https://www.omnimech.cc

Product selection guide

Linyi OmniMech Co., Ltd.

Company Profile

Linyi OmniMech Co., Ltd., located in Linyi City, Shandong Province, China, is a high-tech enterprise specializing in the research, development, production, and sales of industrial automation control equipment. Our product range includes variable frequency drives, soft starters, soft start cabinets, variable frequency control cabinets, as well as high and low voltage electrical components and complete sets of equipment. These are widely used in industries such as machinery manufacturing, power, mining, construction, and petrochemicals.

Senkuo Electromechanical is committed to technological innovation, boasting a team of experienced engineers and technical professionals dedicated to providing customers with efficient, energy-saving, and reliable industrial automation solutions. Our manufacturing base employs advanced manufacturing processes and a strict quality management system to ensure that each unit meets the highest standards.

Contents

Common Explanation of Intelligent Soft Start

Innovative technology
performance upgrades
stand out from the crowd.

Product Overview

The intelligent soft start is independently developed by our company, with a microprocessor as the control core, combined with thyristor power drive, software and hardware protection, menu LCD display, keyboard operation, torque control, and fuzzy PID closed-loop algorithm technology. It integrates motor soft start, soft stop, light load energy saving, and various protection functions. It is a newly created intelligent starting device with international advanced level. The device has complete functions and stable performance, and is widely used in the starting process of transmission equipment, fans, slurry machines, compressors and other loads.

Model Description

□□□ - 55A - T4 M

- Communication function
- Power phase number：4-380V;6-660V
- Power level: A-bypass soft starter, B-bypass soft starter cabinet.
- Product series code

Product features

◆ It can withstand long-term and repeated start-stop ability, and all other equipment is powerless;
◆ Resistance to smoke, dust, ash, sand, diffuse workplaces where all other equipment is powerless;
◆ Wide working voltage, superior to similar products;
◆ Chinese and English characters are displayed on the screen, and parameter modification and running status are clear at a glance;
◆ The weight of the equipment is less than one-third of that of autocoupling products, making it easy to use in the field.

Technical parameters

Project	Specifications
Comply with the standard	GB14048.6/IEC60947-2-2: 2002
Three-phase power supply	voltage (AC) 380V ± 15% (220V and 660V optional)
Frequency	50/60 Hz
Applicable motor	Squirrel-cage three-phase asynchronous motor
Starting frequency	When the motor is started at full load, it is recommended not to exceed 4 times/hour. When no load or light load, it is recommended not to exceed 10 times/hour.
Protection level	IP20
Impact resistance capability	complies with IEC68-2-27: 15g. 11ms
Earthquake resistance	below 3000 meters above sea level, vibration intensity below 0.5 G
Ambient temperature	operating temperature 0 ~ 40 ℃ without degradation (between 40 ℃ and 60 ℃, every 1 ℃ increase, the current decreases by 2%), and lower than 60 ℃
Storage temperature	-25 ℃ ~ 70 ℃
Ambient humidity	93% no condensation or dripping, compliant with IEC68-2-3
Maximum working	height within 1000 meters without degradation (above 1000 meters, every additional 100 meters, Current reduction by 5%)
Cooling mode	Natural cold air
Relative and Vertical	Vertical installation, tilt angle range within ± 10 °

Common applications

● Motors on quarry crushers, including some mining sites (coal, copper, phosphorus, titanium, iron, etc.);
● Motors on brick-making equipment used in brick factories;
● Pipeline pumps, multi-stage pumps, centrifugal pumps, etc. for taking water from rivers and lakes to high-level canals;
● Submersible pumps for sewage discharge and drainage;
● Large fans, tunnels and mines for exhaust;
● Motors on water intake and water delivery of drinking water equipment;
● Squirrel-cage asynchronous motor for general equipment as power.

12 kinds of motor protection functions

1.External fault input protection (instantaneous stop terminal): for external special protection devices such as thermal relays

2.Voltage loss protection: No matter what position the control terminal is in, it will not start automatically after the soft start is cut off and the power comes again

3.Too long starting time protection: If the starting is unsuccessful within the set time due to improper setting of soft starting parameters or other reasons, the soft starter will protect itself

4.Overheating protection of soft starter: When the temperature rises to 80 ℃ ± 5 ℃, the protection operation is < 0.1 second, and when the temperature drops to 55 ℃ (lowest), the overheating protection is released

5.Input phase loss protection lag time: < 3 seconds

6.Output phase loss protection lag time: < 3 seconds

7.Three-phase unbalanced protection lag time: < 3 seconds, current deviation greater than 50%

8.Starting overload protection time: the protection time when the starting current is continuously greater than 5 times the rated working current of the motor

9.Operating overload protection time: inverse time thermal protection based on the rated working current of the motor, referring to the trip protection time curve

10.Low power supply voltage protection lag time: when the power supply voltage is lower than 50% of the limit value, the protection action time is < 0.5 seconds; Otherwise, protection action time is < 3 seconds when it is lower than the set value

11.Power supply voltage too high protection lag time: when the power supply voltage is higher than 130% of the limit value, the protection action time is < 0.5 seconds; Otherwise, when higher than the set value, the protection action time is < 3 seconds

12.Load short circuit protection lag time: < 0.1 second short circuit, the current is more than 10 times the nominal motor current rating value of soft start

Parameter settings and description

Code	Name	Setting range	Ex-factory value	Description
F0	Starting voltage	30-80%	30%	Voltage ramp mode active, current mode starting voltage is 40%
F1	Soft start time	2-60S	16S	Current limiting mode is invalid
F2	Soft stop time	0-60S	0S	Free parking when set to 0, please set to 0 when one-to-two wiring
F3	Interval delay	0-999S	0S	Set the interval between each start to prevent frequent starts from damaging the machine
F4	Programming delay	0-999S	0S	For programmable relay output
F5	Starting limiting current	50-500%	280%	Current limiting mode is effective, and the current limiting value of voltage ramp mode is up to 400%
F6	Maximum operating current	50-200%	100%	Percent of motor current rating
F7	Undervoltage protection	40-90%	80%	Protection below set value
F8	Overvoltage protection	100-140%	120%	Protection above set value
F9	Start mode	0-5	1	0 current limiting, 1 voltage, 2 sudden current limiting, 3 sudden voltage, 4 current ramp, 5 double closed loop

Code	Name	Setting range	Ex-factory value	Description
FA	Output protection allows	0-4	4	0 Junior, 1 Light Load, 2 Standard, 3 Heavy Load, 4 Premium
FB	Operation control mode	0-6	1	0 keyboard, 1 keyboard external control, 2 external control, 3 external control communication, 4 keyboard external control communication, 5 keyboard communication, 6 communication, 7 prohibited starting or stopping operation
FC	Parameter modification allowed	0-2	1	Please refer to the manual for details
FD	Mailing address	0-63	0	Used for multi-computer communication between multiple soft starters and upper computer
FE	Programming output	0-19	7	Run Relay Output (Terminal 03, 04) Settings
FF	Soft stop current limiting	20-100%	80%	Please refer to the manual for details
FP	Motor rated current		Rating	For input nominal rated current of the motor
FU	Bypass delay	1-99S	5	Increase bypass switching time
FL	Three phase equilibrium allows	0-1	1	0 forbidden, 1 allowed
FM	Current coefficient	50-150%	100%	If the display is too large, adjust the coefficient to small, or vice versa, adjust it to large
FN	Voltage coefficient	50-150%	100%	If the display is too large, adjust the coefficient to small, or vice versa, adjust it to large

Remarks:

1. The maximum working current of the setting code F6 refers to the maximum current that allows the motor to operate sustainably calculated based on the FP setting class. If this value is timeout, inverse time thermal protection will be applied;
2. If there is no key operation after 2 minutes of timeout in the setting state, the setting state will be automatically exited;
3. Parameters cannot be set during soft start and soft stop, but can be set in other states;
4. Press the confirmation button (YES) to power on, which can restore the set parameters (except FE) to factory values.

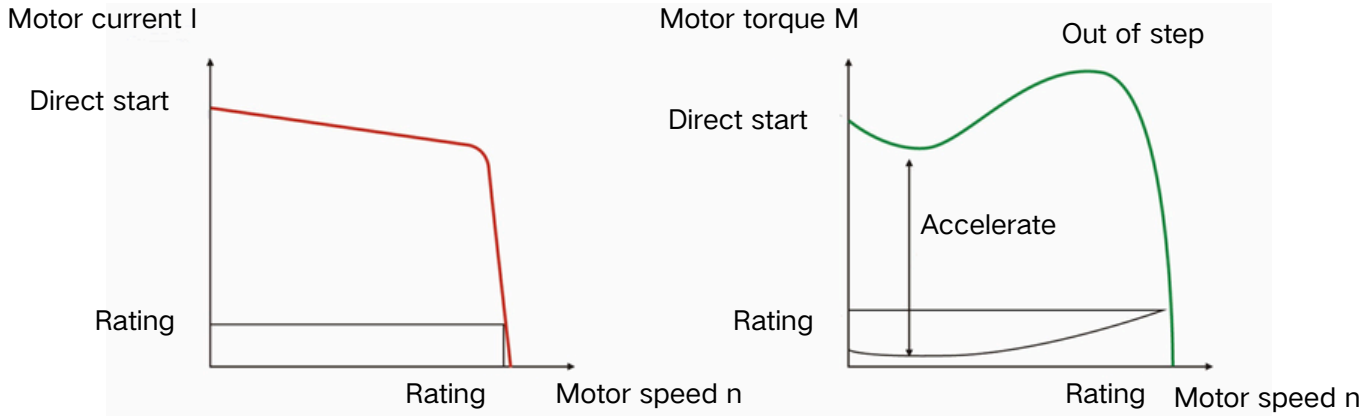
Working Principle

Torque and Current Characteristics of Three-phase AC Asynchronous Motor

Three-phase AC asynchronous motors are widely used in industrial, commercial and industrial fields because of their durability, simple structure and maintenance-free advantages. However, the three-phase AC asynchronous motor has a high direct starting current, which is generally 6-8 times the rated current of the motor. At the same time, the starting torque and blocking torque of the motor are usually between 2-4 times the rated torque. For machinery and equipment, this means that the machinery and equipment that selects the motor according to the rated torque have to endure high mechanical load when starting. It can be seen that there are three shortcomings in the direct starting process of the motor:

1. The mechanical system of the machine and equipment bears a large load;
2. The cost of equipment wear and maintenance is high;
3. The design specifications of the power supply network must adapt to the high load in the starting process of the motor.

Using motor soft start for this high load can adjust the current characteristics and torque characteristics at starting to meet the requirements of the equipment.



How soft start works

Soft start has two anti-parallel coupling thyristors in each phase, one of which is used for positive half cycle and the other for negative half cycle. With the help of phase control, the effective value of motor voltage is increased from adjustable starting voltage to motor rated voltage within an optional starting time range by different adjustment methods. The motor current varies proportionally to the voltage applied to the motor. Therefore, the starting current decreases by a factor of the voltage applied to the motor. The torque of the motor has a quadratic relationship with the voltage applied to the motor. Therefore, the starting torque will also decrease in a quadratic relationship with the voltage applied to the motor.

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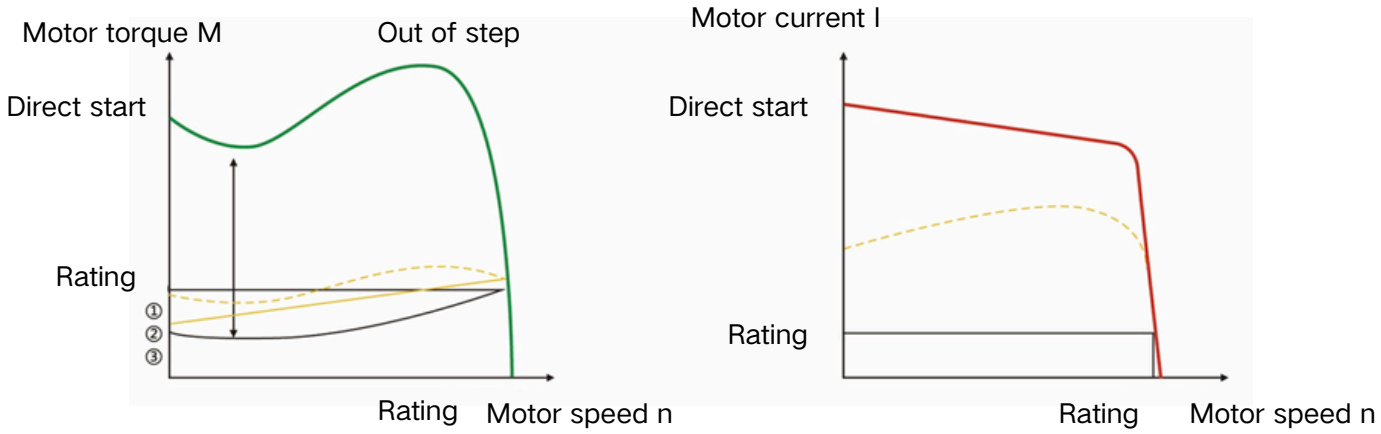


① M Soft start voltage ramp ② M Torque after soft start regulation ③ M Load (e.g. pump)

1: Torque characteristics of three-phase AC asynchronous motor when starting with soft start

2: Current characteristics of three-phase AC asynchronous motor when starting with soft start

Create a new era of intelligence

High performance bypass intelligent soft starter

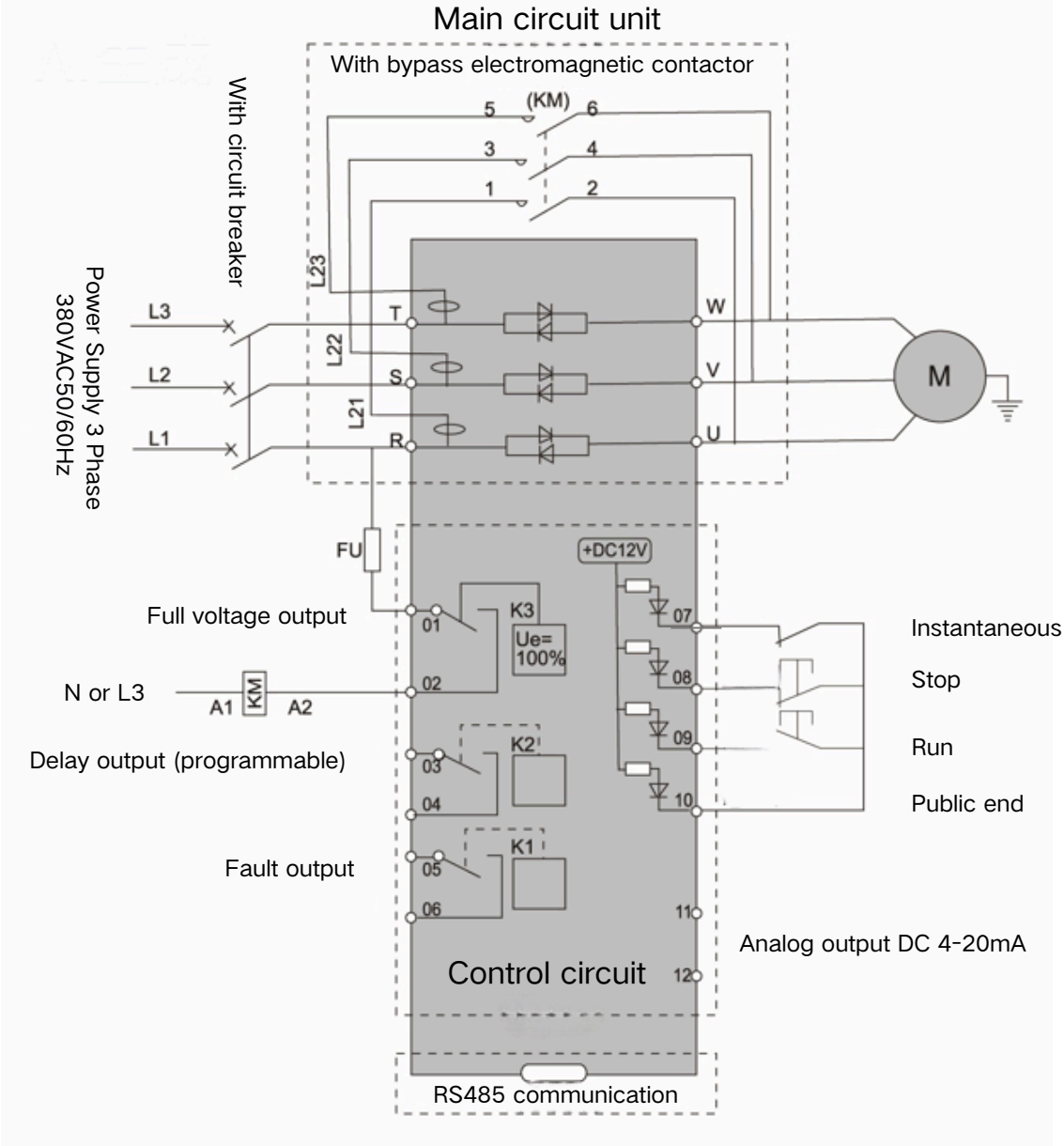
Product Overview

Intelligent bypass soft starter is independently developed by our company with microprocessor as the core, combined with thyristor power drive, software and hardware protection, menu LED display, keyboard operation, torque control and fuzzy PID closed-loop algorithm and other technologies. It integrates motor soft start, soft stop, light load and energy saving and multiple functions. It is a newly built intelligent starting equipment with international advanced level. The equipment has complete functions and stable performance, and is widely used in the start-up process of transmission equipment, fans, slurry machines, compressors and other loads.
This product meets GB14048.6-2008 and other standards.

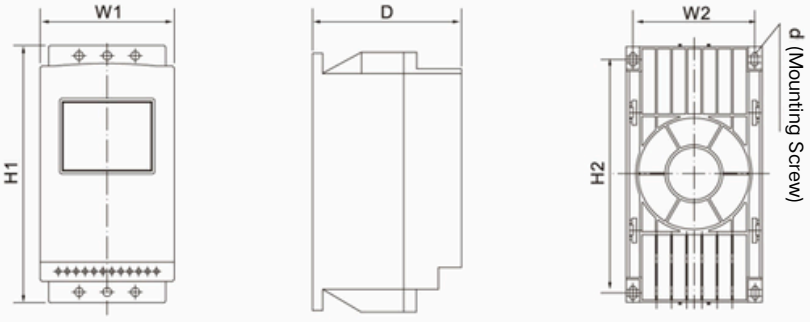
Product Functions and Features

Protection function: Motor protection during starting. After starting, the motor protection provides 12 kinds of protection functions. There is no need to install other protection products and reduce equipment investment.
The parameters are rich, and the software is constantly upgraded to add a new "interval delay" parameter to avoid motor damage caused by frequent starting. A new "delay bypass switching" parameter to avoid high current switching from burning the contactor.
Chinese and English LCD display: parameter settings and parameter display are all displayed in Chinese, which is convenient for general operators and electricians to install, debug, maintain and troubleshoot.
The communication function provides Chinese and English host computer software, which is convenient for users to control and debug remotely.

Primary and secondary wiring schematic diagram



Product shape and installation dimensions



Model	Overall dimensions (mm)			Installation size (mm)			Weight (kg)
	W1	H1	D	W2	H2	d	
5.5-75kW	145	270	160	132	250	M6	<3.5
75-220kW	260	520	200	195	375	M8	<20
250-350kW	290	560	250	260	460	M8	<25
400-450kW	330	590	250	265	500	M8	<30
500-630kW	410	670	250	345	550	M8	<40

Product Overview

The intelligent bypass soft start cabinet takes the intelligent bypass soft starter as the core component of start control, and is equipped with a complete motor control system consisting of molded case circuit breaker, ammeter, push button switch and indicator light. This control cabinet has perfect motor protection function, minimal thermal power consumption, stable and reliable performance. It is widely used in the start-up process of transmission equipment, fans, slurry machines, compressors and other loads.

This product meets GB14048.6-2008 and other standards.

Product Functions and Features

Protection function: Motor protection during starting. After starting, the motor protection provides 12 kinds of protection functions. There is no need to install other protection products and reduce equipment investment.

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Main circuit wiring schematic diagram

Three-phase power supply 380V50/60Hz

Circuit breaker with molded case

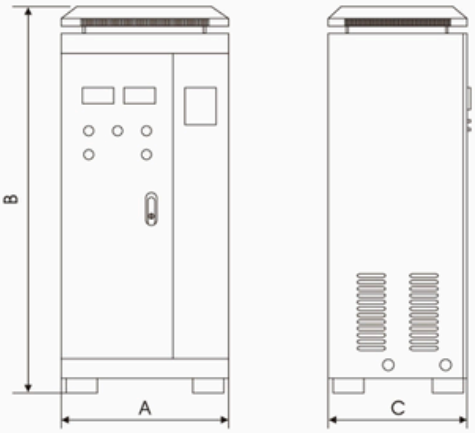
Bypass soft starter

Electromagnetic Contactor KM

Three phase asynchronous motor

Product shape and installation dimensions

Model	Overall dimensions (mm)		
	A	B	C
5.5-75kW	420	1000	380
90-220kW	550	1250	550
250-400kW	650	1500	650
450-630kW	700	1750	650



Create a new era of intelligence

On-line intelligent soft starter

Product Overview

Intelligent online soft starter is a brand-new product newly developed by our company. This product is a three-in and three-out thyristor full-time online structure. There is no need for external AC contactor when it is built into a set cabinet, which simplifies the primary and secondary wiring cost; High-power air-cooled radiator and high-speed axial fan are adopted inside, which ensures long-term reliable operation of soft start.

This product has perfect motor protection function. When using it, you must consider the exhaust air and heat dissipation in the cabinet.

This product is suitable for the control of various AC motor fans, water pumps, fire pumps, sprinkler pumps, sewage pumps, deep well pumps, air compressors, brick making machines, crushers, mining machinery and other equipment, with actual smooth start and stepless acceleration.

Product Features

Phase failure protection: When any one of the three phases is open, the protection action time is < 1min

Three-phase unbalance protection: When the three-phase unbalance degree K1 or K2 is > 10%, the protection action time is < 10min

Over-current protection: When the motor is blocked, the protector will delay (± 1) s

Overvoltage protection: When the power supply voltage Ue > 120%, the protection action time is < 1s

Under-voltage protection: when the power supply voltage (60%-75%) Ue, the protection voltage action time is < 60s

Reset function: manual stop key reset

Over-temperature protection: When the soft start operation is over-temperature, the soft start will turn off automatically and report the soft start overheating fault

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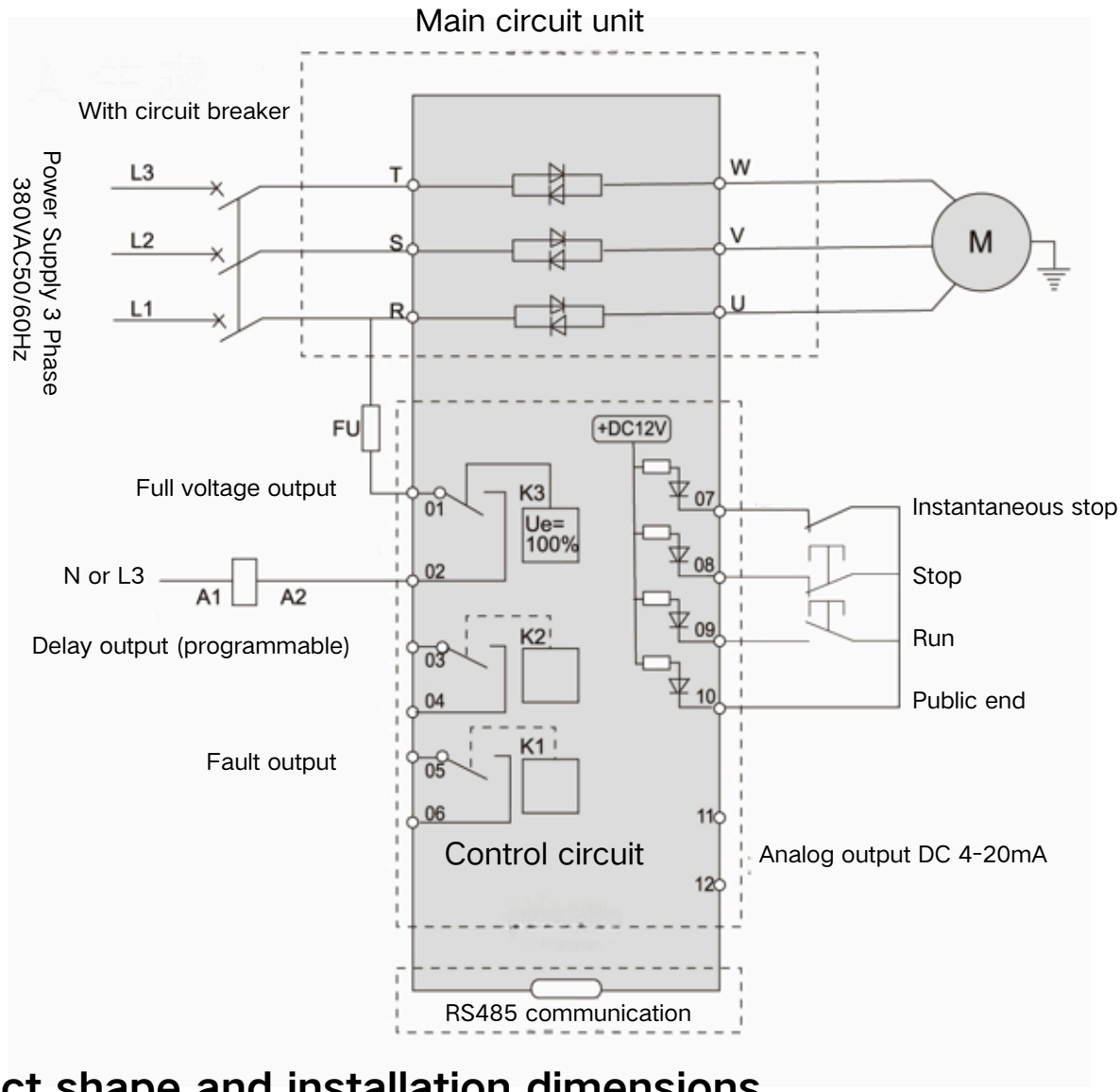
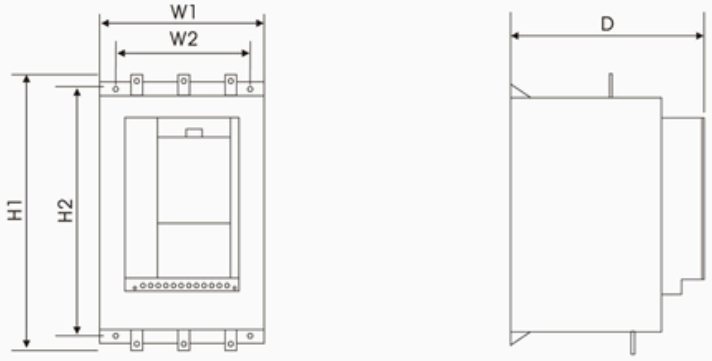
Primary and secondary wiring schematic diagram



Product shape and installation dimensions



Model	Overall dimensions (mm)			Installation size (mm)			Weight (kg)
	W1	H1	D	W2	H2	d	
5.5-45kW	148	310	200	85	275	M6	<5
55-90kW	210	370	260	150	320	M8	<12
115-220kW	380	500	240	320	440	M8	<25
250-400kW	430	600	265	370	520	M8	<30
450-630kW	620	780	325	570	660	M8	<50

Innovative process performance upgrades are unique

On-line intelligent soft start cabinet

Product Overview

The intelligent online soft start cabinet is the latest fist product developed by our company-the thyristor full-time online integrated motor soft start cabinet has no AC contactor and no contact for switching, which can adapt to harsh environments such as smoke, ash, dust, and sand. Reliable operation; This product has a wide working voltage range and is suitable for low-voltage operation. The recommended voltage is ⩾ 320V; This product has a three-in (ABC connected to power supply) and three-out (UVW connected to motor) structure, and the wiring is simple and convenient; This product comes with motor protection function and has as many as 21 software parameters, which can meet the needs of most applications. When using this product, be sure to ensure that the surrounding ventilation and heat dissipation effect is good. It is widely used in the start-up process of transmission equipment, fans, slurry machines, compressors and other loads.
This product complies with GB14048.6-2008 and other standards.

Product Features

Because there is no bypass contactor, the product price is cheaper and the maintenance cost is lower;
It can adapt to reliable operation in harsh environments such as smoke, ash, dust and sand;
To adjust the starting data, you only need to use the "driver" to adjust the potentiometer, and both new and old engineers can apply it freely;
The weight of this cabinet is only one-third of that of the autocoupling decompression starting cabinet, and the volume is only one-half of that of the autocoupling cabinet;
This cabinet has complete protection functions, reliable performance, long service life and high economic benefits;

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Main circuit wiring schematic diagram

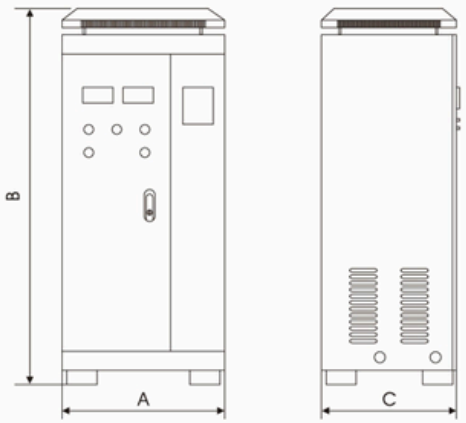
Three-phase power supply 380V50/60Hz

On-line soft starter

Three phase asynchronous motor

Product shape and installation dimensions

Model	Overall dimensions (mm)		
	A	B	C
5.5-75kW	420	1000	380
90kW	450	1100	450
115-220kW	550	1250	450
250-400kW	650	1500	500
450-630kW	700	1750	500



Product Overview

Intelligent built-in bypass soft starter, built-in three-phase AC contactor, combined with thyristor power drive, software and hardware protection, menu LED display, keyboard operation, torque control and fuzzy PID closed-loop algorithm and other technologies, integrated motor soft start, soft stop, light load and energy saving and multiple functions, a newly built intelligent starting equipment with international advanced level. The equipment has complete functions and stable performance, and is widely used in the start-up process of transmission equipment, fans, slurry machines, compressors and other loads.
This product meets GB14048.6-2008 and other standards.

Product Functions and Features

Protection function: Motor protection during starting. After starting, the motor protection provides 12 kinds of protection functions. There is no need to install other protection products and reduce equipment investment.
The parameters are rich, and the software is constantly upgraded to add a new "interval delay" parameter to avoid motor damage caused by frequent starting. A new "delay bypass switching" parameter to avoid high current switching from burning the contactor.
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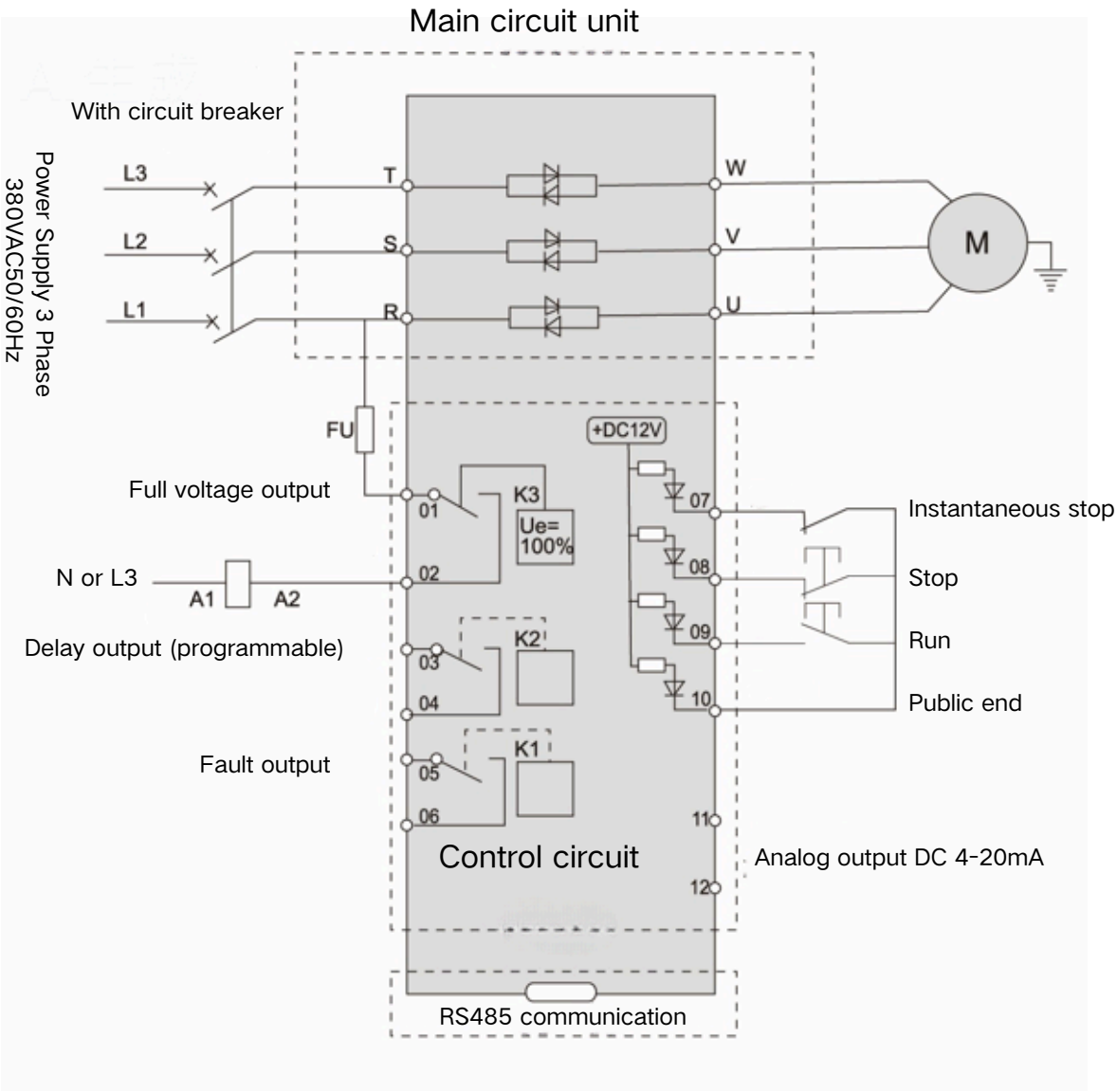
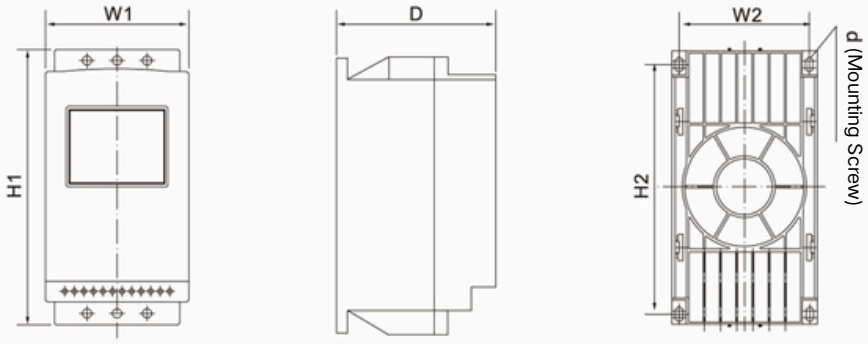
Primary and secondary wiring schematic diagram



Product shape and installation dimensions



Model	Overall dimensions (mm)			Installation size (mm)			Weight (kg)
	W1	H1	D	W2	H2	d	
5.5-75kW	155	310	180	127	296	M6	<5
75-200kW	280	590	240	215	520	M8	<20

High performance vector frequency converter

Product Overview

Intelligent built-in bypass soft starter, built-in three-phase AC contactor, combined with thyristor power drive, software and hardware protection, menu LED display, keyboard operation, torque control and fuzzy PID closed-loop algorithm and other technologies, integrated motor soft start, soft stop, light load and energy saving and multiple functions, a newly built intelligent starting equipment with international advanced level. The equipment has complete functions and stable performance, and is widely used in the start-up process of transmission equipment, fans, slurry machines, compressors and other loads.
This product meets GB14048.6-2008 and other standards.

Model Description

SKF800 - 3R7G/5R5P - T 4

- 4 — Voltage level: 2-220V; 4-380V; 6-690V
- T — Number of power supply phases: S-single phase; T-three-phase
- 3R7G/5R5P — Power level and model: G-heavy-duty type; P-light load type
- SKF800 — Product series code

Main technical parameters

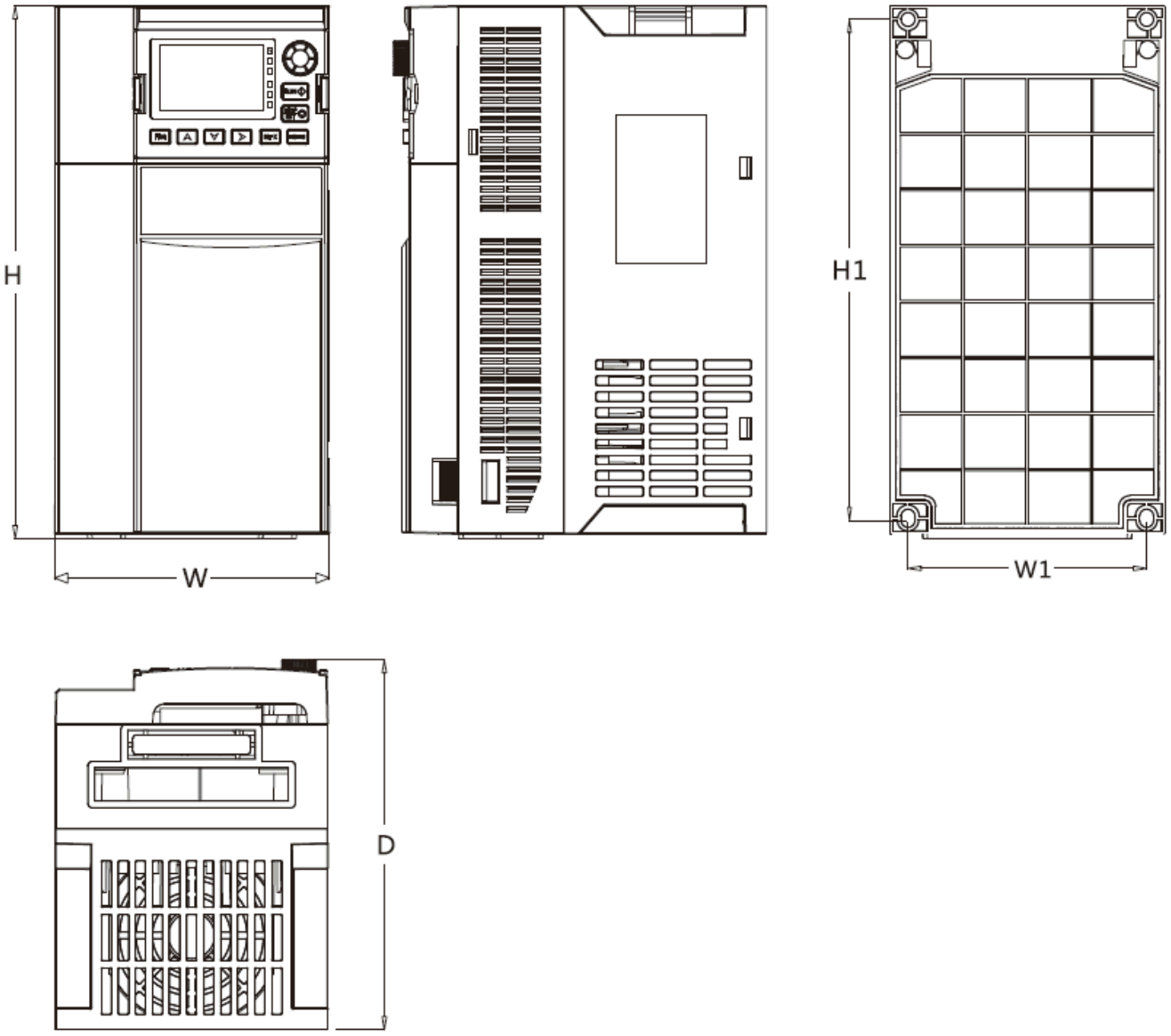
Items		Specifications
Basic Functions	Highest frequency	0.00 Hz-3200. 00Hz
	Carrier frequency	0.5 KHz-16kHz, can automatically adjust the carrier frequency according to the load characteristics
	Input frequency resolution	Digital setting: 0.01Hz, Analog setting: Maximum frequency × 0.025%
	Controlling method	Open loop vector control (SVC), closed loop vector control (FVC), V/F control
	Starting torque	G-type machine: 0.3 Hz/150% (SVC); 0 Hz/180% (FVC); P-type machine: 0.5 Hz/100%
	Speed regulation range	1: 200 (SVC) 1: 1000 (FVC)
	Steady speed accuracy	± 0.5% (SVC) ± 0.02% (FVC)
	Torque control accuracy	± 5% (FVC)
	Overload capacity	G-type machine: 150% rated current 60s, 180% rated current 3s; P-type machine: 120% rated current 60s, 150% rated current 3s
	Torque boost	Automatic torque boost, manual torque boost: 0.1% ~ 30.0%
	V/F curve	Three methods: linear type, multi-point type, N-th power V/F curve (1.2 power, 1.4 power, 1.6 power, 1.8 power, 2nd power)
	V/F Separation	2 ways: full separation, semi-separation
	Acceleration and deceleration curve	Straight line or S-curve acceleration and deceleration mode. Four types of acceleration and deceleration times, acceleration and deceleration time range 0.00 s ~ 65000s
	Direct current braking	Braking frequency 0.00 Hz ~ maximum frequency; The braking time is 0.0 S ~ 1000s; Braking operating current value 0.0% ~ 100.0%
	Spot control	The inching frequency range is 0.00 Hz ~ 50.00 Hz, and the inching acceleration and deceleration time is 0.00 s ~ 65000s
	Simple PLC, multi-stage speed operation	Up to 16 speed operations via built-in PLC or control terminals
	Built-in PID	Closed-loop control system of process control can be conveniently realized
	Automatic voltage regulation (AVR)	Can automatically keep the output voltage constant when the grid voltage changes
	Over pressure and over-loss velocity control	Automatically limit current and voltage during operation to prevent frequent overcurrent and overvoltage trips
	Fast current limiting function	Minimize overcurrent faults and protect the normal operation of frequency converter
	Torque Limitation and Control	Excavator characteristic, which automatically limits torque during operation to prevent frequent overcurrent tripping; Vector simulation enables torque control

Items		Specifications
Personalization features	Excellent performance	Realization of asynchronous motor control with high performance current vector control technology
	Instant stop	During instantaneous power failure, the load feedback energy compensates the reduction of voltage to keep the frequency converter running in a short time
	Fast current limiting	Avoid frequent overcurrent failures of frequency converters
	Timing control	Timing control function: set time range 0.0 min ~ 6500.0 min
	Multi-threaded bus support	Currently supports RS485 bus, and will support profibusdp, canOpen and other buses in the future
	Motor overheating protection	A13 can be connected to PT100 or PT1000 to input the analog motor temperature to achieve motor overheating protection
	Multi-encoder support	Supports incremental encoders and resolvers
	Powerful background software	Supports frequency converter parameter operation and virtual oscilloscope function, through which the internal state of frequency converter can be monitored graphically
Run	Command source	The operation panel is given, the control terminal is given, and the serial communication port is given, which can be switched through various ways
	Frequency source	10 frequency sources: digital, analog voltage, analog current, pulse, serial port, panel potentiometer given, etc.
	Auxiliary frequency source	10 auxiliary frequency sources, which can flexibly realize auxiliary frequency fine-tuning and frequency synthesis
	Input terminal	Standard 4 digital input terminals and 2 analog input terminals; Expand 5 digital input terminals, 1 analog input terminal
	Output terminal	Standard 1 high-speed pulse output terminal, 1 digital output, 2 analog outputs; Extended 1 digital and 1 relay output terminal
Display and keyboard operation	LED display	Display parameters
	Parameter copy	The function of parameter copy can be realized by the upper computer software
	Key control and function selection	Realize partial or complete locking of keys and define the scope of action of some keys to prevent misoperation
	Protective function	Power-on motor short circuit detection, input and output phase loss protection, over-current, over-voltage protection, under-voltage protection, overheating, overload protection, etc
Environment	Place of use	Indoor, free from direct sunlight, free of dust, corrosive gas, combustible gas, oil mist, water vapor, dripping water or salt
	Altitude	Less than 1000m
	Ambient temperature	-10 ~ 40 ℃ (ambient temperature is 40-50 ℃, please derate)
	Humidity	Less than 95% RH, no water droplets coagulate
	Vibration	Less than 5.9 m/s2 (0.6 g)
	Storage temperature	-20~ 60℃

Model Specification

Inverter Model G/P	Rated power	Power capacity	Input current	Output current	Adapt motor G/P	
	Kw	KVA	A	A	KW	HP
R75GB-D1	0.75	1.5	8.2	4.5	0.75	1
1R5GB-D1	1.5	3	14	7	1.5	2
2R2GB-D1	2.2	4	23	9.6	2.2	3
R75GB-T4	0.75	1.5	3.4	2.1	0.75	1
1R5GB-T4	1.5	3	5	3.8	1.5	2
2R2GB-T4	2.2	4	5.8	5.1	2.2	3
004GB/5R5PB-T4	4/5.5	5.9/8.9	10.5/14.6	9/13	4/5.5	5.5/7.5
5R5GB/7R5PB-T4	5.5/7.5	8.9/11	14.6/20.5	13/17	5.5/7.5	7.5/10
7R5GB-T4	7.5	11	20.5	17	7.5	10
011GB/015PB-T4	11/15	17/21	26/35	25/32	11/15	15/20
015GB/18R5PB-T4	15/18.5	21/24	35/38.5	32/37	15/18.5	20/25
18R5GB/022PB-T4	18.5/22	24/30	38.5/46	37/45	18.5/22	25/30
022GB/030PB-T4	22/30	30/40	46.5/62	45/60	22/30	30/40
030G/037P-T4	30/37	40/57	62/76	60/75	30/37	40/50
037G/045P-T4	37/45	57/69	76/92	75/91	37/45	50/60
045G/055P-T4	45/55	69/85	92/113	91/110	45/55	60/70
055G/075P-T4	55/75	85/114	113/157	112/150	55/75	70/100
075G/093P-T4	75/93	114/134	157/180	150/170	75/93	100/125
093G/110P-T4	93/110	134/160	180/214	170/210	93/110	125/150
110G/132P-T4	110/132	160/192	214/256	210/253	110/132	150/180
132G/160P-T4	132/160	192/231	256/307	253/304	132/160	180/220
160G/185P-T4	160/185	231/245	307/345	304/340	160/185	220/250
185G/200P-T4	185/200	245/260	345/385	340/377	185/200	250/275
200G/220P-T4	200/220	260/280	385/430	377/426	200/220	275/300
220G/250P-T4	220/250	280/355	430/468	426/465	220/250	300/340
250G/280P-T4	250/280	355/396	468/525	465/520	250/280	340/380
280G/315P-T4	280/315	396/445	525/590	520/585	280/315	380/430
315G/355P-T4	315/355	445/500	590/665	585/650	315/355	430/480
355G/400P-T4	355/400	500/565	665/785	650/725	355/400	480/545
400G-T4	400	565	785	725	400	545

Outline and installation dimensions



Model	External dimensions			Installation dimensions		Aperture
	H	W	D	H1	W1	d
R75GB-D1 1R5GB-D1 2R2GB-D1 R75GB-T4 1R5GB-T4 2R2GB-T4	197.2	89.6	139	187	74	5
004GB/5R5PB-T4 5R5GB/7R5PB-T4	202	102	162	190.5	90	5
7R5GB-T4 011GB/015PB-T4	242.5	125	170	228	108.5	5
015GB/18R5PB-T4 18R5GB/022PB-T4	297	165	206	278	147	6
022GB/030PB-T4	360	210	190	345	110	7
030G/037P-T4 037G/045P-T4	435	230	230	418	150	7
045G/055P-T4	510	260	255	200	493	7
055G/075P-T4 075G/093P-T4	580	270	300	564	200	7
093G/110P-T4 110G/132P-T4	620	320	300	600	260	9
132G/160P-T4 160G/185P-T4	800	380	315	755	250	10
185G/200P-T4	800	400	345	775	260	12
200G/220P-T4 220G/250P-T4 250G/280P-T4	900	450	350	875	350	12
280G/315P-T4	950	500	350	925	360	12
315G/355P-T4 355G/400P-T4	1050	650	360	1030	500	12
400G/450P-T4 450G/500P-T4 500G/560P-T4	1300	650	380	1265	500	12
560G/630P-T4 630G/720P-T4 720G/800P-T4	1500	800	400	1450	550	14

Intelligent water pump controller one control series

Product Overview

Citation Standard : GB/T 14048.1-2000 GB/T14048.4-2003
Power Type: AC380V/50-60Hz
Applicable power: Can be matched with water pump motor power 0.37 ~ 15KW

Technical parameters

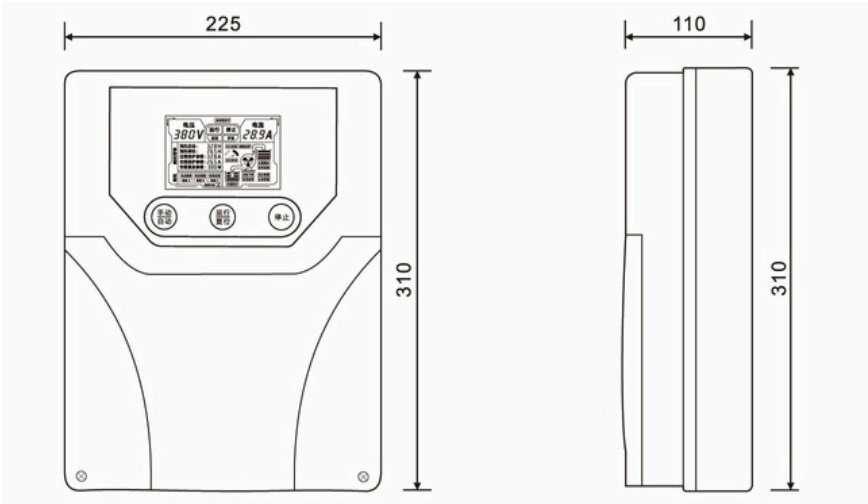
Model	Applicable Power (KW)	Type selection
D1-2200	0.37-2.2	
H1-4000N	0.75-4.0	
H1-4000Y	0.75-4.0	
H1-7500N	2.2-7.5	
H1-7500Y	2.2-7.5	
H1-11000Y	5.5-11	
H1-15000Y	7.5-15	

Note: D represents single-phase 220V, H represents three-phase 380V, 1 represents single control, N represents this product without air switch, and Y represents this product has built-in air switch.

Product Features

Working mode: There are two working modes to choose from: manual and automatic, both of which have complete protection functions.
Control method: It integrates the upper and lower water levels and pressure control, and uses a special pulse electrode probe or electronic float switch to simultaneously or separately control the upper and lower pool liquid levels, use Electric contact pressure gauge or photoelectric pressure gauge can realize pressure control, which can meet the needs of users for multiple purposes.
Display characteristics: High-definition TFT LCD screen, real-time display of protection parameters and various status feedback, when the water pump motor fails or the signal line is wrong, the controller can quickly analyze The cause of the failure, and timely text prompts and detailed instructions to tell the user the relevant troubleshooting methods.
Protection function: It has protection such as phase loss, overload, no load, overvoltage, undervoltage, dry rotation, frequent start, etc. Full care can effectively reduce the repair rate of the supporting water pump motor and save money for users Repair costs and a lot of administrative time.
Intelligent anti-rust: When the water pump is not suitable for a long time, the controller will automatically start the water pump for 1 second after stopping for 48 hours in automatic mode to prevent the impeller from rusting and protect the cast iron water pump impeller
Protection is particularly obvious.
One-button special effects: One-button automatically sets overload and no-load protection current, and one-button restores factory settings.
Data locking: This function can be enabled after setting the protection parameters to prevent others from tampering with data by misoperation.
Fault record: covered 10 fault records.

Overall dimensions



Scope of application

Applicable to: deep well pumps, submersible pumps, sewage pumps, pipeline pumps, booster pumps, multi-stage centrifugal pumps, vortex pumps and other water pumps
Application: construction site, garden irrigation, farmland irrigation, domestic water supply, underground sewage discharge, high-rise water supply, etc

Auto-coupling decompression starting cabinet

Product Overview

XJ01 series autocoupling decompression starting cabinet is suitable for step-down starting of three-phase AC squirrel-cage asynchronous motors with AC 380V, frequency 50Hz and power to 500KW. It uses the step-down function of the autotransformer to reduce the starting current of the motor. Improve the impact and impact on the power grid when the motor starts. When starting the motor of this product, the starting current of the incoming power supply line shall not exceed 4-5 times of the rated current of the motor. If the sum of several consecutive starting times has exceeded the specified time and heat is generated, the transformer should be cooled before it can continue to start.

This product is only for long-term intermittent starting, and it is strictly forbidden to use it under frequent starting operating conditions.

Model Description

XJ01 - □□□ - 380V

- 380V: Rated voltage
- □□□: Controlling motor power
- XJ01: Autocoupling decompression starting

Use of the product

Automatic operation: Turn on the power switch and the red indicator light lights up; Turn the transfer switch to the "auto" position; Press the "Start" button, the motor starts to step down and start, the red indicator light goes out, and the yellow light will light up. At the same time, the time relay starts to work. After the set time of the time relay reaches, the time relay acts, and the full-voltage working AC contactor is pulled in. The starting AC contactor is disconnected, that is, it automatically switches to make the motor enter normal operation. At this time, the yellow light goes out and the green light comes on; Press the "STOP" button or turn the transfer switch to the "STOP" position, and the motor will stop working.
Manual operation: Turn on the power switch and the red indicator light will come on; Turn the transfer switch to the "manual" position, press the "start" button, the motor starts to step down and start, the red light goes out, and the yellow light will light up. When the motor speed is very high or the ammeter pointer drops to a smaller value, press the "Run" button, the motor starts to run normally, and the yellow light will turn on at the same time, "Stop" button or turn the transfer switch to the "Stop" position, and the motor will stop working.

The structure of the product

This product is a box-type protective structure, which is composed of autotransformer, AC contactor, time relay, thermal relay or comprehensive protector, intermediate relay, universal transfer switch and other components. For products of 75KW and below, automatic control is adopted. For products of 90KW and above, there are two control modes: manual and automatic, which are switched by a universal transfer switch. The autotransformer has two kinds of connectors with 65% and 80% of the rated voltage. When leaving the factory, they are all connected to 65% of the connectors, and 80% of the connectors are reserved for spare use.

Technical parameters

Model	Control motor power(KW)	Operating current reference value	Current transformer ratio	Time relay setting	Overall dimensions		
					H	W	D
XJ01-22	22	43	50/5	8	710	400	280
XJ01-30	30	59	75/5	8			
XJ01-40/45	45	83	100/5	12	950	470	310
XJ01-55	55	110	150/5	12			
XJ01-75	75	142	200/5	12			
XJ01-90/100	90	165	300/5	15	1150	550	420
XJ01-115	115	218	300/5	15			
XJ01-135	135	256	400/5	15	1270	600	480
XJ01-160	160	295	600/5	15			
XJ01-190	190	350	600/5	20			
XJ01-225	225	410	800/5	20	1550	700	550
XJ01-260	160	480	800/5	20			
XJ01-300	300	535	800/5	20			
XJ01-320	320	585	800/5	20			
XJ01-350	350	640	1000/5	25	1700	770	580
XJ01-400	400	730	1500/5	25			
XJ01-450	450	823	1500/5	30			
XJ01-500	500	914	1500/5	30			

High and low voltage complete solutions

GGD AC low voltage distribution cabinet

GCK low voltage withdrawable switch cabinet

GCS low voltage withdrawable switch cabinet

MNS low voltage withdrawable switch cabinet

KYN28 central removable switch cabinet

XGN15-12 sulfur hexafluoride ring main unit

HXGN-12 AC closed switch cabinet

KYN61-40. 5 AC high voltage switchgear

High and low voltage component series


AC contactor


AC contactor


Small circuit breaker


Molded case circuit breaker


KBO Control Protection Switch


Dual power transfer switch


Surge protector

Control transformer

Electric power meter

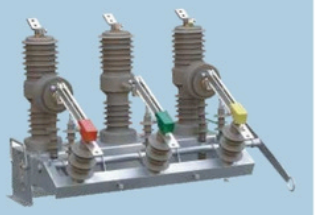

Terminal block


Switching power supply


Cold-pressed end


Universal circuit breaker

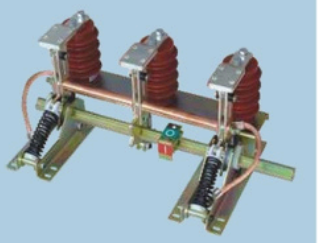

Indoor high voltage vacuum circuit breaker

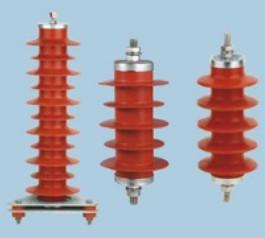

Outdoor high voltage vacuum circuit breaker


Outdoor high voltage boundary vacuum circuit breaker


High voltage vacuum load switch


Outdoor drop fuse


High voltage grounding switch


Zinc oxide arrester