

Goodrive10/Goodrive100 Series

Economic Drive

Your Trusted Industry Automation Solution Provider



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

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Y5/1-06 V2.0



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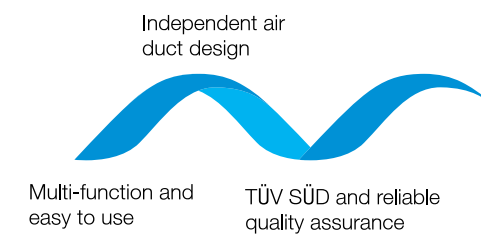
Low Voltage Drive Family

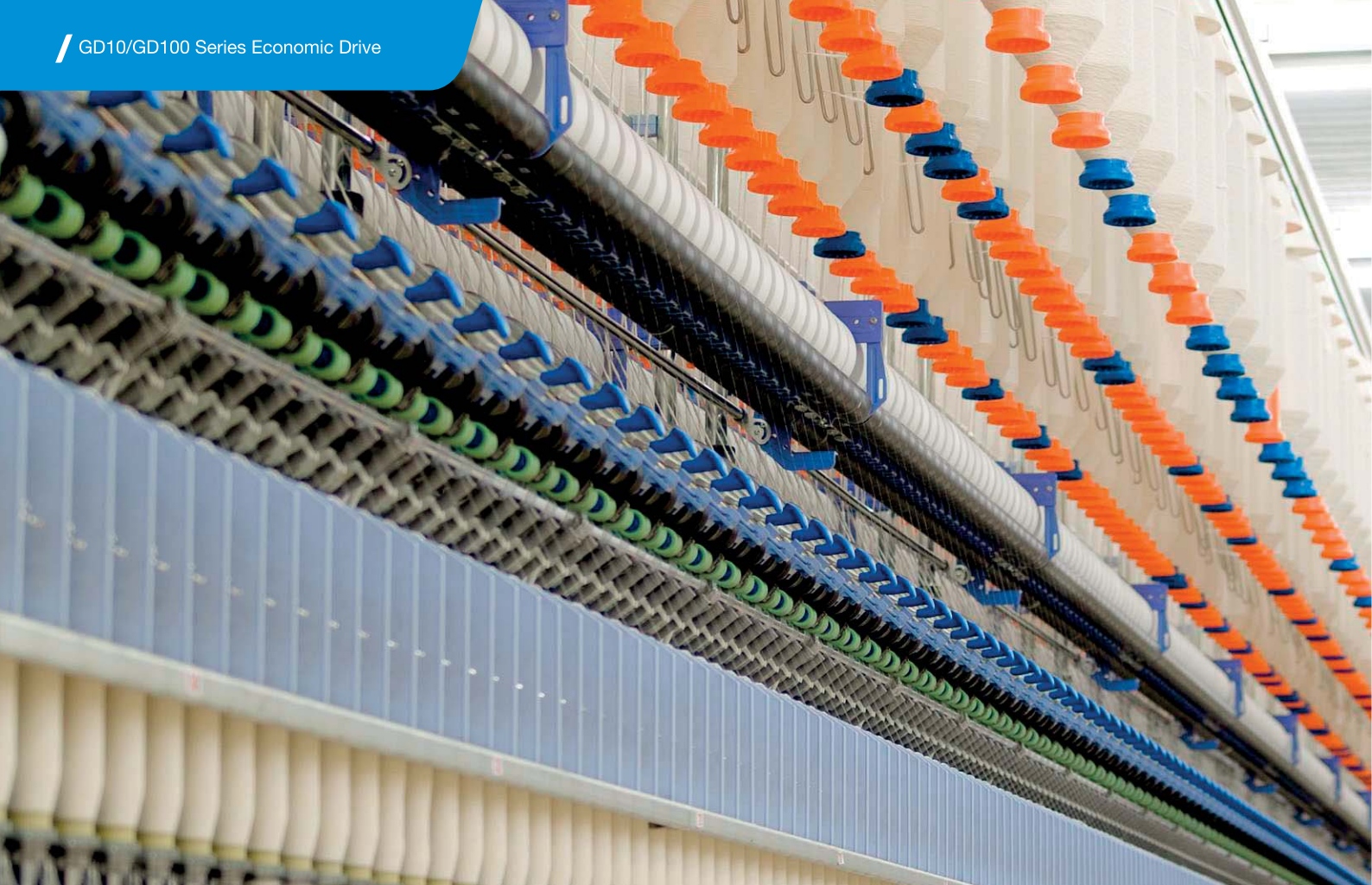


Product Introduction

GD10/GD100 Series Economic Drive is a new generation of general inverter, product type is rich, wide range of power, and can be widely used to fan and water pump speed regulation control. Products based on TI latest 32-bit DSP, realize the accurate parameters of the motor auto-turning, high precision speed control. In response to improve the reliability of the product and the environment. At the same time, strengthen the customer's ease of use, function more rich, more flexible application.

Product Advantage





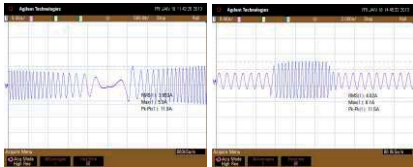
Goodrive10 Series Mini Drive

Goodrive 10 Series Mini Drive, positioned as common application occasions for small power OEM matching market. Products with complete functions and smaller installation volume, widely used in packagingmachine, foodmachine, textile machine; centrifuge, engraving machine, wire cutting machine and other industry machinery.



Product Features

• V/f control



FWD/REV current waveform with full load at 50Hz
Current waveform in sudden acceleration/deceleration at 0.5Hz

• Natural cooling(for the applications with cotton and dust)



• Mini structure, less installation space



GD100-2R2-4



GD10-2R2-4

• Various function setting

- 1.Standard Modbus communication
- 2.Built-in PID
- 3.16 steps multi-step speed control
- 4.Flexible V/f curve setting
- 5.Multi-function I/O terminal(the delay time can be set)
- 6.Fault protection at overcurrent, overvoltage, undervoltage, overtemperature and overload with detailed fault information
- 7.DC braking, flux braking and resistor dynamic braking
- 8.Overcurrent and overvoltage stall, stronger load adaptability

Technical Specifications

Function	Specification
Input voltage (V)	Single phase 220(-15%)~240(+10%) Three phase 220(-15%)~240(+10%) Three phase 380(-15%)~440(+10%)
Input frequency (Hz)	50Hz or 60Hz Allowed range: 47~63Hz
Output voltage (V)	0- input voltage
Output frequency (Hz)	0-400Hz
Control mode	V/f
Maximum output frequency	400Hz
Adjustable-speed ratio	1:100
Overload capability	150% of rated current: 1 minute, 180% of rated current: 10 seconds, 200% of rated current: 1 second
Terminal analog input resolution	≤20mV
Terminal switch input resolution	≤2ms
Analog input/output	1 input 0~10V/0~20mA; 1 output 0~10V/0~20mA
Digital input/output	5 common input, 1 Y output (commonly used with digital output) and 1 programmable relay output
Communication	485 communication
Mountable method	Wall mountable
Temperature of the running environment	-10~50℃, derate above 40℃
Cooling	Single/three-phase 220V 0.2-0.75kW natural cooling Single/three-phase 220V 1.5-2.2kW, three-phase 380V 0.75-2.2kW air — cooling
Fault protections	Overcurrent, overvoltage, undervoltage, overtemperature, overload and other protections
Braking unit	Only standard for GD10-B

Type Designation Key

GD10 - 2R2G - 4 - B

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Sign	Detailed description of the sign	Detailed content
①	Product abbreviation	Goodrive10 is shorted for GD10
②	Power range + Load type	2R2-2.2kW G constant torque load
③	Voltage degree	4:three-phase 380V 2: three-phase 220V S2: single-phase 220V
④	Lot No.	Default: No braking unit B: Built-in braking unit

Power Ratings

Model		Output power(kW)	Input current(A)	Output current (A)
1 AC 220V	GD10-0R2G-S2-B	0.2	4.9	1.6
	GD10-0R4G-S2-B	0.4	6.5	2.5
	GD10-0R7G-S2-B	0.75	9.3	4.2
	GD10-1R5G-S2-B	1.5	15.7	7.5
	GD10-2R2G-S2-B	2.2	24	10
3 AC 220V	GD10-0R2G-2-B	0.2	1.9	1.6
	GD10-0R4G-2-B	0.4	2.7	2.5
	GD10-0R7G-2-B	0.75	4.9	4.2
	GD10-1R5G-2-B	1.5	9	7.5
	GD10-2R2G-2-B	2.2	15	10
3 AC 380V	GD10-0R7G-4-B	0.75	3.2	2.5
	GD10-1R5G-4-B	1.5	4.3	4.2
	GD10-2R2G-4-B	2.2	7.1	5.5

Product Weight And Dimensions

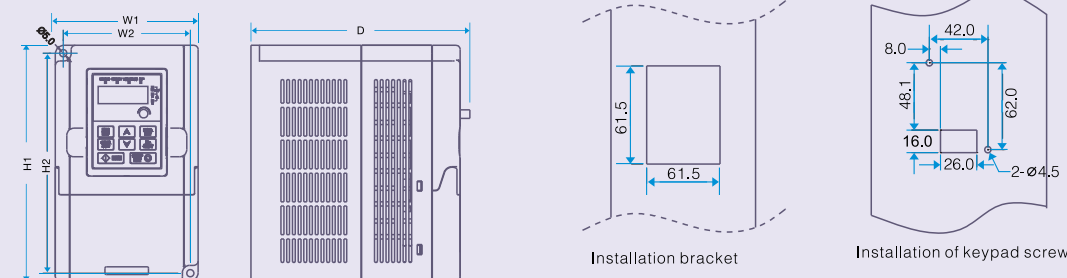
Voltage	Power	Gross weight(kg)	Net weight(kg)	Packing material	Dimension(mm)
1 AC 220V	0.2~0.4KW	1.4	1.1	Carton box	190x135x235
	0.7~2.2KW	1.7	1.3	Carton box	230x160x230
3 AC 220V	0.2~0.7KW	1.4	1.1	Carton box	190x135x235
	1.5~2.2KW	1.7	1.3	Carton box	230x160x230
3 AC 380V	0.7~2.2KW	1.7	1.3	Carton box	230x160x230

Installation Dimension

Inverter dimensions

External keypad installation

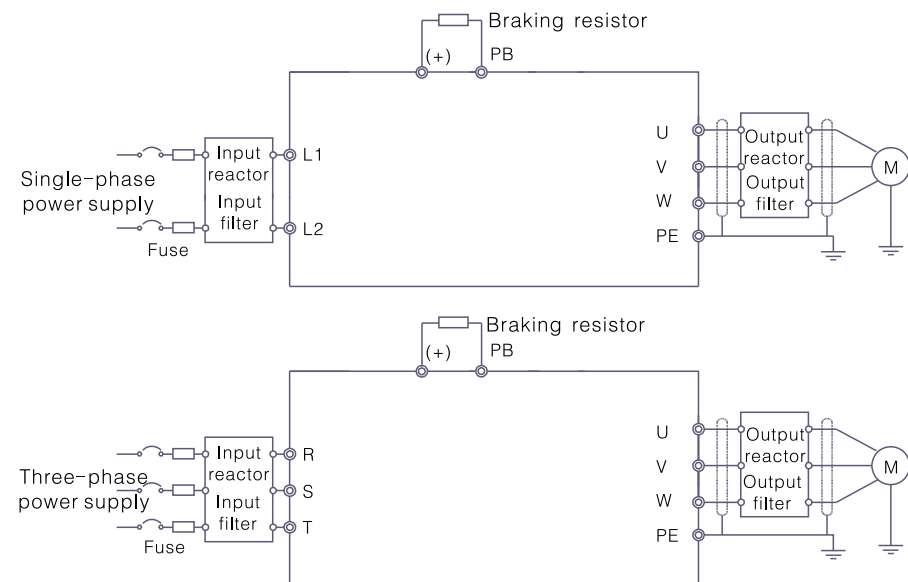
(unit: mm)



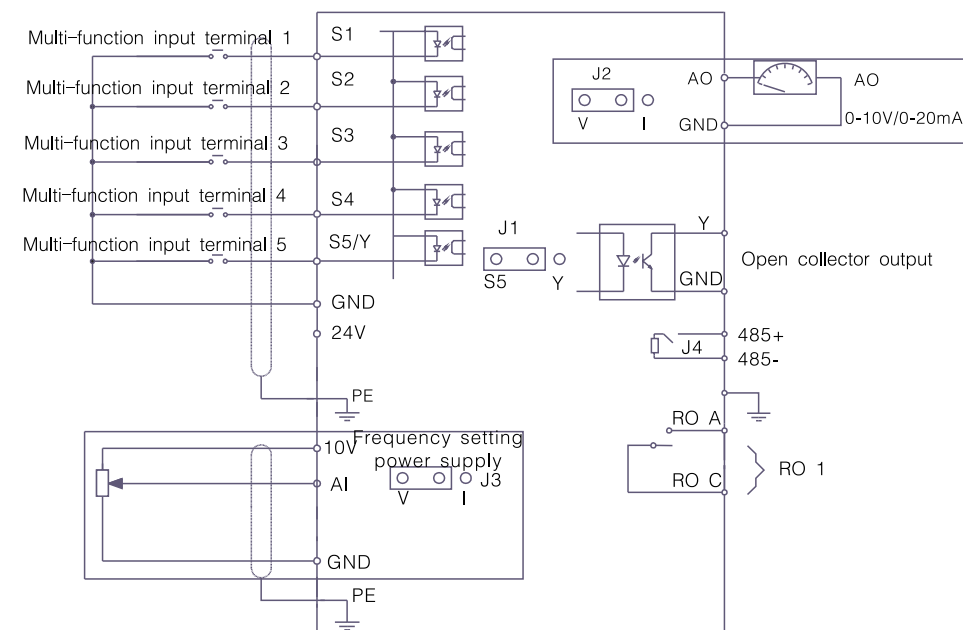
Model	W1(mm)	W2(mm)	H1(mm)	H2(mm)	D(mm)
1 AC 220V	GD10-0R2G-S2-B	85	75	140	134.2
	GD10-0R4G-S2-B	85	75	140	132
	GD10-0R7G-S2-B	85	75	140	132
	GD10-1R5G-S2-B	100	89	165	154
	GD10-2R2G-S2-B	100	89	165	154
3 AC 220V	GD10-0R2G-2-B	85	75	140	134.2
	GD10-0R4G-2-B	85	75	140	132
	GD10-0R7G-2-B	85	75	140	132
	GD10-1R5G-2-B	100	89	165	154
	GD10-2R2G-2-B	100	89	165	154
3 AC 380V	GD10-0R7G-4-B	100	89	165	154

Standard Wiring

Wiring diagram of main circuit



Wiring diagram of control board



Goodrive100 Series Economic Drive

Goodrive 100 series economic drive, positioned as using in the high performance simple products of light industry machinery market. Products using new design platform, have excellent motor drive performance and good EMC performance, widely used in textile machine, food machine, ceramic machine, transportation equipment, plastics machine and machine tool industry and so on.



Product Features

• More Accurate Motor Autotuning

Accurate rotating and static motor autotuning.
Convenient debugging, easy operation.

Rotating Autotuning

De-couple from the load, Applied to the situation with high control accuracy

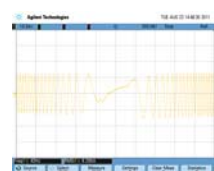
Static Autotuning

No need to de-couple from the load,
Applied when rotating autotuning is not available

• Excellent Performance

AM sensorless vector control mode:

Starting Torque	Dynamic Response	Speed Ratio	Steady Speed Accuracy
0.5Hz/150% rated torque	< 50ms	1:100	±0.2%



FWD/REV current waveform in sensorless vector control mode with 50Hz full load



Load/Unload current waveform in sensorless vector control mode with 0.5Hz



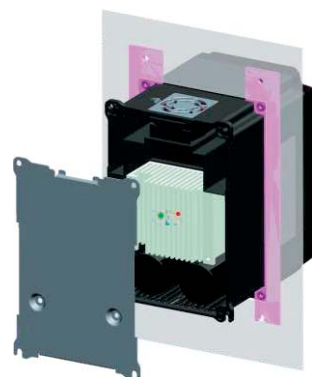
Running current waveform in sensorless vector control mode with 200Hz



Flux braking current waveform in sensorless vector control mode with 50Hz (deceleration time: 0.5s)

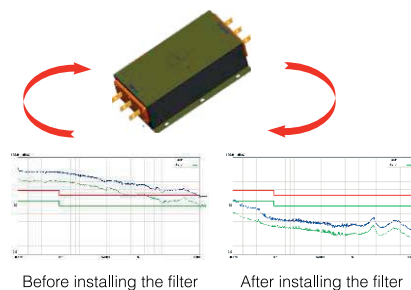
• Separate Air-duct

The separate air duct prevents the contaminants into the electronic parts/components and greatly improves the protective effect of the inverter, as well as its reliability and service life, to adapt various complicated site environments. It can also facilitate the heat-releasing in control cabinets and the heat-releasing design of the customer.



• C3 input filter (standard configuration) and C2 filter (optional)

C3 input filter is embedded in the factory to meet different application requirements, save installation space and avoid the electromagnetic interference caused by incorrect selection and site installation.



Conductive interference test of the power supply terminals

Remarks:

- (1)C2 filter: EMC performance of the inverter achieves the limited usage requirement in civil environment.
- (2)C3 filter: EMC performance of the inverter achieves the limited usage requirement in civil environment.

Technical Specifications

Function		Specification
Input	Input Voltage (V)	AC 3PH 380V(- 15%)~440V(+ 10%)
	Input Frequency (Hz)	47~63Hz
Output	Output Voltage (V)	0~input voltage
	Output Frequency (Hz)	0~400Hz
	Output Power (kW)	0.75~15 kW
Technical Control Feature	Control Mode	SVPWM, sensorless vector control
	Motor Type	Asynchronous motor
	Speed Ratio	1:100 (SVC)
	Speed Control Accuracy	±0.2% (sensorless vector control)
	Speed Fluctuation	± 0.3%(sensorless vector control)
	Torque Response	<50ms(sensorless vector control)
	Torque Control Accuracy	10%(sensorless vector control)
	Starting Torque	0. 5Hz/150%(sensorless vector control)
	Overload Capability	150% of rated current: 1 minute 180% of rated current: 10 seconds 200% of rated current: 1 second
Running control Feature	Frequency Setting Method	Digital setting, analog setting, pulse frequency setting, multi-stage speed running setting, simple PLC setting, PID setting, MODBUS communication setting Realize the shifting between the set combination and set channel.
	Fault Protection	Provide over 30 fault protection functions: overcurrent, overvoltage, undervoltage, overheating, phase failure and overload, etc.
Peripheral Interface	Analog Input	1 channel (AI2) 0~10V/0~20mA and 1 channel (AI3) -10~10V
	Analog Output	2 channels (AO1, AO2) 0~10V /0~20mA
	Digital Input	4 channels common input ,the MAX. frequency:1KHz; 1 channel high speed pulse input ,the MAX. frequency:50kHz;
	Relay Output	2 channels programmable relay output RO1A NO, RO1B NC, RO1C common terminal RO2A NO, RO2B NC, RO2C common terminal Contactor capability: 3A/AC250V
Others	Mountable Method	Wall mountable and flange mountable
	Temperature of the running environment	-10~50°C, derate above 40°C
	Protective Degree	IP20
	Cooling	Air-cooling

Type Designation Key

GD100 - 5R5G - 4

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Sign	Detailed description of the sign	Detailed content
①	Product abbreviation	Goodrive100 is shorted for GD100
②	Power range + Load type	5R5-5.5kW G: Constant torque load
③	Voltage degree	4: AC 3PH 380V(-15%)~440V(+10%)

Power Ratings

Model NO.	Output Power (kW)	Input Current (A)	Output Current (A)	Carrier Frequency (kHz)
GD100-0R7G-4	0.75	3.4	2.5	2~15(8)
GD100-1R5G-4	1.5	5.0	3.7	2~15(8)
GD100-2R2G-4	2.2	5.8	5	2~15(8)
GD100-004G-4	4	13.5	9.5	2~15(8)
GD100-5R5G-4	5.5	19.5	14	2~15(8)
GD100-7R5G-4	7.5	25	18.5	2~15(8)
GD100-011G-4	11	32	25	2~15(8)
GD100-015G-4	15	40	32	2~8(4)

Remarks:

1.The input current is tested when no reactor and 380V input voltage.

2.The output current is defined as the rated value when the output voltage is 380V .

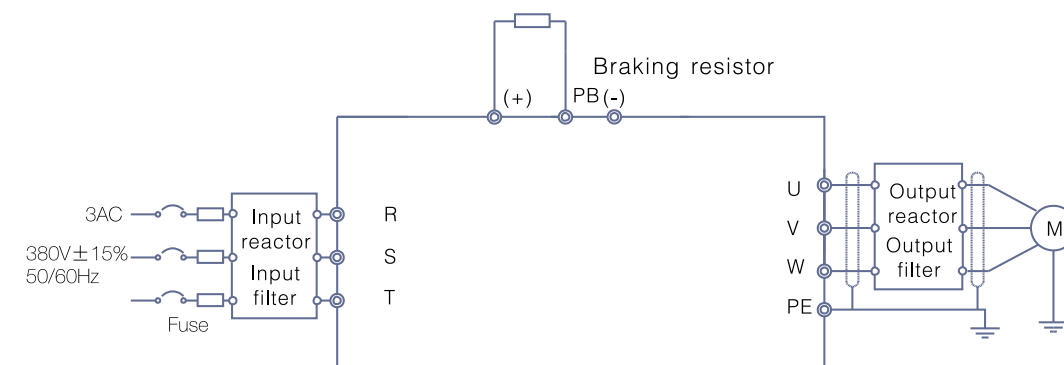
The output current needs to be calculated when the output voltage is 400V, 415V or 440V .

Product Weight And Dimensions

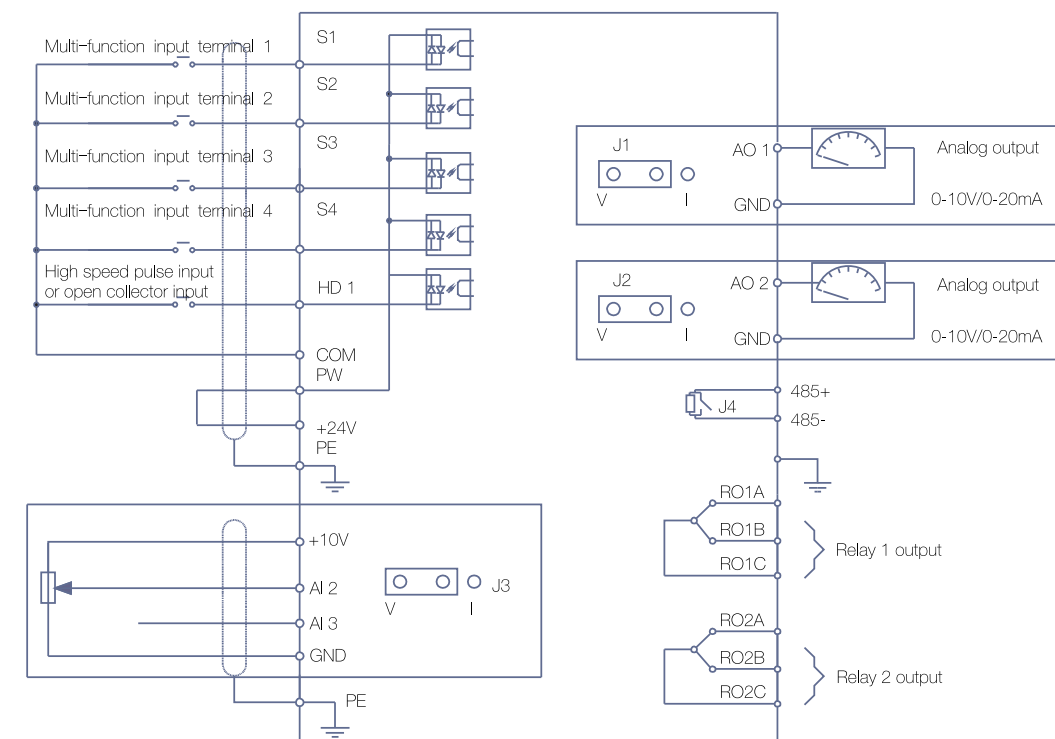
Power	Gross weight(kg)	Net weight(kg)	Packing material	Dimension(mm)
0.7~2.2KW	2.4	1.9	Carton box	290x210x265
4~5.5KW	3.9	3.1	Carton box	350x235x270
7.5~15KW	6.6	5.6	Carton box	430x375x325

Standard Wiring

Wiring diagram of the main circuit

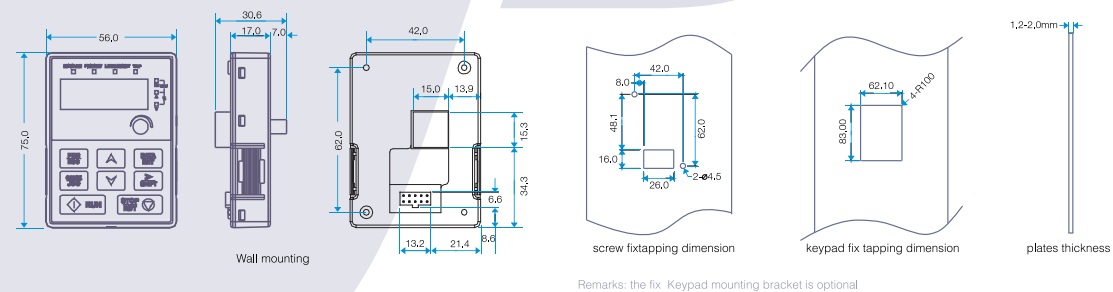


Wiring diagram of the control board



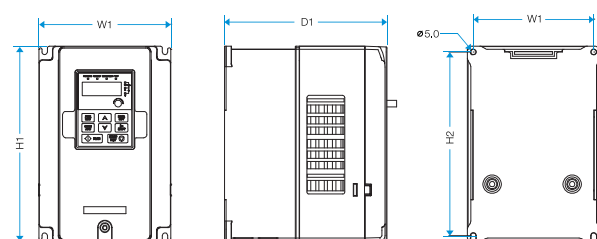
Installation Dimension

• Keypad Dimension



Remarks: the fix Keypad mounting bracket is optional

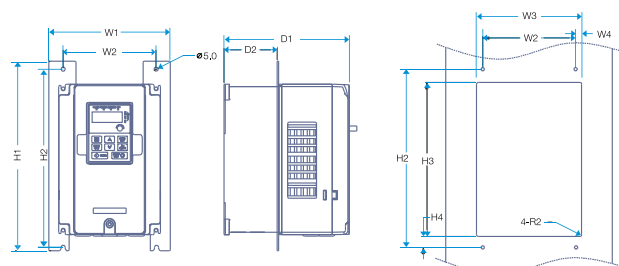
• Wall Mounting



Wall mounting

Model	W1	W2	H1	H2	D1	Installation hole
0.75kW~2.2kW	126.0	115.0	186.0	175.0	155.0	5
4kW~5.5kW	146.0	131.0	256.0	243.5	167.0	6
7.5kW~15kW	170.0	151.0	320.0	303.5	196.3	6

• Flange Mounting



Flange mounting

Installation hole

Model	W1	W2	W3	W4	H1	H2	H3	H4	D1	D2	Installation hole
0.75kW~2.2kW	150.2	115.0	130.0	7.5	223.9	220.0	190.0	13.5	155.0	65.5	5
4kW~5.5kW	170.2	131.0	150.0	9.5	292.0	276.0	260.0	6	167.0	84.5	6
7.5kW~15kW	191.2	151.0	174.0	11.5	370.0	351.0	324.0	12	196.3	113.0	6

Remarks:

1.The flange installation board is optional.

2.The installation dimension is compatible with the same power product of Goodrive300 except the 15kW product which is the same as 11kW Goodrive300.

Sales Network



● INVT Sales & Service in 9 countries: Russia, India, Thailand, UAE, Italy, UK, Germany, Australia, Mexico

● Sales and Service Partners in 57 countries

