



WATER INDUSTRY APPLICATION PRODUCTS SELECTION MANUAL

Shanghai Sigriner STEP Electric Co.,Ltd.



Building sewage



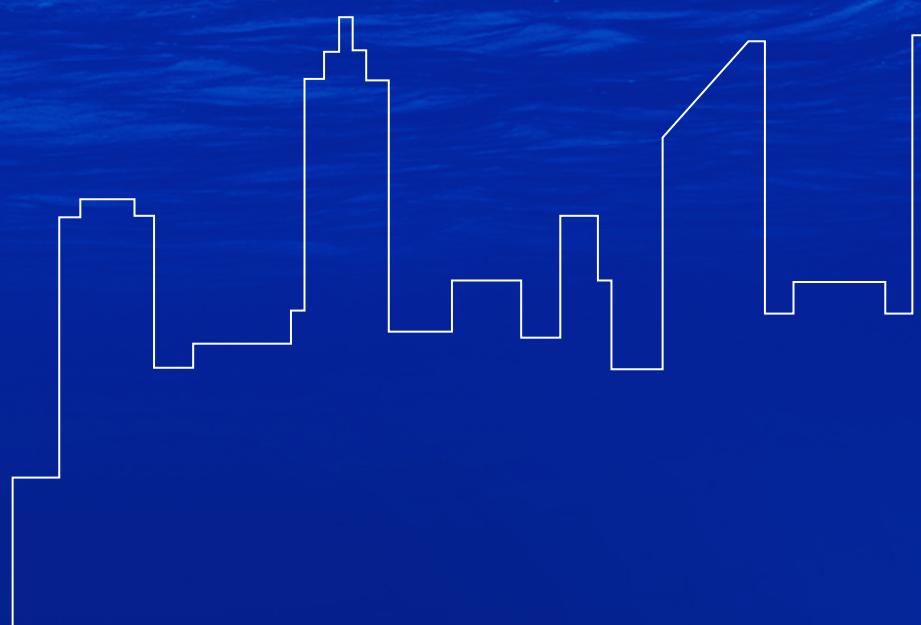
HVAC cycle



Secondary water supply

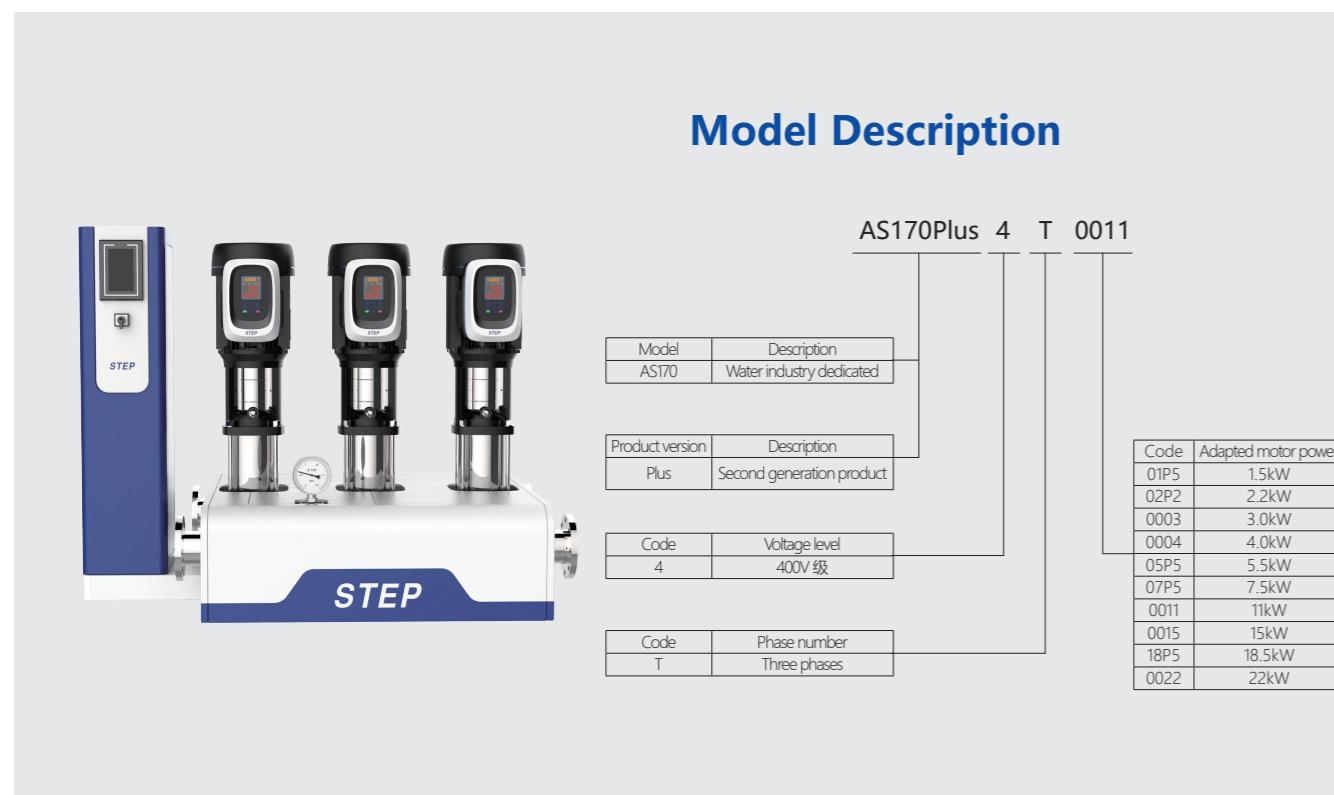


Fire inspection



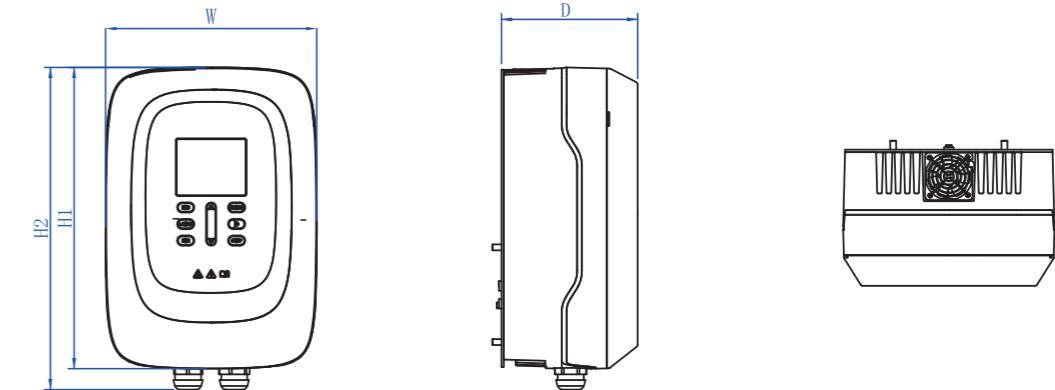
AS170Plus

knapsack type water pump dedicated VFD



Specification and dimension

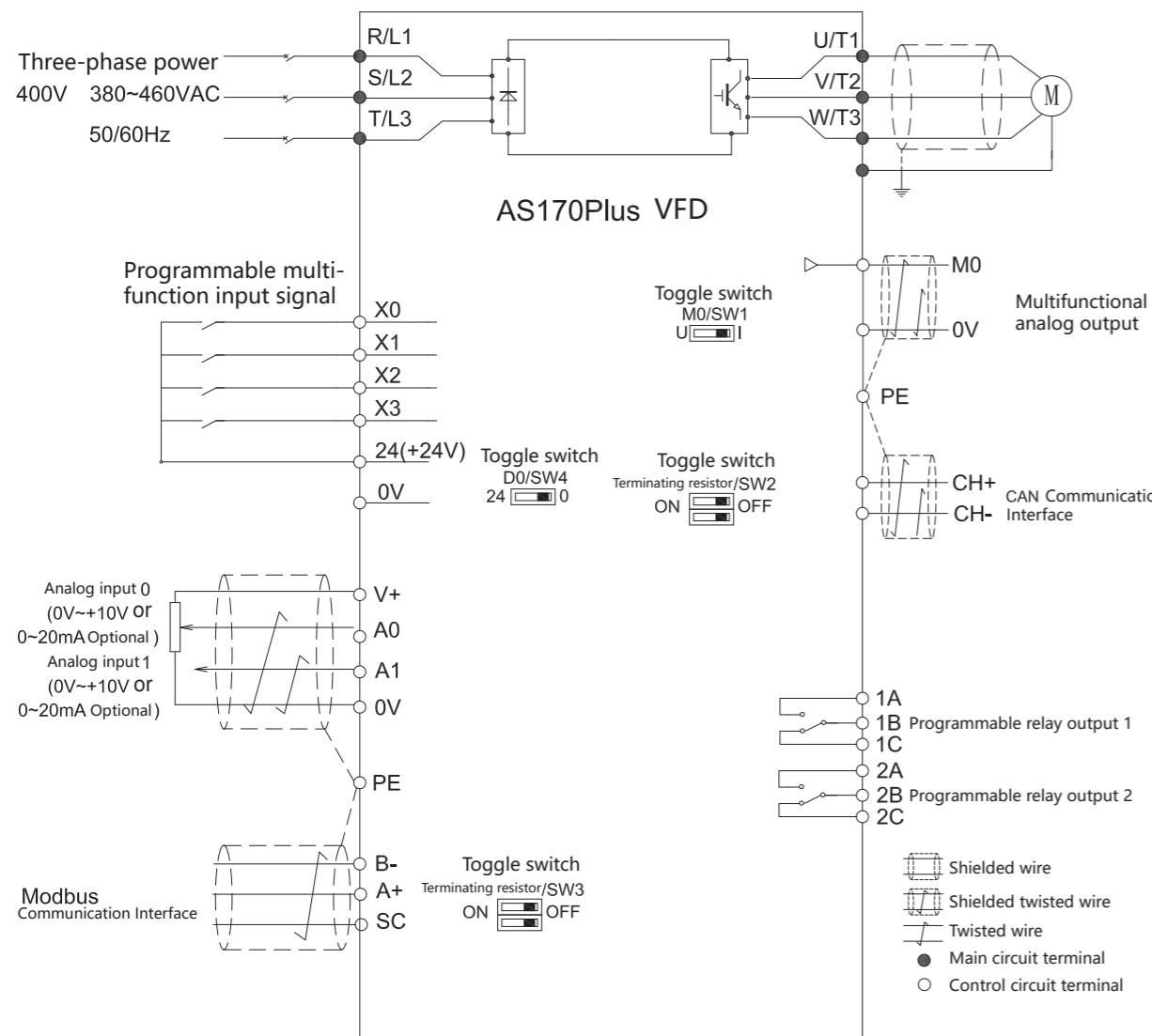
Specification	Model: AS170II	H1 (mm)	H2/With water- proof end (mm)	W (mm)	D (mm)	Weight (Kg)
D1	4T01P5	255	280	180	115	3.5
	4T02P2					
	4T0003					
	4T0004					
D2	4T05P5	285	300	200	122	4.5
	4T07P5					
D3	4T0011	325	355	220	158	5.5
	4T0015					
	4T18P5					
	4T0022					



Technical Parameter

Power Input	Input voltage	380-460V (-15% ~ +10%) , Three-phase power
	Input frequency	50/60Hz
	Allowable voltage variation	Voltage unbalance<2%
	Instantaneous electric drop	Under three-phase AC380-460V power supply, when the input voltage is less than AC300V, undervoltage protection after 15ms
Power Output	Voltage	0VAC ~ Input voltage
	Overload level	run smoothly 50°C , 120%, 1min
	Efficiency (full load)	≥ 0.94
	Output frequency accuracy	±0.01Hz (Digital instructions-10 ~ +45°C) ; ±0.1% (Analog instruction 25±10°C)
Control characteristics	Carrier frequency	3-13kHz; According to load characteristics, the carrier frequency can be adjusted automatically
	Frequency setting resolution	0.01Hz (Digital instructions) , ±0.06Hz/120Hz (Analog instruction 11bit +Unsigned)
	Run command channel	Operation panel setting, control terminal setting, communication setting, process PID setting
	Frequency given channel	Operation panel setting, digital quantity/analog quantity setting, communication setting, function function setting
Special feature	Antifreeze, instantaneous power failure self-reset, high pressure alarm, low pressure alarm, water shortage protection, automatic inspection, timing operation, information storage, permission setting, high temperature protection, low temperature protection, multiple control mode selection, pipe burst detection, plus and minus pump control , Timing rotation, sleep and wake-up, master-slave switching, time-division pressure control, mechanical failure warning, real-time clock, alarm self-reset, DTU function	
	Adapted motor	Asynchronous motor, synchronous reluctance motor, permanent magnet synchronous motor
Environmental conditions	Ambient temperature (operation)	-20 ~ +65°C
	Storage temperature	-40 ~ +70°C
	Highly derated use	>2000m, For every 100m increase, the rated output current is reduced by 1% (up to 3000m)
	Environment humidity	5 ~ 95%, No condensation allowed
	Temperature derating use	1.5~4kw: -20~65°C , 55°C Rated operation; > 55 °C , for every 1°C increase, the rated output current will decrease by 2%; 7.5~22kw: -20~60 °C , 50 °C Rated operation; > 50 °C , the rated output current decreases by 2% for every 1°C increase

Product wiring



AS170NT

Backpack type HVAC dedicated VFD

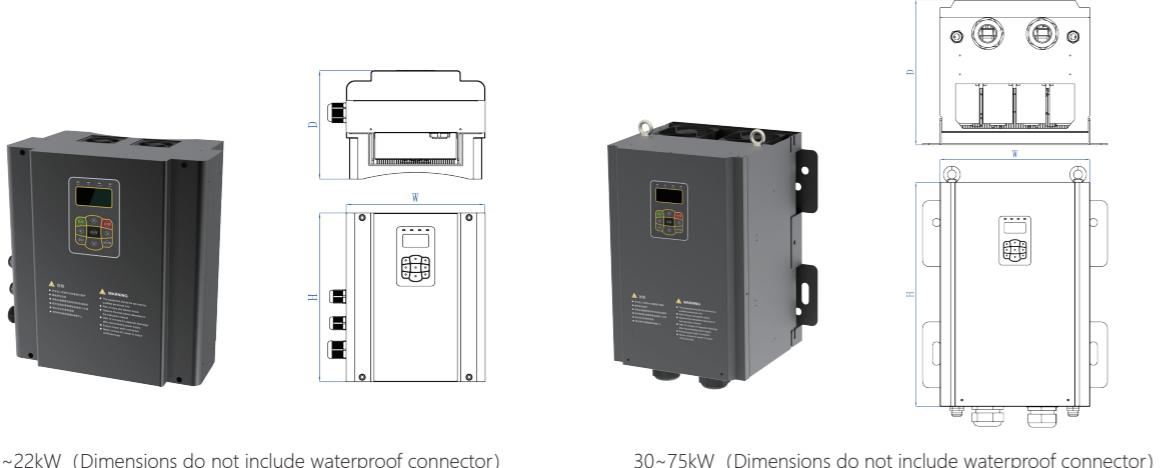
Model Description



AS170NT	4	T	05P5
Model			Description
AS170NT			HVAC series
Code			Adapted motor power
01P5	1.5kW		
02P2	2.2kW		
03P0	3.0kW		
04P0	4.0kW		
05P5	5.5kW		
07P5	7.5kW		
0011	11kW		
.....		
0075	75kW		
Code			Voltage level
4	400V		
Code			Number of voltage phases level
T	Three phases		

Specification and dimension

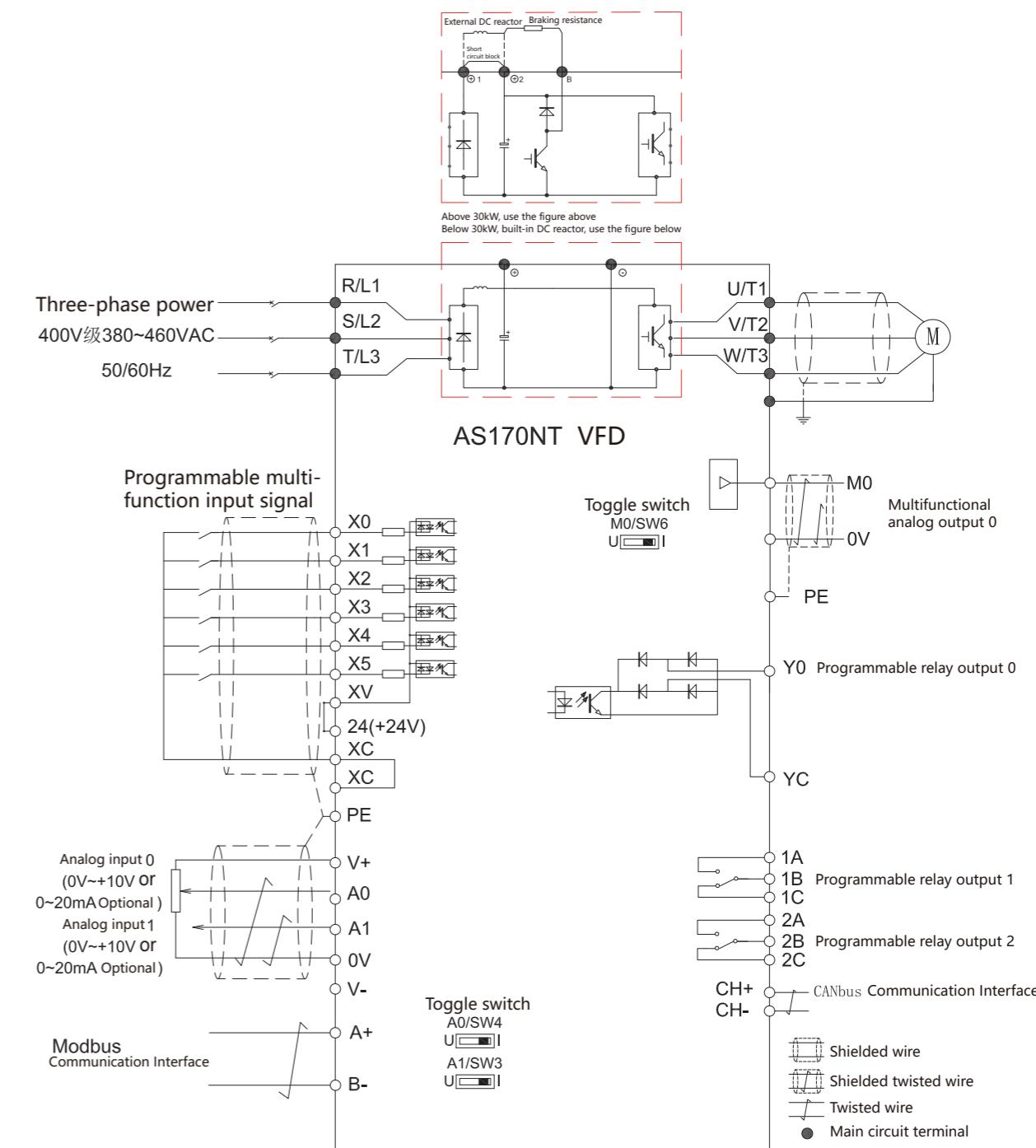
Power kW	VFD Model AS170NT	VFD W (mm)	VFD D (mm)	VFD H (mm)
1.5	4T01P5			
2.2	4T02P2	260	204	317
3	4T03P0			
4	4T04P0			
5.5	4T05P5	264	219	380
7.5	4T07P5			
11	4T0011			
15	4T0015	370	231	406
18.5	4T18P5			
22	4T0022			
30	4T0030	340	250	400
37	4T0037	340	331	510
45	4T0045			
55	4T0055	340	323	612
75	4T0075			



Technical Parameter

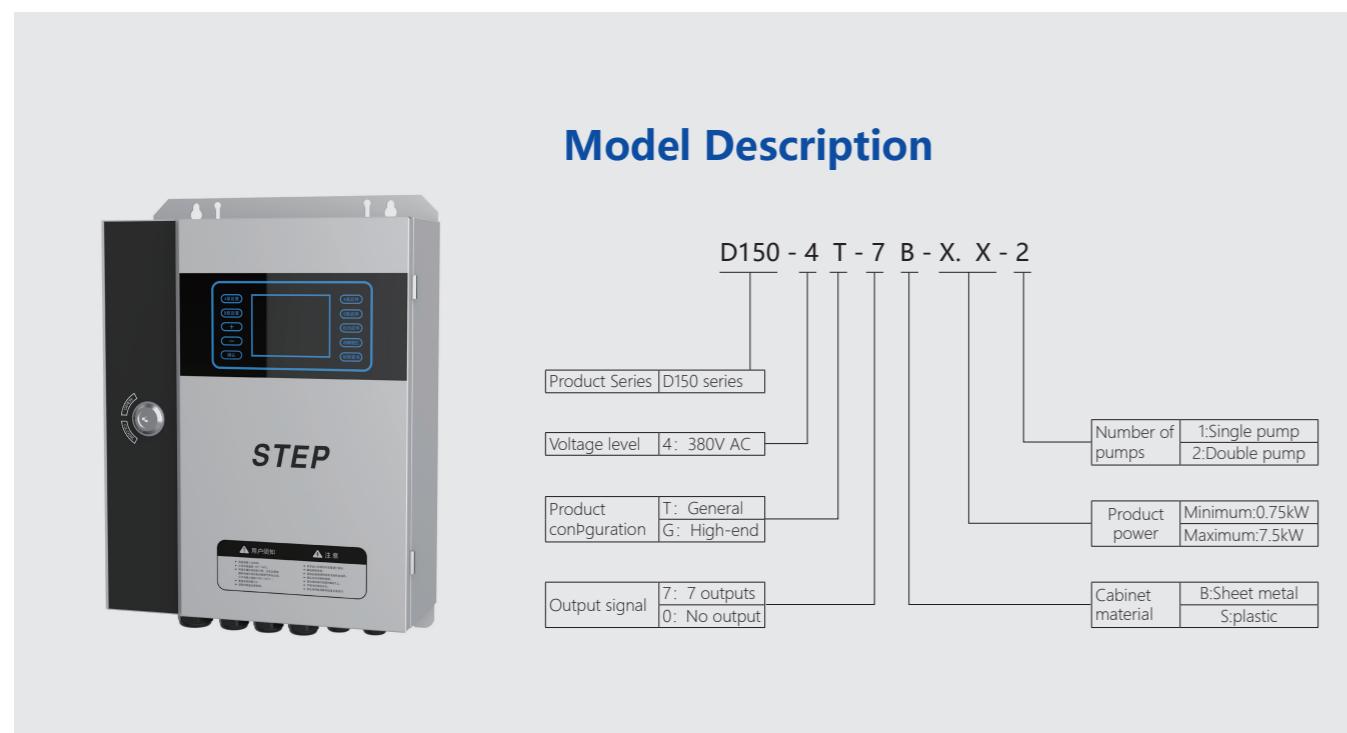
Power input	Input voltage	380-460V (-15% ~ +10%) , 3 phase power
	Input frequency	45-65Hz
	Permissible voltage variation	Voltage unbalance <3%
	Instantaneous voltage drop	AT AC380-460V, input voltage <AC300V, Under voltage protection starts after 15ms.
Power output	Voltage	0VAC ~ input voltage
	Overload grade	Light load 120%/60s, 1 min/10 min
	Eficiency (full load)	≥ 0.94
	Output frequency accuracy	±0.01Hz (Digital instruction -10 ~ +45°C) ; ±0.1% (Simulation instruction 25±10°C)
Features	Carrier frequency	2-8kHz; Set higher than the default carrier, derating is required
	Frequency setting resolution	0.01Hz (Digital instruction) , ±0.06Hz/120Hz (Simulation instruction 11bit + No sign)
	Run command channel	Operation panel setting, control terminal setting and communication setting
	Frequency setting channel	Operation panel setting, digital quantity / analog quantity setting, communication setting and performance function setting
	Features	Automatic voltage regulation (AVR), no stop for instantaneous stop, process PID control, common DC bus, over-current, over voltage drop frequency function, sensor alarm function
Motor type	Asynchronous motor	
Ambient condition	Ambient temperature (operation)	-10 ~ +45°C
	Storage temperature	-40 ~ +70°C
	Temperature derating use	> 45 °C, the rated output current is reduced by 1% for every 1 °C increase, and the maximum is 50 °C
	Altitude derating use	>2000m, for every 100m increase, the rated output current decreases by 2% (up to 3000m)
	Humidity	5 ~ 95%, Condensation is not allowed
	Protection grade	IP54

Product wiring



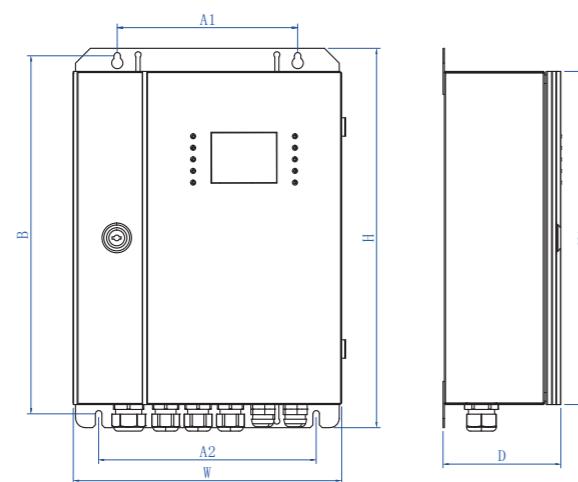
D150

Intelligent water pump controller



Specification and dimension

Power kW	H (mm)	H1 (mm)	W (mm)	D (mm)	B (mm)	A1 (mm)	A2 (mm)	Weight (Kg)
0.75~7.5	410	360	290	127.5	387	195	235	6.5

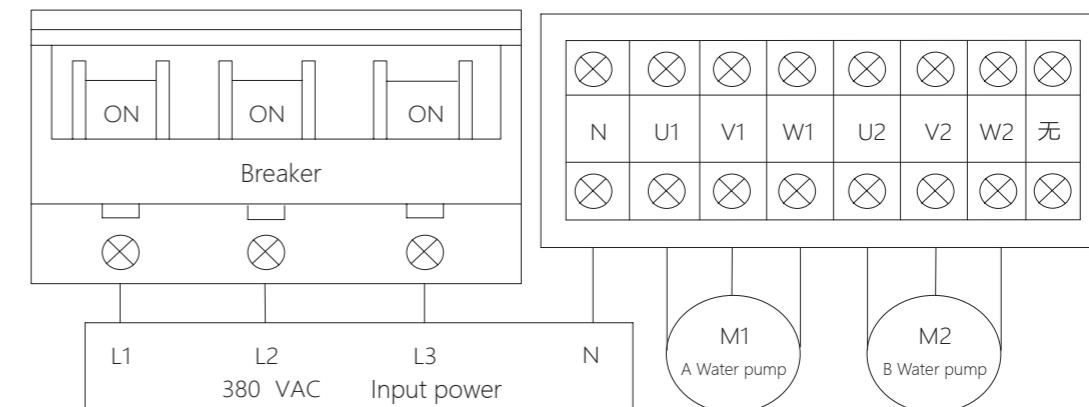


Technical Parameter

Power input	Input voltage	380-460V (-15% ~ +10%) , 3 phase power
	Input frequency	45-65Hz
	Permissible voltage variation	Voltage unbalance <3%
	Instantaneous voltage drop	3 phase AC380-460V power, input voltage <AC300V, Under voltage protection starts after 15ms.
Power output	Voltage	380-460V (-15% ~ +10%)
Motor type	Three phase asynchronous motor	
Ambient condition	Ambient temperature (operation)	-10 ~ +45°C
	Storage temperature	-40 ~ +70°C
	Altitude	< 2000m
	Humidity	5 ~ 95%, Condensation is not allowed
	Installation	Vertical wall mounting installation slope ≤ 5°
	IP Protection	IP54

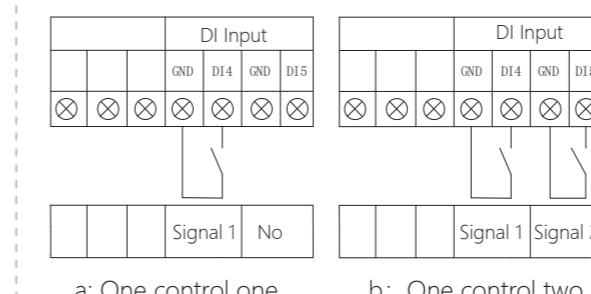
Product wiring

Product wiring

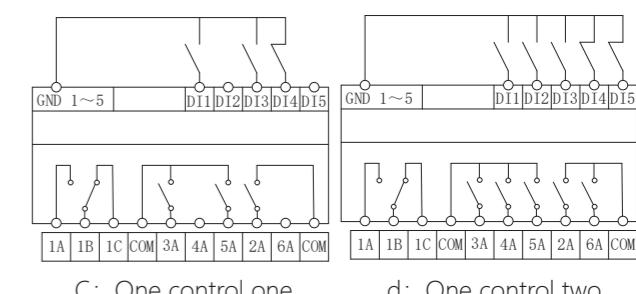


Control circuit wiring

D150-4T-0B-X.X-X



D150-4T-7B-X.X-X



AS180F

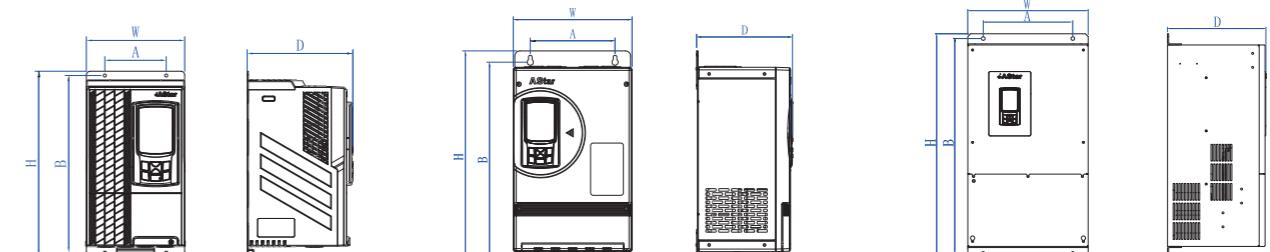
firefighting dedicated VDF



Model Description

Specification and dimension

Specification	Inverter model AS180F	A (mm)	B (mm)	H (mm)	W (mm)	D (mm)	Installation aperture Φ(mm)	Installation			Tightening torque(Nm)	Quality (kg)
								Bolt	Nut	Gasket		
A1	4T 0011	100	288.5	300	160	162	5.0	4M4	4M4	4Φ4	1.1	4.5
	4T 0015											
A2	4T 0020	165.5	357	379	222	182	7.0	4M6	4M6	4Φ6	3.5	8
	4T 0029											
A3	4T 0036	165.5	392	414	232	182	9.0	4M8	4M8	4Φ8	9	10.3
	4T 0044											
	4T 0056											
A4	4T 0072	200	512	540	330	288	9.0	4M8	4M8	4Φ8	9	29.5
	4T 0090											
A5	4T 0110	200	585	610	330	310	9.0	4M8	4M8	4Φ8	9	38
	4T 0148											



A1 size installation dimensions

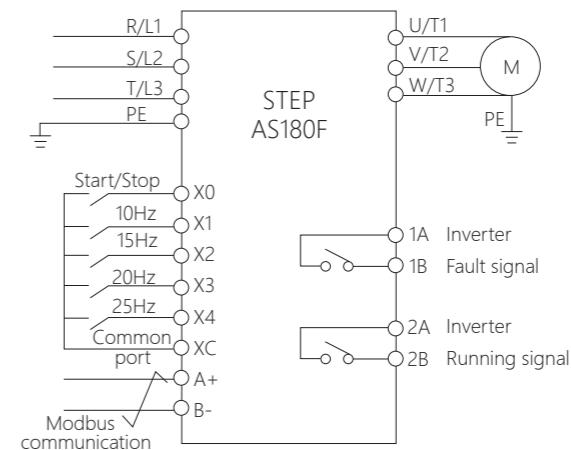
A2~A3 size installation dimensions

A4~A5 size installation dimensions

technical specification

power input	Input voltage	380-460V (-15% ~ +10%) , three-phase supply
	Input frequency	45-65Hz
	Allowable voltage variation	voltage imbalance <3%
	Instantaneous electric drop	When three-phase AC380-460V power supply, when the input voltage is less than AC300V, the undervoltage protection will be turned on after 15ms
power output	voltage	0VAC ~ input voltage
	Overload level	120%/60s
	Efficiency (full load)	≥ 0.94
	Output frequency accuracy	±0.01Hz (digital instruction -10 ~ +45°C) ; ±0.1% (Simulation instruction 25±10°C)
control mode	I/F control	
Adaptation motor	asynchronous motor	
Communication interface	Modbus485	
environmental conditions	environmental temperature (operating)	-10 ~ +40°C
	storage temperature	-40 ~ +70°C
	Height reduction for use	< 1000m, > 1000m for every increase of 100m, the rated output current is reduced by 1% (up to 3000m)
	Environmental humidity	5 ~ 95%, No condensation allowed
Installation method	Wall-mounted, vertical installation slope ≤ 5°	
Protection level	IP20	

Wiring Diagram



Contact us

Shanghai Sigriner STEP Electric Co., Ltd.
NO.1560 Siyi Road, Jiading District, Shanghai, 201801, China
Telephone: 021-6992 6004/6992 6036
Fax: 021-6992 6011
Service hotline: 400-821-0325

CHINA

Shanghai STEP Electric Corporation
NO.599 Meiyu Road, Jiading District, Shanghai
201802, China
Telephone: 021-3101 0600/0800
Fax: 021-3101 0681
Service hotline: 400-820-7921

Shanghai STEP Robotics Co., LTD
NO.1518 Siyi Road, Jiading District, Shanghai,
201801, China
Telephone: 021-3102 6886
Service hotline: 400-920-0275

Shanghai STEP Cable Technology Co., LTD
NO.289 Xinqin Road, Jiading District, Shanghai
201802, China
Telephone: 021-3912 5531
Fax: 021-3912 5535

ADTECH (Shenzhen) Technology Co. ,LTD
5 / F, Yiyuan Road, Majialong Tianxia IC
Industrial Park, Nanshan District, Shenzhen,
518052
Telephone: 0755-2672 2719
Fax: 0755-2672 2718
Service Hotline: 400-168-2718

Shanghai STEP Automotive Equipment Co., Ltd.
No.1560 Siyi Road, Jiading District, Shanghai ,
201801, China
Telephone: 021-6992 6000
Fax: 021-6992 6011

Shanghai Huitong Automation Technology
Development Co., LTD
Room 3503/604, Citic Plaza, 859 Sichuan North
Road, Shanghai, 200085
Telephone: 021-6357 0803,6357 0804
Fax: 021-6357 0802

Yixin (Shanghai) International Trading Co., LTD
NO.599 Meiyu Road, Jiading District, Shanghai
201802, China
Telephone: 021-3101 0622
Fax: 021-3101 0649

Hangzhou Zhishan Motion Control Co., Ltd.
NO.9 xianxing Road, Xianlin Industrial Zone,
Hangzhou.
Zip: 311112
Service Hotline: 4008-096-368
Tel: 0571-8868 6776, 0571-89086098
Fax: 0571-8868 5775
E-mail: market@zscnc.cn

Hong Kong International STEP Holdings Co.,
LTD
Unit AD, 9/F, Nathan Commercial Building,
430-436 Nathan Road, Kowloon , Hong Kong
Telephone: +852-2759 2938
Fax: +852-2759 0662

Overseas

Germany STEP Electric Co., LTD
D-84503, 2B Industrial Park, Mildorff, Bavaria,
Germany
Telephone: +49 8631 987 44 11
Fax: +49 8631 987 44 4

STEP Sigriner Brazil Joint Venture Co.,LTD
Rua Alvaro Fragoso, 96 - Vila Carioca - Sao Paulo,
SP,
Brasil CEP 04223-000
Telephone: +55 11 4123 6731

Sigriner Malaysia Joint Venture Limited,
Lot 5, Jalan Asam Jawa 16/15, Section 16,
40200 Shah Alam, Selangor Darul Ehsan, Malaysia
Telephone: +603-5541 0636
Fax: +603-5541 0536

STEP JP Corporation
Asano Santinu, Ogura District, Kitakura, Fukuoka
Prefecture, Japan
Room 204, 8/1
Telephone: + 81-93-967-3635



Scan code for more details