

Figure 3.4 Main circuit diagram for 132G/160P and higher models

Note:

- 132G/160P and higher models can be connected to external DC reactors. Before connection, take off the copper bar between P1 and (+). 075G/090P and higher models can be connected to external braking units. DC reactors and braking units are optional parts.
- 018G/022P–110G/132P models are equipped with built-in DC reactors.
- 037G/045P and lower models carry built-in braking units. Braking units are optional parts for 045G/055P–055G/075P models and they can be built in or externally connected to the models.

3.3 Product specifications

Function description		Specification
Power input	Input voltage (V)	AC 3PH 380V (-15%)–440V (+10%)
	Input current (A)	See "Product ratings".
	Input frequency (Hz)	50Hz or 60Hz, allowable range: 47–63Hz
Power output	Output voltage (V)	0–Input voltage
	Output current (A)	See "Product ratings".
	Output power (kW)	See "Product ratings".
	Output frequency (Hz)	0–400Hz
Technical	Control mode	Space voltage vector control, sensorless vector control

Function description		Specification
control performance		(SVC), and vector control with sensor feedback (FVC)
	Motor type	Asynchronous motor (AM) and permanent magnetic synchronous motor (SM)
	Speed regulation ratio	For AM1: 1:200 (SVC); for SM1, 1:20 (SVC); 1:1000 (FVC)
	Speed control precision	$\pm 0.2\%$ (SVC); $\pm 0.02\%$ (FVC)
	Speed fluctuation	$\pm 0.3\%$ (SVC)
	Torque response	< 20ms (SVC); < 10ms (FVC)
	Torque control precision	10% (SVC); 5% (FVC)
	Starting torque	For AMs: 0.25Hz/150% (SVC) For SMs: 2.5Hz/150% (SVC) 0Hz/200% (FVC)
	Overload capacity	150% for 1 minute (for the G type) ; 120% for 1 minute (for the P type)
Running control performance	Frequency setting method	Settings can be implemented through digital, analog, pulse frequency, multi-step speed running, simple PLC, PID communication, communication and so on. Settings can be combined and the setting channels can be switched.
	Automatic voltage regulation	The output voltage can be kept constant although the grid voltage changes.
	Fault protection	More than 30 protection functions, such as protection against overcurrent, overvoltage, undervoltage, overtemperature, phase loss, and overload
	Speed tracking restart	Used to implement impact-free smooth startup for rotating motors Note: The function is available only for 004G/5R5P and higher models.
Peripheral interface	Terminal analog input resolution	No more than 20mV
	Terminal digital input resolution	No more than 2ms
	Analog input	2 inputs; AI1: 0–10V/0–20mA; AI2: -10–10V

Function description		Specification
	Analog output	1 input; AO1: 0–10V/0–20mA
	Digital input	Four regular inputs; max. frequency: 1kHz; internal impedance: 3.3kΩ Two high-speed inputs; max. frequency: 50kHz; supporting quadrature encoder input; with 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 RO2A: NO; RO2B: NC; RO2C: common Contact capacity: 3A/AC250V, 1A/DC30V
	Extended interfaces	Three extended interfaces: SLOT1, SLOT2, and SLOT3 (control board of above 7.5kW) Supporting PG cards, programmable expansion cards, communication cards, I/O cards and so on
Other	Mounting method	Wall mounting, floor mounting, and flange mounting
	Temperature of running environment	-10 – +50°C; derating is required if the ambient temperature exceeds 40°C
	Ingress protection rating	IP20
	Pollution degree	Degree 2
	Cooling method	Forced air cooling
	Braking 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.
	EMC filter	The transmission of the VFD meets the IEC/EN 61800-3 C3 requirements. When optional filters are connected externally, the transmission of the VFD can meet the IEC/EN 61800-3 C2 requirements. Note: Comply with the EMC requirements and the technical requirements for the motors and motor cables in the appendix in the manual.

3.4 Product nameplate

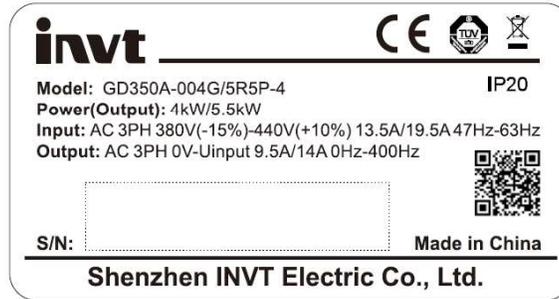


Figure 3.5 Product nameplate

Note:

- This is a nameplate example of a standard VFD product. The CE/TUV/IP20 marking on the top right will be marked according to actual certification conditions.
- Scan the QR code at the bottom of the right to download mobile APP and operation manual.

3.5 Model designation code

A model designation code contains product information. You can find the model designation code on the VFD nameplate and simplified nameplate.

GD350A-004G/5R5P-4

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Figure 3.6 Model description

Field	No.	Description	Content
Abbreviation of product series	①	Abbreviation of product series	GD350A: Goodrive350A series high-performance multifunction VFD
Rated power	②	Power range + load type	5R5-5.5kW G: Constant torque load P: Variable torque load
Voltage class	③	Voltage class	4: AC 3PH 380V(-15%)–440V(+10%)
<p>Note: Braking units have been built in the 037G/045P and lower models as standard configuration. Braking units are not standard configuration for the 045G/055P–055G/075P models. (If you want to use braking units for these models, add suffix "-B" at the end of the model codes in your purchase orders, for example, GD350A-045G/055P-4-B.)</p>			