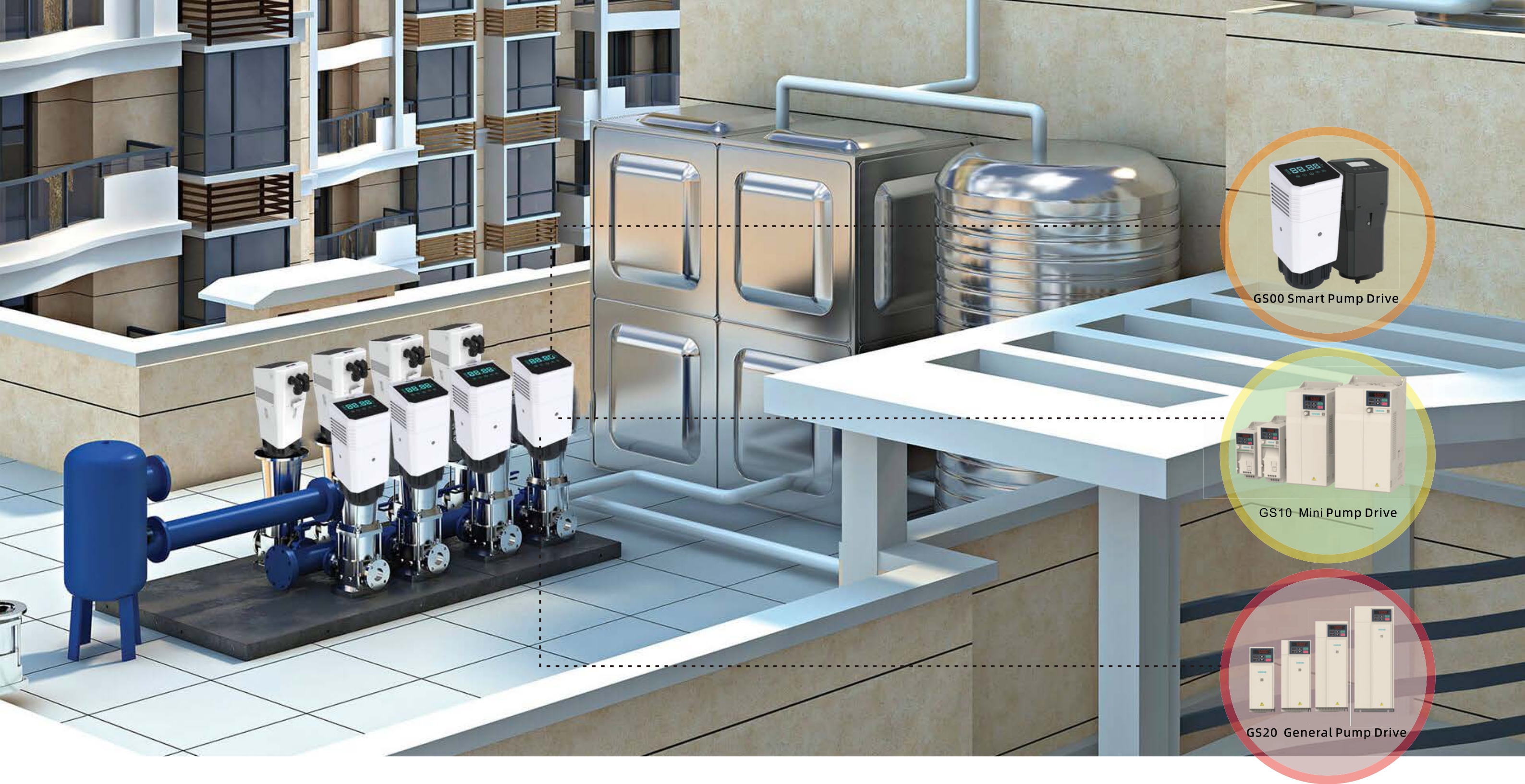


Pump Drive Catalog







Water Supply System



# GS00 Smart Pump Drive

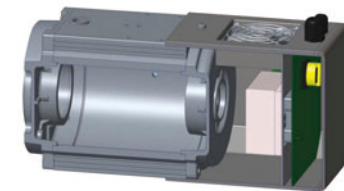


Ingenious design integration into one

## GS00 Water pump integrated machine

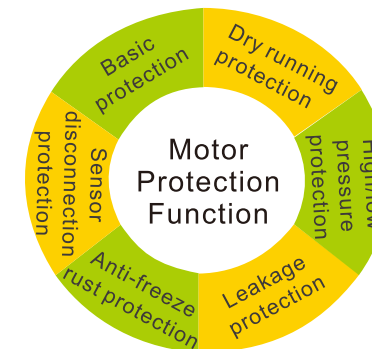
### Motor-drive integrated structure, convenient installation and maintenance

The controller wraps the surface of the motor to truly achieve an integrated design. Only four screws are required for installation; the motor and the fan also dissipate heat for the motor and the drive, reducing the fan failure rate.



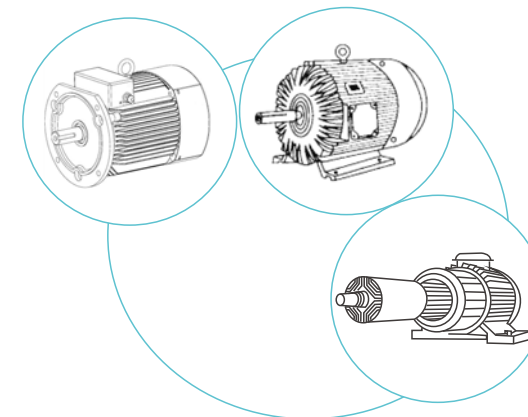
### Motor protection function

Multiple inverter basic protection functions; Water pump exclusive protection function (water shortage protection, high and low pressure protection, leakage protection, anti-freeze embroidery protection, sensor disconnection protection)



### Perfectly drive a variety of pump motors

Perfectly drive a variety of water pump motors such as asynchronous, permanent magnet synchronous, synchronous reluctance, etc.



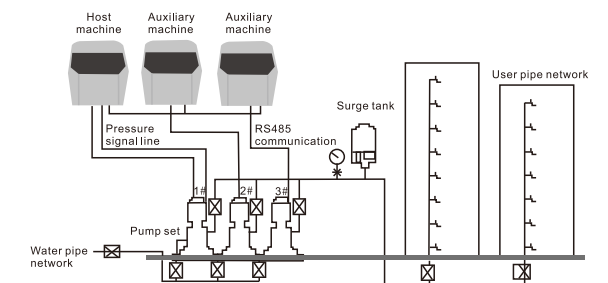
### Multiple key selection

Mechanical key, touch screen key



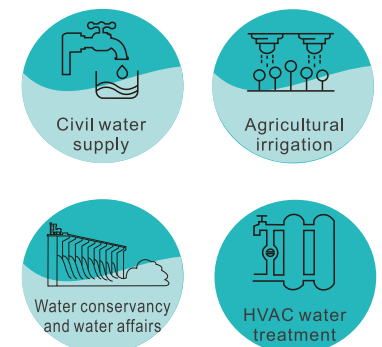
### Multiple pump control

- ◆ The pressure of the pipe network is detected by the host and sent to the auxiliary machine. When the pressure is not enough, the auxiliary machine starts and runs according to the set frequency, and the main machine performs constant pressure PID adjustment.
- ◆ The main and auxiliary machines alternately run in sequence at regular intervals to realize the uniform use of the water pump and extend the life of the water pump.



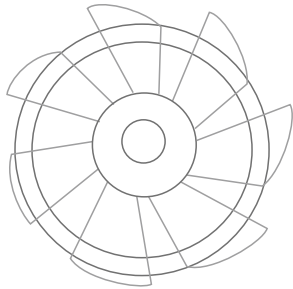
### Wide range of applications

Used in many occasions such as civil water supply, agricultural irrigation, water conservancy and water affairs, HVAC water treatment, etc.

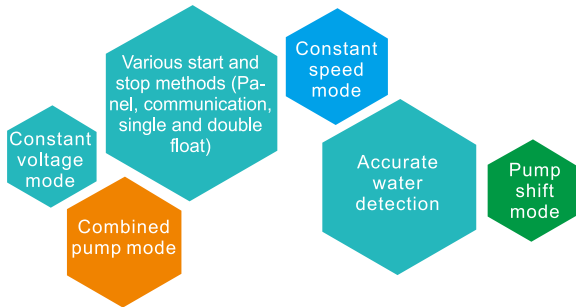


Efficient speed regulating fan

High-efficiency fan dissipates the motor and drive at the same time, with large air volume and low noise.



Multiple water supply functions



GS00 water pump integrated machine naming rules

GS 00 - T3 - 004G - 55 B W

① ② ③ ④ ⑤ ⑥ ⑦

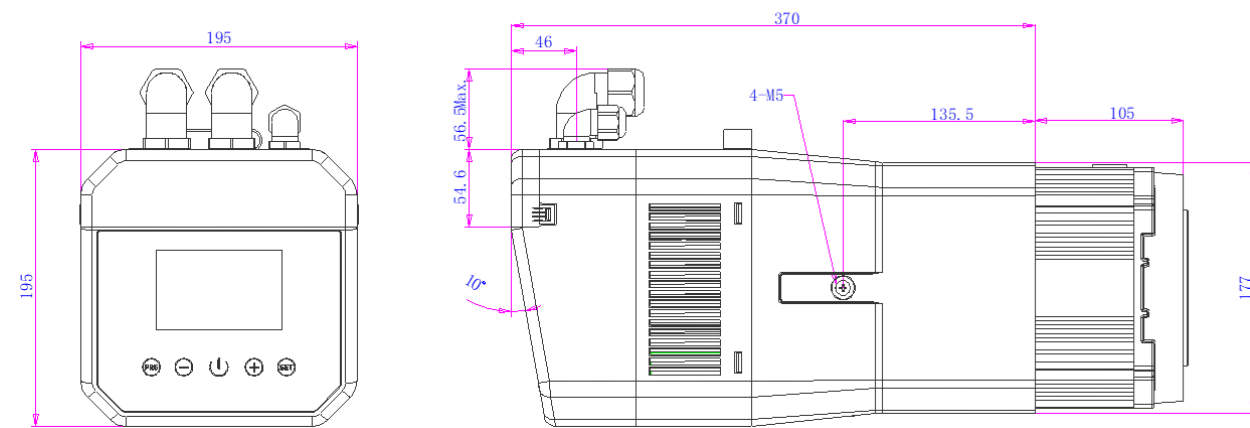
① GS: Water pump integrated machine code	⑤ Protection level 55:IP55 65:IP65
② 00: Customized water pump integrated machine	⑥ Key type B: Mechanical key T: Touch key
③ Voltage Level S2: Single phase 220V T2: Three-phase 220V T3: Three-phase 380V	⑦ Cooling method W: Air-cooled N: Natural cooling L: Water cooling
④ Suitable for water pump power level 1R5G:1.5kW    004G:4.0kW 2R2G:2.2kW    5R5G:5.5kW	

GS00 Technical Specification

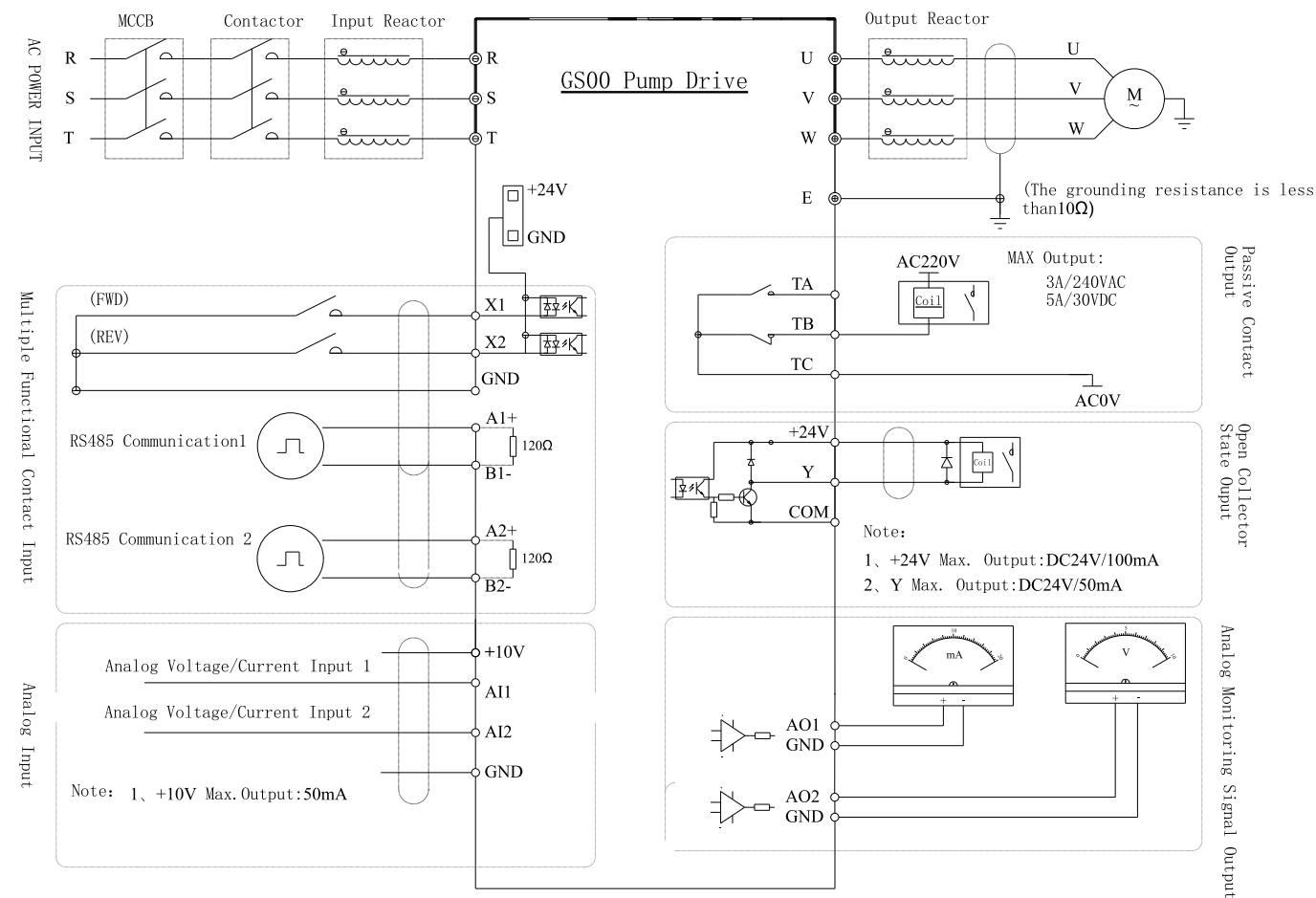
Item		Specification
Power input	Voltage, frequency	T/S2 : Single/Three phase 220VAC 50/60Hz T3: Three-phase 380VAC 50/60Hz
	Allow fluctuations	Voltage imbalance rate: <3%; Frequency: ±5% The distortion rate meets the requirements of IEC61800-2
	Power rating	T/S2 : 0.75kW~2.2kW T3 : 0.75kW~11kW; 15kW or above under development
Output	Output frequency range	0Hz ~ 600Hz
	Overload capability	T3 model: 150% rated current for 1 minute, 180% rated current for 10 seconds, 200% rated current for 0.5 second S2 model: 150% rated current 60 seconds, 180% rated current 10 seconds, 200% rated current 0.5 seconds
Main control performance	Motor control mode	No PG V/F control, no PG vector control
	Carrier frequency	2.0kHz~16.0kHz
Basic product function	Standard function	PID control, speed tracking and power-down restart, skip frequency, frequency upper and lower limit control, program operation, multi-step speed, RS485, analog output, frequency pulse output
	Pump function	Constant pressure control,smart pump control, multiple pump control, intelligent IOT
	Input terminals	2 digital input,2 analog input
	Output terminals	1 relay output, 1 collector output, 2 AO output can be selected as 0~10V or 4~20mA or 4~20mA output
	Communication	2 loop RS485 communication
Protective function		Basic protections: overvoltage, undervoltage, current limiting, overcurrent, overload, electronic thermal relay, overheating, overvoltage stall, data protection, fast protection, input and output phase loss protection Pump special protection: water shortage,high/low pressure,water leakage, anti-freeze, sensor disconnection
Keyboard display	LCD display	English language display, system operation diagram
	Touching button	Parameters modification, command set
	Status monitoring	System operation status display such as pump pressure ,speed
	Information query	Operation period, historical fault information
	Parameters lock	Lock parameters for avoiding misoperation
	User password	After password setting, it will take effect in 1 minute
Surroundings	Temperature humidity	-10 ~ +50℃, derating can be used above 40 ℃, the maximum temperature is 60 ℃ (no-load operation) 5% to 95% RH (no condensation)
	Storage temperature	-30℃ ~ +60℃
	Installation method	Mounted on the motor vertically
	Protection level	IP55/IP65
	Cooling method	Forced air cooling



GS00 Dimension (Unit: mm)



GS00 Wiring



GS10 Pump Drive

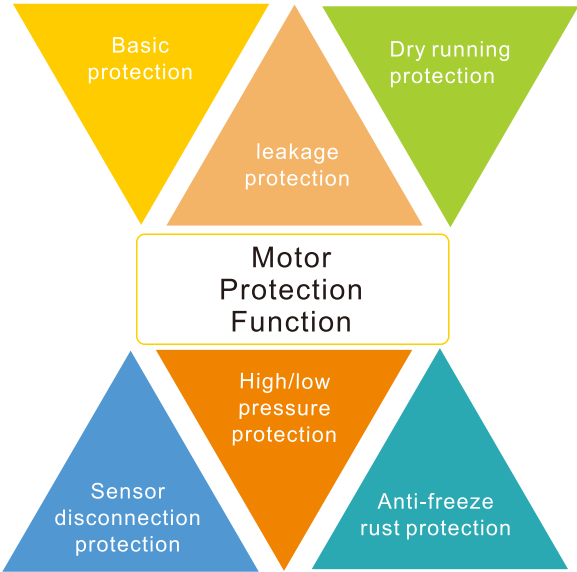


Mini&Economic

GS10 Product Features

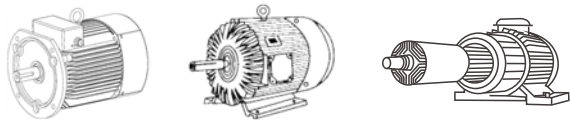
Motor protection function

Multiple inverter basic protection functions; Water pump exclusive protection function (water shortage protection, high and low pressure protection, leakage protection, anti-freeze embroidery protection, sensor disconnection protection)

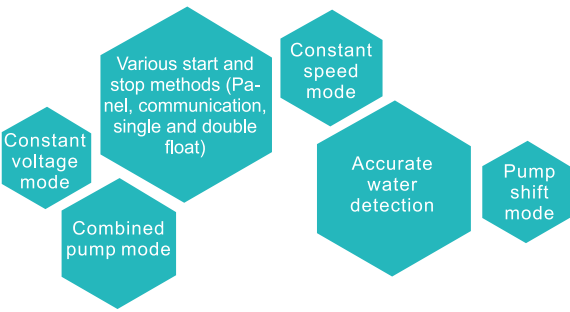


Perfectly drive a variety of pump motors

Perfectly drive a variety of water pump motors such as asynchronous, permanent magnet synchronous, synchronous reluctance, etc.

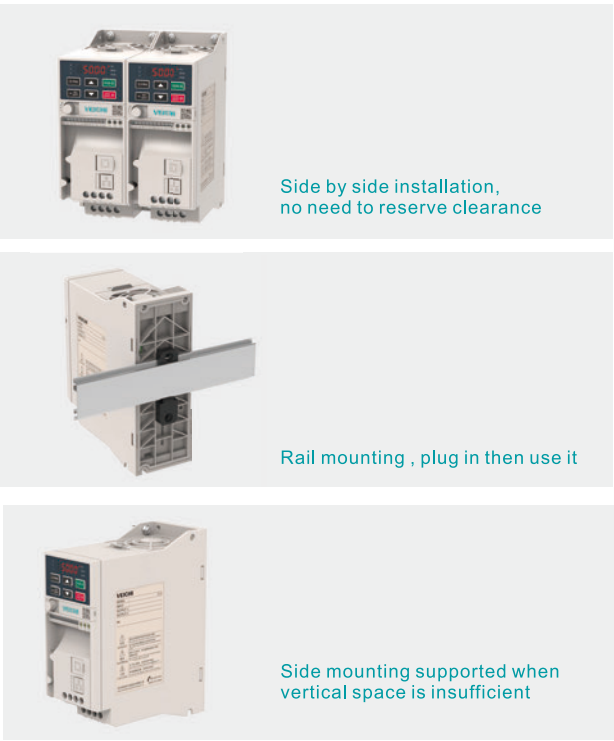


Multiple water supply functions



Installation Methods

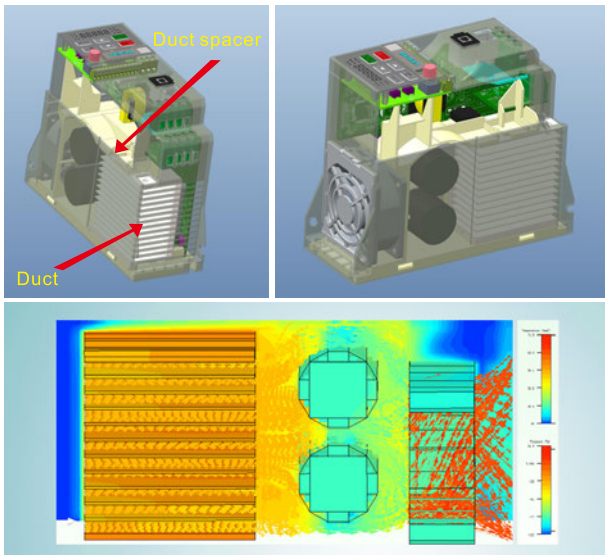
Support penetration installation (wall installation, embedded installation); Adapt to various installation environments



Protective Design

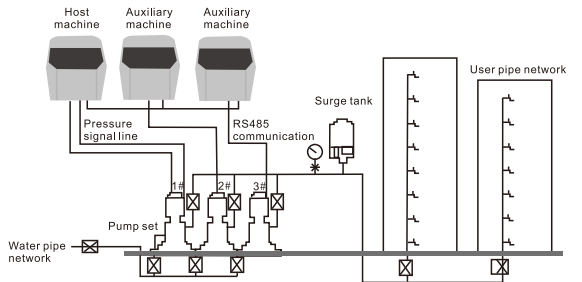
High protection: completely independent air duct, scientific layout inside the machine, help the heat dissipation of high-power devices and the dust-proof of the sensing device .

High temperature resistance : scientific air duct design , which can quickly dissipate heat , low temperature rise of the machine ,and no need of derating at an ambient temperature of 50 ℃ .



Multiple pump control

- ◆ The pressure of the pipe network is detected by the host and sent to the auxiliary machine. When the pressure is not enough, the auxiliary machine starts and runs according to the set frequency, and the main machine performs constant pressure PID adjustment.
- ◆ The main and auxiliary machines alternately run in sequence at regular intervals to realize the uniform use of the water pump and extend the life of the water pump.



Network Port Extension Interface

The network model supports RS485 (standard) , which could be directly extended through the network port. Customers only need to make a network cable connection, convenient and beautiful.



GS10 Product Model

GS10-T 3-1R5 G-A

① ② ③ ④ ⑤ ⑥

① Product series GS10 series	④ Motor power(kW) R75 : 0.75kW 1R5 : 1.5kW 2R2 : 2.2kW 004 : 4kW
② Phase T: 3-phase S: single-phase	⑤ Type G: Heavy load
③ Voltage 2: 220V 3: 380V	⑥ Remark A: VEICHI logo

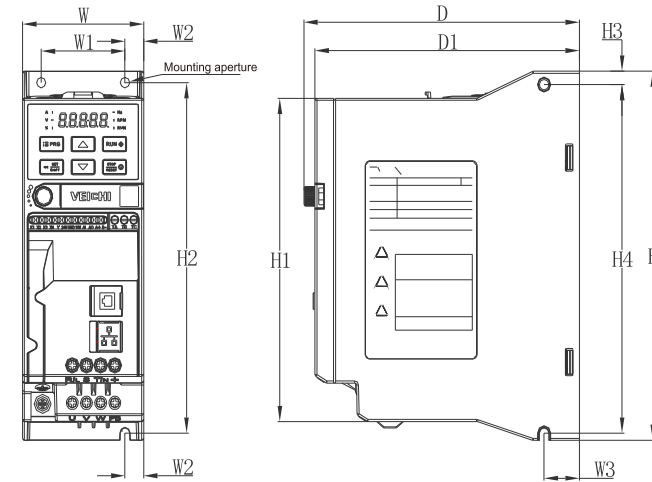


## GS10 Technical Specification

Item		Specification
Power input	Voltage, Frequency	T/S2 : Single/Three phase 220VAC 50/60Hz T3: Three-phase 380VAC 50/60Hz
	Power rating	T/S2 : 0.75kW~2.2kW T3 : 0.75kW~22kW;
	Allow fluctuations	Voltage imbalance rate: <3%; Frequency: ±5% The distortion rate meets the requirements of IEC61800-2
Output	Output frequency range	0Hz ~ 600Hz
	Overload capability	T3 model: 150% rated current for 1 minute, 180% rated current for 5 seconds, 200% rated current for 0.5 second T/S2 model: 150% rated current 20 seconds, 180% rated current 0.5 seconds
Main control perform-ance	Motor control mode	No PG V/F control, no PG vector control
	Carrier frequency	1.0kHz~16.0kHz
Basic product function	Standard function	PID control, speed tracking and power-down restart, skip frequency, frequency upper and lower limit control, program operation, multi-step speed, RS485, analog output, frequency pulse output
	Pump function	Constant pressure control,smart pump control, multiple pump control, intelligent IOT
	Input terminals	4 digital input, 1 analog input
	Output terminals	1 relay output, 1 collector output, 1 AO output can be selected as 0~10V or 4~20mA or 4~20mA output
	Communication	1 loop RS485 communication
Protective function		Basic protection: overvoltage, undervoltage, current limiting, overcurrent, overload, electronic thermal relay, overheating, overvoltage stall, data protection, fast protection, input and output phase loss protection Pump special protection: water shortage, high/low pressure, water leakage, anti-freeze, sensor disconnection
Surroundings	Installation place	The altitude is less than 1000 meters, and the derating is more than 1000 meters. The derating is 1% for every 100 meters. No condensation, icing, rain, snow, sputum, etc., solar radiation is less than 700W/m2, air pressure 70~106kPa
	Temperature humidity	-10 ~ +50°C, derating can be used above 40 °C, the maximum temperature is 60 °C (no-load operation) 5% to 95% RH (no condensation)
	Vibration	At 9 to 200 Hz, 5.9 m/s2 (0.6 g)
	Storage temperature	-30°C ~ +60°C
	Installation method	Wall-mounted, closet
	Protection level	IP20
	Cooling method	Forced air cooling

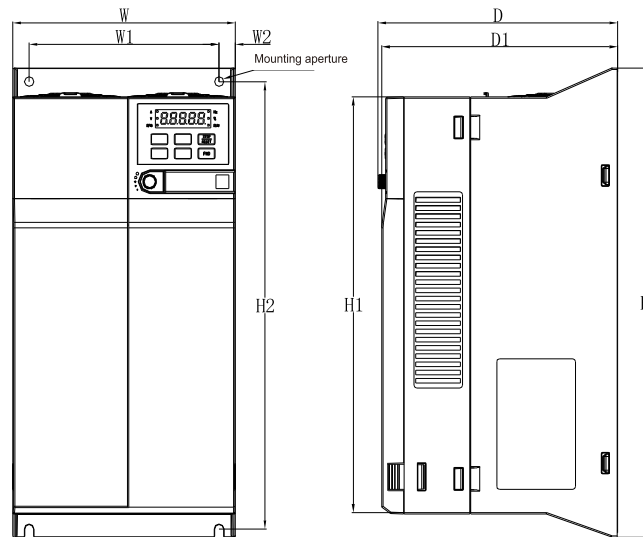
## GS10 Product Dimension

### 0.4kW-5.5kW Installation Size Chart



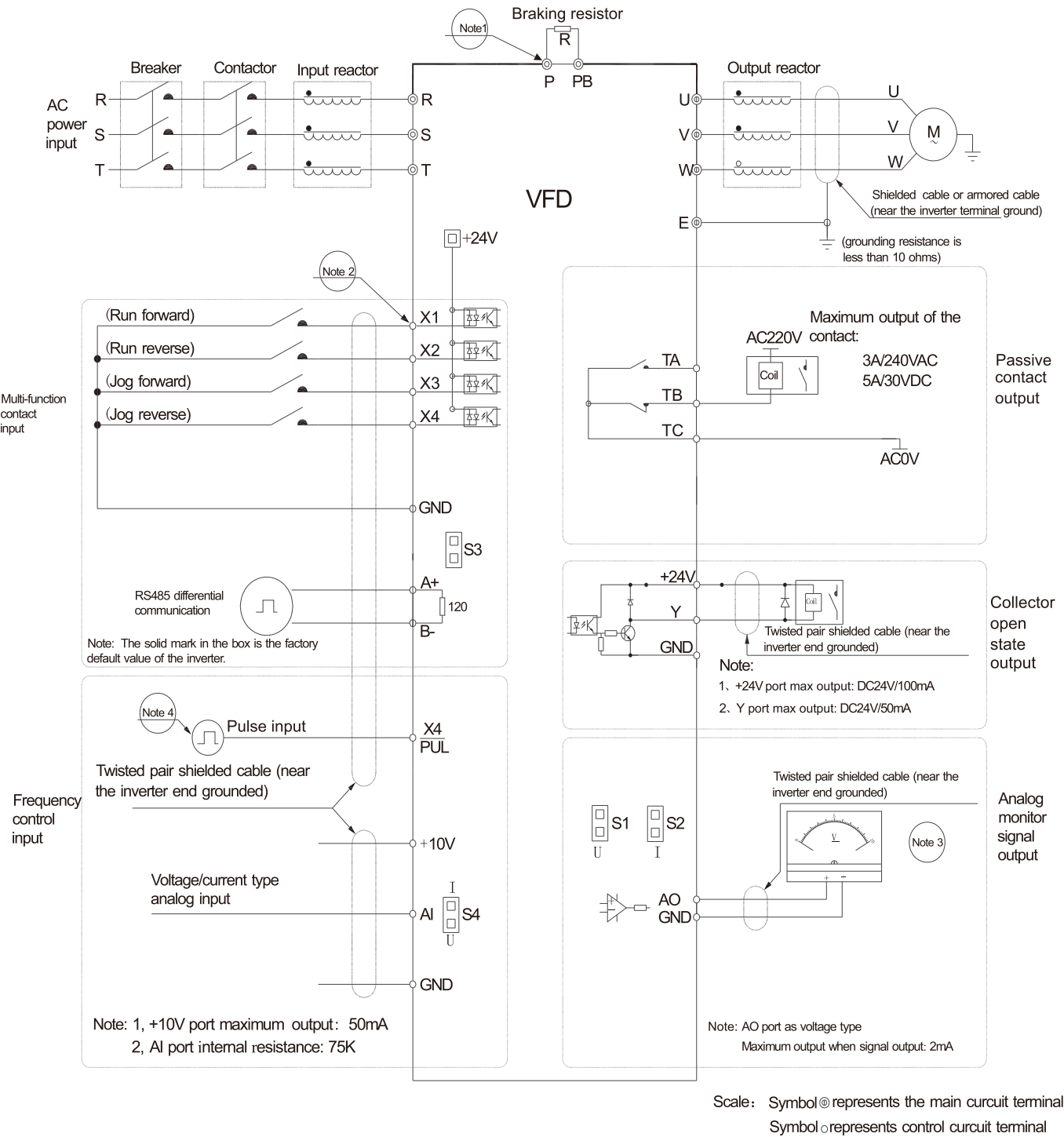
Inverter model	Dimension(mm)					Mounting dimensions (mm)						Mounting aperture
	W	H	H1	D	D1	W1	W2	H2	W3	H3	H4	
GS10-T/S2-R04G-A	65	177	155	148	142	45	10	168	19	6.5	167	3-M4
GS10-T/S2-R75G-A												
GS10-T/S2-1R5G-A	75	202	180	163	157	55	10	193	19	6.5	192	3-M4
GS10-T/S2-2R2G-A												
GS10-T3-R75G-A	65	177	155	148	142	45	10	168	19	6.5	167	3-M4
GS10-T3-1R5G-A												
GS10-T3-2R2G-A												
GS10-T3-004G-A	75	202	180	163	157	55	10	193	19	6.5	192	3-M4
GS10-T3-5R5G-A												

### 7.5kW-22kW Installation Size Chart



Inverter model	Dimension(mm)					Mounting dimensions (mm)						Mounting aperture
	W	H	H1	D	D1	W1	W2	H2	W3	H3	H4	
GS10-T3-7R5G-A	130	320	286	161	158	105	12.5	302	-	-	-	M5
GS10-T3-011G-A												
GS10-T3-015G-A	170	342.5	303.5	183	180	145	12.5	326.5	-	-	-	M5
GS10-T3-018G-A												
GS10-T3-022G-A												

GS10 Wiring



GS20 General Pump Drive



Powerful Functions, Rich Expansion

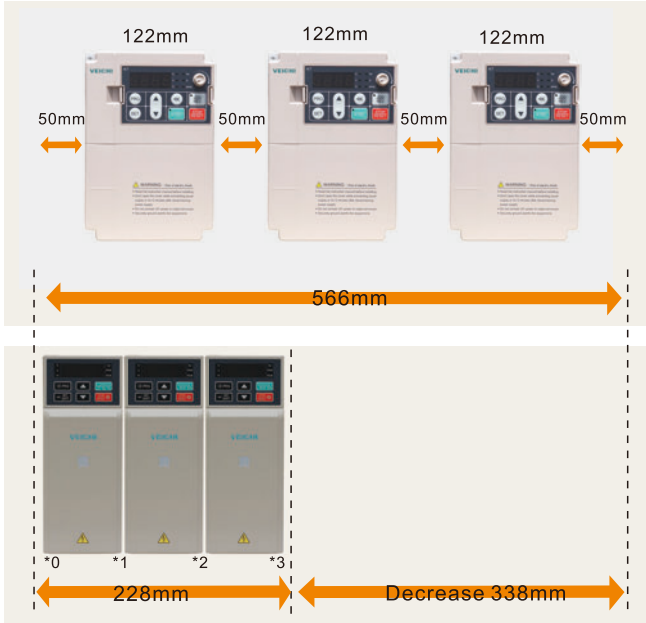


GS20 Product Features

New Appearance, Narrow Body Structure

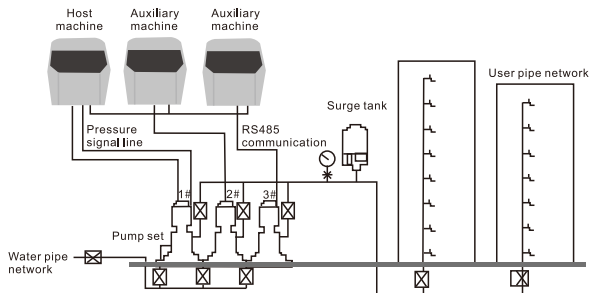
- Book narrow body structure, maximum space saving 60% .
- New keyboard design, simple appearance and easy operation .
- European terminal blocks, convenient and efficient wiring .

380V 2.2kW demonstration



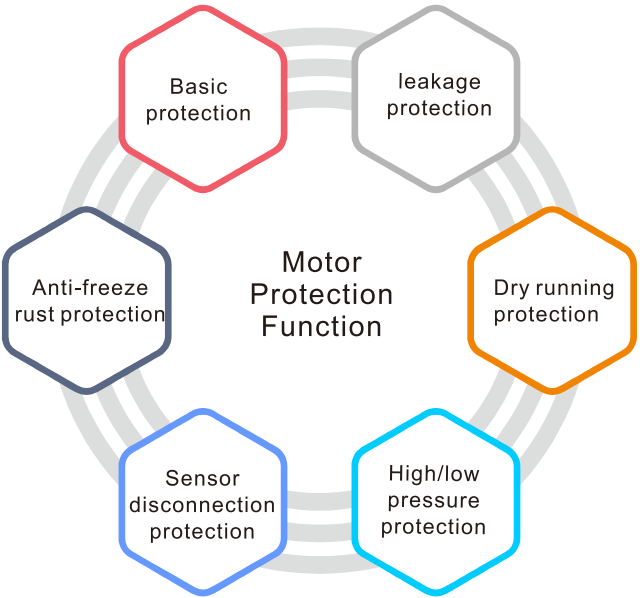
Multiple pump control

- ◆ The pressure of the pipe network is detected by the host and sent to the auxiliary machine. When the pressure is not enough, the auxiliary machine starts and runs according to the set frequency, and the main machine performs constant pressure PID adjustment.
- ◆ The main and auxiliary machines alternately run in sequence at regular intervals to realize the uniform use of the water pump and extend the life of the water pump.



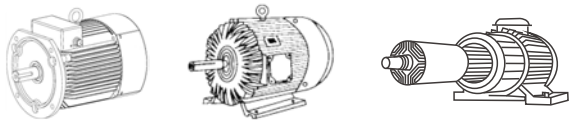
Motor protection function

Multiple inverter basic protection functions; Water pump exclusive protection function (water shortage protection, high and low pressure protection, leakage protection, anti-freeze embroidery protection, sensor disconnection protection)

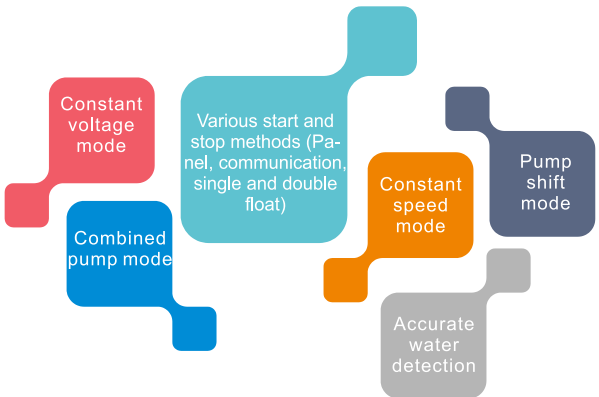


Perfectly drive a variety of pump motors

Perfectly drive a variety of water pump motors such as asynchronous, permanent magnet synchronous, synchronous reluctance, etc.



Multiple water supply functions



Smart IOT

- Support GPS positioning, wifi data connection, offline data storage .
- Unattended, real-time, remote control .
- Big data analysis, calculation of cumulative power generation and flow .



Easy To Debug And Rich In Expansion

- Professional PC software, one-key reading of debugging parameters .
- Virtual oscilloscope reads data accurately .
- Support ModBus, SPI, GPRS, PG card and other expansion interfaces .



GS20 Product Model

GS20 - T3 - 011G/015P - A

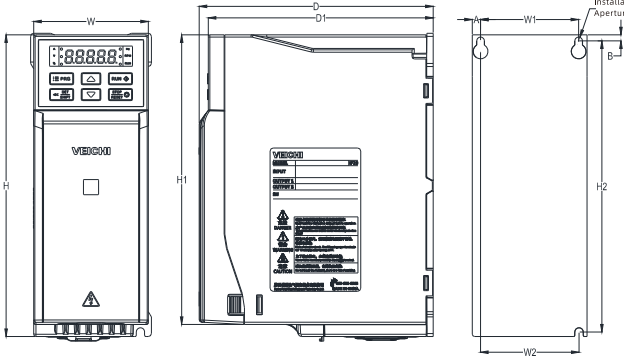
① Product Series GS20 series	④ Motor Power(kW) 7R5G : 7.5kW 011 : 11kW 018 : 18.5kW 132 : 132kW
② Phase T: Three S: Single	④ Type G: Heavy load P: Light load
③ Voltage 2: 220V 3: 380V 6: 660V 11: 1140V	⑤ Remark A: VEICHI logo

## GS20 Technical Specification

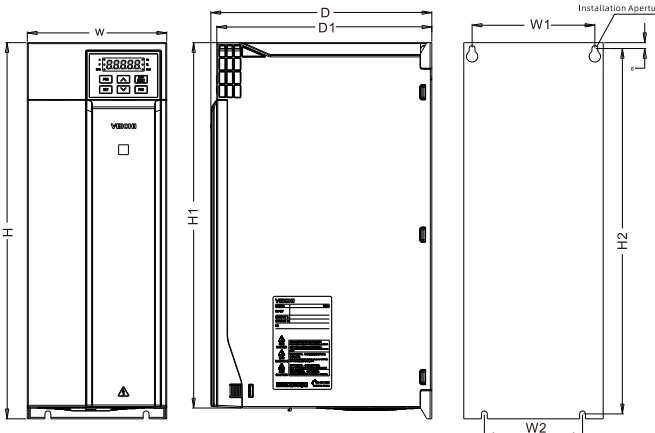
Items		Specifications
Power input	Voltage, frequency	Single phase :220V 50/60Hz;Three phase: 220V 50/60Hz; Three phase 380V 50/60Hz
	Power rating	T/S2: 0.75kw-55kw; T3;0.75kw-800kw
Output	Output frequency range	0Hz~600Hz
	Overload capacity	G type: 150% rated current/1 min, 180% rated current/10s, 200% rated current/0.5s P type: 120% rated current/1 min, 140% rated current/10s, 150% rated current/0.5s
Main Control performance	Motor control type	V/F, SVC, FVC
	Carrier frequency	1.0kHz~16.0kHz
Basic functions	Standard functions	PID control, speed track, power off restart, jump frequency, upper/lower frequency limit control, program operation, multi- speed, RS485, analog output, frequency impulse output
	Pump functions	Keyboard digital setting, Analog voltage/current terminal AI1, Analog Constant pressure control,smart pump control, multiple pump control, intelligent IOT
	Input terminals	4 digital input terminals, 2 analog input terminals
	Output terminals	1 digital output terminal, 2 relay output, 1 analog ouput
	Communication	1 loop RS485 communication
Protection function		Basic protection : Overvoltage, under-voltage, current limit, over-current, overload, electric thermal relay, overheat, overvoltage stall, data protection, rapid speed protection, input/output phase failure protection  Pump special protection: water shortage,high/low pressure,water leakage, anti-freeze, sensor disconnection
Environment	Install place	The altitude is less than 1000 meters, and the derating is more than 1000 meters. The derating is 1% for every 100 meters. No condensation, icing, rain, snow, hail, etc., solar radiation is less than 700W/m2, air pressure 70~106kPa
	Temperature, humidity	-10 ~ +50℃, derating can be used above 40 °C, the maximum temperature is 60 °C (no-load operation), 5%~95%RH(no condensation) 5% to 95% RH (no condensation)
	Vibration	9~200Hz,5.9m/s2(0.6g) 5%—95%RH (no condensation)
	Storage temperature	-30℃ ~ +60℃
	Installation	Wall hanging
	Protection degree	IP20
	Cooling method	Forced air cooling

## GS20 Product Dimension

## Plastic Shell

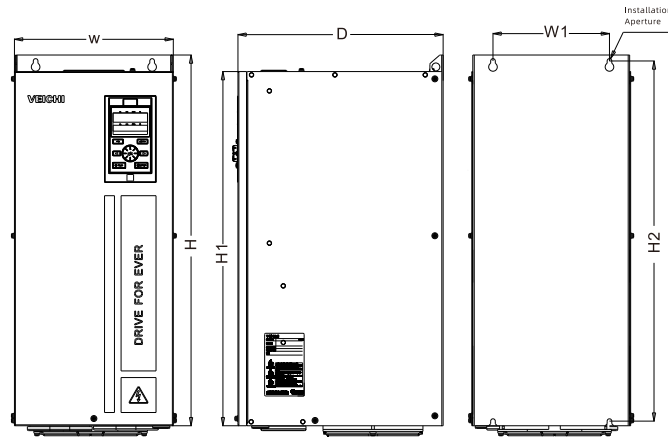


Inverter model	Dimension(mm)					Mounting dimensions (mm)					Mounting aperture
	W	H	H1	D	D1	W1	W2	H2	A	B	
G20-T/S2-R75G-A	76	200	192	155	149	65	65	193	5.5	4	3-M4
G20-T/S2-1R5G-A											
G20-T/S2-2R2G-A	100	242	231	155	149	84	86.5	231.5	8	5.5	3-M4
G20-T/S2-004G-A											
G20-T3-R75G/1R5P-A	76	200	192	155	149	65	65	193	5.5	4	3-M4
G20-T3-1R5G/2R2P-A											
G20-T3-2R2G-A											
G20-T3-004G/5R5P-A	100	242	231	155	149	84	86.5	231.5	8	5.5	3-M4
G20-T3-5R5G/7R5P-A											
G20-T3-7R5G/011P-A	116	320	307.5	175	169	98	100	307.5	9	6	3-M5
G20-T3-011G/015P-A											

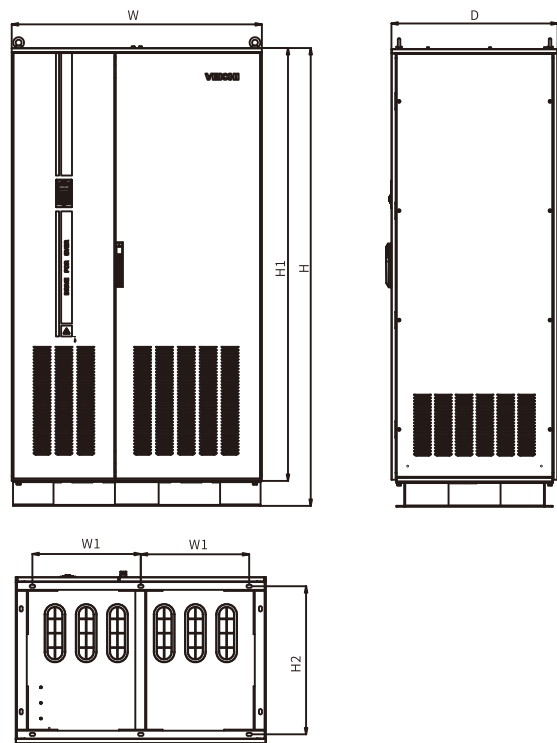


Inverter model	Dimension(mm)					Mounting dimensions (mm)				Mounting aperture
	W	H	H1	D	D1	W1	W2	H2	B	
GS20-T/S2-7R5G-A	142	383	372	225	219	125	100	372	6	4-M5
GS20-T/S2-011G-A										
GS20-T/S2-015G-A										
GS20-T2-018G-A	172	430	/	225	219	150	150	416.5	7.5	4-M5
GS20-T2-022G-A										
GS20-T3-015G/018P-A	142	383	372	225	219	125	100	372	6	4-M5
GS20-T3-018G/022P-A										
GS20-T3-022G/030P-A										
GS20-T3-030G/037P-A	172	430	/	225	219	150	150	416.5	7.5	4-M5
GS20-T3-037G/045P-A										





## Cabinet Drive



Inverter model	Dimension(mm)				Mounting dimensions (mm)		Mounting aperture
	W	H	H1	D	W1	H2	
GS20-T2-030G-A	240	560	535	310	176	544	4-M6
GS20-T2-037G-A							
GS20-T2-045G-A							
GS20-T2-055G-A	270	638	580	350	195	615	4-M8
GS20-T3-045G/055P-A	240	560	535	310	176	544	4-M6
GS20-T3-055G/075P-A							
GS20-T3-075G/090P-A							
GS20-T3-090G/110P-A	270	638	580	350	195	615	4-M8
GS20-T3-011G/132P-A	350	738	680	405	220	715	4-M8
GS20-T3-132G/160P-A							
GS20-T3-160G/185P-A							
GS20-T3-185G/200P-A	360	940	850	480	200	914	4-M16
GS20-T3-200G/220P-A							
GS20-T3-220G/250P-A							
GS20-T3-250G/280P-A	370	1140	1050	545	200	1110	4-M16
GS20-T3-280G/315P-A							
GS20-T3-315G/355P-A							
GS20-T3-355G/400P-A	400	1250	1140	545	240	1213	4-M16
GS20-T3-355G/400P-A							
GS20-T3-450G/500P-A							
GS20-T3-500G/560P-A	460	1400	1293	545	300	1363	4-M16
GS20-T3-560G/630P-A							

Inverter model	Dimension(mm)				Mounting dimensions (mm)		Mounting aperture
	W	H	H1	D	W1	H2	
GS20-T3-630G/710P-A	1201	2198	2078	798	520	711	φ14
GS20-T3-710G/800P-A							
GS20-T3-800G/900P-A							

## GS20 Wiring

