



GD350 Series High Performance & Multi-functional Inverter

Brief introduction

- ◆ Brand new high-performance inverter, oriented for medium and high-end OEM equipment markets
- ◆ Intensify the ability of expansion to meet the individual needs of customers easily.
- ◆ Support speed, torque and position control, can be widely used in synchronous and asynchronous motor control.
- ◆ Standard built-in Safety Torque OFF (STO) function, optimized control algorithm, higher reliability.

**Power range : 380VAC
1.5~500kw**



Product appearance

Plastic structure
Power : 1.5~75kw



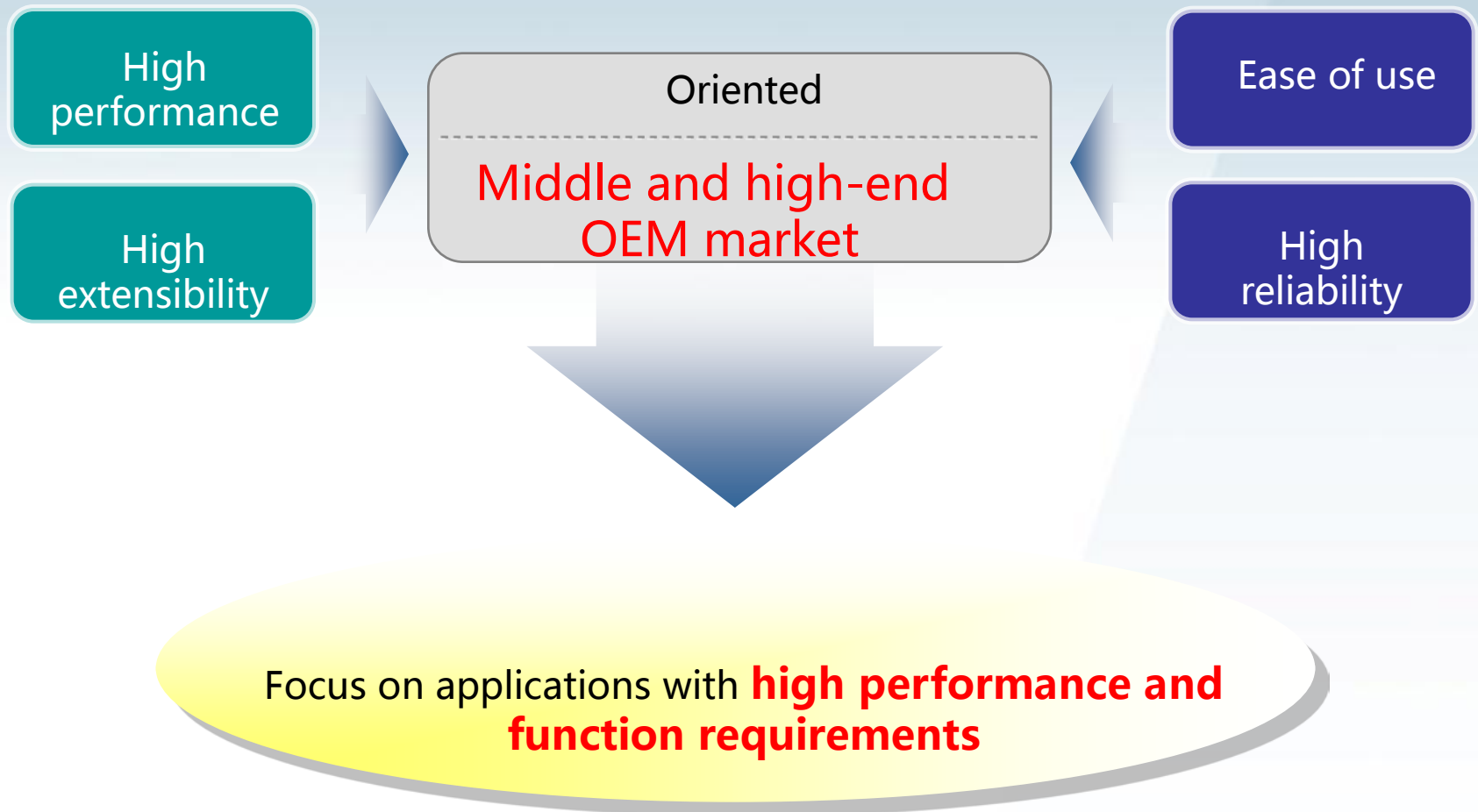
Product appearance

invtr

Sheet metal structure
Power : 90~500kw



Product orientation



Applications

PMSM

Screw pumping units, pumps, compressors, hoisting, chemical fiber equipment, plastic machinery, machine tools, woodworking machinery, etc.

Textile

Blowing-carding, drawing frame, roving frame, spinning frame, winder, warping machine, large circle machine, warp knitting machine, nonwovens production line

Mining

Belt conveyor, hoist, air compressor, crusher, ball mill, centrifugal dehydrator

**Printing and
packaging**

Tissue machinery, flying shears, coating machines, gravure printing, etc.

Oil

Pumping unit, pump, polymer pump, submersible pump, oil pump, compressor

**Other
machinery**

Lifting machinery, chemical, metal processing machinery, EPS, building materials machinery

Product features

1. All drive and all-around ——Support synchronous, asynchronous motor.

Drive all kinds of motors:

- Permanent magnet synchronous motor,
- Common asynchronous motor
- Asynchronous servo motor,
- Frequency variable motor
- Direct drive motor,
- Spindle motor

Motor
spindle



Direct drive
motor



Synchronous
motor



Frequency
variable motor



Common
asynchronous
motor



Asynchronous
servo motor



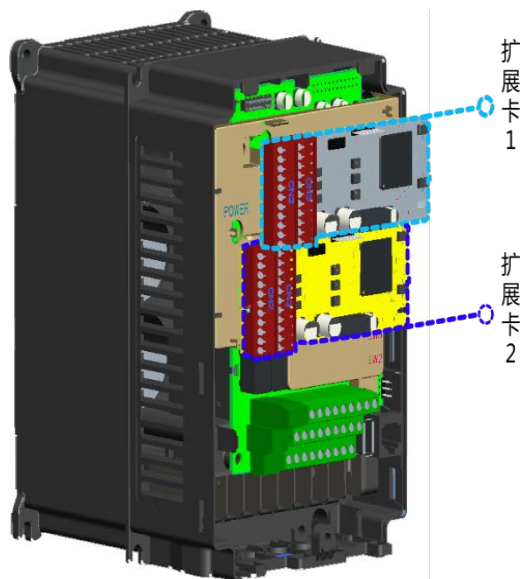


Product features

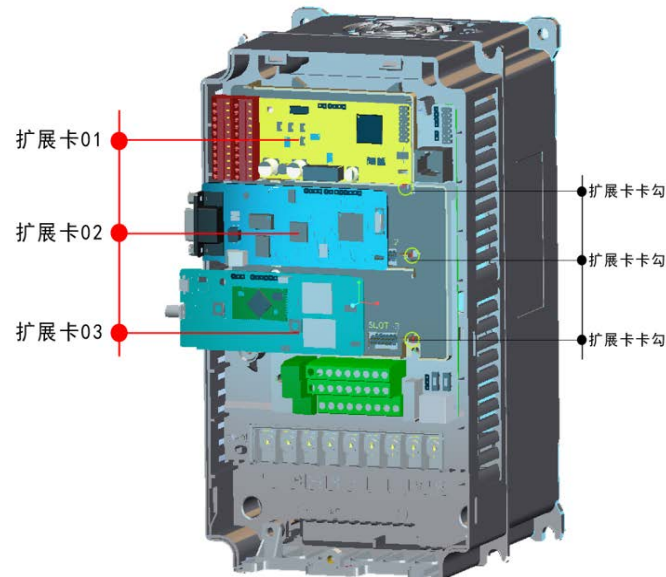
2. High extensibility

Optional PLC card, I/O card, communication card, PG card, etc.

➤The expansion card size is the same, supports any card slot installation, the installation is convenient.



≤5.5kw

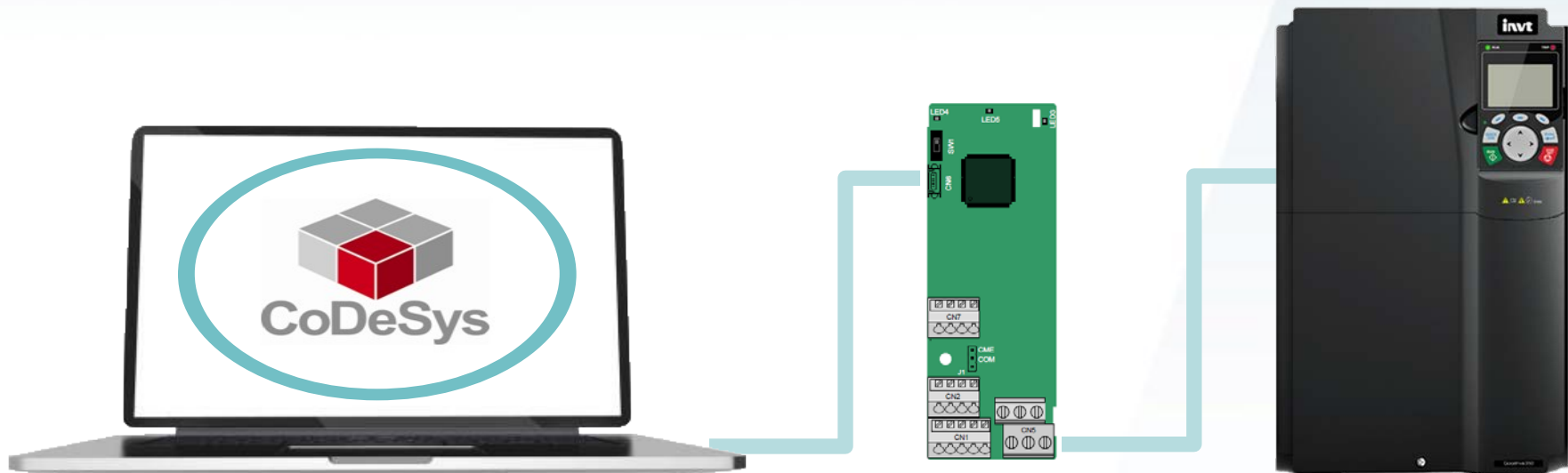


≥7.5kw

Product features

3. Support customer secondary development

- Optional built-in PLC card, 128k program storage space, convenient for customers to carry out secondary development, to meet the needs of customization, reduce customer costs
- CODESYS development platform



Product features

4. Support multiple communication protocol

Standard Modbus communication

Support optional expansion card : Ethernet, CANopen, Profibus DP, Bluetooth, **Profinet**



Profinet card -2018.10 on the market

Product features

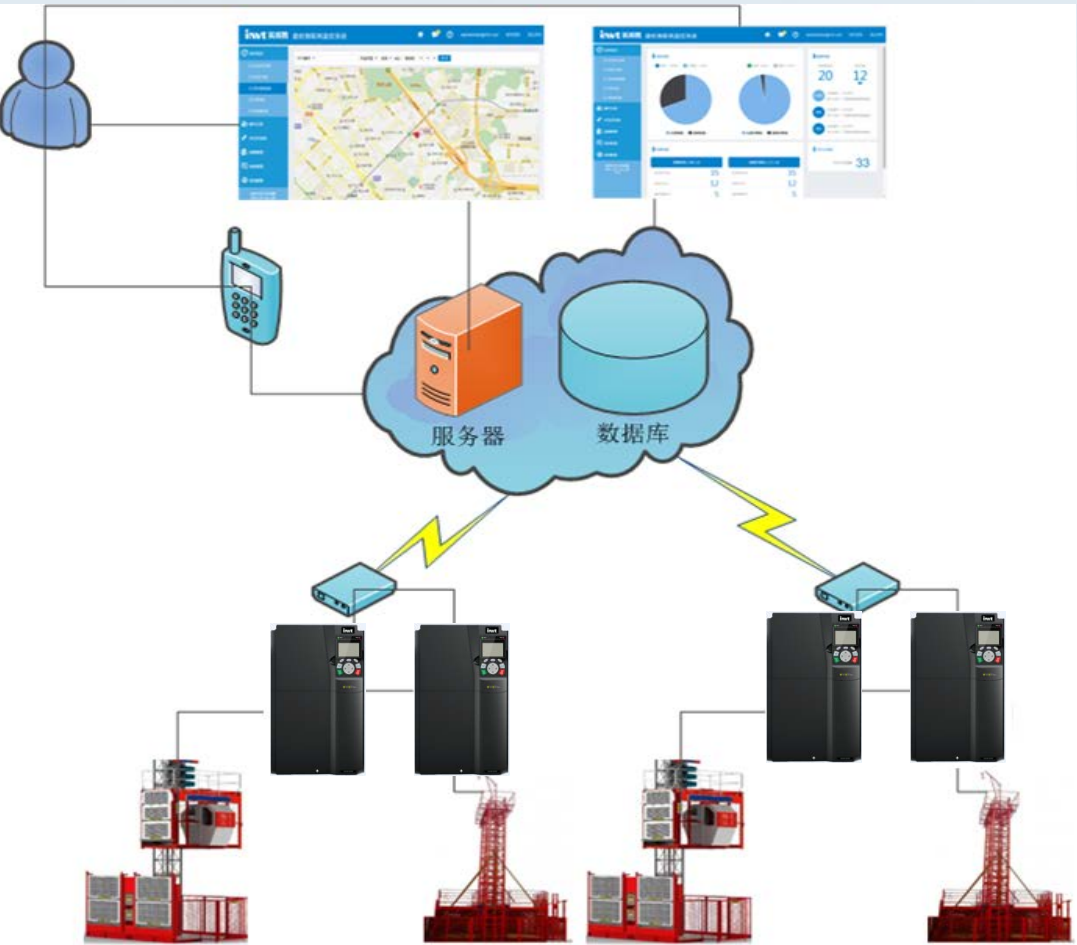
5. Wireless debugging Bluetooth access, use mobile phone app instead of traditional keypad, easy operation and monitoring



Product features

6. Internet of Thing

Wireless access, operation and monitoring through the mobile phone / computer, real-time understanding of the state of operation



Product features

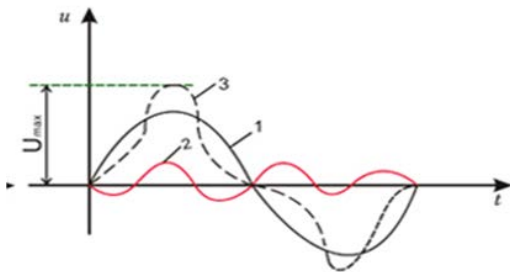
7. Standard USB interface, the program can be downloaded conveniently and quickly, and the operating curve of the inverter can also be recorded, which is convenient for maintenance and analysis.



Download
software

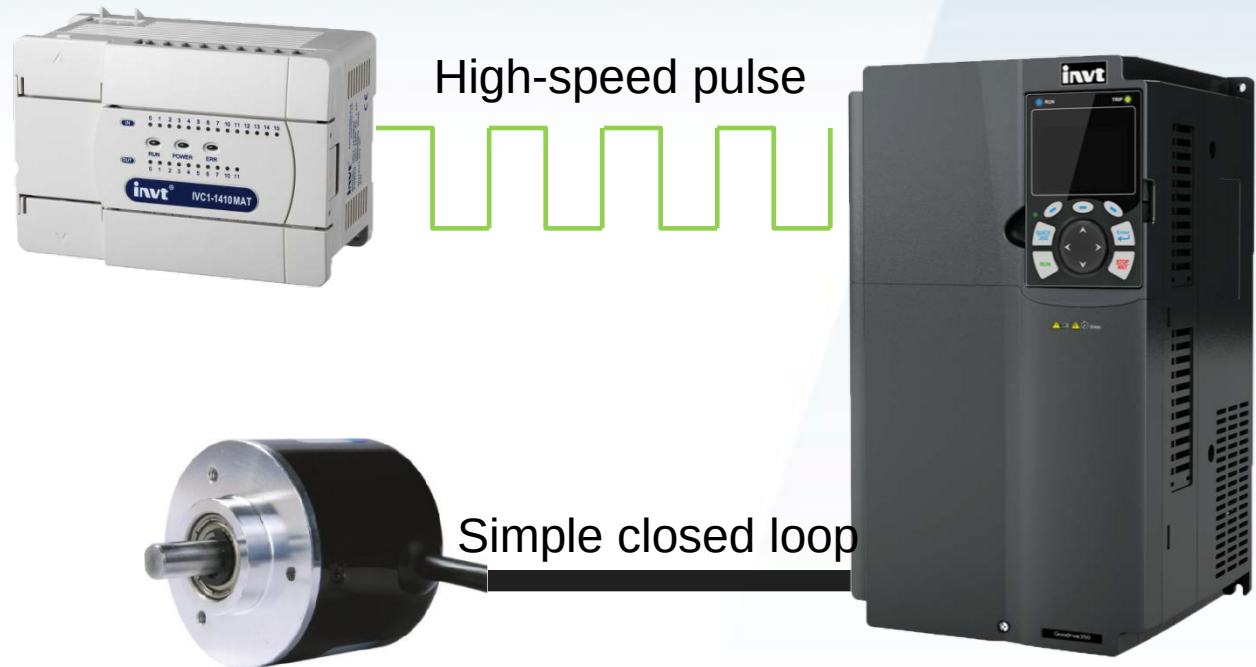


Record
waveform



Product features

8. Standard 2 HDI , can be used as speed source and can also support high-speed AB pulse input signal, which forms simple closed loop application to provide customers with a cost-effective closed loop application plan.

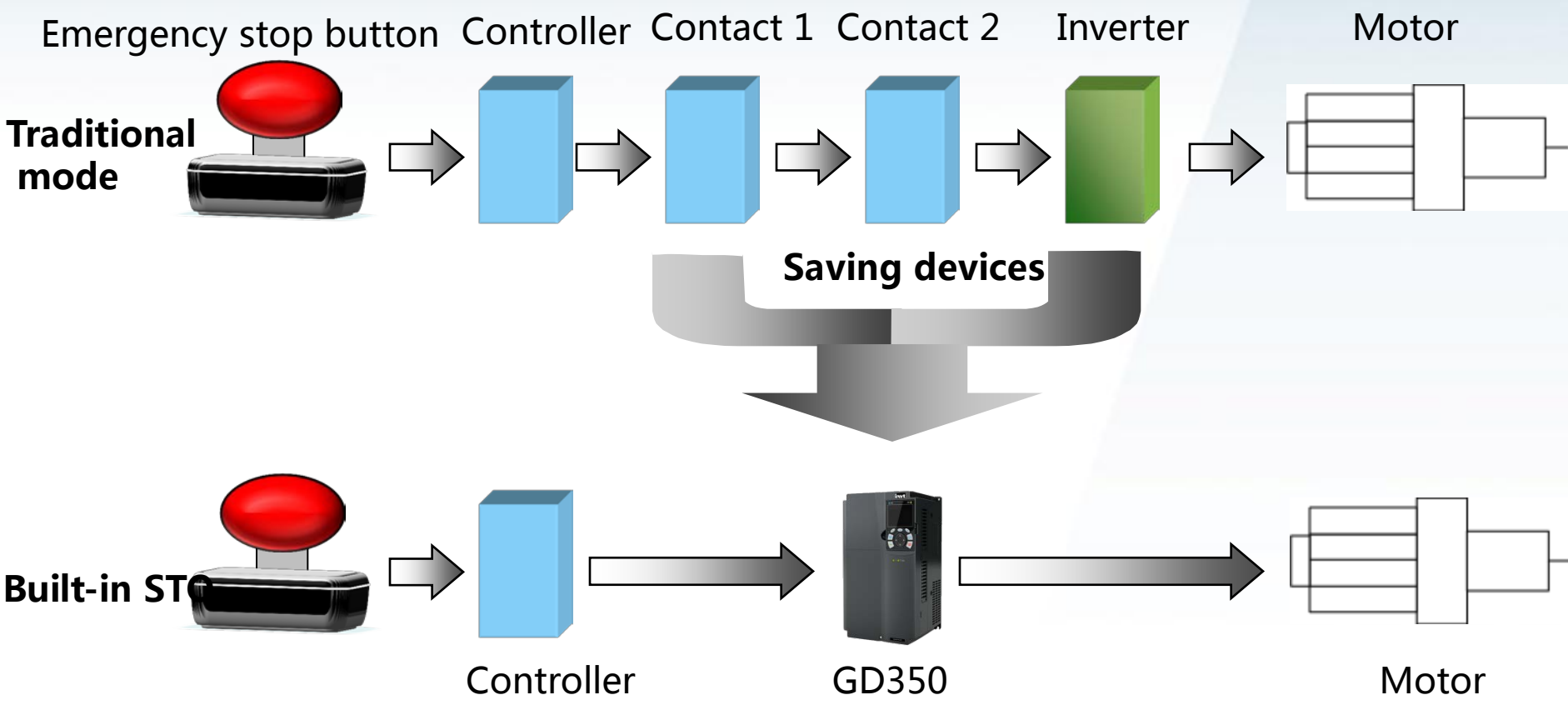




Product features

9. Built-in STO safety torque off function, in line with international standards, safer and more reliable application.

SIL2 level



Product features

10. Standard LCD operating panel, supports 3 sets of inverter parameters upload and download, has the directory index function, may define the monitoring and the debugging parameters, extremely convenient debugging.



Product features

11. Built-in brake unit up to 110kW, cost and installation space savings for customers.

1.5~37kw: Standard built-in braking unit
45~110kw: Optional built-in braking unit



Product features

12. 18.5kw~110kw standard built-in DC reactor



DC reactor

Product model

GD350 – 5R5G – 4

①

②

③

Field identification	Sign	Detailed description of the sign	Detailed content
Abbreviation	①	Product abbreviation	GD350: Goodrive350 high performance multi-functional inverter
Rated power	②	Power range + load type	5R5-5.5kW G—Constant torque load
Voltage degree	③	Voltage degree	4 : AC 3PH 380V(-15%)~440V(+10%) Rated voltage : 380V

Product specification parameters

Functional description		Specifications
Control performance	Control mode	SVPWM, SVC, VC
	Motor type	Asynchronous motor、 Permanent magnet synchronous motor
	Speed ratio	AM 1 : 200 (SVC) , SM 1 : 20 (SVC) , 1:1000 (VC)
	Velocity control precision	$\pm 0.2\%$ (SVC) , $\pm 0.02\%$ (VC)
	Velocity fluctuation	$\pm 0.3\%$ (SVC)
	Torque response	<20ms (SVC) , <10ms (VC)
	Torque control precision	10% (SVC) , 5% (VC)
	Starting torque	AM : 0.25Hz/150% (SVC) SM : 2.5 Hz/150% (SVC) 0Hz/200% (VC)
	Overload ability	150% rated current 60s, 180% rated current 10s, 200% rated current 1s

Product specification parameters

Functional description		Specifications
Operation control performance	Frequency setting modes	Digital setting, analog setting, pulse frequency setting, multi-step speed setting, simple PLC setting, MODBUS communication setting, PROFIBUS communication setting, etc.
	Automatic voltage adjustment function	When the voltage of the network changes, the output voltage can be kept constant automatically.
	Fault protection function	Provides more than 30 fault protection functions: overcurrent, overvoltage, undervoltage, overtemperature, phase loss, overload, etc.
	Rotational speed tracking and restarting function	No impact and smooth start for rotating motor. Note: Inverters more than 4kw (inclusive) have this function

Product specification parameters

Functional description		Specifications
Peripheral interface	Terminal analog input resolution	$\leq 20\text{mV}$
	Terminal switching input resolution	$\leq 2\text{ms}$
	Analog input	2 , AI1 : 0~10V/0~20mA , AI2 : -10~10V
	Analog output	1 , AO1 : 0~10V /0~20mA
	Digital input	4 common input, maximum frequency 1kHz, internal impedance: 3.3k Ω . 2 high-speed input, maximum frequency 50kHz, support orthogonal encoder input
	Digital output	1 high-speed pulse input, maximum frequency 50kHz; 1 Y-terminal open-circuit collector output
	Relay output	2 programmable relay output: RO1A normally open, RO1B normally closed, RO1C common terminal; RO2A normally open , RO2B normally closed, RO2C common terminal; Contact capacity: 3A/AC250V , 1A/DC30V
	Extended interfaces	3 extended interfaces: SLOT1、SLOT2、SLOT3 ; Extended PG card, programmable extended card, communication card, I/O card, etc.

Product specification parameters

Functional description		Specifications
Others	Installation modes	Support wall mounting, floor mounting and flange mounting 3 ways.
	Operation environment temperature	-10~50°C, derating above 40°C
	Protection degree	IP20
	Pollution degree	Degree 2
	Cooling mode	Force cooling
	Braking unit	380V ≤37kW built-in , 380V 45kW ~ 110kW (inclusive) optional built-in.
	EMC filter	380V all series product meets the requirements of IEC61800-3 C3; Optional external filter: meet the requirement of IEC61800-3 C2.



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