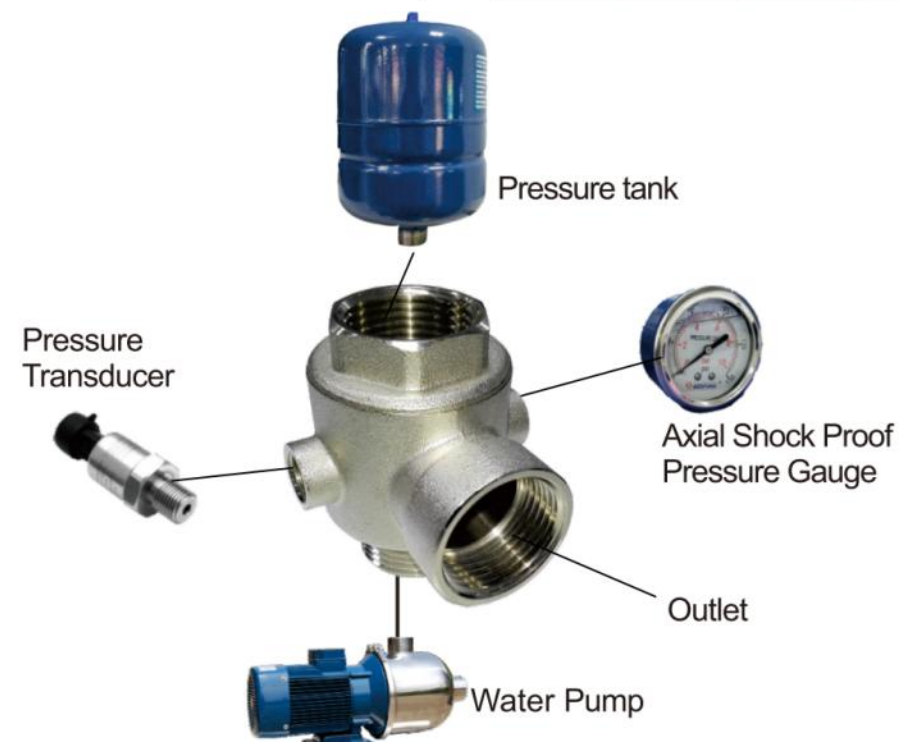
Parameters	Valve	
Measurement range	0~10bar, 0~40bar	
Use temperature	-40 $^{\circ}\text{C}$ ~85 $^{\circ}\text{C}$	
Output signal	0.5~4.5VDC; 1~5 VDC (Two lines)	0~10VDC 4~20mA (Three lines)
Supply power	24VDC (10~36VDC)	
Electrical connection	Lead wires and terminals	
Pressure connection	G1/4, 1/4NPT, R1/4	

Check valve 5-way Valve



Dimensional Parameters

Inlet/ outlet size	Dimension			Manufacturing material
	A	B	C	
1"	73	67	74	Stainless Steel
1½"	88	75	85	
2"	110	93	113	
1"	73	59	72	Brass 5-way Valve
2"	98	77	108	



Pressure tank



Product Features

- Single diaphragm design
- Products meet drinking water standards
- Natural polypropylene lining
- Double-layer polyurethane
- Epoxy premium paint coating
- Non-polluting
- O-ring valve cover

Model	Connection	Volume (L)	Max. working pressure (bar)	Weight (kg)	Max. working Temperature ($^{\circ}\text{C}$)	Size(mm)	
						High	Diameter
3L/10bar/G 3L/16bar/G	1"BSP	3	10/16	1.0	90	195	150
5L/10bar/G 5L/16bar/G	1"BSP	5	10/16	2.2	90	235	200
8L/10bar/G 8L/16bar/G	1"BSP	8	10/16	2.8	90	280	200
14L/10bar/G 14L/16bar/G	1"BSP	14	10/16	3.4	90	350	280
19L/10bar/G 19L/16bar/G	1"BSP	19	10/16	4.6	90	470	280
30L/10bar/G 30L/16bar/G	1"BSP	30	10/16	10.3	90	560	350
50L/10bar/G 50L/16bar/G	1"BSP	50	10/16	14	90	750	380
80L/10bar/G 80L/16bar/G	1"BSP	80	10/16	18	90	950	380

W713B Series



W713 Series



W191 Series



B603 Series

