

FD300 series High performance vector inverter



↓ Product advantage

Superior performance and
wide application methods

No impact speed tracking

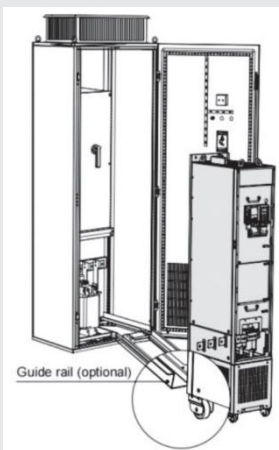
Support various industrial
communication protocols



Integrated synchronous and
asynchronous motor drive

Comprehensive and secure
protection functions

Automatic frequency
reduction function



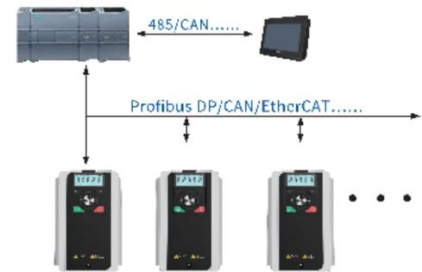
FD300 is a versatile all wheel drive high-performance frequency converter that uses a high-end motor control dedicated processor and internationally advanced vector control technology. It integrates asynchronous motors and permanent magnet synchronous motors, with speed control, torque control, and position control. Its powerful expansion functions meet the personalized needs of customers in various industries, emphasizing environmental adaptability and higher reliability.

■ Multi-functions

- Support various industrial communication protocols and be compatible with various industrial control systems

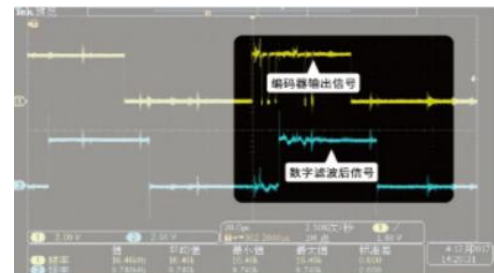
RS485 communication is configured as standard and supported by expansion card: Ethernet, CANopen, CAN, Profibus

DP, Profinet, Modbus- TCP, EtherCAT



- PG card adopts digital filtering technology to improve electromagnetic compatibility and realize long-distance stable reception of encoder signals. Compared with traditional schemes, the anti-interference performance is doubled

Support pulse setting and frequency division output; It has the function of quick detection of encoder disconnection to avoid the expansion of the influence of system failure

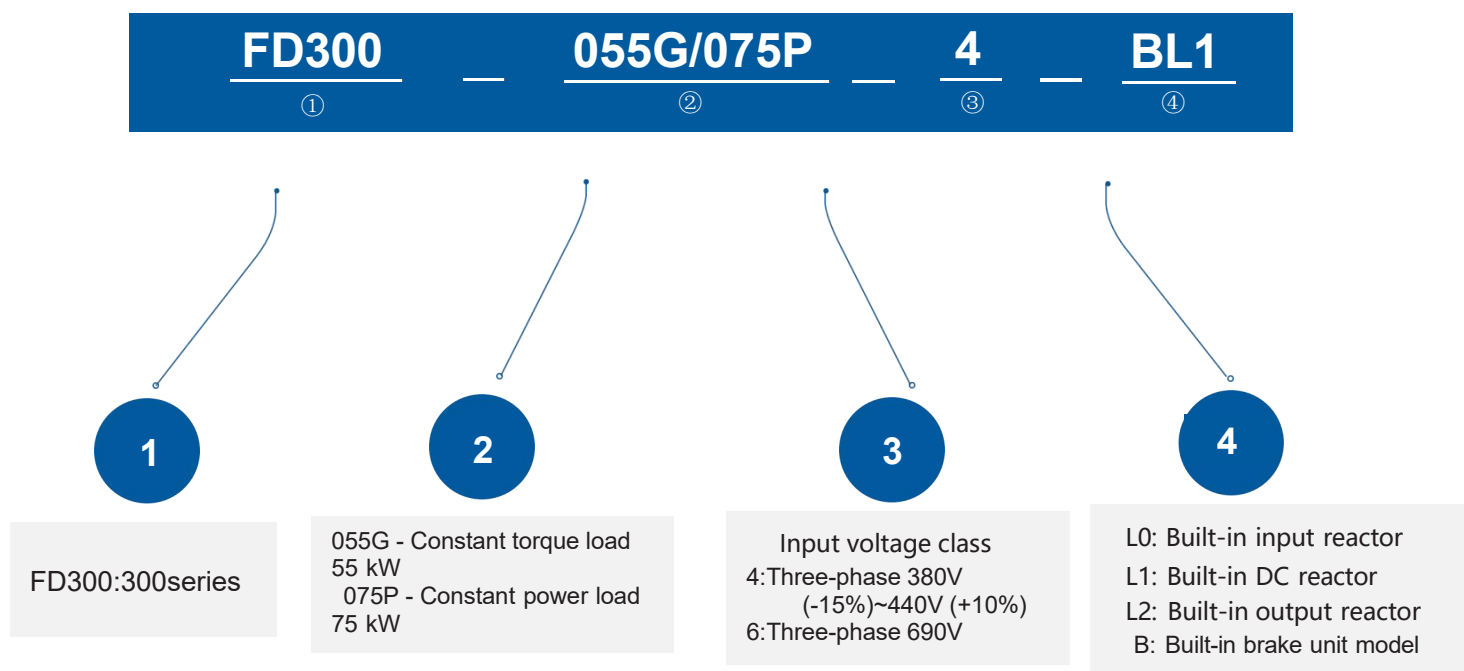


Encoder signal when 100m motor line is coupled in near field

Two channels of HDI are equipped as standard, which can be used as speed source and support high-speed AB pulse input signal to form a simple closed-loop application and provide customers with a cost-effective closed-loop application scheme



Product model and Parameters



Notes

- 1.FD300 380V Single Unit maximum is 630KW.
- 2.The input current is the actual test result when the input voltage is 380V, and the input current above 30kW (included) is the measured current value after the DC reactor is configured.
- 3.Under the allowable input voltage range, the output current shall not exceed the rated output current; The output power shall not exceed the rated output power.
- 4.Built-in brake unit shall be configured below 37kW (included); 45-110KW optional built-in brake unit.
5. 18.5-315KW standard DC reactor.6. 132-450KW optional output reactor.

Product Technical Parameters (380V)

Function		Specification
Input Power	Input Voltage(V)	AC 3PH 380V(-15%)~440V(+10%)Rated Voltage:380V AC 3PH 520V(-15%)~690V(+10%)Rated Voltage:690V
	Input current(A)	Please refer to "Product rated current parameters"
	Input frequency(Hz)	50Hz or 60Hz, allowable range:47~63Hz
Output Power	Output voltage(V)	0~ Input voltage
	Output current (A)	Please refer to "Product rated current parameters"
	Output Power(kW)	Please refer to "Product rated current parameters"
	Output frequency(Hz)	0~600H(zexport product 0~400Hz)
Technical control performance	Control Mode	Space voltage vector control mode, no PG vector control mode, PG vector control mode asynchronous motor, synchronous motor.
	Motor type	Asynchronous motor, synchronous motor.
	Speed regulation ratio	Asynchronous motor 1:200 (SVC), synchronous motor 1:50 (SVC), 1:1000 (VC)
	Speed control accuracy	±0.2% (without PG vector control), ±0.02% (with PG vector control)
	Speed fluctuation	± 0.3% (without PG vector control)
	Torque response	<20ms (without PG vector control), <10ms (with PG vector control)
	Torque control accuracy	10% (without PG vector control), 5% (with PG vector control)
	Starting Torque	Asynchronous motor: 0.25Hz/150% (without PG vector control) Synchronous motor: 1Hz/150% (without PG vector control)Hz/ 200% (with PG vector control)
	Overload Capacity	(G type machine): 150% rated current 1min, 180% rated current 10S, 200% rated current 1s (P type machine): 120% rated current 1min, 150% rated current 3S, 160% rated current 1s
Operational control performance	Frequency setting mode	Digital setting, analog setting, pulse frequency setting, multi-stage speed operation setting, simple PLC setting, PID setting, Modbus communication setting, Profibus communication setting, etc; Realize setting combination and setting channel switching
	Automatic voltage adjustment function	When the grid voltage changes, it can automatically keep the output voltage constant
	Failsafe function	Provide more than thirty fault protection functions: overcurrent, overvoltage, undervoltage, overtemperature, phase loss, overload and other protection functions
	Speed tracking restart function	The inverter(VFD) can track the rotating speed of the rotating motor i n full frequency band and Smooth starting of the rotating motor

Product Features

- **All round drive:** Supports both asynchronous motor and permanent magnet synchronous motor control modes, integrating position, speed, and torque control, supporting various motor drives
- **Complete protection functions:** providing short circuit, overvoltage, overcurrent, overload, overheating, instant stop and automatic frequency reduction function, encoder fault self detection and non-stop function.
- **Enhanced scalability:** Supports multiple expansion cards to be used simultaneously, meeting complex application scenarios
- **Supporting secondary development:** improving equipment technology, reducing costs, and enhancing customer application flexibility
- **Support multiple mainstream communications:** standard MODBUS communication, optional CAN, CANOPEN, PROFIBUS-DP, PROFINET, Ethernet, etc
- **Support multiple mainstream encoders,** adopt digital filtering technology, enhance anti-interference ability by 1 times, and achieve more stable closed-loop control
- **Optional PG card,** supporting various encoders such as incremental, rotary, sine cosine, etc
- **Support simple closed-loop,** suitable for simple closed-loop applications; Supporting orthogonal encoder input, providing customers with a cost-effective closed-loop application solution
- **The 380V voltage level product comes standard with a built-in C3 filter,** reducing external installation volume. (Optional C2 filter can achieve limited use in Class I environments)
- **Larger power range supports built-in braking unit**
- **Standard built-in: 1.5kw~37kw, optional built-in: 45kw~110kw**