




















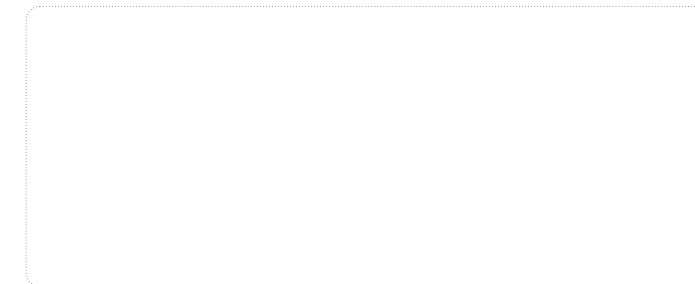
Optional Cards

| I/O Card, PLC card | | | |
|---|---|---|--|
|  |  | | |
| I/O extension card EC-IO501-00 EC-O502-00 | PLC card EC-PC502 | | |
| Communication Card | | | |
|  |  |  |  |
| Bluetooth communication card EC-TX501-1 EC-TX501-2 | WIFI communication card EC-TX502-1 EC-TX502-2 | CANopen communication card EC-TX505 | CAN master-slave control communication card EC-TX511 |
|  |  |  |  |
| Ethernet communication card EC-TX504 | Ethernet/IP communication card EC-TX510 | EtherCAT communication card EC-TX508 | PROFINET communication card EC-TX509 |
|  |  | | |
| PROFIBUS-DP communication card EC-TX503 | Modbus TCP communication card EC-TX515 | | |
| PG Card | | | |
|  |  |  |  |
| 24V incremental PG card EC-PG505-24 | UVW incremental PG card EC-PG503-05 | Resolver PG card EC-PG504-00 | Sin/Cos PG card EC-PG502 |
|  |  | | |
| Multi-function incremental PG card EC-PG505-12 | Multi-function incremental PG card EC-PG507-12 | | |
| GPRS card | | | |
|  | | | |
| GPRS card EC-IC501-2G | | | |

Goodrive350A Series

High-performance Multi-function VFD

Your trusted industry automation solution provider



invt

Service line: 86-755-23535967 E-mail: overseas@inv.t.com.cn Website: www.inv.t.com

SHENZHEN INVT ELECTRIC CO.,LTD. INVT Guangming Technology Building, Songbai Road, Matian, Guangming District, Shenzhen, China

- | | | | | |
|-------------------------------|--|---------------------------------------|----------------------------|-----------------------------------|
| Industrial Automation: | • Frequency AC Drive | • Servo & Motion Control | • Motor & Electric Spindle | • PLC |
| | • HMI | • Intelligent Elevator Control System | • Traction Drive | |
| Electric Power: | • SVG | • Solar Pump Controller | • UPS | • Online Energy Management System |
| | • New Energy Vehicle Electric Control System | | | |

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Introduction

GD350A takes advantage of dedicated processor for motor control. It enhances scalability and usability with SVC, VC, STO, LCD keypad, etc. The unity of G/P models can accommodate most operational requirements. Besides, GD350A supports mobile APP operation and has secondary development function.

GD350A integrates versatile functions into drive, to meet various load and diversified needs.



Features

-  High precision data
-  Entire drive
-  Fire mode
-  Flexible secondary development
-  Standard STO(SIL2)
-  Optional wireless communication (Bluetooth/ WIFI)

Type Selection

GD350A - 5R5G/7R5P - 4

| Sign | Description | Remark |
|------|--------------------------------|---|
| ① | Abbreviation of product series | GD350A: Goodrive350A high-performance multi-function VFD |
| ② | Power range+load type | 5R5G/7R5P: 5.5kW G: Constant torque load P: Fan and water pump |
| ③ | Voltage level | 4: AC 3PH 380V(-15%)-440V(+10%) Rated voltage: 380V |

Power Ratings

| Model | Rated power (kW) | Rated input current (A) | Rated output current (A) | Dimension W*H*D(mm) | | Gross weight (kg) | |
|--------------------|------------------|-------------------------|--------------------------|---------------------|--------------|-------------------|-------|
| | | | | Product | Package | Net | Gross |
| GD350A-1R5G/2R2P-4 | 1.5/2.2 | 5.0/5.8 | 3.7/5 | 126*186*185 | 290*210*265 | 2 | 3 |
| GD350A-2R2G/003P-4 | 2.2/3 | 5.8/11 | 5/7 | | | | |
| GD350A-004G/5R5P-4 | 4/5.5 | 13.5/19.5 | 9.5/12.5 | | | | |
| GD350A-5R5G/7R5P-4 | 5.5/7.5 | 19.5/23 | 14/17 | 126*186*201 | 290*210*265 | 2.5 | 3.5 |
| GD350A-7R5G/011P-4 | 7.5/11 | 25/30 | 18.5/23 | 146*256*192 | 343*230*270 | 3 | 4 |
| GD350A-011G/015P-4 | 11/15 | 32/40 | 25/32 | | | | |
| GD350A-015G/018P-4 | 15/18.5 | 40/45 | 32/38 | 170*320*220 | 430*275*325 | 6 | 7 |
| GD350A-018G/022P-4 | 18.5/22 | 45/51 | 38/45 | | | | |
| GD350A-022G/030P-4 | 22/30 | 51/64 | 45/60 | 200*340.6*208 | 490*315*315 | 8.5 | 10.5 |
| GD350A-030G/037P-4 | 30/37 | 64/80 | 60/75 | | | | |
| GD350A-037G/045P-4 | 37/45 | 80/98 | 75/92 | 250*400*223 | 580*395*360 | 16 | 17 |
| GD350A-045G/055P-4 | 45/55 | 98/128 | 92/115 | | | | |
| GD350A-055G/075P-4 | 55/75 | 128/139 | 115/150 | 282*560*258 | 680*425*380 | 25 | 29 |
| GD350A-075G/090P-4 | 75/90 | 139/168 | 150/170 | | | | |
| GD350A-090G/110P-4 | 90/110 | 168/201 | 180/215 | 338*554*330 | 675*470*575 | 41 | 52 |
| GD350A-110G/132P-4 | 110/132 | 201/265 | 215/260 | | | | |
| GD350A-132G/160P-4 | 132/160 | 265/310 | 260/305 | 500*870*360 | 971*631*565 | 85 | 110 |
| GD350A-160G/185P-4 | 160/185 | 310/345 | 305/340 | | | | |
| GD350A-185G/200P-4 | 185/200 | 345/385 | 340/380 | 680*960*380 | 1086*826*595 | 135 | 165 |
| GD350A-200G/220P-4 | 200/220 | 385/430 | 380/425 | | | | |
| GD350A-220G/250P-4 | 220/250 | 430/460 | 425/480 | 620*1700*560 | 1850*840*820 | 350 | 407 |
| GD350A-250G/280P-4 | 250/280 | 460/500 | 480/530 | | | | |
| GD350A-280G/315P-4 | 280/315 | 500/580 | 530/600 | 620*1700*560 | 1850*840*820 | 350 | 407 |
| GD350A-315G/355P-4 | 315/355 | 580/625 | 600/650 | | | | |
| GD350A-355G/400P-4 | 355/400 | 625/715 | 650/720 | 620*1700*560 | 1850*840*820 | 350 | 407 |
| GD350A-400G/450P-4 | 400/450 | 715/840 | 720/820 | | | | |
| GD350A-450G/500P-4 | 450/500 | 840/890 | 820/860 | 620*1700*560 | 1850*840*820 | 350 | 407 |
| GD350A-500G-4 | 500 | 890 | 860 | | | | |

Technical Specification

| Function description | | Specification |
|----------------------|-----------------------|--|
| Power input | Input voltage (V) | AC 3PH 380V (-15%)-440V (+10%) rated voltage: 380V |
| | Input current (A) | Refer to Rated value |
| | Input frequency (Hz) | 50Hz or 60Hz, allowable range: 47-63Hz |
| Power output | Output voltage (V) | 0-input voltage |
| | Output current (A) | Refer to Rated value |
| | Output power (kW) | Refer to Rated value |
| | Output frequency (Hz) | 0-400Hz |

| Function description | | Specification |
|---------------------------------|---|--|
| Technical Control performance | Control mode | SVPWM control, SVC, VC |
| | Motor type | Asynchronous motor, permanent-magnet synchronous motor |
| | Speed regulation ratio | Asynchronous motor 1: 200 (SVC); Synchronous motor 1 20 (SVC) , 1:1000 (VC) |
| | Speed control precision | ±0.2% (SVC), ±0.02% (VC) |
| | Speed fluctuation | ± 0.3% (SVC) |
| | Torque response | <20ms SVC) , <10ms (VC) |
| | Torque control precision | 10% (SVC) , 5% (VC) |
| | Starting torque | Asynchronous motor: 0.25Hz/150% (SVC) Synchronous motor: 2.5 Hz/150% (SVC) 0Hz/200% (VC) |
| Overload capacity | 150% of rated current: 1min(G) 120% of rated current: 1min(P) | |
| Running control performance | Frequency setup mode | Digital, analog, pulse frequency, multi-step speed Simple PLC, PID, Modbus communication. |
| | Automatic voltage regulation function | Keep the output voltage constant when grid voltage changes. |
| | Fault protection function | Fault protection function Provide over 30 kinds of fault protection functions: overcurrent, overvoltage, under-voltage, over-temperature, phase loss and overload, etc. |
| Speed tracking restart function | Realize impact-free starting of the motor in rotating Note: This function is available for 004G/5R5P and above models | |
| Peripheral Interface | Terminal analog input | No more than 20mV |
| | Terminal digital input resolution | No more than 2ms |
| | Analog input | 2 inputs, AI1: 0-10V/0-20mA; AI2: -10-10V |
| | Analog output | 1 output, AO1: 0-10V /0-20mA |
| | Digital input | Four regular inputs; Max. frequency: 1kHz; Internal impedance: 3.3kΩ Two high-speed inputs; Max. frequency: 50kHz; supports quadrature encoder input; Speed measurement function |
| | Digital output | One high-speed pulse output; max. frequency: 50kHz One Y terminal open collector output |
| | Relay output | Two programmable relay outputs RO1A NO, RO1B NC, RO1C common port RO2A NO, RO2B NC, RO2C common port Contact capacity: 3A/AC250V, 1A/DC30V |
| | Extension interface | Three extension interfaces: SLOT1, SLOT2, SLOT3 Expandable PG card, programmable extension card, communication card, I/O card, etc. |
| Others | Installation mode | Support wall-mounting, floor-mounting and flange-mounting |
| | Temperature of running environment | -10-50°C, derating is required if the ambient temperature exceeds 40°C |
| | Protection level | IP20 |
| | Pollution level | Level 2 |
| | Cooling mode | Air cooling |
| | Brake unit | The VFD models of 037G/045P and lower contain built-in braking units. The braking units are optional parts for the 045G/055P-055/075P VFD models, and the braking units can be built in or externally connected. |
| Certification | 380V models fulfill the requirements of IEC61800-3 C3 Optional external filter should meet the requirements of IEC61800-3 C2 | |