# Goodrive600 Series

## High-Performance Multi-drive VFD


Management Service

# CONTENTS

# ABOUT US

# Company Introduction

INVT (Shenzhen INVT Electric Co., Ltd) has been concentrating on industry automation and energy power since its foundation in 2002 and is committed to "Providing the best product and service to allow customers more competitiveness". INVT goes public in 2010 and is the first A-share listed company (002334) in Shenzhen Stock Exchange in the industry. At present, INVT owns 15 subsidiaries and more than 4500 employees, over 40 branches, forming a sales network covering more than 100 overseas countries and regions.

INVT has been awarded as the Key High-tech Enterprise of National Torch Plan based on mastering of key technologies in power electronics, auto control and IT. With business covering industry automation, electric vehicle, network power and rail transit, INVT has established 10 R&D centers nationwide, boasts more than 1400 patents and owns the first lab in the industry awarded ACT qualification from TÜV SÜD, UL-WTDP and CNAS National Lab. The industrial parks in Shenzhen and Suzhou aim to provide customers with advanced integrated product development design management, comprehensive product R&D test and auto informational production. The worldwide INVT branches and warranty service centers are ready to offer customers all-around back-ups including professional solutions, technical trainings and service support.

In the next decade, INVT will continue to take " Sincere Virtuous, Professional Aspiring" as our business philosophy, enhance core business sectors including industrial automation, electric vehicle, network power and rail transit based on the three major technologies in industry automation and energy power fields, and strive to become a leading, responsible and harmonic international professional group armed with proper product structure, leading technologies, efficient management, robust profitability and superior competitiveness.


INVT Guangming Technology Building

INVT Shenzhen Production Industry Park


INVT Suzhou Industry Park


INVT Zhongshan New Energy Industry Base

# Product introduction

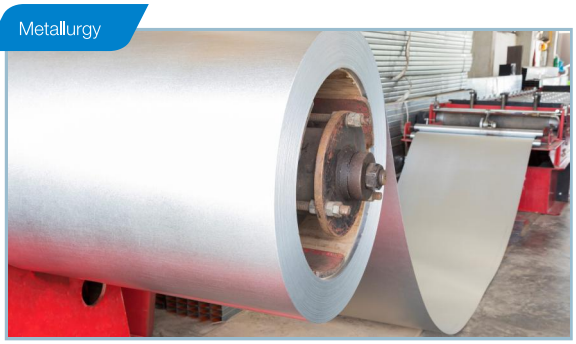
Goodrive600 Series High-Performance Multi-Drive VFD is a common DC bus multi-drive system, which adopts the book-type unit structure and integrated bus control. It features high power density, flexible communication networking, and strong extensibility, manifesting its incomparable advantages.

- Integrating the STO function
- Compatible with the mainstream fieldbus（1MB~100MB）
- Integrating torque control, speed control, and position control
- Implementing the driving control over asynchronous induction motors, permanent-magnet synchronous motors and servo motors
- Outstanding dynamic responding and control precision

GD600 can be widely used in continuous production lines composed of multiple motor drives such as metal processing, printing and packaging, textile machinery, tissue machinery, and small-sized paper making.

Metal processing

Metallurgy

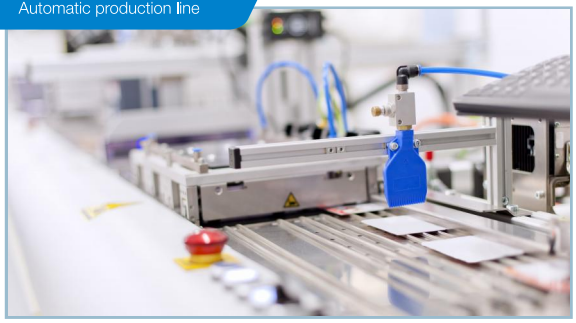


Printing&Packaging

Textile

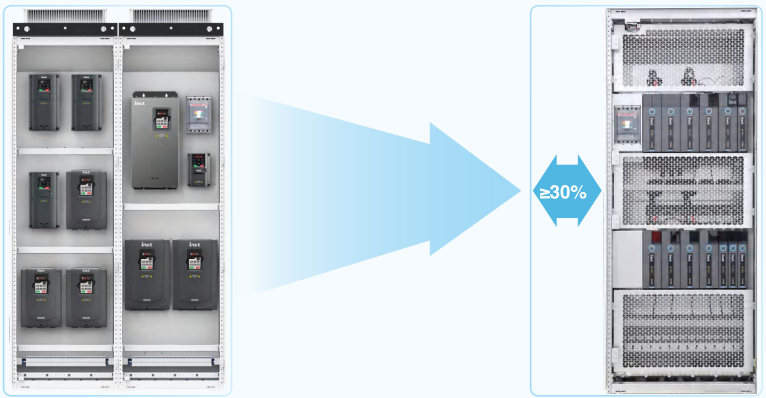
Papermaking

Automatic production line

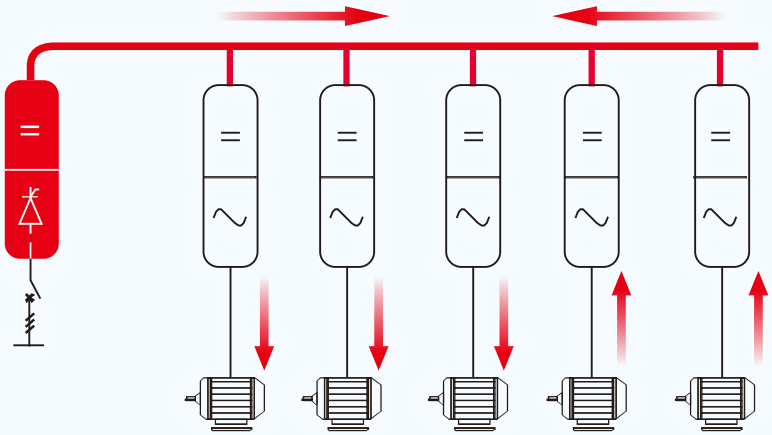


# Multi-drive & high performance

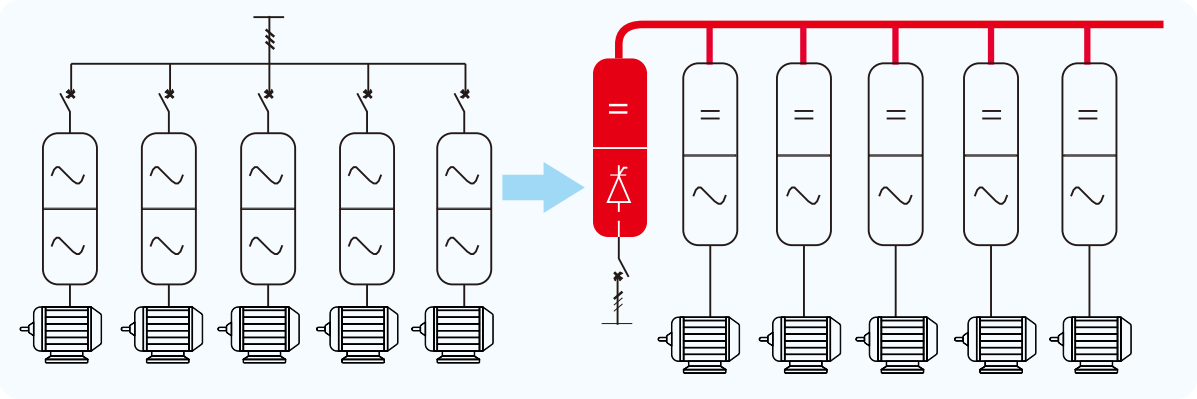
- Equal-height and equal-depth book module design, totally **saves 30% space or more**.


- Common dc bus realizes internal flow of energy, improves the electrical energy efficiency. It can **realize 30% of energy saving**.

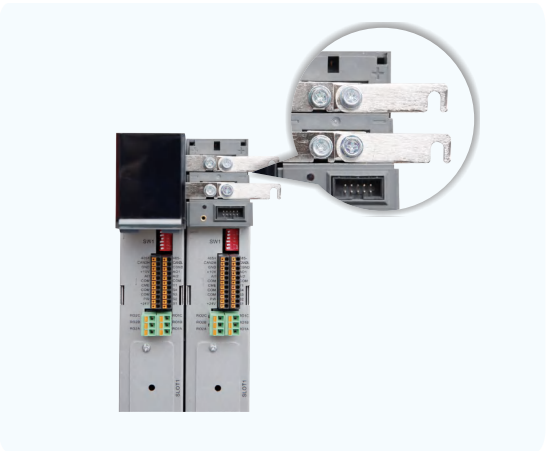


- Common dc bus effectively reduces the major circuit switch elements and redundant power cable of brake unit and system by unified power supply through rectifier units, to save system cost.

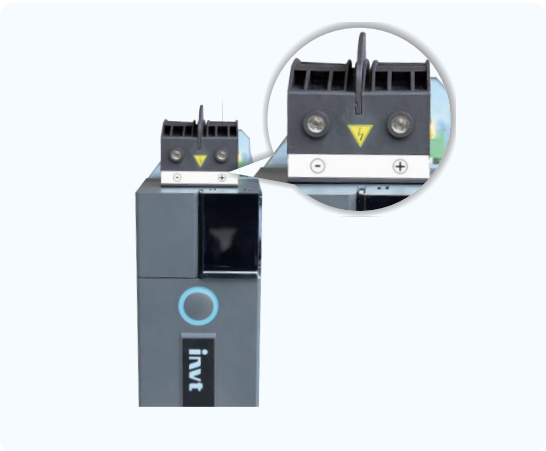


- Fast installation

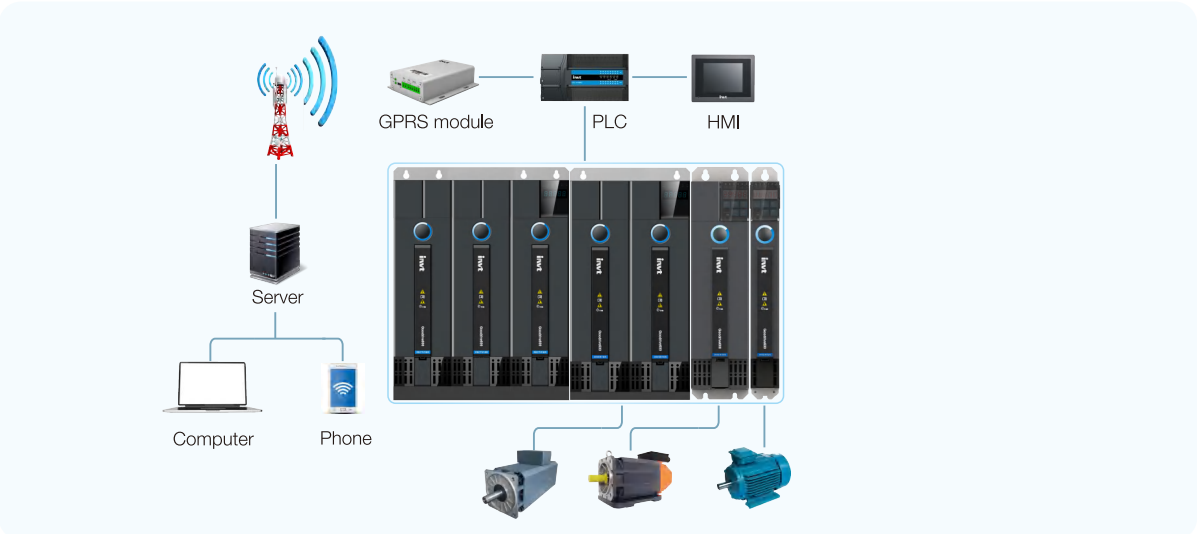
External DC terminals can be used to facilitate the layered installation and maximize the utilization of the space in the cabinet.



The design allows quick lapping to DC buses and enables easy parallel operation, reducing the wiring time and costs.

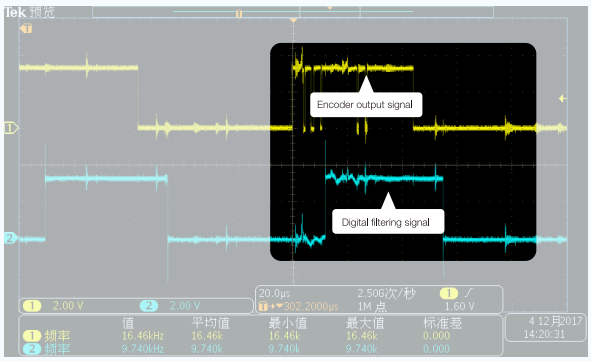


- It combines asynchronous, synchronous and servo motor, making update easy.

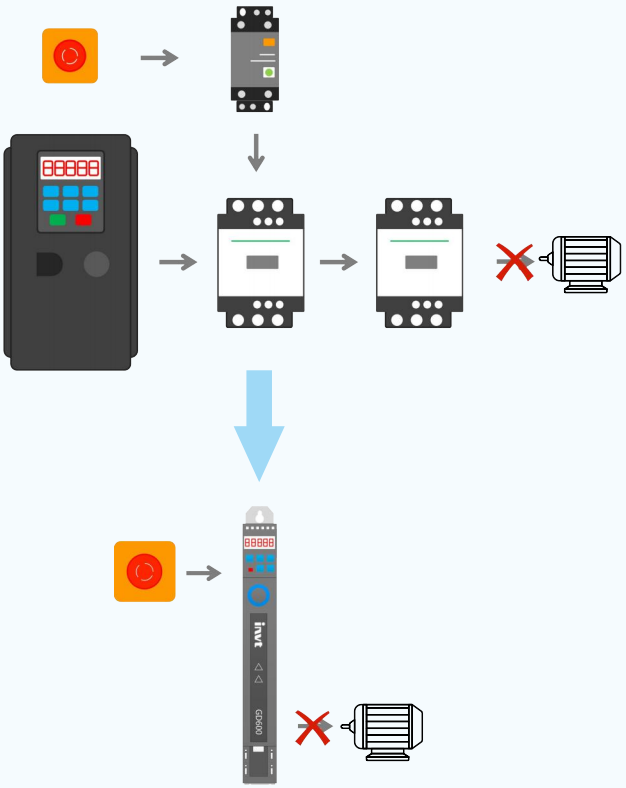


# Safe and reliable

- PG card with digital filter technology improve anti-interference ability by more than one time, which insures the stable reception of encoder signal even over long distance.




- Standard STO function——cut off torque output when motor stops, to avoid accidental activation and keep safe and reliable.



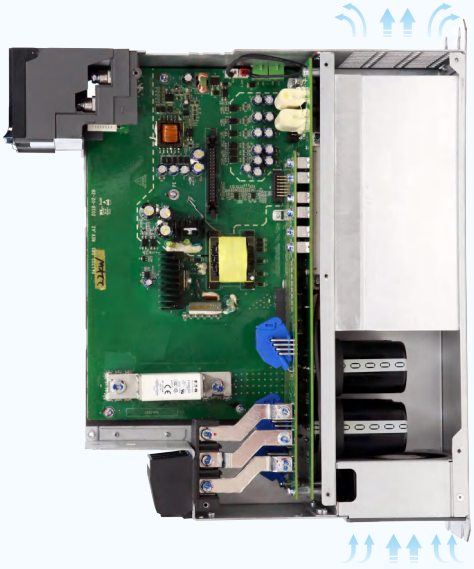
Note: Meet SIL2 class

## Perfect protection

The converter unit has a built-in DC fuse, preventing unit failure from spreading to the system, to improve system stability.

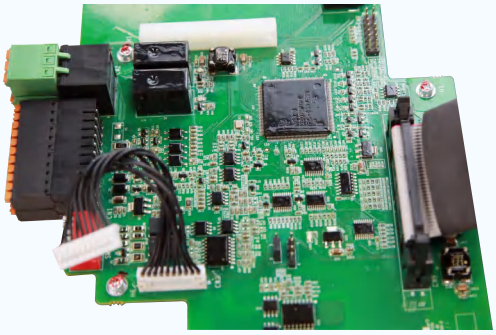
## Independent air duct

Independent air duct design, effectively prevent dust, particles and other pollutants into the VFD internal cause ignition and short circuit, improve product reliability, extend the service life.



## Superior environmental adaptability

Automatic three-proofing  spray technology, covered with more uniform coating coverage, comprehensively improve the protection ability of board.

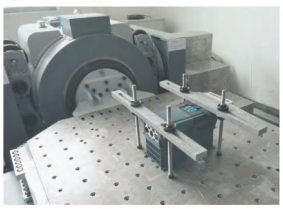


- Perfect reliability test system insures the product suitable for the most complex application environment.

| Test category | Test name | Segment types |
|---|---|---|
| Mechanical reliability test | Packaging test | Compression test of package |
| | | Resonant scanning and resident experiment of package |
| | | Random vibration test of package |
| | | Drop test of package |
| | | Rolling test of package |
| | | Tilt drop test of package |
| | | Italic impact test of package |
| | Impact test | Half-sine wave impact tes |
| | | Trapezoidal wave impact test |
| | Vibration test | Sine wave vibration test |
| | | Random vibration experiment |
| Climatic environment reliability test | Temperature test | Cryogenic storage experiment |
| | | High temperature storage experiment |
| | | Low temperature work experiment |
| | | High temperature work experiment |
| | | Temperature gradient experiment |
| | | Temperature impact experiment |
| | Moist test | Constant moist experiment |
| | | Mutational moist experiment |
| | Salt spray test | Continuous salt spray experiment |
| | | Mutational salt spray experiment |
| | Low-pressure test | Comprehensive experiment of low temperature and low pressure |
| | | Comprehensive experiment of high temperature and low pressure |

Note:

INVT is first domestic factory to achieve the ACT qualification issued by TÜV SÜD. ACT is the short of Acceptance of Client's Testing. It tells that TÜV SÜD of Germany officially recognizes the technical level of a company's laboratory, officially recognizes the test data issued by this laboratory, and receives the test report issued by this laboratory.



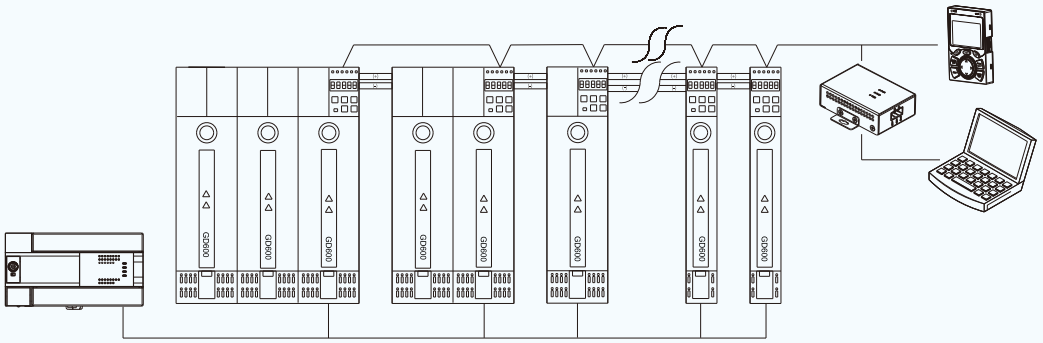
Electric vibration experiment

Low pressure text box (left)
Constant temperature and humidity test box (right)

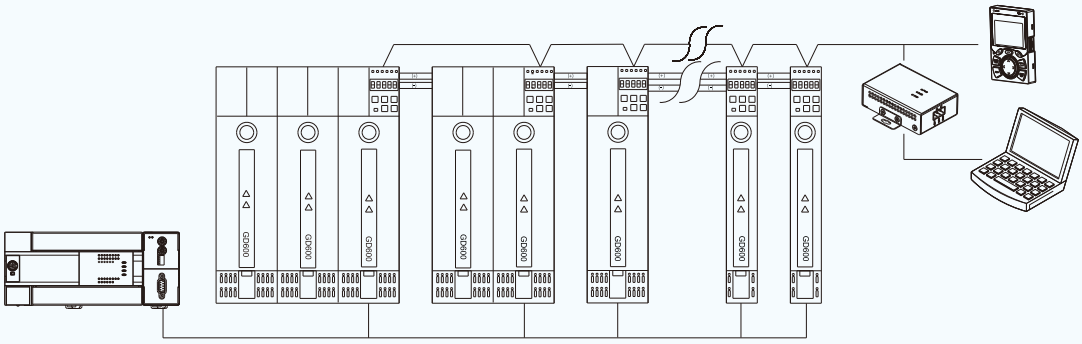
Natural convection test box (left)
Cold and hot shock test box (right)

# Seamlessly integrated automatic control system

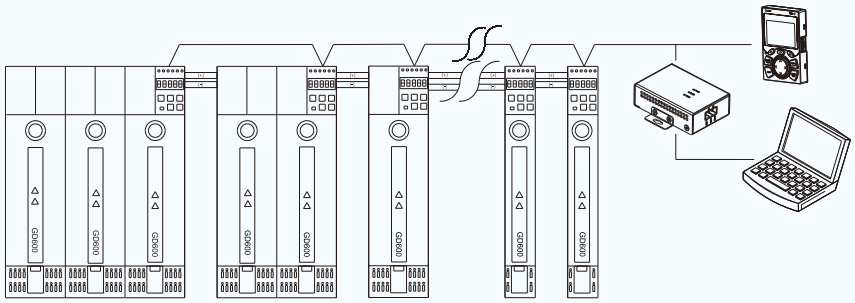
## PLC+Standard Modbus



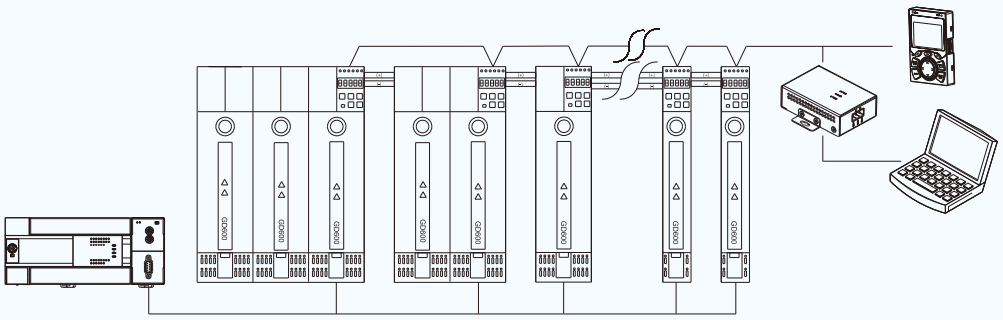
## PLC+Standard CANopen



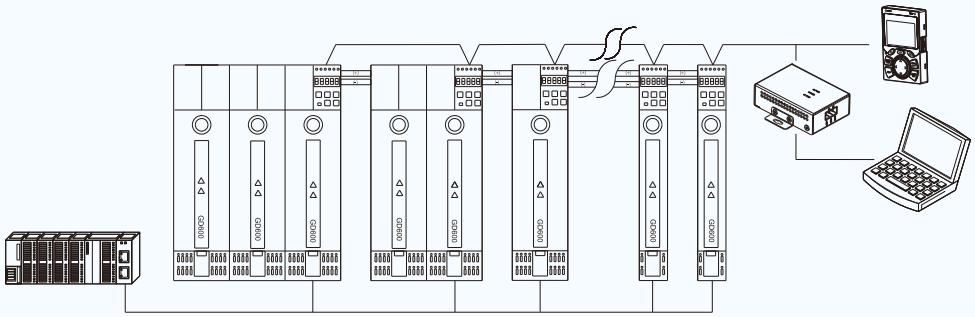
## Optional PLC Card+Standard CANopen



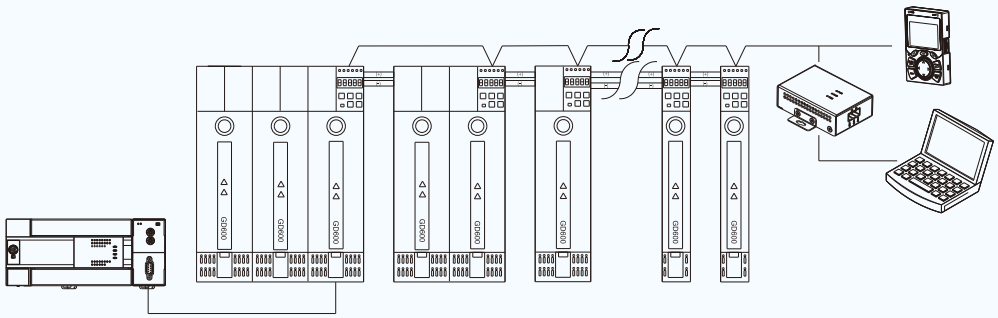
## PLC+Optional PROFIBUS-DP



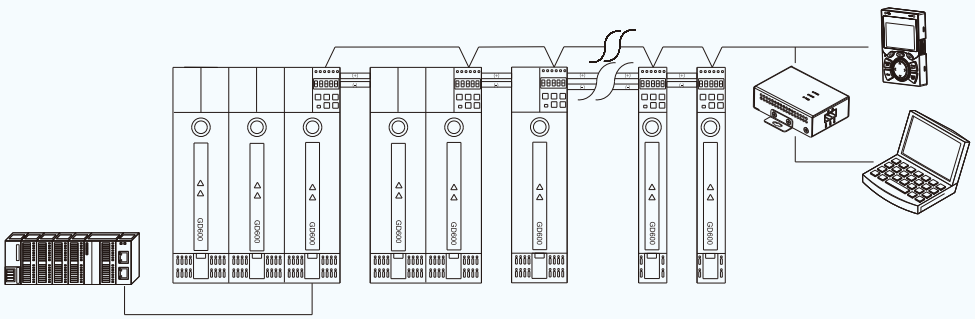
## PLC+Optional PROFINET/ Optional EtherCAT



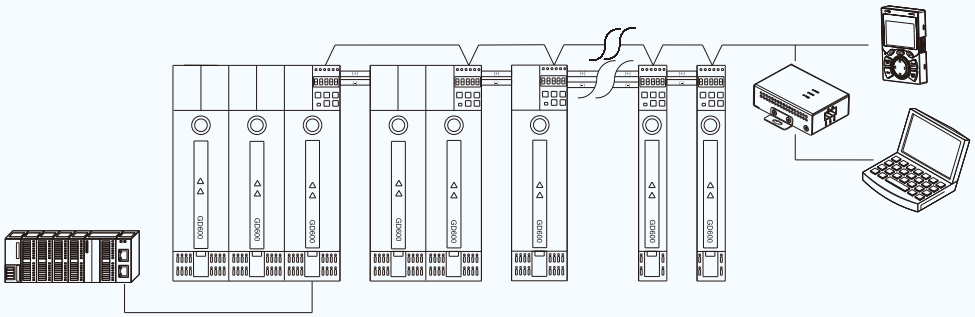
## PLC+Optional PROFIBUS-DP/CANopen bridge network



## PLC+Optional PROFINET/CANopen bridge network



## PLC+Optional EtherCAT/CANopen bridge network



# Technical specification

| Function description | | Specifications indicators |
|---|---|---|
| **Technical control performance** | Output frequency(Hz) | 0~400Hz |
| | Carrier frequency(Hz) | 1.0~15kHz |
| | 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); Asynchronous motor 1:1000(VC) |
| | Speed control precision | ±0.2%(SVC), ±0.02%(VC) |
| | Speed fluctuation | ±0.3%(SVC), ±0.02%(VC) |
| | Torque response | <20ms(SVC); <10ms(VC) |
| | Torque control precision | ±10%(SVC); ±5%(VC) |
| | Starting torque | Asynchronous motor: 0.25Hz/150% (SVC)<br>Synchronous motor: 2.5 Hz/150% (SVC)<br>Asynchronous motor: 0Hz/200% (VC) |
| | Overload capacity | 150%: 1min; 180%: 10s; 200%: 1s; |
| **Running control performance** | Frequency setup mode | Digital, analog, pulse frequency, multi-step speed running, simple PLC, PID, MODBUS, PROFIBUS, PROFINET, ETHERCAT, etc. Realize switch-over between the set combination and the set channel |
| | Automatic voltage regulation function | Keep the output voltage constant when grid voltage changes |
| | Speed tracking restart function | Realize impact-free starting of the motor in rotating |
| **External interface** | Analog input | 2, AI1: 0~10V/0~20mA, AI2: -10~10V<br>Resolution: no more than 20mA |
| | Analog output | 1, AO1: 0~10V/0~20mA |
| | Digital input | 4 outputs, max. frequency: 1kHz, Internal impedance: 3.3kΩ<br>Resolution: no more than 2ms |
| | Digital output | 1 Y terminal open collector output |
| | Relay output | 2 programmable relay outputs<br>RO1A NO, RO1B NC, RO1C common port<br>RO2A NO, RO2B NC, RO2C common port<br>Contact capacity: 3A/AC250V, 1A/DC30V |
| | Communication interface | 1 RS485 interface, supporting Modbus;<br>1 CAN interface for synchronous control |
| | External interface | 2 extension interface: SLOT1, SLOT2;<br>Expandable PG card, programmable extension card, communication card, I/O card, etc. |
| **Protection function** | Rectifier unit | Input out-phase, input overvoltage, input unbalanced 3PH voltage, overcurrent protection of brake circuit, short-circuit protection of brake esistance, direction protection of brake pipe protection, overvoltage, undervoltage, over-temperature |
| | Converter unit | Provide more than 30 fault protection functions: earthing short circuit, phase short circuit, overcurrent, overvoltage, undervoltage, overheating, phase loss, overload, overheating, communication fault, stall, encoder fault, etc. |
| **Others** | Installation mode | Wall-mounting, 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 | Forced air cooling |

# Type selection

## GD600-71-045-4-B

① ② ③ ④ ⑤

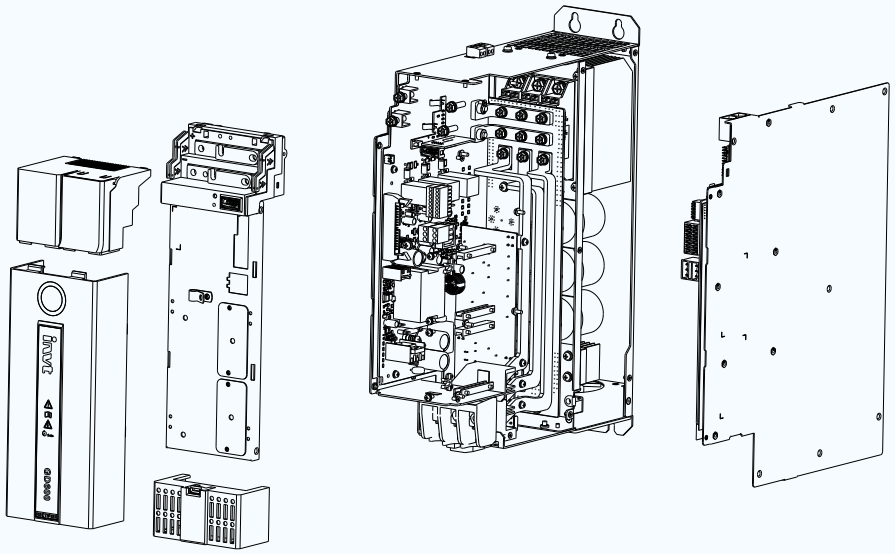
| Field | Identification | Description |
|---|---|---|
| Product series | ① | GD600: Goodrive600 high-performance multi-function VFD |
| Product type | ② | 51: Inverter unit 71: Main control rectifier unit |
| Power code | ③ | 045: 45kW |
| Voltage class | ④ | 4: 400V |
| Management of no. | ⑤ | None: default B: Built-in brake unit |

Note: A built-in input current detection module can be selected for the 160kW and 355kW rectifier units for data analysis, which is a customized function.

# Product overview

| | | | | | | |
|---|---|---|---|---|---|---|
| Appearance |  |  |  |  |  |  |
| | Rectifier unit | | | Converter unit | | |
| Power (kW) | 45 | 160 | 355 | 1.5~7.5 | 11~37 | 45~75 |
| Dimension (W*H*D) | 100*400*350 | 300*400*350 | 180*805*423 | 50*400*350 | 100*400*350 | 200*400*350 |
| Optional part |  |  |  |  | | |
| Type | PLC card | Communication card | PG card | I/O card | | |

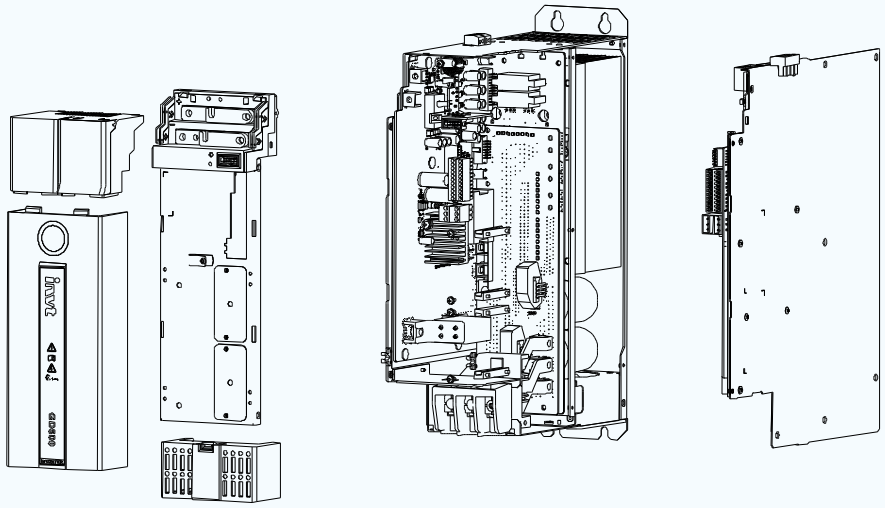
# Module structure——rectifier unit



# Rectifier unit selection

| Input voltage: AC 3PH 380V(-15%)~440V(+10%), Output voltage: 457Vdc~684Vdc | | | | | | | |
|---|---|---|---|---|---|---|---|
| Product model | Rated power (kW) | Power capacity (kVA) | Input current AC(A) | Output current DC(A) | Built-in bus current-carrying capacity (A) | Recommended brake unit | Recommended braking resistor (OHM) |
| GD600-71-045-4-B | 45 | 76 | 110 | 135 | 200 | Built-in | ≥6.4 |
| GD600-71-160-4 | 160 | 215 | 320 | 380 | 200 | DBU100H- 320-4 | ≥2.2 |
| GD600-71-355-4 | 355 | 433 | 625 | 766 | - | DBU100H-320-4×2 | ≥2.2*2 |

# Module structure——converter unit



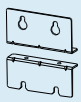
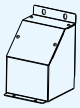
# Converter unit selection

| Input voltage: 457Vdc~684Vdc (working range: 350Vdc~800Vdc), Output voltage: 0~480Vdc | | | | | | |
|---|---|---|---|---|---|---|
| Product model | Rated power (kW) | Input current DC(A) | Output current DC(A) | Built-in bus current-carrying capacity(A) | Motor | |
| | | | | | (kW) | (HP) |
| GD600-51-1R5-4 | 1.5 | 3.6 | 3.7 | 100 | 1.5 | 2 |
| GD600-51-2R2-4 | 2.2 | 5.5 | 5.5 | 100 | 2.2 | 3 |
| GD600-51-004-4 | 4 | 9.6 | 9.5 | 100 | 3.7 | 5 |
| GD600-51-5R5-4 | 5.5 | 14.2 | 14 | 100 | 5.5 | 7.5 |
| GD600-51-7R5-4 | 7.5 | 19 | 18.5 | 100 | 7.5 | 10 |
| GD600-51-011-4 | 11 | 26 | 25 | 200 | 11 | 15 |
| GD600-51-015-4 | 15 | 33 | 32 | 200 | 15 | 20 |
| GD600-51-018-4 | 18.5 | 40 | 38 | 200 | 18.5 | 25 |
| GD600-51-022-4 | 22 | 47 | 45 | 200 | 22 | 30 |
| GD600-51-030-4 | 30 | 62 | 60 | 200 | 30 | 40 |
| GD600-51-037-4 | 37 | 79 | 75 | 200 | 37 | 50 |
| GD600-51-045-4 | 45 | 97 | 92 | 200 | 45 | 60 |
| GD600-51-055-4 | 55 | 121 | 115 | 200 | 55 | 75 |
| GD600-51-075-4 | 75 | 158 | 150 | 200 | 75 | 100 |

# Expansion card selection

| Type | Model | Category | Specification |
|---|---|---|---|
|  PG card | EC-PG705-12B | Multi-function incremental PG card | Supporting differential,push-pull, and open collector ABZ signals of 5V or 12 V incremental encoders; Maximum 200kHz;<br>Supporting the giving of pulse + direction;<br>Supporting 5V differential output with frequency multiflied by 1~255 |
| | EC-PG704-00 | Resolver transformer PG card | Resolver transformer encoder;<br>Supporting pulse/direction differential input; Maximum 200kHz;<br>Supporting 5V differential output with frequency multiflied by 2"(1~255) |
| | EC-PG707-24 | 24V incremental PG card | Supporting differential,push-pull, and opencollector ABZ signals of 24V incremental encoders;<br>Maximum 200kHz; |
| | EC-PG708-24 | Absolute encoder SSI communication PG card | Supporting differential,push-pull, and opencollector ABZ signals of 24V incremental encoders; Maximum 400kHz; Supporting SSI signal, 5V isolation differential input, interrupted clock signal synchronization, communication rate up to 700kHz; Supporting output of frequency divided by 1-255) |
|  Communication card | EC-TX703 | PROFIBUS-DP | Supporting the POFIBUS protocol, 9.6kbps~12Mbps |
| | EC-TX709 | PROFINET | Supporting the PROFINET protocol;<br>Supporting 100Mbps full-duplex operation |
| | EC-TX704 | Upper computer card | Supporting the INVT Ethernet protocol;<br>Used for INVT Workshop upper computer monitoring |
| | EC-TX708 | EtherCAT card | Supporting the EtherCAT protocol to function as an EtherCAT slave station;Providing 2 real-time industrial communication Ethernet interfaces;Supporting 100Mbits/s full duplex operation. |
|  PLC card | EC-PC701-02 | PLC card | 4DI 2RO;<br>16K steps of user data storage; 8K words of data storage space; Supporting IL, LD,and SFC |
|  I/O card | EC-IO702 | I/O card | Support 2 digital inputs, 1 analog input, 1 relay output, 4 types (KTY84-130/PT100/PT1000/NTC) of temperature detection |

# Structure parts selection

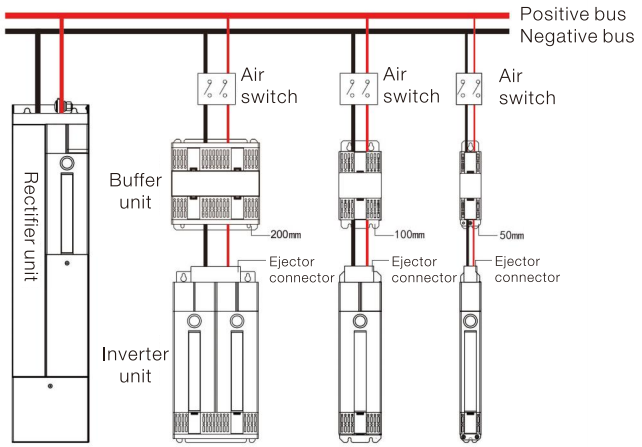
| Name | Picture | Model/Order number | Specification | Adaptable model |
|---|---|---|---|---|
| LCD keypad |  | SOP-600-01 | LCD keypad | All |
| | | 19005-00149 | External keypad bracket | All |
| | | 37005-00022 | 3m outer cable | All |
| Outer terminal |  | GD600-CON1 | 100A outer terminal | Inverter unit (≤7.5kW) |
| | | GD600-CON2 | 200A outer terminal | Inverter unit (>11kW)<br>45kW/60kW rectifier unit |
| shielding shelf |  | GD600-SH1 | 50mm shielding shelf | Inverter unit (1.5-7.5kW) |
| | | GD600-SH2 | 100mm shielding shelf | Inverter unit (11-37kW) |
| Flange-mounted shelf |  | GD600-FLAN1 | 50mm mounting bracket | Inverter unit (1.5-7.5kW) |
| | | GD600-FLAN2 | 100mm mounting bracket | Inverter unit (11-37kW) ; Rectifier unit (45kW) |
| | | GD600-FLAN3 | 200mm mounting bracket | Inverter unit (45-75kW) |
| | | GD600-FLAN4 | 300mm mounting bracket | Rectifier unit (160kW) |
| Air deflector |  | GD600-AD1 | 50mm lead wind board | Inverter unit (1.5-7.5kW) |
| | | GD600-AD2 | 100mm lead wind board | Inverter unit (11-37kW) ; Rectifier unit (45kW) |
| | | GD600-AD3 | 200mm lead wind board | Inverter unit (45-75kW) |
| | | GD600-AD4 | 300mm lead wind board | Rectifier unit (160kW) |
| USB-485 |  | EC-TM485-USB | Adaptor | All |

# Optional parts selection main circuit

| Type | Model | Rated power (kW) | Reactor | Filter |
|---|---|---|---|---|
| Rectifier part | GD600-71-045-4-B | 45 | GDL-ACL0110-4AL | FLT-P04100L-B |
| | GD600-71-160-4 | 160 | GDL-ACL0330-4AL | FLT-P04400L-B |
| | GD600-71-355-4 | 355 | GDL-ACL0660-4AL | FLT-P04800L-B |
| Converter part | GD600-51-1R5-4 | 1.5 | GDL-OCL0005-4CU | FLT-L04006L-B |
| | GD600-51-2R2-4 | 2.2 | GDL-OCL0006-4CU | |
| | GD600-51-004-4 | 4 | GDL-OCL0010-4CU | FLT-L04016L-B |
| | GD600-51-5R5-4 | 5.5 | GDL-OCL0014-4CU | |
| | GD600-51-7R5-4 | 7.5 | GDL-OCL0020-4CU | FLT-L04032L-B |
| | GD600-51-011-4 | 11 | GDL-OCL0025-4CU | |
| | GD600-51-015-4 | 15 | GDL-OCL0035-4AL | FLT-L04045L-B |
| | GD600-51-018-4 | 18.5 | GDL-OCL0040-4AL | |
| | GD600-51-022-4 | 22 | GDL-OCL0050-4AL | FLT-L04065L-B |
| | GD600-51-030-4 | 30 | GDL-OCL0060-4AL | |
| | GD600-51-037-4 | 37 | GDL-OCL0075-4AL | FLT-L04100L-B |
| | GD600-51-045-4 | 45 | GDL-OCL0092-4AL | |
| | GD600-51-055-4 | 55 | GDL-OCL0115-4AL | FLT-L04150L-B |
| | GD600-51-075-4 | 75 | GDL–OCL0150–4AL | |

# Buffer unit model selection

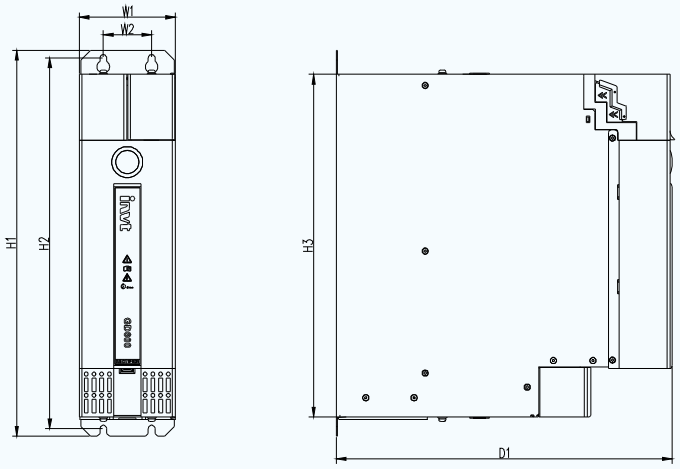
BUB600 series buffer unit is applicable to the DC power-up buffer device used in GD600 series inverter unit. It works with the "air switch" and "bus external terminal" to achieve independent power up and down operations on the inverter unit, facilitating the inverter unit replacement without power cut during rectification.



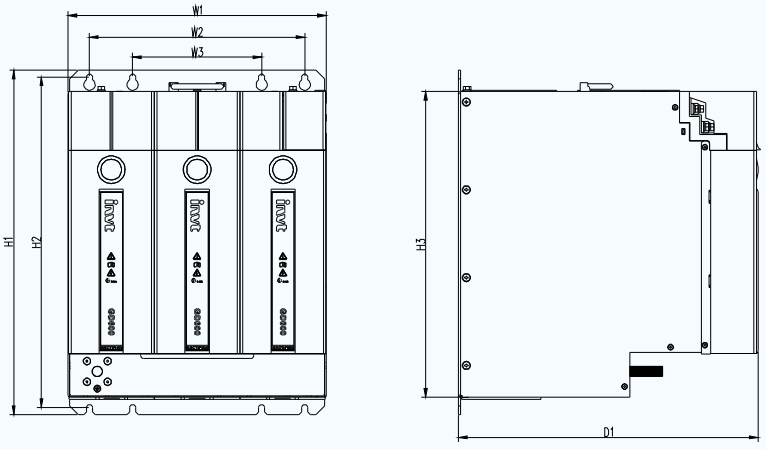

System schematic diagram

| Inverter unit | Applicable BUB model | Rated current of recommended air switch (A) |
|---|---|---|
| GD600-51-1R5-4 | BUB600-7R5-4 | 40 |
| GD600-51-2R2-4 | BUB600-7R5-4 | 40 |
| GD600-51-004-4 | BUB600-7R5-4 | 40 |
| GD600-51-5R5-4 | BUB600-7R5-4 | 40 |
| GD600-51-7R5-4 | BUB600-7R5-4 | 40 |
| GD600-51-011-4 | BUB600-037-4 | 80 |
| GD600-51-015-4 | BUB600-037-4 | 80 |
| GD600-51-018-4 | BUB600-037-4 | 80 |
| GD600-51-022-4 | BUB600-037-4 | 80 |
| GD600-51-030-4 | BUB600-037-4 | 125 |
| GD600-51-037-4 | BUB600-037-4 | 125 |
| GD600-51-045-4 | BUB600-075-4 | 200 |
| GD600-51-055-4 | BUB600-075-4 | 200 |
| GD600-51-075-4 | BUB600-075-4 | 315 |

# Installation dimension

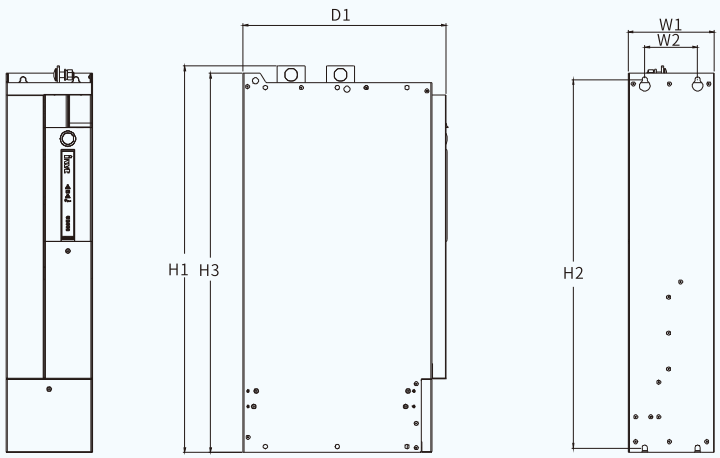



| Model | Overall dimensions(mm) | | | Installation hole location(mm) | | | Installation hole size (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| | W1 | H1 | D1 | W2 | H2 | H3 | | |
| GD600-71-045-4-B | 100 | 400 | 350 | 50 | 384 | 355 | Φ7 | 9 |

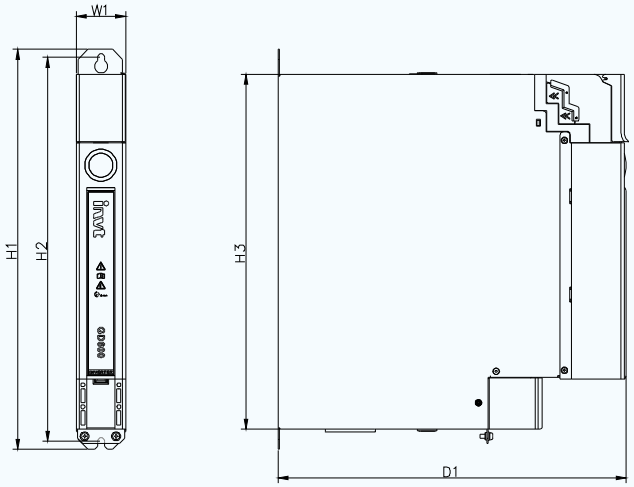



| Model | Overall dimensions(mm) | | | Installation hole location(mm) | | | | Installation hole size (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|
| | W1 | H1 | D1 | W2 | W3 | H2 | H3 | | |
| GD600-71-160-4 | 300 | 400 | 350 | 250 | 150 | 384 | 355 | Φ7 | 28 |

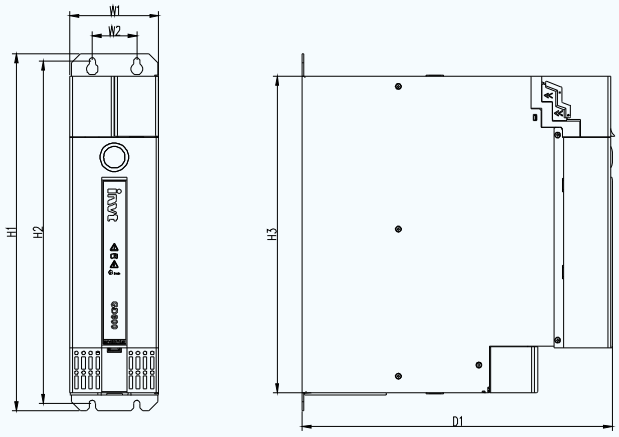
# Installation dimension



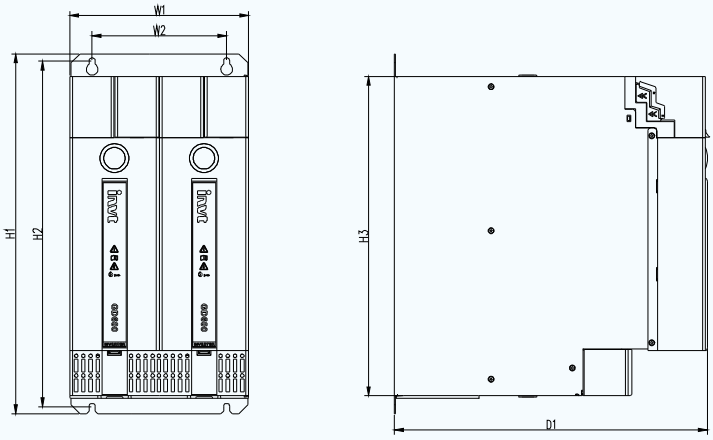

| Model | Overall dimensions(mm) | | | Installation hole location(mm) | | | Installation hole size (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| | W1 | H1 | D1 | W2 | H2 | H3 | | |
| GD600-71-355-4 | 180 | 805 | 423 | 110 | 767.5 | 790 | Φ11 | 42.6 |




| Model | Overall dimensions(mm) | | | Installation hole location(mm) | | | Installation hole size (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| | W1 | H1 | D1 | W2 | H2 | H3 | | |
| GD600-51-1R5-4 | 50 | 400 | 350 | - | 384 | 355 | Φ7 | 4 |
| GD600-51-2R2-4 | 50 | 400 | 350 | - | 384 | 355 | Φ7 | 4 |
| GD600-51-004-4 | 50 | 400 | 350 | - | 384 | 355 | Φ7 | 4 |
| GD600-51-5R5-4 | 50 | 400 | 350 | - | 384 | 355 | Φ7 | 4 |
| GD600-51-7R5-4 | 50 | 400 | 350 | - | 384 | 355 | Φ7 | 4 |

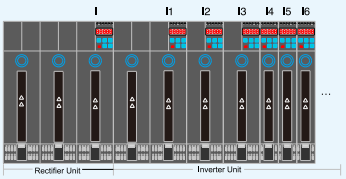
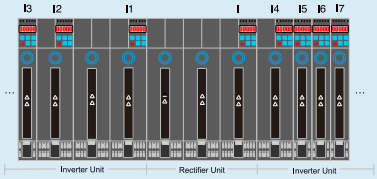
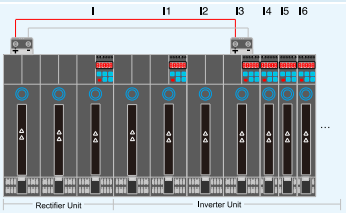
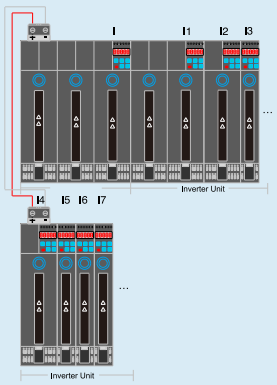
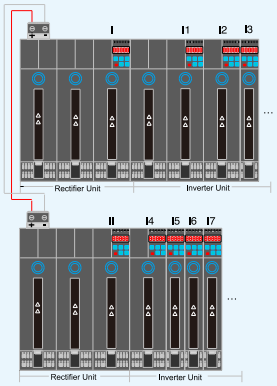



| Model | Overall dimensions(mm) | | | Installation hole location(mm) | | | Installation hole size (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| | W1 | H1 | D1 | W2 | H2 | H3 | | |
| GD600-51-011-4 | 100 | 400 | 350 | 50 | 384 | 355 | Φ7 | 9 |
| GD600-51-015-4 | 100 | 400 | 350 | 50 | 384 | 355 | Φ7 | 9 |
| GD600-51-018-4 | 100 | 400 | 350 | 50 | 384 | 355 | Φ7 | 9 |
| GD600-51-022-4 | 100 | 400 | 350 | 50 | 384 | 355 | Φ7 | 9 |
| GD600-51-030-4 | 100 | 400 | 350 | 50 | 384 | 355 | Φ7 | 9 |
| GD600-51-037-4 | 100 | 400 | 350 | 50 | 384 | 355 | Φ7 | 9 |

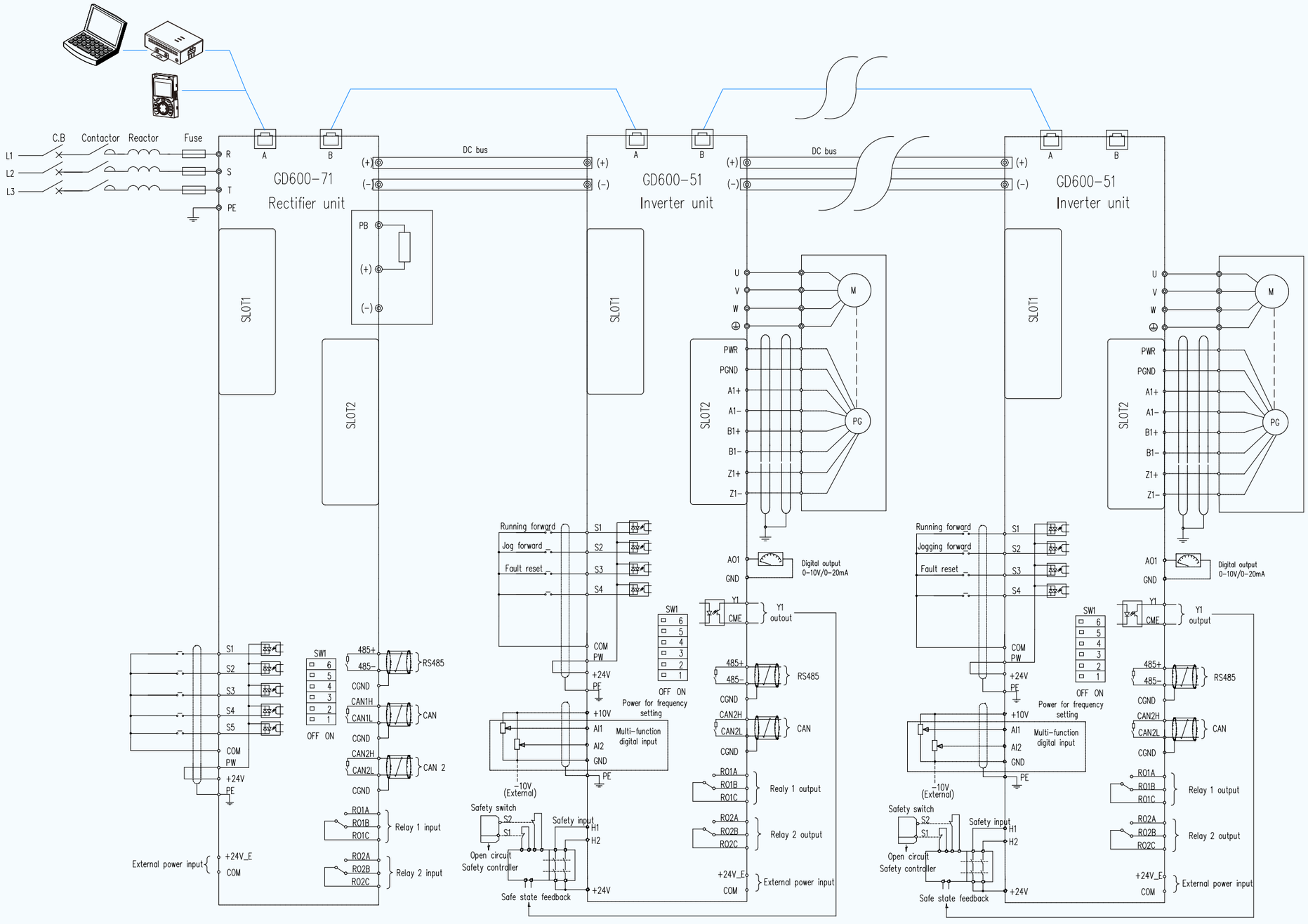



| Model | Overall dimensions(mm) | | | Installation hole location(mm) | | | Installation hole size (mm) | Weight (kg) |
|---|---|---|---|---|---|---|---|---|
| | W1 | H1 | D1 | W2 | H2 | H3 | | |
| GD600-51-045-4 | 200 | 400 | 350 | 150 | 384 | 355 | Φ7 | 18 |
| GD600-51-055-4 | 200 | 400 | 350 | 150 | 384 | 355 | Φ7 | 18 |
| GD600-51-075-4 | 200 | 400 | 350 | 150 | 384 | 355 | Φ7 | 18 |

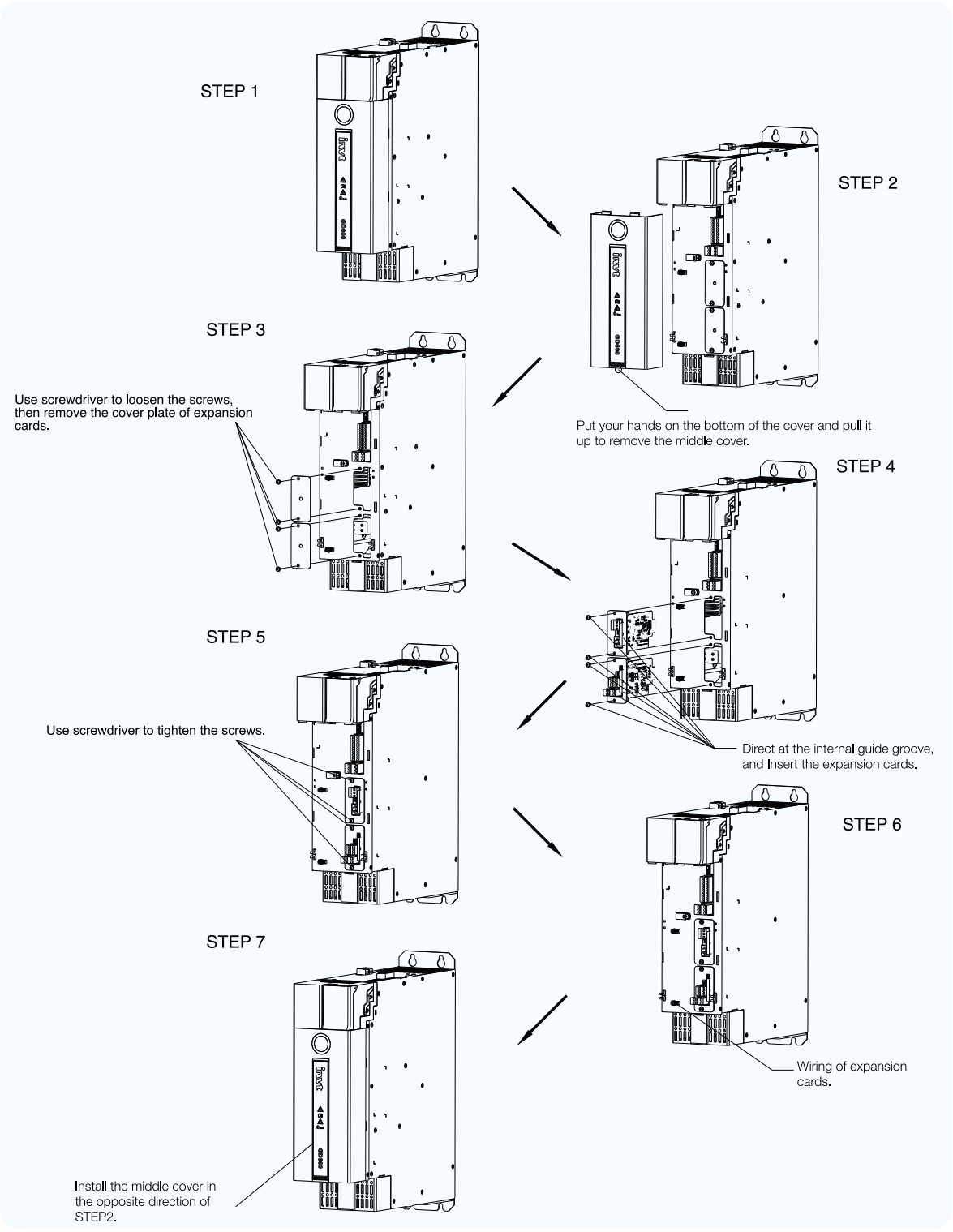
# Parallel combination

| Combination mode | Parallel figure | Satisfied condition |
|---|---|---|
| Single row distribution (Rectifier on the left) |  | I ⩾ 0.8 * (I1 + I2 + I3 + I4+ I5 + I6 + …)<br>I1 + I2 + I3 + I4+ I5 + I6 + … ⩽ 200A<br>I4+ I5 + I6 + … ⩽ 100A |
| Single row distribution (Rectifier in the middle) |  | I ⩾ 0.8 * (I1 + I2 + I3 + I4+ I5 + I6 + I7 + …)<br>I1 + I2 + I3 + … ⩽ 200A<br>I4+ I5 + I6 + I7 + … ⩽ 200A<br>I5 + I6 + I7 + … ⩽ 100A<br>I3 + … ⩽ 100A |
| Single row distribution (External bus) |  | I ⩾ 0.8 * (I1 + I2 + I3 + I4+ I5 + I6 + …)<br>I1 + I2 ⩽ 200A<br>I3 + I4+ I5 + I6 + … ⩽ 200A<br>I4 + I5 + I6 + … ⩽ 100A |
| Double row distribution (single rectifier) |  | I ⩾ 0.8 * (I1 + I2 + I3 + I4+ I5 + I6 + I7 + …)<br>I1 + I2 + I3 + … ⩽ 200A<br>I4+ I5 + I6 + I7 + … ⩽ 200A<br>I5 + I6 + I7 + … ⩽ 100A<br>I3 + … ⩽ 100A |
| Multiple row distribution (Multiple rectifiers installed in parallel) |  | I + II ⩾ 0.8 * (I1 + I2 + I3 + I4 + I5 + I6 + I7 + …)<br>I / II ≈ (I1 + I2 + I3 + …) / (I4+ I5 + I6 + I7 + …)<br>I1 + I2 + I3 + … ⩽ 200A<br>I4+ I5 + I6 + I7 + … ⩽ 200A<br>I5 + I6 + I7 + … ⩽ 100A<br>I3 + … ⩽ 100A<br>Note:Parallel installation is nut supported among rectifier units of different power |

# Wiring diagram

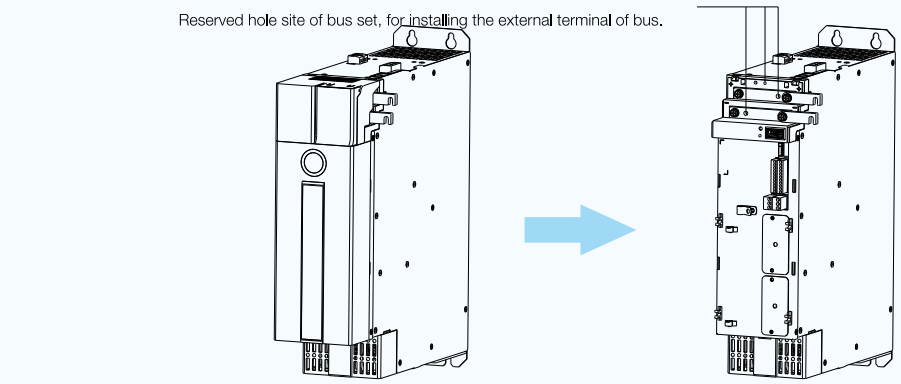


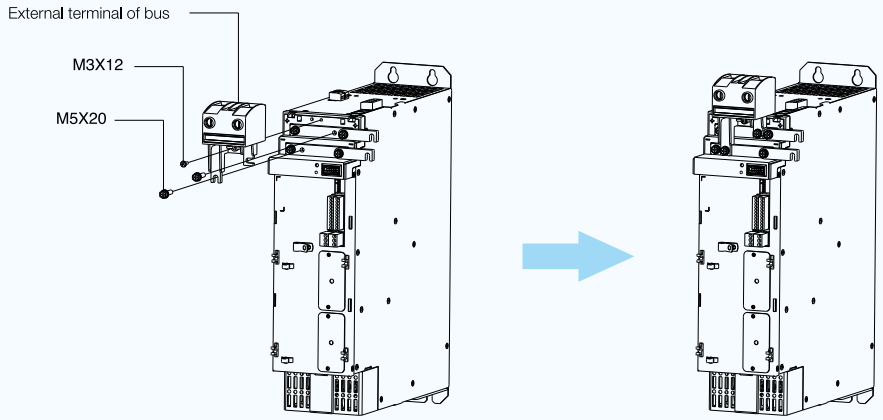
# Installation instruction——expansion card

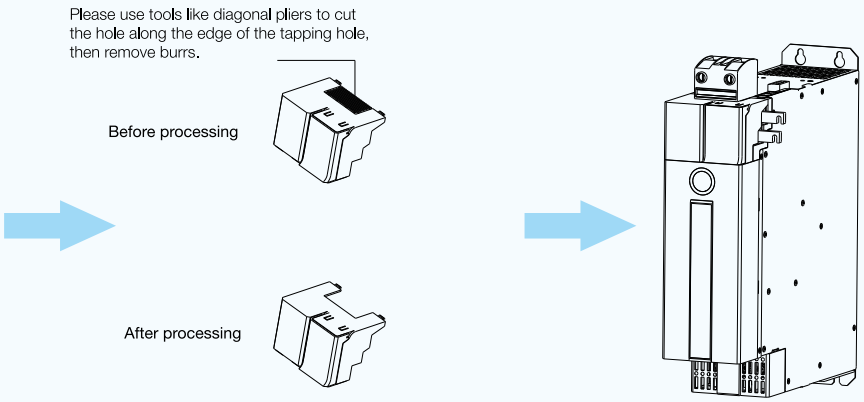



Note:
1.Please install the expansion cards when the power is turned off.
2.Expansion cards can be inserted in any card slot of SLOT1 and SLOT2.
3.If the external wiring interference occurs after the installation of the expansion card, please adjust the installation slot of each expansion card flexibly to the most convenient wiring state. For example, the DP card connector is large, so it is recommended to install the SLOT2 card slot.

# Installation instruction——external terminal of bus




Note: Please refer to the torque below to tighten the screws: M3: 5~6 kgf.cm; M5: 25~28 kgf.cm..

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