

**EASY DRIVE  
DRIVE ALL**



## **VARIABLE FREQUENCY DRIVE & SOFT STARTER**

To supply the first-class electrical transmission technology and industrial control system for you.

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# D31 Series General VFD



- Removable protective labels are attached to the top of the plastic case for side-by-side installation
- High performance vector control is realized by using flux linkage and velocity estimation techniques
- Wide voltage range is designed to ensure the adaptability of products to grid fluctuations  
Before the converter reaches soft overcurrent, it can run with the current value limited by hardware to reduce the frequency converter's overcurrent failure
- During deceleration, when the DC bus voltage exceeds the set value, the converter will be protected according to the overvoltage protection mode you choose
- Advanced independent air duct design, adapt to a variety of complex, harsh site environment

## Performance and configuration

According to the application requirements of all industries, engineers set the overall advantages of the system configuration in The design of D31, resulting in its wide range of application.

electrical characteristics	Input voltage	AC3PH ,380-480V,50/60Hz
	Output voltage	0-480V,0.5Hz-400Hz
	Control mode	V/F control for constant torque, V/F control for quadratic load, vector control without PG, Energy-saving mode
	Switching frequency	1.5kHz~12kHz, according to junction temperature automatically reduce the switching frequency
	Overload capacity	150% of rated out current for 60s, 200% of rated output Current for 2s

Control signal	Frequency setting signal	Integrated operation keypad	Film switch(Press button) , speed control knob ( potentiometer )
		Outside signal	Given UP/DOWN, analogue input,multi-speed, remote keypad and series communication
	Start & Stop control signal	Integrated operation keypad	Press button of 'RUN' and 'STOP'
		Outside signal	Logic input terminal, remote keypad and series communication

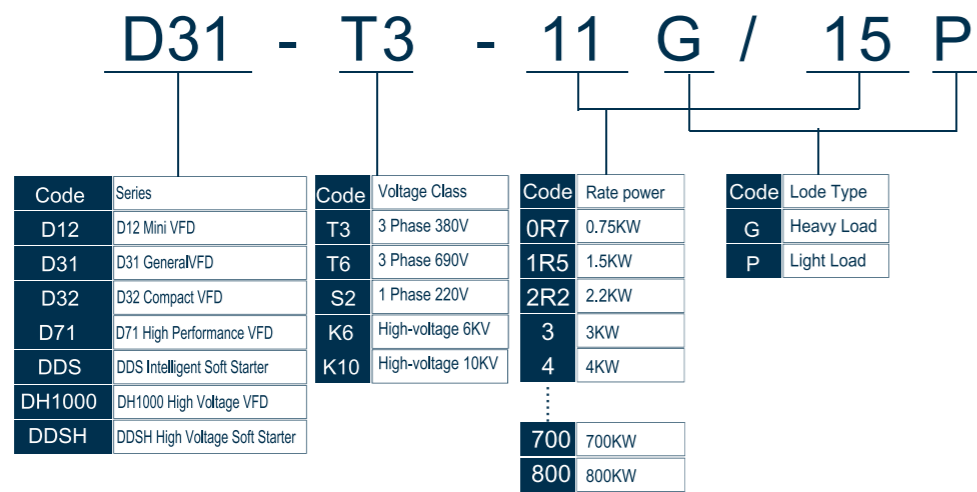
Protection Function	Protection for VFD	Input phase failure, output phase failure, under load monitor, over torque, under voltage, over current, over heat, short circuit among three phases
	Protection for motor	Motor overheat, motor current limiting amplitude, motor over load, motor short circuit

Environment characteristics	Ingress protection	IP20	Humidity	No condensed water or drip at 5~95%, In accordance with IEC60068-2-3 Installation place Altitude
	Work temperature/storage temperature	-10~50 °C /-20~60°C	Installation place	Room
	Cooling method	Forced Air cooling	Altitude	1000m or below (Derating is necessary when the altitude is higher than 1000m)

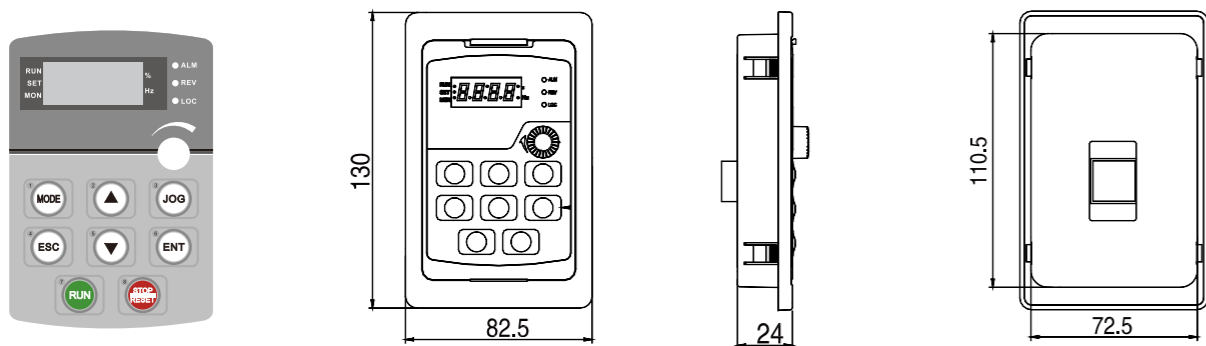
Control circuit characteristics	Available inside power supply	5V 24V	5V DC 5%, maximum current 10mA, it is used for benchmark potentiometer 24V DC 5%, maximum current 100mA, it is used for logic input entrance
	Analog input	AI1	Voltage analog input: 0-5V DC or 0-10 V DC, Impedance is 30kΩ Current analog input: 0.4-20mA DC, impedance is 250 Ω Resolution: 10 digital A/D switch Factory default set: 0-5 V DC voltage input
		AI2	Voltage analog input: 0 - 10V DC or PTC probe input Resolution: 10 digital A/D switch
	Logic input	LI1-LI8	0-24V DC power supply Positive logic (source) and negative logic (sink) are optional. Factory default set is negative logic. There are 69 functions available such as forward , reverse, run, fault reset, and multi-speed and so on. Only 6 ways below 11KW (including): LI1-LI6
		AI1、 AI2	AI1 and AI2 could be set to logic input for D31 frequency inverter with power below (including) 11 kW.
	Logic input	Mandatory effective input	F309 and F310 are mandatory effective input. It will guarantee the set function effective during powering on.
		AO1、 AO2	Voltage analog output: 0-10V DC, minimum load impedance is 470Ω Current analog output: 0-20mA, maximum load impedance is 700Ω Resolution: 8 digital
	Relay output	L0、 CL0	Open collector, maximum current 100mA, maximum voltage 30VDC Optional for logic output or pulse output, factory default is logic output Output frequency, output current and given speed are optional
	Relay output	T1A、 T1B、 T1C T2A、 T2B、 T2C	T1A constant open, T1B constant close, T1C public Point T2A constant open, T2 B constant close, T 2C public point Touch point capacity: 5A@250VAC, 5A@30VDC Many functions optional such as fault, alarm and set frequency reach
		Series communication	

Basic application function	Torque raise at low frequency	To improve low frequency torque about 0.1%-30% under V/f control and sensorless speed vector control through raising voltage and torque.
	V/f curve	Linear type or multi-point type
	Acceleration and deceleration curve	Linear type or Model S acceleration and deceleration; Three groups acceleration and deceleration time; Acceleration and deceleration time range:0-3200s.
	AVR	When network voltage changes, it could keep constant output voltage.
	Built-in PID	Convenient to realize process control under close-loop control system.
	DC brake	DC brake range: 0- maximum frequency; brake time: 0-20.0s; brake action current value: 0-100%.
	Jog control	To realize instant start and instant stop; jog frequency setting range: 0-20Hz; jog stop type: freedom/DC brake
	Jump frequency	Available to set three jump frequency points and related jump frequency ranges
	Multi-speed	Available to set 15 running frequencies through logic input terminals
	Input sum	The algebraic operation of 2-way analog input is used as frequency setting to make frequency setting more intelligent
Two sets of motor parameter switch	Available to set two sets of motor parameter and could freely switch each other in order to match currently droved motor.	

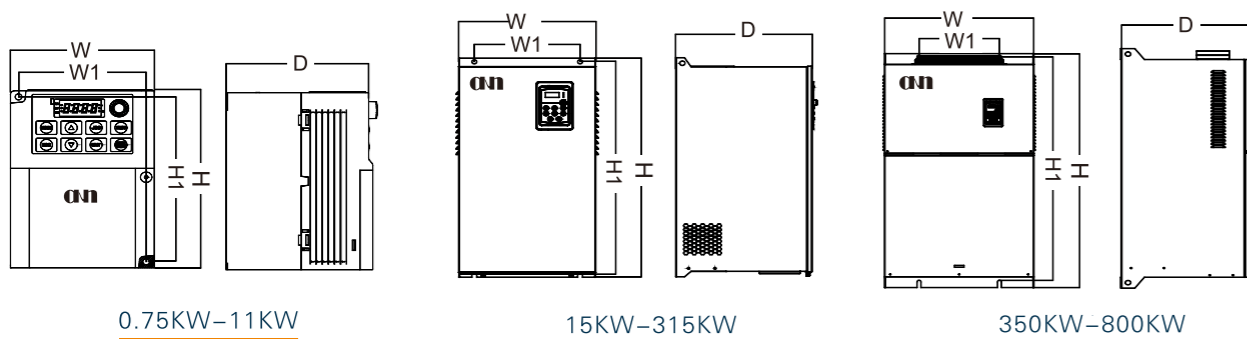
Model discription



Operation panel



configuration structure



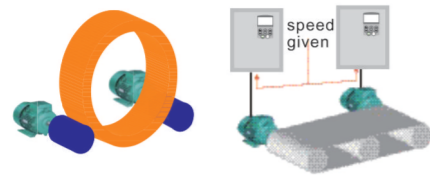
Note: Please refer to the model sheet for specific data

VFD Modle	G Type (Heavy Load)			P Type (Light Load)			Overall dimension (H*W*D MM)	Installation dimension (H1*W1 MM)	aperture (MM)
	Rated input current (A)	Rated output current(A)	Motor power (KW)	Rated input current(A)	Rated output current(A)	Motor power (KW)			
D31-T3-0R7G/1R5P	3.6	2.6	0.75	6.4	4.1	1.5	145*107*144	135*95	φ 5
D31-T3-1R5G/2R2P	6.4	4.1	1.5	8.7	5.5	2.2			
D31-T3-2R2G/3P	8.7	5.5	2.2	10.9	6.9	3			
D31-T3-3G/4P	10.9	6.9	3	14	9.5	4			
D31-T3-4G/5R5P	14	9.5	4	20.7	12.6	5.5	200*138*134	188*124	φ 5
D31-T3-5R5G/7R5P	20.7	12.6	5.5	26.5	18.5	7.5			
D31-T3-7R5G/11P	26.5	18.5	7.5	36.6	25	11	232*153*164	220*139	φ 5
D31-T3-11G/15P	36.6	25	11	40	32	15			
D31-T3-15G/18P	40	32	15	47	38	18.5	335*200*195	321*140	φ 9
D31-T3-18G/22P	47	38	18.5	56	45	22			
D31-T3-22G/30P	56	45	22	70	60	30			
D31-T3-30G/37P	70	60	30	80	75	37			
D31-T3-37G/45P	80	75	37	94	92	45	410*260*214	396*180	φ 9
D31-T3-45G/55P	94	92	45	128	115	55			
D31-T3-55G/75P	128	115	55	160	150	75	560*305*300	543*200	φ 11
D31-T3-75G/90P	160	150	75	190	180	90			
D31-T3-90G/110P	190	180	90	225	215	110	600*310*310	583*240	φ 11
D31-T3-110G/132P	225	215	110	265	260	132			
D31-T3-132G/160P	265	260	132	310	305	160	720*355*345	698*240	φ 13
D31-T3-160G/185P	310	305	160	355	350	185			
D31-T3-185G/200P	355	350	185	385	380	200	920*480*390	898*320	φ 13
D31-T3-200G/220P	385	380	200	430	425	220			
D31-T3-220G/250P	430	425	220	485	480	250			
D31-T3-250G/280P	485	480	250	545	530	280			
D31-T3-280G/315P	545	530	280	610	600	315	1100*480*405	1078*320	φ 13
D31-T3-315G/355P	610	600	315	665	650	355			
D31-T3-355G	665	650	355	-	-	-	1100*650*465	1060*350	φ 17
D31-T3-400G	785	725	400	-	-	-			
D31-T3-500G	890	860	500	-	-	-			
D31-T3-560G	950	950	560	-	-	-			
D31-T3-630G	1100	1100	630	-	-	-	2200*1100*800	943*665	φ 16
D31-T3-710G	1280	1280	710	-	-	-			
D31-T3-800G	1380	1380	800	-	-	-	2200*1400*800	1100*665	φ 16

## D31 Functions

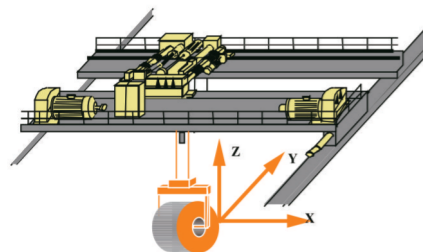
### High Load Balancing Performance

- Multiple motors drive the load, the load balancing is achieved by calibrating the motor speed to extend the life of the motor and equipment
- Applications : Conveying Equipment  
Centrifugal Equipment



### Reliable braking

- Magnetic excitation before starting, and then through frequency, current and other ways to open the brake to prevent the load slip
- Before the stop, trigger lock brake in advance to ensure the stability of stop. Applications: Crane, Capstan



### Various Keypad and Long Distance Communication

- Optional LED or LCD external panel, LCD panel for Chinese multi-line display, monitoring, more convenient;
- The whole series of external panel and the internal panel of 15kW or above are connected by communication mode, and the data transmission can reach hundreds of meters



Multi-line display, monitoring multiple run information  
Large LCD screen for clearer display

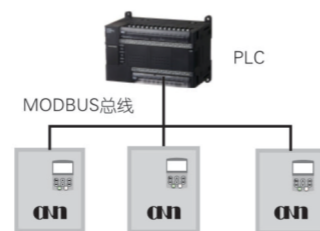
### PTC Resistor Importability

- Receive PTC signal and strengthen protection.



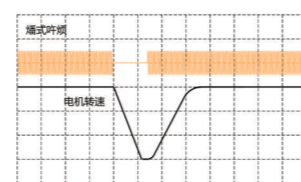
### Flexible communication interface

- Modbus communication is configured with RJ45 and terminal interface to realize system integration and networked control
- For continuous parameters and dispersed parameters can be effectively read and write



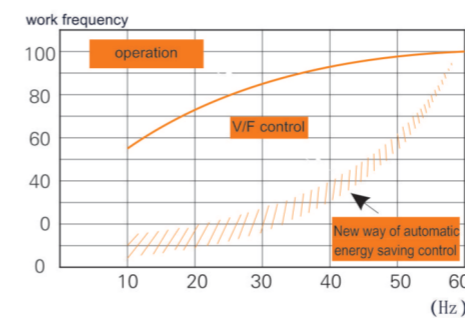
### Instantaneous blackout protection

- In case of instantaneous power failure or sudden decrease of input voltage, inertia energy of load side is fed back to DC bus by reducing motor speed to make up temporary energy gap, maintain DC voltage higher than undervoltage action value, and avoid shutdown due to undervoltage.



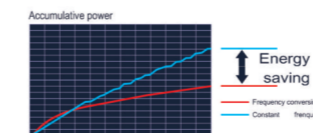
### Significant Energy Saving

- Under energy-saving mode, D31 frequency inverter will monitor real load value to automatically adjust motor's voltage and current to reach best energy saving result
- This function has obvious effect on variable torque load of fan and water pump.



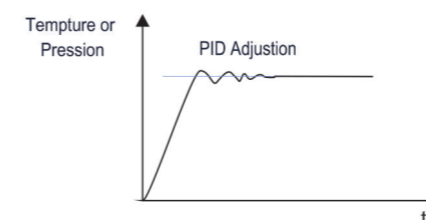
### Striking energy saving function

- Under energy saving mode, D31 VFD will monitor real load value to automatically adjust motor's voltage and current to reach best energy saving result.



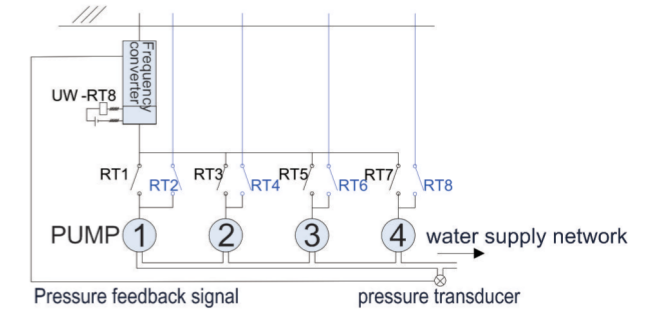
### Outstanding anti-interference performance

- Adopt modified PID control technology to make quicker torque response and least motor speed changing amplitude as load changes suddenly.



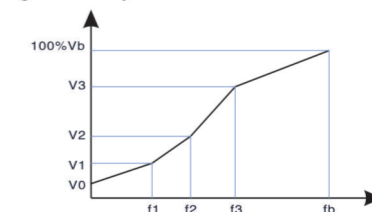
### PTC Resistor Importability

- Using the built-in PID controller, according to the different pressure, it can automatically switch between multiple pumps;
- Regular rotation between the pump, as far as possible to average the running time of each pump; Can be set up a small sleep pump, to ensure the stability of the pressure when the water consumption is very low.
- Note: Please specify this function when ordering.



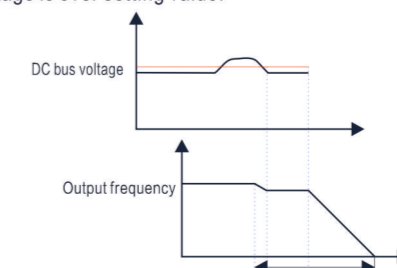
### Smart multi-segment V/F control

- D31 VFD has multi-segment V/F function to better service different load so as to improve motor running efficiency.

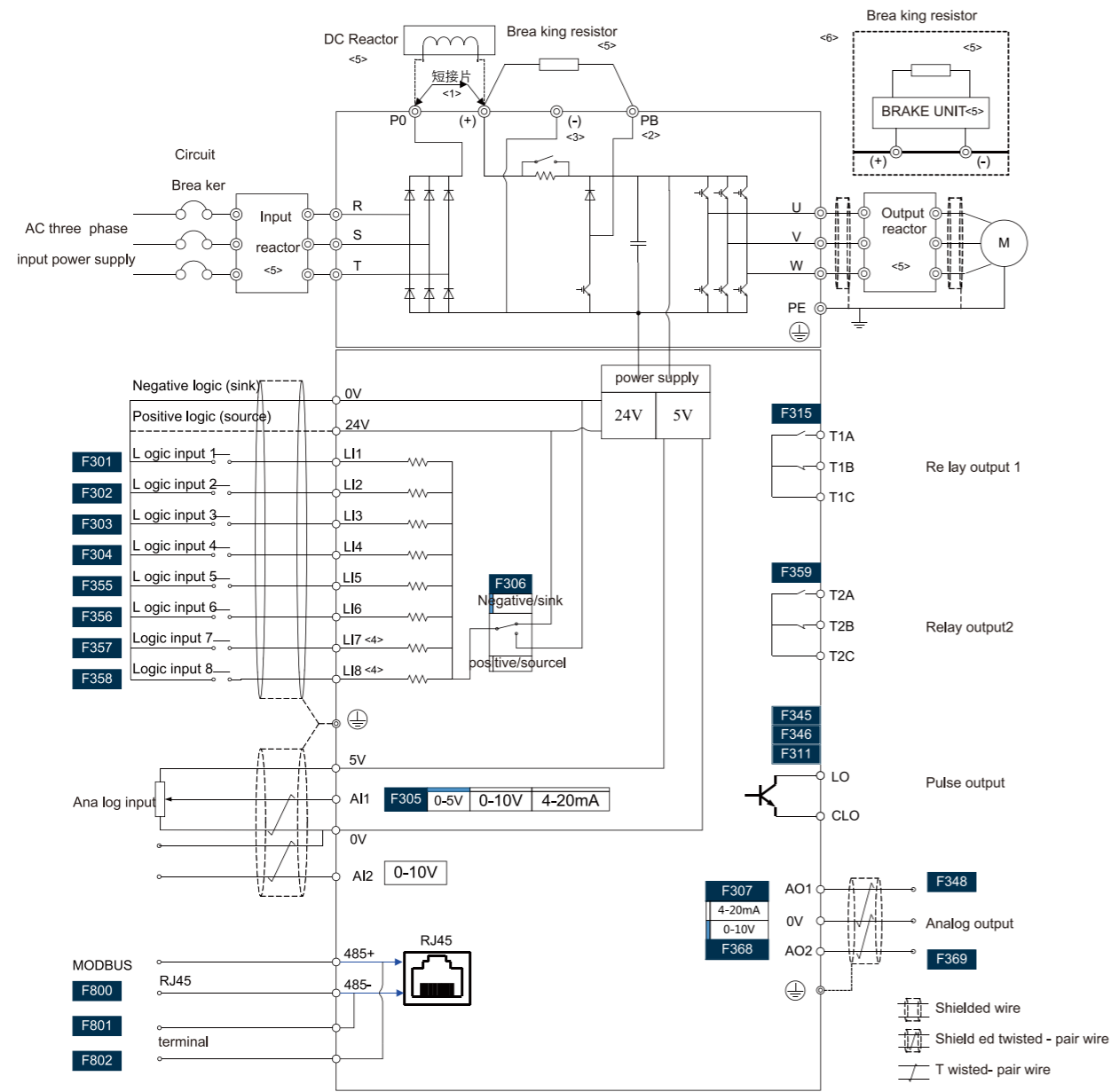


### Unique over voltage protection

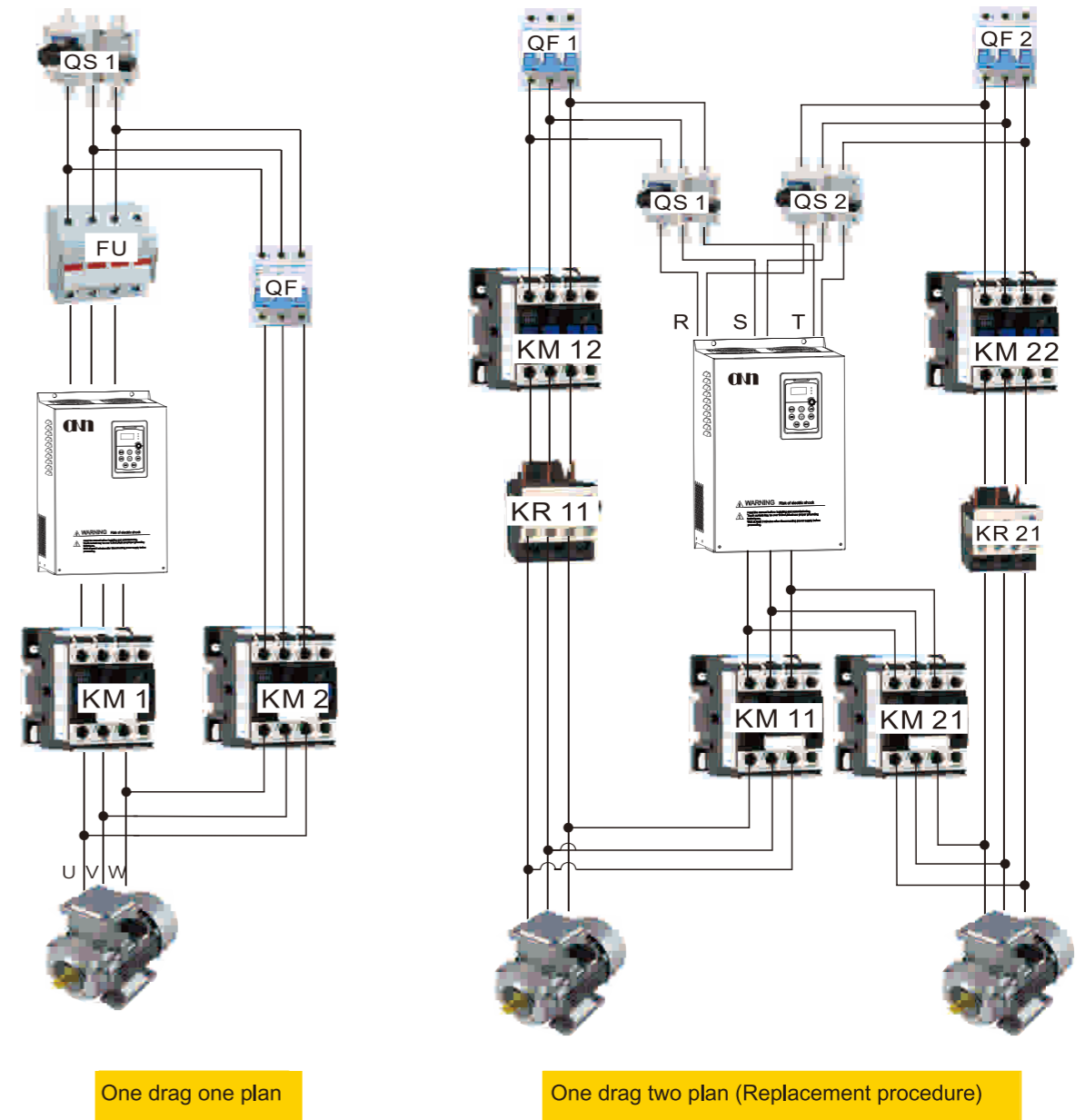
- During deceleration process, it will protect D31 VFD according to selected over voltage mode when DC bus voltage is over setting value.



D31 Wiring diagram



D31 series wiring examples for water pumps



NOTE:

- <1> 0.75-37kw inverter does not have P0 terminal;  
For inverter of 45kW (including) and above, please remove the short connection between P0 and (+) when installing DC reactor (optional).
- <2> Only 0.75-37kw frequency converter has PB terminals, and the brake resistance can be connected between PB and (+).  
For 45kW (including) and above, brake unit and brake resistance are required when braking, as shown in <5>.
- <3> 0.75-11kw has no (-) terminal.
- <4> 0.75-11kw has no L17 and L18 terminals.

- <5>Optional parts, please contact us when ordering.
- ◇ Input reactor and DC reactor: it can suppress the harmonic current on the input side,improve the power factor and weaken the impact of surge voltage and current in the input circuit on the frequency converter, weaken the influence of power supply voltage imbalance, and reduce the failure rate of the frequency converter.
- ◇ Output reactor: compensate the charge and discharge effect of the distributed capacitor during the cable operation, avoid the over-current of the converter;Effectively suppress the voltage peak of PWM wave at the motor end, reduce

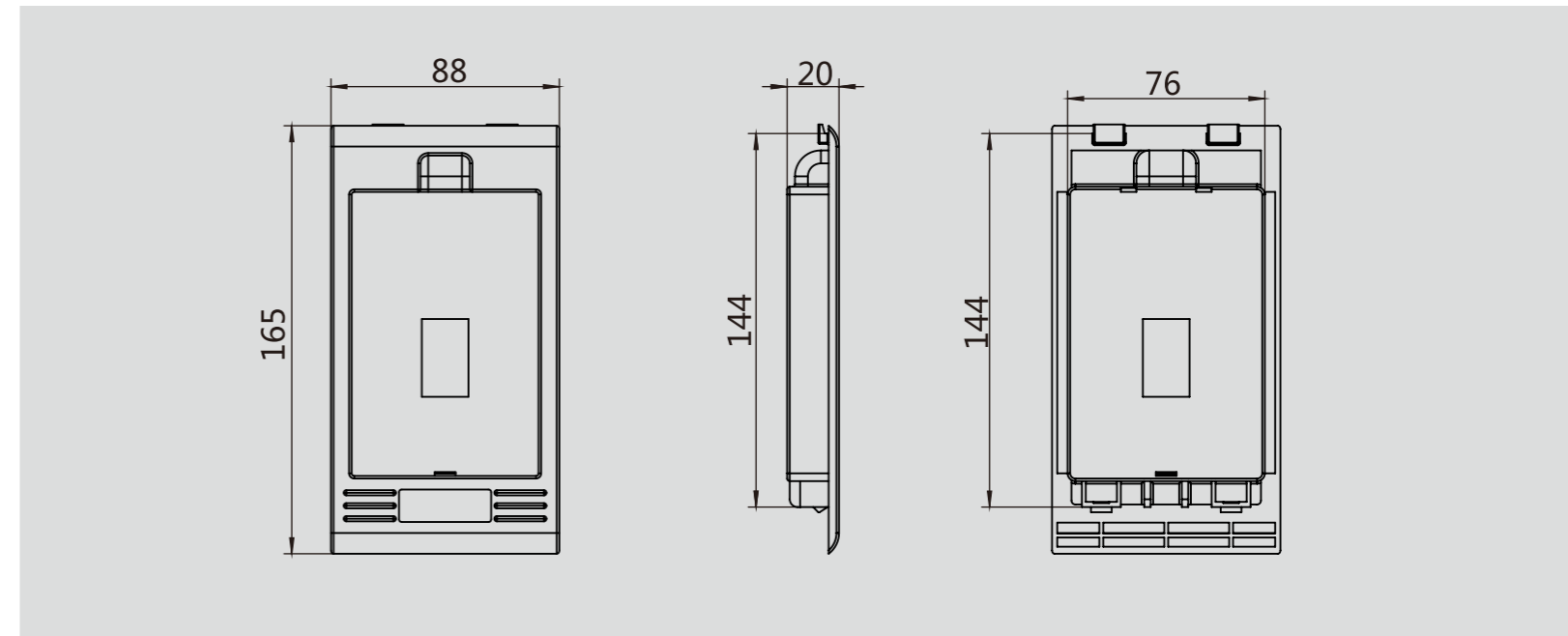
# D32 Series Compact VFD



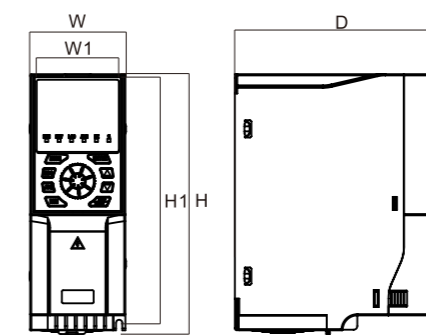
- Compact structure design, save installation space;
- Clear terminal layout wiring identification, easy to install wide voltage range design,
- Ensure the adaptability of products to power grid fluctuation;
- Advanced independent air duct design, adapt to a variety of complex, harsh site ring

VFD Model	G Type (Heavy Load)			P Type (Light Load)			Overall dimension (H*W*D MM)	Installation dimension (H1*W1 MM)	aperture (MM)
	Rated input current(A)	Rated output current(A)	Motor power (KW)	Rated input current(A)	Rated output current(A)	Motor power (KW)			
D32-T3-0R7G/1R5P	3.6	2.6	0.75	6.4	4.1	1.5	206*76.5*165	195*66.5	φ 5
D32-T3-1R5G/2R2P	6.4	4.1	1.5	8.7	5.5	2.2			
D32-T3-2R2G/3P	8.7	5.5	2.2	10.9	6.9	3			
D32-T3-4G/5R5P	14	9.5	4	20.7	12.6	5.5	262*100*168	253*90	φ 5
D32-T3-5R5G/7R5P	20.7	12.6	5.5	26.5	18.5	7.5			
D32-T3-7R5G/11P	26.5	18.5	7.5	36.6	25	11			
D32-T3-11G/15P	36.6	25	11	40	32	15	340*118*214	341*106	φ 7
D32-T3-15G/18P	40	32	15	47	38	18.5			
D32-T3-18G/22P	47	38	18.5	56	45	22			
D32-T3-22G/30P	56	45	22	70	60	30	410*260*214	396*180	φ 9
D32-T3-30G/37P	70	60	30	80	75	37			
D32-T3-37G/45P	80	75	37	94	92	45			
D32-T3-45G/55P	94	92	45	128	115	55	560*305*300	543*200	φ 11
D32-T3-55G/75P	128	115	55	160	150	75			
D32-T3-75G/90P	160	150	75	190	180	90			
D32-T3-90G/110P	190	180	90	225	215	110	600*310*310	583*240	φ 11
D32-T3-110G/132P	225	215	110	265	260	132			
D32-T3-132G/160P	265	260	132	310	305	160			
D32-T3-160G/185P	310	305	160	355	350	185	720*355*345	698*240	φ 13
D32-T3-185G/200P	355	350	185	385	380	200			
D32-T3-200G/220P	385	380	200	430	425	220			
D32-T3-220G/250P	430	425	220	485	480	250	920*480*390	898*320	φ 13
D32-T3-250G/280P	485	480	250	545	530	280			
D32-T3-280G/315P	545	530	280	610	600	315			
D32-T3-315G/355P	610	600	315	665	650	355	1100*480*405	1078*320	φ 13
D32-T3-355G	665	650	355	-	-	-			
D32-T3-400G	785	725	400	-	-	-			
D32-T3-500G	890	860	500	-	-	-	1100*650*465	1060*350	φ 17
D32-T3-560G	950	950	560	-	-	-			
D32-T3-630G	1100	1100	630	-	-	-			
D32-T3-710G	1280	1280	710	-	-	-	2200*1400*800	943*665	φ 16
D32-T3-800G	1380	1380	800	-	-	-			

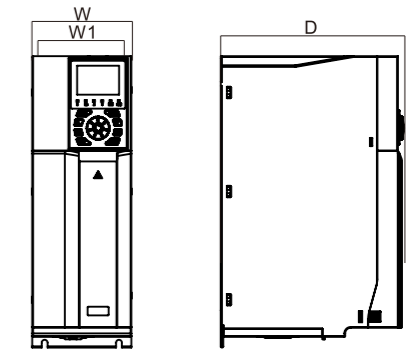
## Panels and dimensions



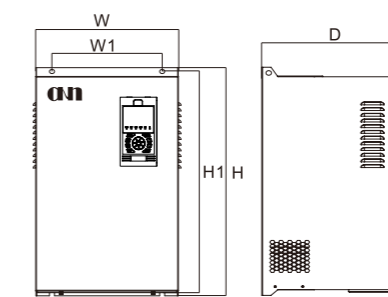
Book structure design large screen with a two-line display



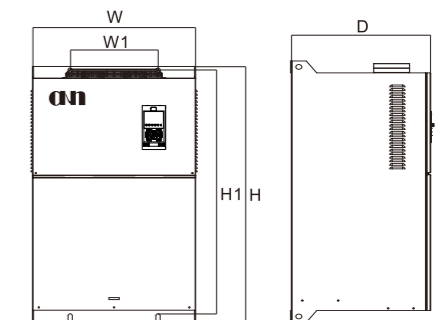
0.75KW-3KW



4KW-15KW



18.5KW-315KW



350KW-800KW

## D12 Series Compact VFD

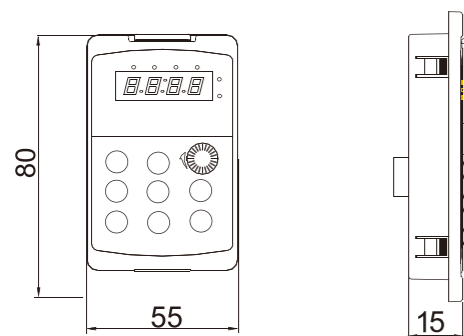


- Multi-industry coverage design The performance index conforms to GB/T12668-2002, IEC61800
- Volume mini design Built-in standard Modbus communication
- Highly energy-efficient design Easy debugging, no setup, fast startup
- Functional robust design The widest temperature range is -10 °C +50°C

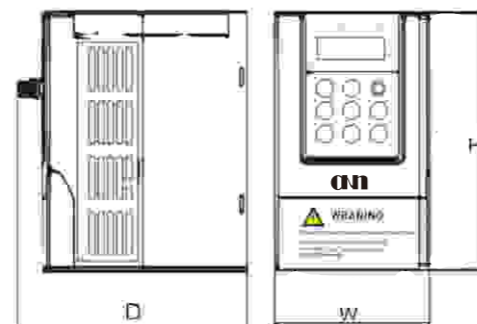
VFD Model	Power capacity (KVA)	Rated input current (A)	Rated output current (A)	Motor Power (KW)	Installation aperture (H*W*D MM)	Installation aperture (MM)
D12-S2-0R4	1.0	5.4	2.3	0.4	141.5*85*113	φ 4
D12-S2-0R7	1.5	8.2	4.0	0.75		
D12-S2-1R5	3.0	14.0	7.0	1.5		
D12-S2-2R2	4.0	23.0	9.6	2.2	151*100*16.5	φ 4

VFD Model	G Type (Heavy Load)			P Type (Light Load)			Overall dimension (H*W*D MM)	Installation aperture (MM)
	Rated input current (A)	Rated output current (A)	Motor Power (KW)	Rated input current (A)	Rated output current (A)	Motor Power (KW)		
D12-T3-0R7G/1R5P	3.6	2.3	0.75	6.4	4.1	1.5	151*100*16.5	φ 4
D12-T3-1R5G/2R2P	6.4	4.1	1.5	8.7	5.5	2.2		
D12-T3-2R2G/3P	8.7	5.5	2.2	10.9	6.9	3		

D12 Keypad styles and dimensions



D12 outline dimension



0.4KW-2.2KW

Note: All Keypads are available for external reference.

## D71 Series high performance VFD

D71 can be applied to all industries, including steel, elevator, etc

- Four control modes: constant torque V/F, quadratic load V/F, Close loop control, energy-saving mode.
- 16-stage simple PLC, multi-stage speed control and PID control;
- Support start and stop DC braking;
- Input and output terminals are freely programmed;
- It has the function of jumping frequency control to avoid mechanical resonance and has the function of over-torque detection.
- Multiple on-line frequency setting source selection;
- With oscillation suppression function: effectively solve the low-frequency oscillation problem of high-power motor;



Model	Power capacity(KVA)	Rated input current (A)	Rated output current (A)	Motor Power (KW)	Overall dimension (H*W*D MM)	Installation aperture (H*W MM)	aperture (MM)
D71-T3-0R7G	1.5	3.4	2.1	0.75	206*76.5*165	195*66.5	φ 5
D71-T3-1R5G	3	5	3.8	1.5			
D71-T3-2R2G	4	5.8	5.1	2.2			
D71-T3-4G	5.9	10.5	9	4	262*100*168	253*90	φ 5
D71-T3-5R5G	8.9	14.6	13	5.5			
D71-T3-7R5G	11	20.5	17	7.5			
D71-T3-11G	17	26	25	11	340*118*214	341*106	φ 7
D71-T3-15G	21	35	32	15			
D71-T3-18G	24	38.5	37	18.5			
D71-T3-22G	30	46.5	45	22	375*205*210	360*175	φ 9
D71-T3-30G	40	62	60	30			
D71-T3-37G	57	76	75	37			
D71-T3-45G	69	92	91	45	477*296*230	460*175	φ 8
D71-T3-55G	85	113	112	55			
D71-T3-75G	114	157	150	75			
D71-T3-90G	134	180	176	90	594*350*260	576*(105*2)	φ 8
D71-T3-110G	160	214	210	110			
D71-T3-132G	192	256	253	132			
D71-T3-160G	231	307	304	160	700*475*320	680*(171*2)	φ 10
D71-T3-200G	250	385	377	200			
D71-T3-220G	280	430	426	220			
D71-T3-250G	355	468	465	250	756*460*345	742*320	φ 8
D71-T3-280G	396	525	520	280			
D71-T3-315G	445	590	585	315			
D71-T3-355G	500	665	650	355	1060*650*390	1028*(210*2)	φ 12
D71-T3-400G	565	785	725	400			
D71-T3-400G	565	785	725	400			
D71-T3-355G	500	665	650	355	1360*800*403	1302*(260*2)	φ 16
D71-T3-400G	565	785	725	400			

In the research and development

## D71 configuration

It conforms to the mechanical equipment standard EN954-13 classes and electrical facilities IEC/EN 61508SIL.2 , And by the qualifying agency (NERIS) certification, can:

- Implementation without difficulty equipment certification;
- No electrical and mechanical redundancy; Shorten the cable connection and installation time.
- Save cabinet interior space.
- Will D71 inverter used with ATEX motor.
- Input/output expansion card:  
Logic input, open collector output, relays, PTC probe input, analog input, analog output, pulse input.
- Communication card:  
Modbus TCP/Fip io、 Modbus、 Uni-Telay ModbusPlus、 EtherNet/IP、 DeviceNet、

You requires additional input and output, a special communication network.

You need to do is choose up to three blocks from the available card.

Through the adjust D71, you can from your automation system to simplify integration and cost optimization, both benefit.

- Programmable Controller Inside CARDS:  
The inverter to diversified mechanical equipment automation system integration program.
- Used for incremental or absolute encoder interface card:  
  - RS422, open collector, push-pull
  - RS422, with the function of distribution of encoder
  - Resolver
  - SinCos, SinCosHiperface, EnDat, SSI
- TO: ■ Realize the full torque, even under the zero speed
- Improve the speed and torque accuracy

## D71 Functional features

### High Performance

- D71 constant torque products can achieve a maximum of 220% overtorque.
- For asynchronous motors, flux vector control with or without sensors.
- Automatic adjustment online. Speed or torque control.
- The maximum output frequency is 1, 600Hz
- Sensorless synchronous motor control.

### Security

- D71 constant torque products can achieve a maximum of 220% overtorque.
- For asynchronous motors, flux vector control with or without sensors.
- Automatic adjustment online. Speed or torque control.
- The maximum output frequency is 1, 600Hz
- Sensorless synchronous motor control.

### Extensible functionality

The basic equipment is equipped with a variety of functions: application functions, input and output, communication network, etc., which can be further expanded through the following board

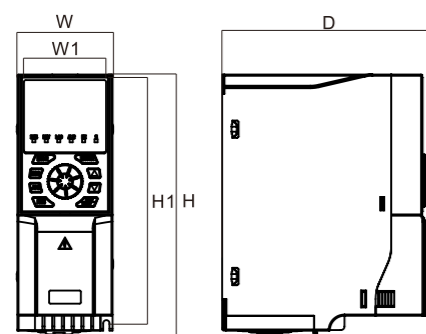
CARDS:

- I/O extension card.
- Encoder interface card.
- The communication card.

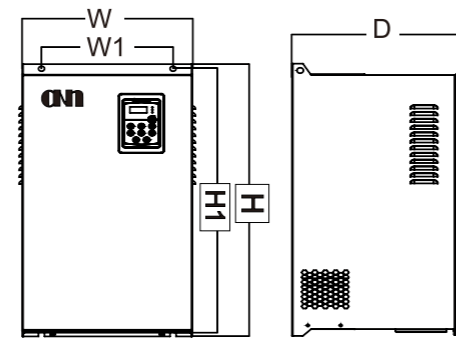
### Easy to control

- Customizable graphic screen display.
- Navigation buttons enable easy conversion between menus.,
- For shortcuts, online help, or function keys that can be configured for certain applications.
- Continuously display motor running parameters.

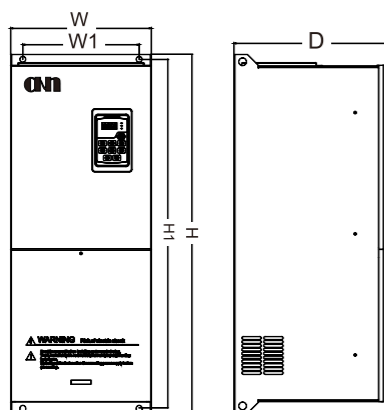
## configuration structure



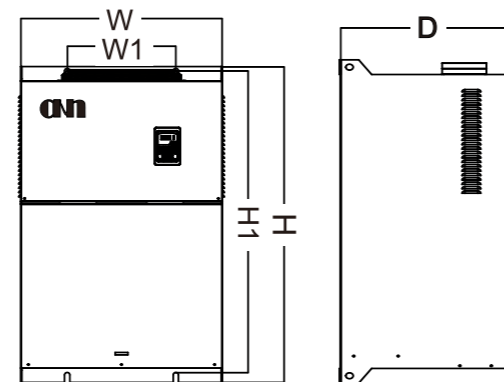
0.75KW-15KW



18.5KW-37KW



45KW-315KW



355KW-400KW

### Integration of Modbus and CANopen

With these two standard networks, you can:

- Save cable;
- Higher data exchange transmission rate;
- Directly connected to industrial automation systems.

### Dialogue

Terminals can be connected to multiple devices. For models with ratings below 75kW, the D71 is also available with a more economical 7- segment display.

### EMC

By integrating class A conduction and radiation EMC filters, the D71 simplifies installation and ensures that the equipment meets CE marking requirements without any additional cost.

### Improved equipment

With a variety of functions already integrated within the D71, you can reduce the cost of your mechanical solution. The most economical solution does not give any discount to provide!

# DDS Series Intelligent Soft Starter



Power supply for 50 hz or 60 hz , ± 15% frequency fluctuation.

Through RS485 standard interface, the realization of the remote control and data transmission.

Adaptive soft starting control technology is adopted in any statelt can guarantee the motor speed curve and the single point of smooth continuity and uplift.

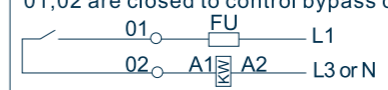
Use of removable terminal, easy to replace, standard RS485 Modbus communication port wiring is more convenient.

Continuously improve motor performance by reducing mechanical and hydraulic stress, distribution

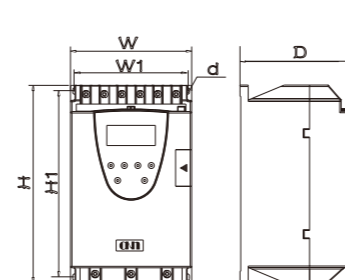
## Performance and configuration

Electrical features	Three phase power supply voltage ( VAC )	380V±15%
	Frequency	50Hz/60Hz
	Motor	Squirrel cage type three-phase asynchronous motor
	Start frequency	Depending on the load, no more than 6 times per hour

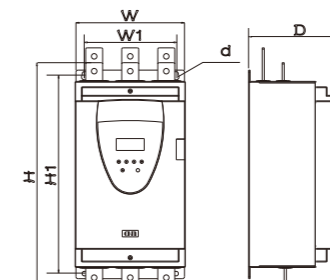
Protection	Soft starter protection	Overheat protection, input missing phase protection, output lack phase protection, three-phase unbalanced protection, starting flow protection, under-voltage protection, overvoltage protection
	Motor short circuit protection	When the current in the loop is 10 times the rated current of the soft starter, the protection action is enabled, alarm and stop.(note: this protection shall not replace a fusing or short -circuit protection device)
	Motor overload protection	When the motor running current reaches or exceeds the maximum working current, the protection action is enabled, alarm and stop.

Control circuit characteristic	Bypass output	01、02	01,02 are closed to control bypass contactor after soft starting finishing 
	Runing output (delay)	03、04、05	03、04、05 are programmable relay outputs, delay time will be set by code F4. Output function will be set by code FE,they are NO/NC ,they will close when output is valid,(NO capacity is 250V/5A, NC capacity is 250V/3A)
	Fault output	06、07、08	06、07、08 are programmable fault relay outputs, they will be closed when faults occur or power off and be open when power on.(contact capacity 250V/3A)
	Analog output	09、10	09、10 can measure current information which fluctuates with load. Output 4-20mA, calibration value 400%, calculation formula: D=400/16(Ix-4). Ix is the actual measured value (mA), D is motor current (%)
	Instant stop input	11	11 and common disconnecting will make motor stop immediately.(or free stop)
	Soft stop input	12	12 and common disconnecting will make motor soft stop.(or free stop)
	Starting input	13	13 and common closing will make motor running.
	Common	14、15	Common terminal of input signal
	RS485	16、17、18	Communication terminal which is used to connect lot of motor, 16 is communication earthing.
	PE	19	earthing terminal

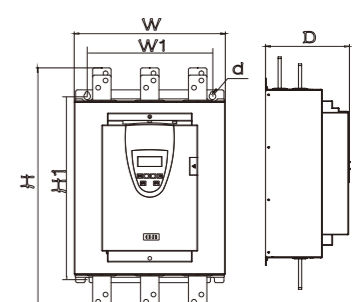
380V Series						690V Series					
Model (380V)	Output current(A)	Motor power(KW)	Overall dimensions (H*W*D MM)	Installation dimensions (H1*W1 MM)	Aperture (MM)	Model (690V)	Output current(A)	Motor power(KW)	Overall dimensions (H*W*D MM)	Installation dimensions (H1*W1 MM)	Aperture (MM)
DDS-T3-5	11	5.5	264*162*161	249*150	φ5	DDS-T6-75	90	75	527*260*226	471*216	φ8
DDS-T3-7	15	7.5				DDS-T6-90	110	90			
DDS-T3-11	23	11				DDS-T6-115	140	115			
DDS-T3-15	30	15				DDS-T6-132	160	132			
DDS-T3-18	37	18.5				DDS-T6-160	180	160			
DDS-T3-22	43	22				DDS-T6-185	230	185			
DDS-T3-30	60	30				DDS-T6-200	230	200			
DDS-T3-37	75	37				DDS-T6-250	260	250			
DDS-T3-45	90	45				DDS-T6-280	320	280			
DDS-T3-55	110	55				DDS-T6-320	370	320			
DDS-T3-75	150	75	DDS-T6-400	400	400						
DDS-T3-90	180	90	DDS-T6-450	500	450						
DDS-T3-110	230	110	DDS-T6-500	500	500						
DDS-T3-132	260	132	DDS-T6-560	630	560						
DDS-T3-160	320	160	DDS-T6-630	630	630						
DDS-T3-185	370	185	DDS-T6-710	800	710						
DDS-T3-200	400	200	DDS-T6-800	900	800						
DDS-T3-250	500	250									
DDS-T3-280	560	280	584*290*227	508*247	φ10						
DDS-T3-320	630	320									
DDS-T3-400	800	400									
DDS-T3-450	900	450	664*410*214	515*340	φ10						
DDS-T3-500	998	500									



380V 5.5kW-75kW



380V 90kW-320kW  
690V 75kW-630kW



380V 400kW-500kW  
690V 710kW-800kW

# DH1000 Series High Voltage VFD System



Using advanced synchronous trigger technology to ensure the consistency of the trigger signal.

Adopt high-voltage cables to transmit thyristor status signals, isolate high and low voltages, and ensure equipment safety.

Using electronic modular design, stable starting performance, high repeat accuracy.

Using high-voltage power electronic devices, the device is small in size, long service life, basically maintenance-free, and simple to install.

Adjustable parameters and various starting methods to better meet actual starting needs

## High power density

High power density, ultra-thin design, more effectively improve the utilization rate of the internal space power unit and cooling efficiency.

## Vector control flexible closed loop

The inverter changes the output frequency and voltage according to the frequency and load condition. High dynamic performance, fast system response, wide speed range, good acceleration and deceleration performance.

## HMI is easy to operate

Using touch screen for human-computer interaction, the system can be visually managed to support network transmission and remote monitoring, and can be switched between multiple languages

## Modular design

Modular design, easy to disassemble and assemble, interface with buckle design, ready-to-use.

## Wide range of applications

High voltage frequency conversion is widely used in thermal power generation, petrochemical industry, coal mine, metallurgy, municipal engineering, sewage treatment, cement manufacturing, papermaking, pharmacy and other industries

## Variable frequency control technology

The use of a unique extra-large power frequency conversion control technology, to ensure the perfect operation of high-power products.

## Technical characteristics

- Low noise operation
- Fast start function
- Original synchronous well pattern technology
- Multi-master-slave control
- Fault self-diagnosis and alarm
- Operation data display and recording
- Perfect protection function
- High power factor
- Active front-end four-quadrant technology
- "One to more" function
- Sensorless vector control
- Double loop redundant power supply
- closed-loop control
- Vector control of synchronous motor
- Selection of multi-language operation interface

## Model and dimensions

Dh1000 series (10 kv) integrated model of complete sets of equipment selection specifications and overall dimensions (excluding switch cabinet/wiring cabinet)

Model	Motor power ( KW )	Overall dimension (MM)			Weight (KG)
		Width(W)(MM)	Depth(D)(MM)	Height(H)(MM)	
DH1000-K10-250	250kW/10kV	2700	1400	2635	5000
DH1000-K10-280	280kW/10kV				5000
DH1000-K10-315	315kW/10kV				5000
DH1000-K10-355	355kW/10kV				5000
DH1000-K10-400	400kW/10kV				5000
DH1000-K10-450	450kW/10kV				5000
DH1000-K10-500	500kW/10kV				5000
DH1000-K10-560	560kW/10kV				5000
DH1000-K10-630	630kW/10kV				5000
DH1000-K10-710	710kW/10kV				5000
DH1000-K10-800	800kW/10kV	2100	1500	2442	4000
DH1000-K10-900	900kW/10kV				4000
DH1000-K10-1120	1120kW/10kV	2450	1700	2722	5100
DH1000-K10-1250	1250kW/10kV				5100
DH1000-K10-1400	1400kW/10kV				5100
DH1000-K10-1600	1600kW/10kV	2950	1700	2750	5500
DH1000-K10-1800	1800kW/10kV				5500
DH1000-K10-2000	2000kW/10kV				5500
					5500

# DDSH High Voltage Soft Starter System



Using advanced synchronous trigger technology to ensure the consistency of the trigger signal.

Adopt high-voltage cables to transmit thyristor status signals, isolate high and low voltages, and ensure equipment safety.

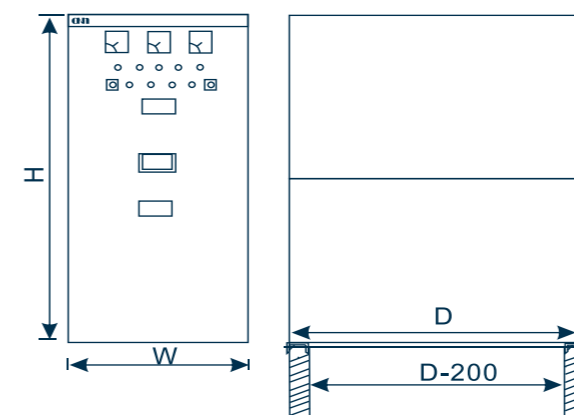
Using electronic modular design, stable starting performance, high repeat accuracy.

Using high-voltage power electronic devices, the device is small in size, long service life, basically maintenance-free, and simple to install.

Adjustable parameters and various starting methods to better meet actual starting needs

Project	Technical parameters
Rated voltage	6KV、10KV
Motor type	Three-phase squirrel-cage motor or wound-rotor motor、 asynchronously start synchronous machine
Rated working frequency	50Hz/60Hz±2Hz
phase sequence	Positive phase sequence
control source	AC220V±10% ( Other requirements require order instructions )
Operation panel	4 lines of text display, max 64 characters can be displayed; With 6 buttons
isolation voltage	25000V
Cooling method	Natural cooling
Number of starts	No more than 4 starts per hour
Protection function	Protection during starting and soft stop, overcurrent protection, overvoltage protection, undervoltage protection, current imbalance protection, start overtime protection, bypass vacuum switch opening and closing fault detection
Starting mode	Voltage ramp starting, constant time starting, current limiting starting, soft stop control
Soft start time	0-100 seconds adjustable
Soft stop time	0-60 seconds adjustable
Output voltage	20%-100% adjustable
Current limiting factor	11e-51e adjustable
Communication interface	Rs485 communication interface, supports MODBUS protocol by default, PROF I BUS optional
Environment temperature	Work : -15°C~+50°C, Stock : -25°C~+70°C
Environment humidity	95% non-condensing or water drop
Maximum working Altitude	Below 1000m without derating

Model	Rated voltage ( KV )	Motor power ( KW )	Overall dimension (MM)			Weight (KG)
			W (MM)	D (MM)	H (MM)	
DDSH-K6-500	6	500	1000	1500	2300	700
DDSH-K6-710	6	710	1000	1500	2300	700
DDSH-K6-1000	6	1000	1000	1500	2300	700
DDSH-K6-1250	6	1250	1000	1500	2300	700
DDSH-K6-1600	6	1600	1000	1500	2300	800
DDSH-K6-2000	6	2000	1000	1500	2300	800
DDSH-K6-2500	6	2500	1400	1600	2300	900
DDSH-K6-3150	6	3150	1400	1600	2300	950
DDSH-K6-4000	6	4000	1600	1650	2300	1100
DDSH-K6-5000	6	5000	1600	1650	2300	1100
DDSH-K6-6300	6	6300	1600	1700	2300	1200
DDSH-K10-500	10	500	1000	1500	2300	750
DDSH-K10-710	10	710	1000	1500	2300	750
DDSH-K10-1000	10	1000	1000	1500	2300	750
DDSH-K10-1250	10	1250	1000	1500	2300	750
DDSH-K10-1600	10	1600	1000	1500	2300	750
DDSH-K10-2000	10	2000	1000	1500	2300	850
DDSH-K10-2500	10	2500	1000	1500	2300	850
DDSH-K10-3150	10	3150	1000	1500	2300	950
DDSH-K10-4000	10	4000	1400	1650	2300	950
DDSH-K10-5000	10	5000	1400	1650	2300	950
DDSH-K10-6300	10	6300	1600	1700	2300	1150
DDSH-K10-7100	10	7100	1600	1700	2300	1150
DDSH-K10-8000	10	8000	1600	1700	2300	1250
DDSH-K10-9000	10	9000	1600	1700	2300	1250
DDSH-K10-10000	10	10000	1600	1700	2300	1450



## Equipment installation conditions

- On the basis of engineering design and put a space; Basis for selection of mining equipment in cable trench, in cable trench surface treatment with cement to ensure reliable and durable;
- Set embedded parts, and set necessary embedded parts according to the layout;
- According to the design requirements ready a cable and secondary cable between control cabinet;
- Before installing equipment room should be clean and ensure space dry;
- Cable test: check each wire cable diameter, with cable factory work on relevant test report contrast, please refer to the relevant national standards.