

PC30 Multifunctional Pump VFD

The PC30 series of dedicated frequency converters for water pumps is positioned as a high-performance and high-protection backpack installation product. The product has a high-end and grand appearance, and its structural details are innovative. Adopting the latest software architecture, it leads in performance and has comprehensive functions. The hardware is diverse and can meet the certification requirements of different countries and regions. Provide efficient water supply solutions for architectural scenarios.



High efficiency performance

- It can support AC asynchronous, permanent magnet synchronous and reluctance motors
- The entire series is equipped with the logic of all functional requirements of the secondary water supply standard
- It is equipped with standard clock hardware and supports time-sharing water supply logic
- The low-noise algorithm solution enables the pump set to operate quietly and efficiently



Reliable hardware

- Wide voltage 380-480VAC design, suitable for use in multiple countries
- A new motor temperature sensing interface has been added, which can achieve temperature control protection
- Optional built-in EMC solution, compliant with overseas safety regulations for application
- The 220VAC platform is equipped with a PFC power factor optimization circuit



Innovative structure

- Innovative appearance design, with a bold color-matching design for the upper and lower shells.
- Illustrated large-screen display, full-screen high-end effect
- IP65 protection design, dust-proof and water-proof, safe and reliable.



1PH 200-240VAC 2.2kW
3PH 380-480VAC 0.75-22kW

| Model | PC30 |
|---|--|
| Basic parameter performance | |
| Input voltage | 200-240VAC/380-480VAC |
| Input frequency | 50/60Hz±5% |
| Output voltage | 0- Input voltage, error less than 5% |
| Output frequency | 0-500Hz/ Default 50Hz |
| Control characteristic parameters | |
| Motor type | AC asynchronous, permanent magnet synchronous, reluctance motors |
| Starting torque | 1Hz 100% |
| Speed regulation range | 1:20 |
| Speed stability accuracy | ±1.0% |
| Carrier frequency | 0.5kHz ~ 16kHz |
| Overload capacity | 150% rated current for 60s, 180% rated current for 2s |
| Control configuration parameters | |
| Run the command channel | Three channels: given by the operation panel, given by the control terminal, and given by the serial communication port. They can be switched in multiple ways |
| Frequency source | Analog voltage setting, analog current setting, serial communication setting, etc., can be switched in multiple ways |
| Product input and output terminal configuration | |
| Run the command channel | DI*3 AI*2 PT*1 |
| Run the command channel | One set of 5V*1, 10V*1, 24V*1 and AO*1 relays |
| Other terminals | One RS485 group and one CAN group |
| Basic functions of the product | |
| Built-in PID | A closed-loop control system can be conveniently realized |
| AVR function | When the grid voltage changes, it can automatically maintain a constant output voltage |
| Overpressure and overflow rate | Automatically limit the current and voltage during operation to prevent frequent overcurrent and overvoltage tripping |
| Fast rate limiting function | Minimize overcurrent faults to the greatest extent and improve system stability |
| Self-check the safety of peripheral devices upon power-on | It can be powered on to conduct safety checks on peripheral devices such as grounding and short circuits |
| Automatic startup function upon power-on | Power-on automatic startup is optional and the startup delay is adjustable |
| Automatic energy-saving operation | Under light load conditions, the output voltage is automatically reduced to achieve energy-saving effects |
| Constant pressure control function | PID regulation, PID feedback disconnection check, PID sleep and wake-up |
| Multi-online working mode | Multiple units can be connected through the connection terminal to achieve a multi-pump connection mode |
| Upper computer communication function | Remote equipment maintenance can be carried out through an external GPRS monitoring module |
| Anti-freezing function | The anti-freezing function can be controlled by setting the frequency, time and cycle |
| Water leakage detection | Optimize the sleep control through the leakage detection coefficient |
| Display and keyboard operation | |
| LED display | It can display data such as feedback pressure, target pressure, operating frequency and operating current |
| Parameter locking function | Define whether the parameters are locked in the running or shutdown state to prevent misoperation |
| Use environmental information | |
| Place of use | It can be used both indoors and outdoors, preventing direct rain. The on-site environment should be free of corrosive gases, flammable gases, etc |
| Altitude | 1000-2000 meters When the distance exceeds 1000m, the derating capacity should be reduced. For every 100m increase, the derating capacity needs to be reduced by 1% |
| Ambient temperature | The temperature range is -10 °C to 40°C. When the temperature exceeds 40°C, the rated capacity should be reduced. For every 1°C increase in ambient temperature, the rated capacity should be reduced. The maximum operating ambient temperature is 50°C |
| Humidity | ≤95%RH, to prevent condensation |
| Vibration | The vibration acceleration is less than 0.6g |
| Storage temperature | - 40°C ~ +70°C |

Model Description

| PC30 - 4 T 1R5 LN C - E | |
|--|--|
| Product series: PC30 | E: English version |
| Voltage level: 2: 220V; 4: 380V | C: Optional EMC hardware |
| Phase: S : Single phase; T : Three phase | LN: Configure the input and output lines |
| Suitable motor power: R is the decimal point; For example 5R5 stands for 5.5kW | |



Selection List

| Product model | Rated power (kW) | Power capacity (kVA) | Input current (A) | Output current (A) | Suitable motor B/P | |
|----------------|------------------|----------------------|-------------------|--------------------|--------------------|-----|
| | | | | | kW | HP |
| PC30-2S2R2LN | 2.2 | 4 | 23 | 9.6 | 2.2 | 3 |
| PC30-4TR75LN | 0.75 | 1.5 | 3.4 | 2.1 | 0.75 | 1 |
| PC30-4T1R5LN | 1.5 | 3 | 5 | 3.8 | 1.5 | 2 |
| PC30-4T2R2LN | 2.2 | 4 | 5.8 | 5.1 | 2.2 | 3 |
| PC30-4T004LN | 4 | 5.9 | 10.5 | 9 | 4 | 5.5 |
| PC30-4T5R5LN | 5.5 | 8.9 | 14.6 | 13 | 5.5 | 7.5 |
| PC30-4T7R5LN | 7.5 | 11 | 20.5 | 17 | 7.5 | 10 |
| PC30-4T011LN | 11 | 17 | 26 | 25 | 11 | 15 |
| PC30-4T015LN | 15 | 21 | 35 | 32 | 15 | 20 |
| PC30-4T018R5LN | 18.5 | 24 | 38.5 | 37 | 18.5 | 25 |
| PC30-4T022 | 22 | 30 | 46.0 | 45 | 22 | 30 |

Size Specification (mm)

| Product model | Dimensions | | | Bottom plate size | |
|----------------|------------|-----|-----|-------------------|-----|
| | H | W | D | H | W |
| PC30-2S2R2LN | | | | | |
| PC30-4TR75LN | | | | | |
| PC30-4T1R5LN | 250 | 177 | 114 | 195 | 161 |
| PC30-4T2R2LN | | | | | |
| PC30-4T004LN | | | | | |
| PC30-4T5R5LN | 277 | 197 | 128 | 215 | 180 |
| PC30-4T7R5LN | | | | | |
| PC30-4T011LN | | | | | |
| PC30-4T015LN | 330 | 235 | 148 | 262 | 216 |
| PC30-4T018R5LN | | | | | |
| PC30-4T022 | | | | | |

