

ABOUT VICRUNS

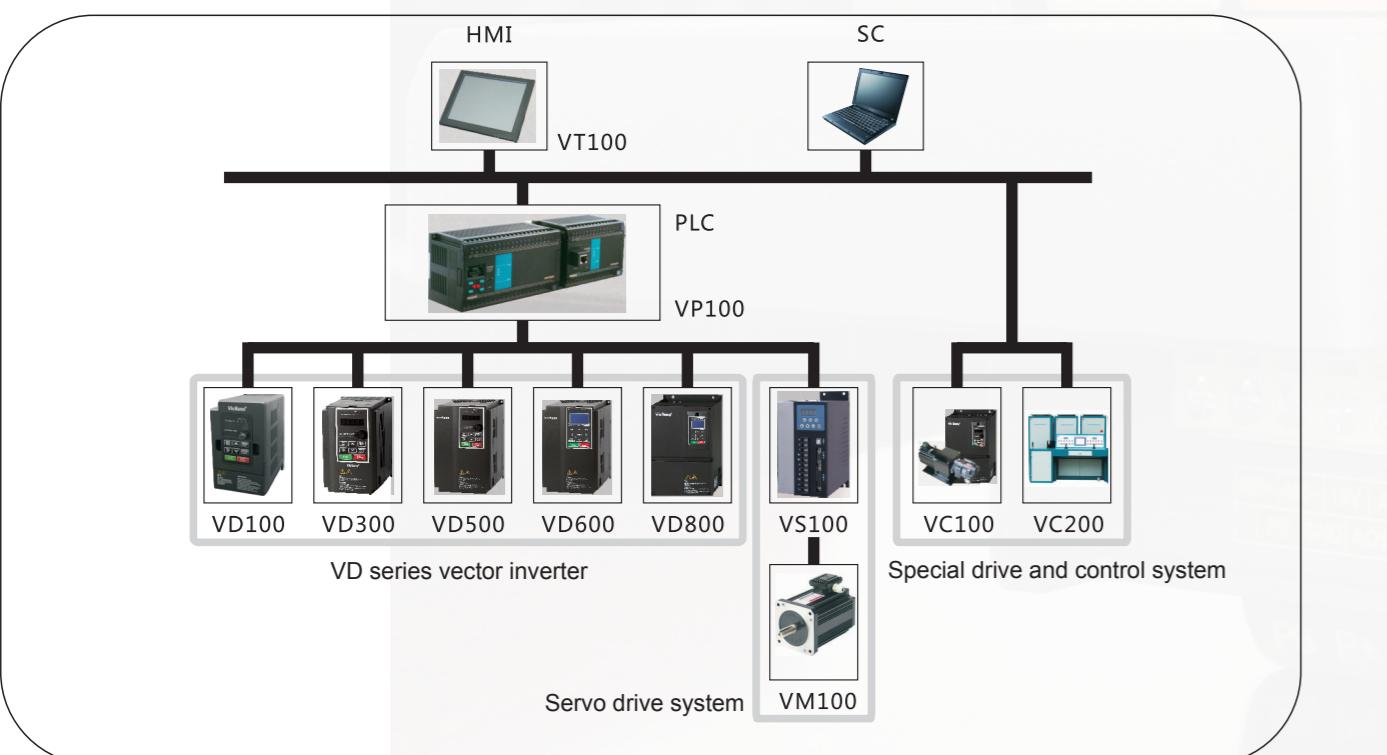
Vicruns Electric Technology Co., Ltd. is a company committed to the inverter, servo drives, mining equipment and construction machinery and other industries special drive and control system for R & D, production, sales and service. In a variety of harsh and special environment for the user to provide lasting and reliable standardized and personalized solutions.

The company is a national high-tech enterprises, software companies. With rich standard drives, motor control and industry special series products, all products have independent intellectual property rights, master of the high performance vector control, torque control, servo technique of permanent magnet synchronous motor technology core platform technology.

The company has more than 20 sales branches and 10 stock centers, products are widely used in electric power, mining, metallurgy, petroleum, chemical industry, building materials, lifting, machine tools, textile, paper making, packaging, light industrial, municipal and factory automation and other industries.

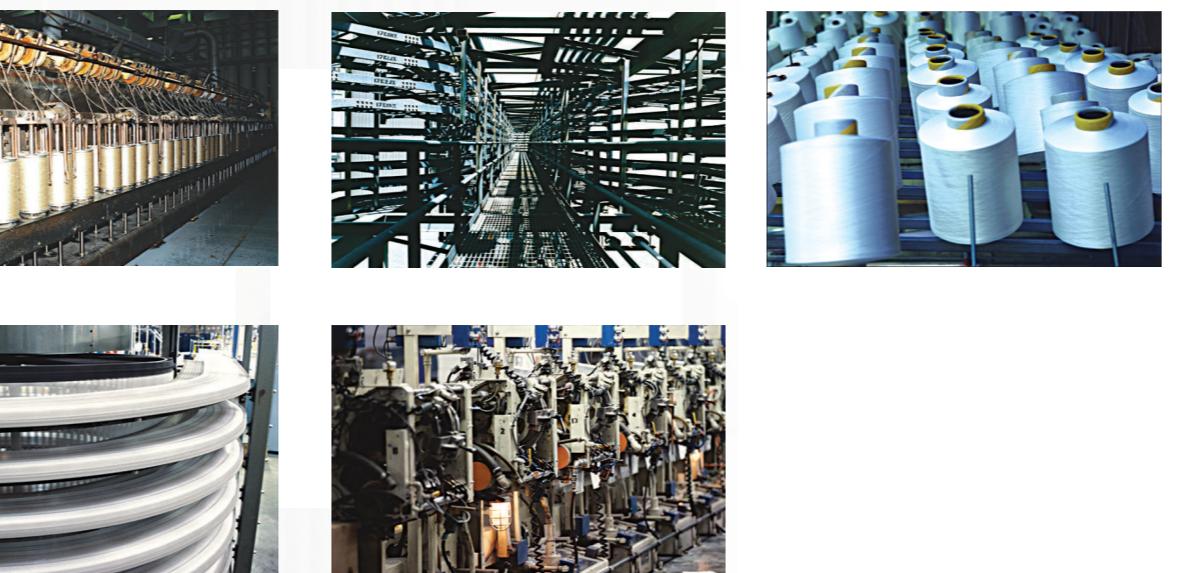
We target is to reduce the customer's use and maintenance cost, with the wisdom of science and technology to meet expectations, create new value, enhance customer competitiveness.

Drive and Control Product Solutions



VD120 is a general purpose small power inverter, its product design has applied for the national patent; it is compact, powerful functions, and suitable for small power motor adjusting speed. VD120 series inverter has high output torque and strong anti-interference ability, built in PID and simple PLC, with the disturbance (horizontal), traction, internal / external control multi section speed, automatic voltage regulator and energy saving operation and other functions. It can be suitable for different occasions of control needs. It also has a good muted effect, can be in the occasions with higher requirements for noise.

- Logistics equipment: pipeline, transport handling equipment, automatic storage and transportation equipment;
- Electronic manufacturing equipment: winding machine, wave soldering machines, packaging machines, line board equipment, foam mechanical equipment, small plastic machinery;
- Mechanical processing equipment: engraving machine, centerless grinding machine, wire cutting machine, EDM machine;
- Food machinery: feeding machine, mixer, filling machine, cake forming machine;
- Woodworking machinery: polishing machine, grinding machine, engraving machine;
- Textile Machinery: winding machine, cloth inspection machine;
- Packaging machinery: liquid filling machine, filling machine;
- Fan, water pump: roof / air supply fan, small water supply, water jet pump;
- Printing equipment: six open, eight open offset press;
- Conveyor belt: small conveyor belt, general conveyor belt;
- Feeding equipment: machine tools, winding machine, textile machinery;
- Rubber - Plastics Industry: sealing machine, all kinds of small machinery;
- General business: ordinary household air-conditioning, automatic door;
- Other: stone cutting machine, shoe-making machinery, glasses machinery, environmental protection air conditioning, fireworks machinery, incense machinery, washing equipment, pharmaceutical machinery, medical machinery, fitness equipment (treadmills, fitness machine), screen printing machine, building water supply.....



Focusing on the Integration design

- Upgrade your equipment and make it more competitive, VD120 can improve your production depend on its advanced features.
- Perfect function, covering a variety of mainstream industry application.

Personal design, installation fastly

- The man-machine dialogue, friendly interface, saved the time of programming.
- The connection terminals no need disassemble, saved the installation time.

VD120 based on advanced technology with three characteristics that reliable performance, complete function, easy to operation. The design and component selection make the VD120 become an extremely efficient, reliable and durable inverter.

- The full range use PIM/IPM module design, high output torque and overload ability;
- Controller keyboard can be optional, can achieve no keyboard operation;
- Iron base plate design, strong and durable installation hole;
- Enclosed electrical space design, electrical control and the main circuit is completely isolated from the environment, and the electrical space will reduce the inverter failure rate to lowest;
- Independent air duct design, ensure that the inverter has good heat radiation. Greatly reduce the possibility of damage to the control circuit and the main circuit due to environmental reasons;
- Three proofings design, the machine can easily realize full sealing;
- Wide voltage range designation, especially application for the domestic power grid voltage fluctuations in the larger work environment;
- Compact design, small size, can be installed side by side, save space;
- Optimize the V/F control and vector control, to ensure that your motor can achieve higher performance;
- Support for a variety of status of parking, a variety of parameters and 16 MS speed.



- Terminal station for easy operate
- Multiple mark for easy to identify



- Convenient to change the fan without any auxiliary tools
- Keyboard components can be disassembled and installed separately
- Friendly human-computer interaction interface



- Convenient protection grade, can reach to IP40
- Apply to dust, moist such harsh environment
- No need derating capacity after totally enclosed
- No need derating capacity when

Excellent quality, first-class performance

- Through the following aspects to ensure that your motor can achieve higher performance
- Integration standard (V/F), high performance control mode (sensorless magnetic flux vector control, that's SVC).
- Can achieve high dynamic response performance when acceleration and braking.
- The vector V/F control has superior low frequency torque performance

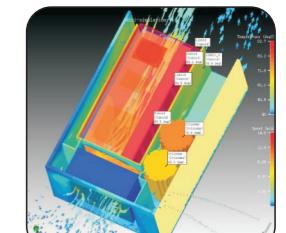
Complete functions, safe and reliable

- Main/auxiliary frequency addition and subtraction control frequency mode.
- Variety of stop way (outage stop, AVI zero stop)
- Display: voltage, current, set frequency and actual frequency, rotation speed, swing frequency function according to the user-defined.
- Built-in PLC, can operate by 16 stage speed program.
- Other functions: outage memory, prohibit reverse, AVR, DC braking, adjust acceleration/deceleration automatically.

VD120 naming rules

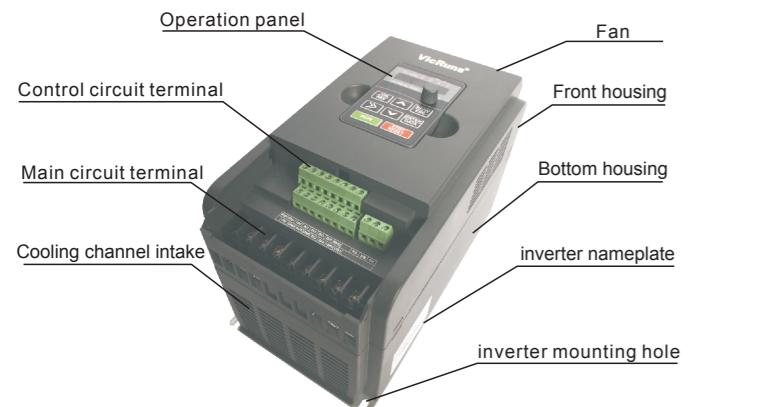
VD120 - 4T-5.5GB

| | | | |
|----------------|---------------|-----------------------|-------------------------|
| VicRuns series | Voltage level | Adaptable motor power | Brake unit |
| | | | |
| 2S 220V | | | B: Including brake unit |
| 4T 380V | | 5.5kW | None |



- Strong ability of overload, 150%/60s
- Independent air duct, high-efficiency radiator structure
- The highest environment temperature can reach to 50°C
- Sufficient heat dissipation

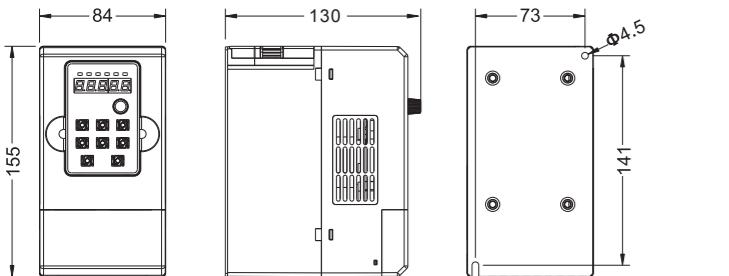
VD120 Physical Appearance and Main Structure Diagram



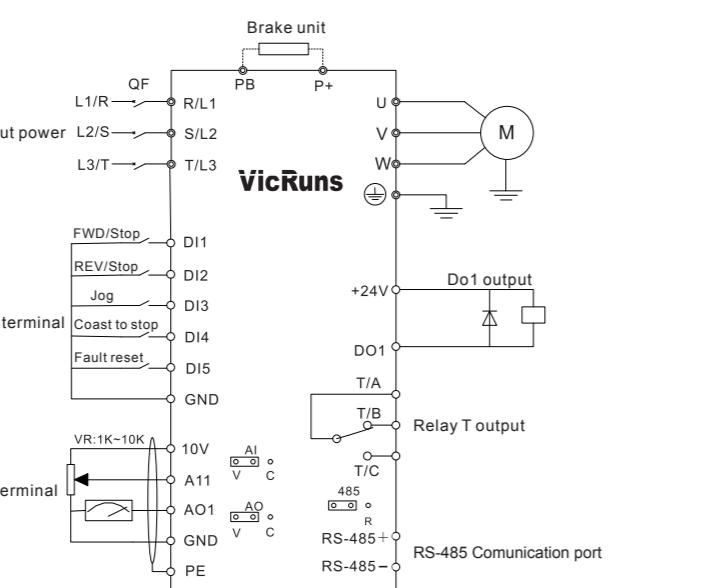
VD120 Model and Technical Data

| Model No. | Power capacity KVA | Rated input current A) | Rated output current (A) | Adaptable Motor | |
|---|--------------------|------------------------|--------------------------|-----------------|------|
| | | | | KW | (HP) |
| Single phase power supply: 50/60Hz, 220V range: -15%~20% | | | | | |
| VD120A-2S-0.4GB | 1.0 | 5.4 | 2.3 | 0.4 | 0.5 |
| VD120A-2S-0.7GB | 2.0 | 9.8 | 4.8 | 0.7 | 1 |
| VD120A-2S-1.5GB | 3.0 | 14.0 | 7.0 | 1.5 | 2 |
| VD120A-2S-2.2GB | 4.0 | 23.0 | 9.6 | 2.2 | 3 |
| Three phase power supply: 50/60Hz, 220V range: -15%~20% | | | | | |
| VD120A-2T-0.4GB | 1.5 | 4.0 | 2.3 | 0.4 | 0.5 |
| VD120A-2T-0.7GB | 3.0 | 6.0 | 4.8 | 0.8 | 1 |
| VD120A-2T-1.5GB | 4.0 | 7.8 | 7.0 | 1.5 | 2 |
| VD120A-2T-2.2GB | 5.9 | 10.5 | 9.6 | 2.2 | 3 |
| VD120A-2T-4.0GB | 8.9 | 14.6 | 13.0 | 3.7 | 5 |
| Three phase power supply: 50/60Hz, 380V range: -15%~20% | | | | | |
| VD120A-4T-0.4GB | 1.0 | 1.9 | 1.5 | 0.4 | 0.5 |
| VD120A-4T-0.7GB | 1.5 | 3.4 | 2.1 | 0.8 | 1 |
| VD120A-4T-1.1GB | 2.0 | 4.5 | 3.3 | 1.1 | 1.4 |
| VD120A-4T-1.5GB | 3.0 | 5.0 | 3.8 | 1.5 | 2 |
| VD120A-4T-2.2GB | 4.0 | 5.8 | 5.1 | 2.2 | 3 |
| VD120A-4T-3.0GB | 5.5 | 9.2 | 8.0 | 3.0 | 4 |
| VD120A-4T-4.0GB | 6.5 | 11.0 | 9.6 | 4.0 | 5.5 |
| VD120A-4T-5.5GB | 8.9 | 14.6 | 13.0 | 5.5 | 7.5 |
| VD120A-4T-7.5GB | 11.0 | 20.5 | 17.0 | 7.5 | 10 |

VD120 Schematic Diagram for Mounting Dimensions



Standard Wiring Diagram



VD120 Model and Physical Dimension

| Model No. | Mounting Hole (mm) | | Physical Dimensions (mm) | | Diameter of Mounting Hole (mm) | Weight (kg) |
|---|--------------------|-----|--------------------------|-----|--------------------------------|-------------|
| | A | B | H | W | | |
| Single phase power supply: 50/60Hz, 220V range: -15%~20% | | | | | | |
| VD120A-2S-0.4GB | 73 | 141 | 155 | 84 | 130 | 4.5 |
| VD120A-2S-0.7GB | 73 | 141 | 155 | 84 | 130 | 4.5 |
| VD120A-2S-1.5GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-2S-2.2GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| Three phase power supply: 50/60Hz, 220V range: -15%~20% | | | | | | |
| VD120A-2T-0.4GB | 73 | 141 | 155 | 84 | 130 | 4.5 |
| VD120A-2T-0.7GB | 73 | 141 | 155 | 84 | 130 | 4.5 |
| VD120A-2T-1.5GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-2T-2.2GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-2T-4.0GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| Three phase power supply: 50/60Hz, 380V range: -15%~20% | | | | | | |
| VD120A-4T-0.4GB | 73 | 141 | 155 | 84 | 130 | 4.5 |
| VD120A-4T-0.7GB | 73 | 141 | 155 | 84 | 130 | 4.5 |
| VD120A-4T-1.1GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-4T-1.5GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-4T-2.2GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-4T-3.0GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-4T-4.0GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-4T-5.5GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |
| VD120A-4T-7.5GB | 107.6 | 201 | 215 | 120 | 146 | 4.5 |

VICRUNS ELECTRIC (SHENZHEN) CO.,LTD

Add 1:25th Building,XiLi Industrial Zone,Xingguang Road,
NanShan District,ShenZhen City China.
Tel: 86-755-26638560 Fax:86-755-26639560
Add 2: Vicruns Science Park, No.36 Chuangxin Road,
High-tech Zone, Xiangtan, Hunan, China
Tel: 86-731-55573999 Fax: 86-731-55571777
Web: www.vicruns.com



VD120 Series Inverter



VD120A Series Inverter Solutions