

# HS - VFD

INTELLIGENT CONSTANT  
PRESSURE CONTROLLER



USA NEW TECHNOLOGY

**BY 9NHLPUMP**

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# Intelligent Constant Pressure Single-pump Controller

# VFD SERIES

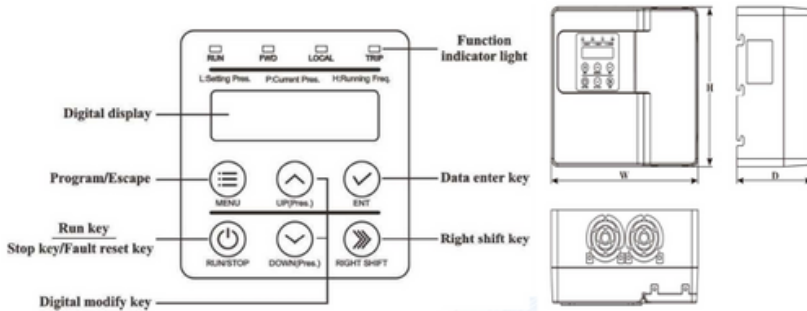
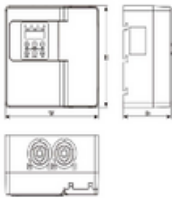


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## HS : VFD ( INVERTER ) INTELLIGENT CONTROLLER for BOOSTER PUMPS

VARIABLE SPEED DRIVE ( Multi-Pumps Control Function : Max 6Units ) with PRESSURE TRANSMITTER

NO	SERIES	INPUT	OUTPUT	Out Put - Power			Standard
		AC ( R-S-T )	AC ( U-V-W )	kW	HP	AMP (I)	Price
1	W713B-2001	Single Phase 1 / 220 Volt 50/60Hz.	3 Phase 3 / 0-220 Volt.	0.75	1.0	4.5	26,000
2	W713B-2002			1.5	2.0	7	26,600
3	W713B-2003			2.2	3.0	10	27,800
4	W713B-4001	3 Phase 3 / 380 Volt. 50/60Hz.	3 Phase 3 / 0-380 Volt.	0.75	1.0	2.1	30,000
5	W713B-4002			1.5	2.0	3.8	30,400
6	W713B-4003			2.2	3.0	5.1	30,800
7	W713B-4004			3	4.0	6.8	31,000
8	W713B-4005			4	5.5	9.5	37,800
9	W713B-4007			5.5	7.5	14	38,000
10	W713B-4010			7.5	10.0	18.5	39,000
11	W713B-4015			11	15.0	25	51,600
12	W713B-4020			15	20.0	32	59,000
13	W713B-4025			18.5	25.0	38	59,800
<i>พิเศษ!!! ทุกรุ่นราคารวม SENSOR PRESSURE TRANSMITTER 3 CODE 4-20mA</i>							
PRESSURE TRANSMITTER		3 CORE 4-20mA	PLUG TYPE				6,000



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

## HS : VFD ( INVERTER ) ECO Type for BOOSTER PUMP

VARIABLE SPEED DRIVE with PRESSURE TRANSMITTER // Plug and Play Easy Install

NO	SERIES	INPUT	OUTPUT	Out Put - Power			Standard
		AC ( R-S-T )	AC ( U-V-W )	kW	HP	AMP (I)	Price
1	WLD190-2001	Single Phase 1 / 220 Volt 50/60Hz.	3 Phase 3 / 0-220 Volt.	0.75	1.0	4.5	17,000
2	WLD190-2002			1.5	2.0	7	17,600
3	WLD190-2003			2.2	3.0	10	18,200
<i>พิเศษ!!! ทุกรุ่นราคารวม SENSOR PRESSURE TRANSMITTER 2 CODE 4-20mA</i>							
PRESSURE TRANSMITTER		2 CORE 4-20mA	PLUG TYPE				



Intelligent Constant Pressure

# W713B SERIES



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## W713B

(Waterproof:IP54)

Intelligent Constant Pressure  
Pump Controller



### Input & Output Voltage and Power Range:

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



### Freeze-Proofing Function

Suitable to low temperature area, prevent pump from freezing



### High-performance

Adopted advance magnetic flux vector control technology, on the premise of insensitive motor parameter, realized high-performance motor control.



### Protection Function

Over current, over voltage, low voltage, over heat, phase failure, over load etc.

Intelligent Constant Pressure

# W713B SERIES



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Model	Input	Output	Rated Output Current (A)	Motor Power (kW)	External Dimension		
					H(mm)	W(mm)	D(mm)
W713B-2001	AC 1 PH 220V.	AC 3 PH 0~220V.	4.5	0.75	170	190	110
W713B-2002			7.0	1.5			
W713B-2003			10.0	2.2			
W713B-2001	AC 3 PH 220V.	AC 3 PH 0~220V.	4.5	0.75	170	190	110
W713B-2002			7.0	1.5			
W713B-2003			10.0	2.2			
W713B-2004			13.0	3.0	205	235	120
W713B-2005			17.0	3.7			
W713B-2007			25.0	5.5	220	290	150
W713B-2010			32.0	7.5			
W713B-4001	AC 3 PH 380V.	AC 3 PH 0~380V.	2.1	0.75	170	190	110
W713B-4002			3.8	1.5			
W713B-4003			5.1	2.2			
W713B-4004			6.8	3.0			
W713B-4005			9.5	4.0	205	235	120
W713B-4007			14.0	5.5			
W713B-4010			18.5	7.5			
W713B-4015			25.0	11.0	220	290	150
W713B-4020			32.0	15.0			
W713B-4025			38.0	18.5			

# Intelligent Constant Pressure Single-pump Controller

# W713B SERIES

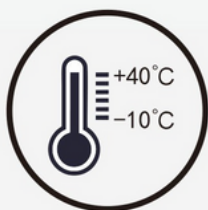


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## Features

- Multi-Pumps Control Function: Max 6 pumps linkage water supply
- Sleep Function: Sleep down when have no water consumption, to earn a better energy saving.
- Freeze-Proofing Function: Suitable to low temperature area, prevent pump from freezing.
- Anti-clogging Function: Take precaution against pipe clogging and clean the pipe dirt.
- Power On Restart: Running automatically when power on.
- Master Fault Shift Automatically: Keep on working when the master break down.
- Alternate Running: Balance every pump's running time, prolong service life of the whole unit machine.
- Control Mode: Constant pressure, constant differential pressure, Constant temperature, Constant differential temperature, manual.
- Linkage Mode: Synchronise, master-slave, big-small pump combination, one duty one standby, one VFD drives two pump (requires additional control electrical cabinet)
- Terminal Control Mode: Electronic contact gauge control, manual/auto control, terminal run/stop. automatic water level control, one VFD drives two pump fault input.
- Start/Stop Independent Control: In the water supply system, each inverter start/stop control can be set independetaly.
- Multiple Fault Protection Functions: over-current, over-voltage, under-voltage, phase-loss, over-temperature, overload and other protection functions.
- Expandability: Can be connected to our company's touch screen(HMI)

## ENVIRONMENTAL REQUIREMENT



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



To prevent rain drops of rain  
or avoid damp environment, oil mist,  
salt erosion and corrosive gas, etc.



To avoid direct sunlight, away  
from the radioactive material  
and combustibile materials.

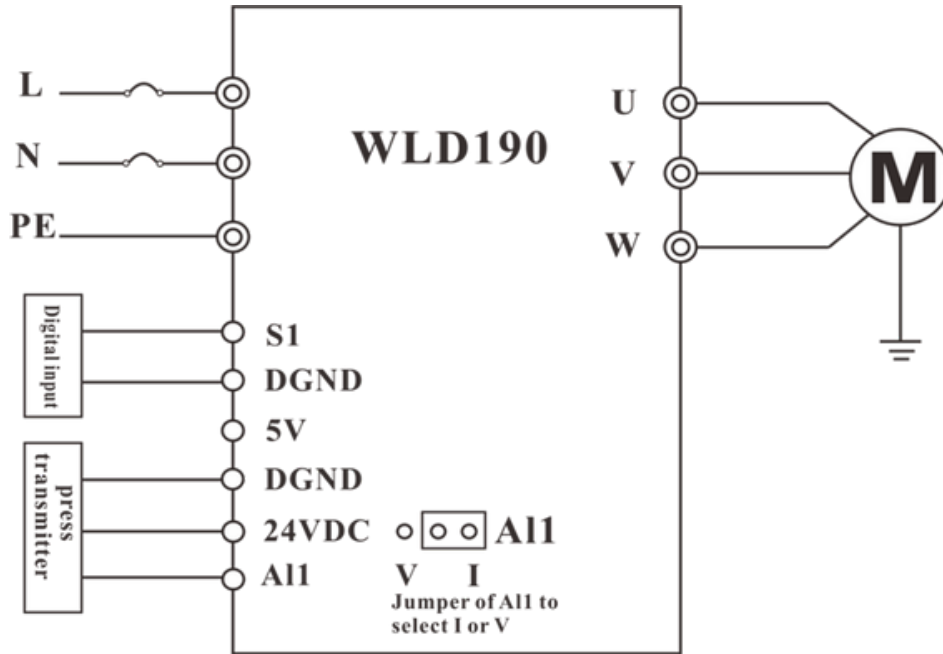


Avoid violent vibration  
or sudden impact.



Installation height is less than 1000 meters  
above sea level, height more than 1000 meters  
above sea level must derating use.

## WIRING DIAGRAM



Control Terminals Description

Terminal Symbol	Function Description
S1	Normal-open digital input terminal, ON signal when DGND is connected and OFF signal when is on open circuit.
AI1	Sensor input terminal of outlet side, which is a 0.5~4.5V analog voltage or 4~20mA analog current input terminal. As figure showed, AI1 jumper cap on the display is for AI1 signal type selection.
DGND	Power ground, 5V and 24V refer to zero potential.

## PROTECTION FUNCTION

- Over-voltage and low-voltage protection
- Output short-circuit protection
- High-water pressure and low-water pressure protection
- Output phase failure protection
- Over-load protection
- Sensor open-circuit protection

# Intelligent Constant Pressure Single-pump Controller WLD190 SERIES

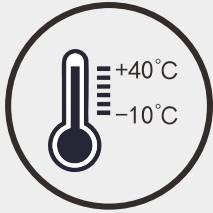


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## FEATURES

- Automatically control and constant water pressure
- Built-in PID control method can realize none load shut down(sleep down)
- Dry water protection and stop automatically when no water consuming
- Power restart automatically after power off
- Real-time fault parameter record for analysis
- Pressure detection can use the output signal for 4 ~ 20mA, 0.5 ~ 4.5VDC standard signal pressure sensor,transmitter(including water level transducer, temperature transmitter etc.)

## 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 than1000m.

## APPLICATION

Business: such as office buildings, shopping malls, hotels etc.  
Public File: such as hospitals, schools, gyms, airports, golf course etc.  
Agriculture: such as irrigation, farms, orchards etc.  
Manufacturing: manufacturing, washing equipment, food industry, workshop etc.  
Residents Living Water: such as residential quarters, villas etc.

## APPLICATION CASES:



# Intelligent Constant Pressure Single-pump Controller

# WLD190 SERIES



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- With superior performance and multi-function, WLD190 series is an integrated single-pump economic intelligent controller specially designed for water pumps.



## INPUT & OUTPUT VOLTAGE AND POWER RANGE:

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

Model	Input Voltage (V)	Input Current (A)	Rated Output Current(A)	Motor (kW)
WLD190-2001	AC 1 PH: 220V±15%, 50/60Hz	8.2	4.5	0.75
WLD190-2002		14.2	7	1.5
WLD190-2003		23.0	10	2.2



# Intelligent Constant Pressure Single-pump Controller

# WLD190 SERIES



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## EXTERNAL DIMENSION

WLD190 Intelligent Constant Pressure Single-pump Controller

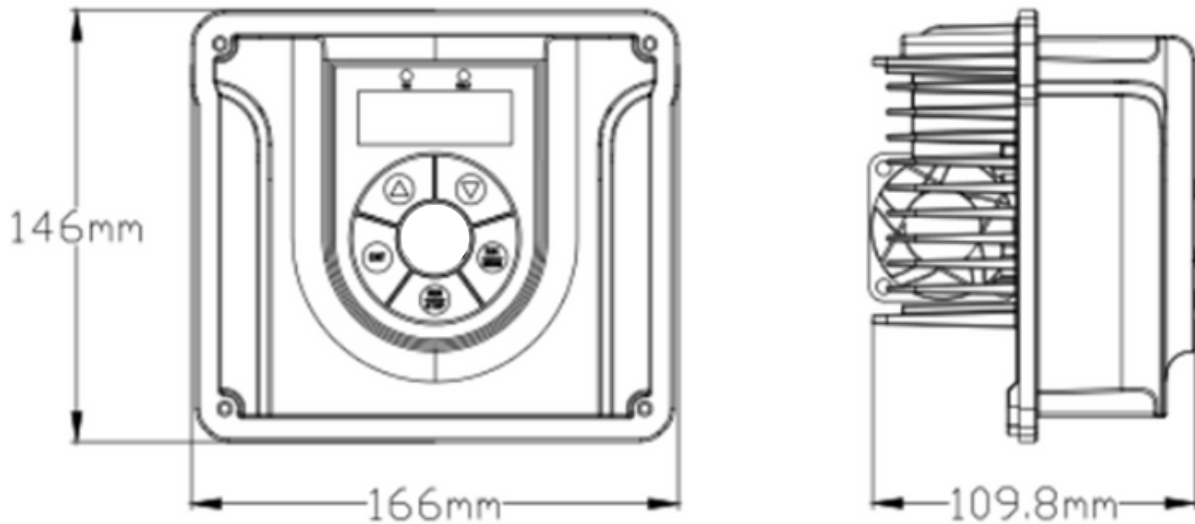


Figure B2-1-1

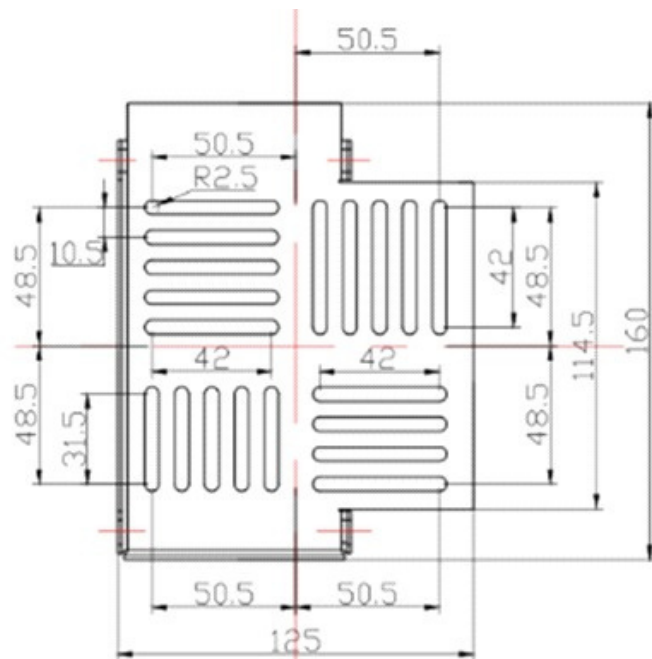


Figure B2-1-2

Model(kW)	Installation Dimensions		Installation Hole	Packing Size	Weight
	A (mm)	B (mm)	(mm)	(cm)	(kg)
0.75	-	-	-	23.5*17.5*21	2.24
1.5	-	-	-	23.5*17.5*21	2.30
2.2	-	-	-	23.5*17.5*21	2.35



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