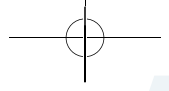


# Goodrive200A Series

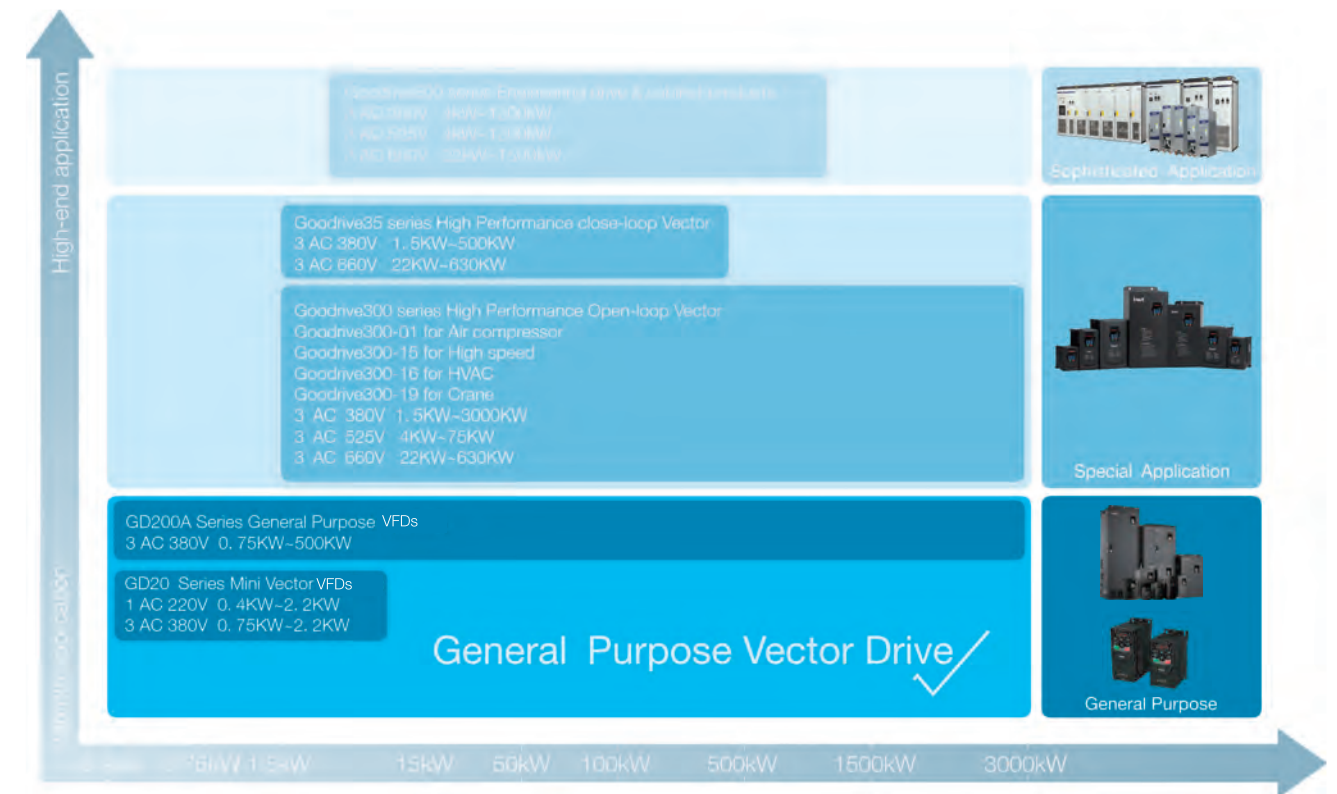
## General Purpose Vector Control Drive



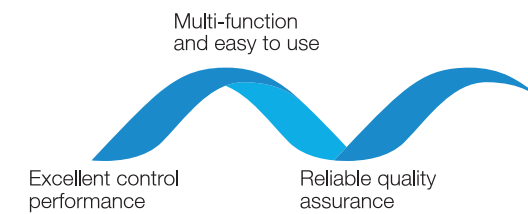


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## Low Voltage Drive Family



## Product Advantage





## Product Introduction

GD200A series high performance general vector VFD, positioned as a new generation general purpose VFD; products using DSP control system and vector V/F control technology, with excellent motor drive performance and various protecting functions, widely used in air compressor, plastic machine, petroleum industry, coal industry, HVAC applications, fan pump and other standard transmission load.



## High Performance

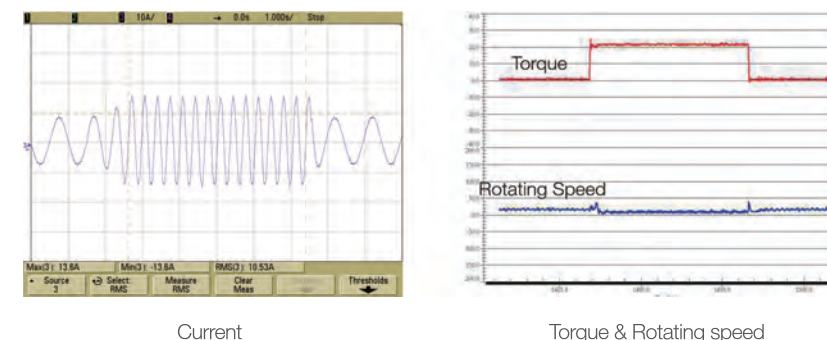
### • More Accurate Motor Auto-tuning

Accurate rotating and static motor auto-tuning  
Convenient debugging and easy operation

| Rotating auto-tuning                                                             | Static auto-tuning                                                                              |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Need to separate the load<br>Applied to the situation need high control accuracy | Needn't to separate the load<br>Applied to the situation when the load is difficult to separate |

### • Advanced open loop vector control

The current, torque and rotating speed waveforms when sudden loading or unloading in asynchronous motor open loop vector control mode with 0.5Hz running frequency and full load.



### • Perfect voltage and current control, reducing the fault protection times

#### OC fault

Adjust the output frequency to avoid overcurrent of the VFD during acceleration

#### OV fault

Adjust the output frequency to avoid overvoltage of the DC bus during deceleration

### • Multiple braking modes and instant stopping

#### Dynamic braking

- Configure braking units and resistors
- Available on the situation of big inertia load and frequent braking
- Big braking torque and quick braking

#### DC braking

- No need to configure braking units and resistors
- Available on the situation when start the running motor after braking and the situation when keep the moment output after braking to zero speed
- Not available on the situation of big inertia load or instant stopping braking in high speed running

#### Flux braking

- No need to configure braking units and resistors
- Available on the instant stopping situation with big inertia load and no frequent braking
- Not available on the situation of big inertia load and frequent braking (the energy consumed on the stator and its cooling is better than DC braking)

#### Short circuit braking

- No need to configure braking units and resistors, capable of braking quickly
- Applicable to the motors at quick start and stop or restart after braking
- Not applicable to big inertia load and frequent braking

# Multi-Function with Simple Operation

## • Separate Air-duct

The separate air duct prevents the contaminants into the electronic parts/components and greatly improves the protective effect of the VFD, 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.



## • Multiple installation modes

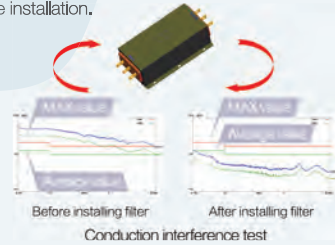
0.75~200kW: Wall mounting and flange mounting  
200~315kW: Wall mounting and floor mounting  
350~500kW: Floor mounting

Remark: above power ratings are subject to G type machine.



## • Standard built-in C3 input filters, optional external C2 filters

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



Remarks:  
C2 filter: EMC performance of the VFD achieves the limited usage requirement in civil environment.  
C3 filter: EMC performance of the VFD achieves the limited usage requirement in industrial environment.

## • Book structure

Parallel installation  
Smaller installation space with less cost and beautiful appearance.



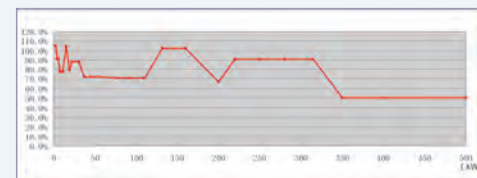
## • The rivet design ensures reliable integration connection

Greener Proper grounding  
Stronger corrosion-resistance Excellent EMC performance



## • Smaller Size

Due to the thermal simulation and advanced modularized design, the size of our product is reduced greatly. The width ratio between Goodrive300 and CHF100A is shown in the figure below (the Max. percentage is 50%)



## • GD200A series

Membrane keypad design (which can be connected to external keypads) is available for VFDs ( $\leq 15\text{kW}$ ); swappable keypads are standard for VFDs ( $\geq 18.5\text{kW}$ )



## • Abundant terminals

| Terminals               | Quantity   | Features                     |
|-------------------------|------------|------------------------------|
| Digital input           | 8 channels | 1KHz NPN and PNP             |
| High speed Pulse input  | 1 channel  | 50KHz NPN and PNP            |
| Analog input            | 2 channels | 0~10V, 0~20mA, -10V~-10V     |
| Digital output          | 1 channel  | Max. output frequency: 1KHz  |
| High speed Pulse output | 1 channel  | Max. output frequency: 50KHz |
| Analog output           | 2 channels | 0~10V, 0~20mA                |
| Relay output            | 2 channels | 3A/250VAC, 1A/30VDC, NO+NC   |

## • High Performance Keypad

External LED keypads are standard for VFDs ( $\geq 18.5\text{kW}$ ) to support parameters upload and download, the maximum external length is 200m and the keypads have digital potentiometers; external keypads are optional for VFDs ( $\leq 15\text{kW}$ ).



The optional external LCD keypad supports parameters loading and unloading with English.

## • Available on DC power supply

Reduce the occupied space and decrease the costsign of the customer.



## • Embedded braking units of 0.75-30kW VFDs

Reduce the occupied space and decrease the costsign of the customer.

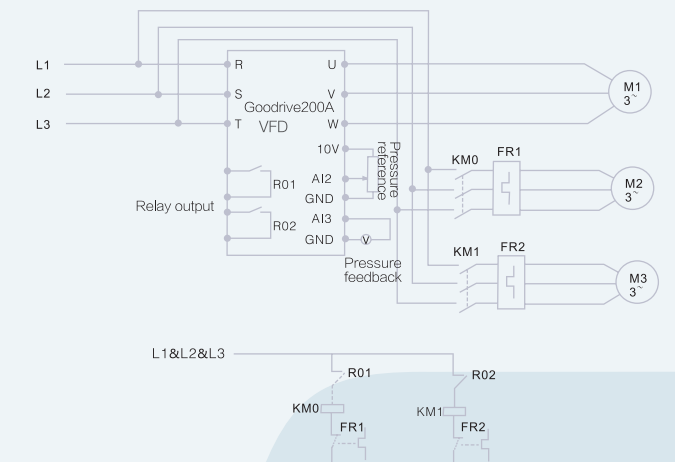


## • Supporting common DC bus

Reduce the power lost on DBR  
Note the impact current and the capacity of the input AC system



## • Function of water supply

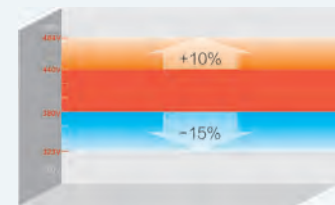
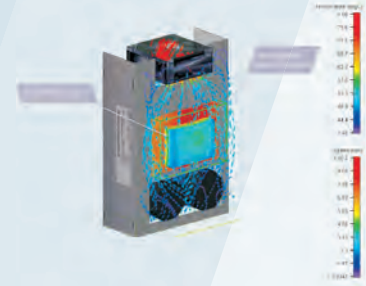


In the diagram above, M2 and M3 are auxiliary motors which are controlled by R01 and R02. PID constant-pressure automatic control system is formed by the VFD through pressure feedback. The pressure reference can apply analog or keypad input. Modbus RS-485 communication is also supported.

## • The product design follows IEC national standards and passes the CE test certification.



- Advanced thermal technology makes exact thermal design
- Wide voltage range meets the requirement of grid environment

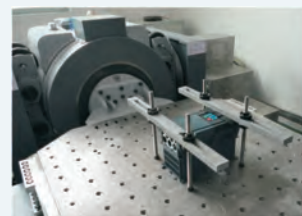


AC 3PH:380V(-15%)-440V(+10%) Wide voltage range

- Perfect and reliable test system ensure products adapt complicated site environments

| Experiment type                         | Experiment name        | Classification                                        |
|-----------------------------------------|------------------------|-------------------------------------------------------|
| Mechanical reliability experiments      | Package experiments    | Package compression experiments                       |
|                                         |                        | Package resonance imaging and storage test            |
|                                         |                        | Package random vibration test                         |
|                                         |                        | Package dropping test                                 |
|                                         |                        | Package rolling test                                  |
|                                         |                        | Package dumping test                                  |
|                                         |                        | Package inclined impact test                          |
|                                         | Impact test            | Half-sine wave impulse test(non-working state)        |
|                                         |                        | Trapezoidal wave impulse test (non-working state)     |
| Climatic environmental reliability test | Vibration test         | Sinusoidal vibration test (working state)             |
|                                         |                        | Random vibration test (working and non-working state) |
|                                         | Temperature experiment | Low temperature storage test                          |
|                                         |                        | High temperature storage test                         |
|                                         |                        | Low temperature experiments                           |
|                                         |                        | High temperature experiments                          |
|                                         |                        | Temperature gradient experiments                      |
|                                         |                        | Temperature impact test                               |
|                                         | Thermal test           | Constant thermal test                                 |
|                                         |                        | Alternation thermal test                              |
|                                         | Salt spray test        | Constant salt spray test                              |
|                                         |                        | Alternation salt spray test                           |
|                                         | Low air pressure test  | Low Air Pressure Test                                 |
|                                         |                        | Low temperature and low pressure test                 |
|                                         |                        | High temperature and low pressure test                |

Remarks:  
INVV is the manufacturer achieved ACT certificate of TÜV SÜD .The full name of ACT is Acceptance of Client's Testing, which means the German TÜV SÜD admit the technology level of the lab and accept their separate testing data and test reports officially.



Electric Vibration System



Low Pressure Test Chamber (L)  
Constant Temperature and Humidity Test Chamber (R)



Natural Convection Test Chamber (L)  
Thermal Shock Test Chamber (R)

## Applications



Air compressor



Oil industry



Warming and water supply



Plastic machine



Mining



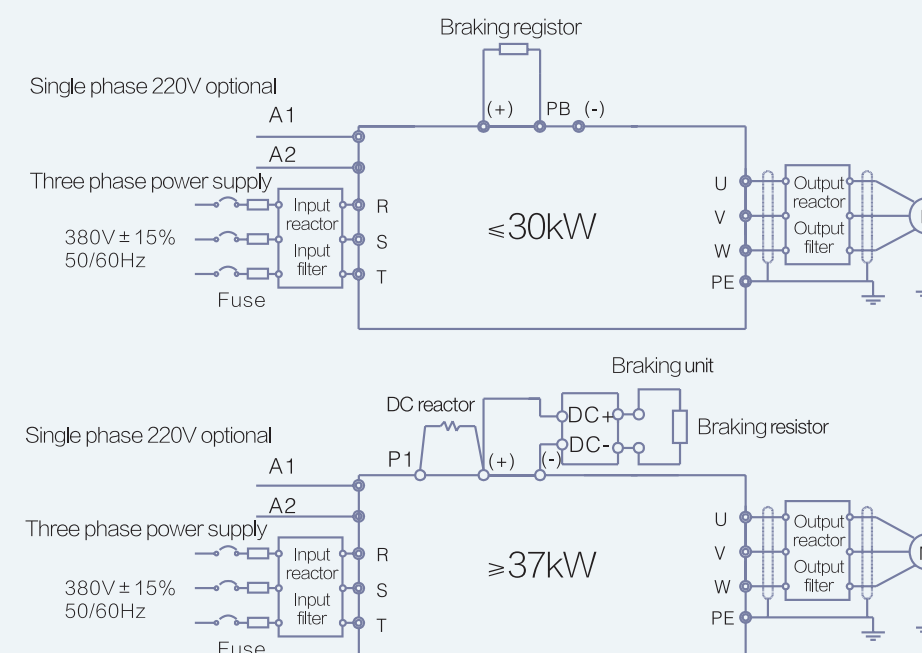
Fan and water pump

## Technical Specifications

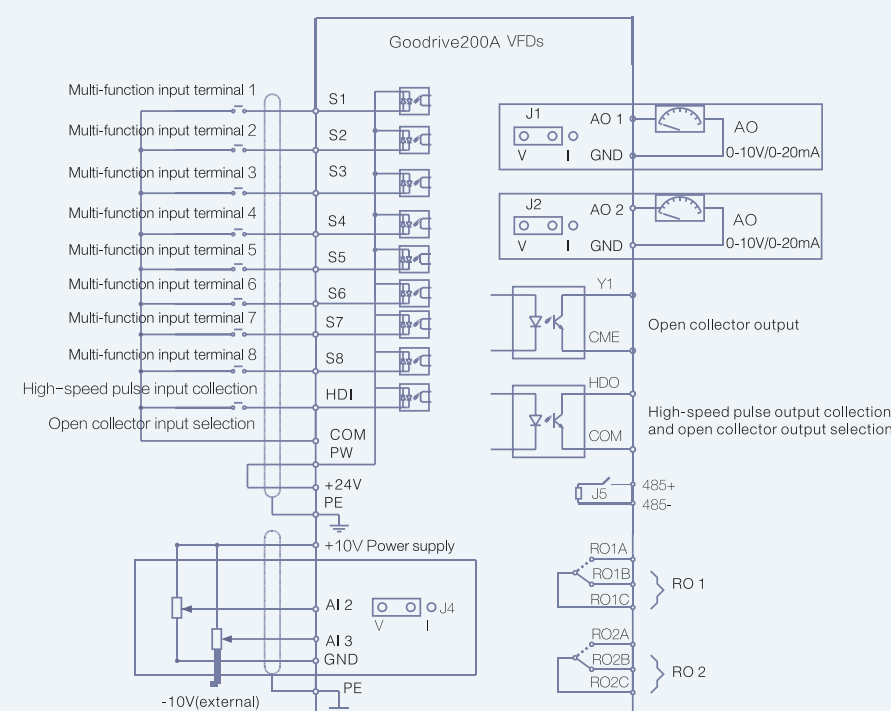
| Function                  |                                        | Illustration                                                                                                                                                                                                                                                    |
|---------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input                     | Input voltage (V)                      | AC 3PH 220V(-15%)~240V(+10%)<br>AC 3PH 380V(-15%)~440V(+10%)<br>AC 3PH 520V(-15%)~690V(+10%)                                                                                                                                                                    |
|                           | Input frequency (Hz)                   | 50Hz or 60Hz<br>Allowed range: 47~63Hz                                                                                                                                                                                                                          |
| Output                    | Output frequency (Hz)                  | 0~400Hz                                                                                                                                                                                                                                                         |
| Technical control feature | Control mode                           | V/F SVC                                                                                                                                                                                                                                                         |
|                           | Motor type                             | Asynchronous motor                                                                                                                                                                                                                                              |
|                           | Speed ratio                            | Asynchronous motor 1:100                                                                                                                                                                                                                                        |
|                           | Overload capability                    | G type:<br>150% of rated current: 1 minute<br>180% of rated current: 10 seconds<br>200% of rated current: 1 second<br>P type:<br>120% of rated current: 60 second                                                                                               |
| Running control feature   | Frequency setting                      | Digital setting, analog setting, pulse frequency setting, multi-step speed running setting, simple PLC setting, PID setting, MODBUS communication setting, PROFIBUS communication setting.<br>Realize the shifting between the set combination and set channel. |
|                           | Auto voltage adjustment                | Keep a stable voltage automatically when the grid voltage transients                                                                                                                                                                                            |
|                           | Fault protection                       | Provide over 30 fault protection functions: overcurrent, overvoltage, undervoltage, overheating, phase loss and overload, etc.                                                                                                                                  |
|                           | Speed tracking                         | Restart the rotating motor smoothly                                                                                                                                                                                                                             |
| Peripheral interface      | Terminal analog input resolution       | ≤10mV                                                                                                                                                                                                                                                           |
|                           | Terminal switch input resolution       | ≤ 2ms                                                                                                                                                                                                                                                           |
|                           | Analog input                           | 2 channels (AI1, AI2) 0~10V/0~20mA and 1 channel (AI3) -10~10V                                                                                                                                                                                                  |
|                           | Analog output                          | 2 channels (AO1, AO2) 0~10V /0~20mA                                                                                                                                                                                                                             |
|                           | Digital input                          | 8 channels common input, the Max. frequency: 1kHz<br>1 channel high speed input, the Max. frequency: 50kHz                                                                                                                                                      |
|                           | Digital output                         | 1 channel high speed pulse output, the Max. frequency: 50kHz;<br>1 channel Y terminal open collector pole output                                                                                                                                                |
| Others                    | Relay output                           | 2 channels programmable relay output<br>RO1A NO, RO1B NC, RO1C common terminal<br>RO2A NO, RO2B NC, RO2C common terminal<br>Contactor capacity: 3A/250VAC, 1A/30VDC                                                                                             |
|                           | Mountable method                       | Wall, flange and floor mountable                                                                                                                                                                                                                                |
|                           | Temperature of the running environment | -10~50℃, derate above 40℃                                                                                                                                                                                                                                       |
|                           | Ingress protection                     | IP20                                                                                                                                                                                                                                                            |
|                           | Cooling                                | Air-cooling                                                                                                                                                                                                                                                     |
|                           | Braking unit                           | Built-in braking unit for below 30G/37P (including 30G/37P)<br>Optional External braking unit for others                                                                                                                                                        |
|                           | Braking resister                       | External braking                                                                                                                                                                                                                                                |
|                           | EMC filter                             | Built-in C3 filter: meet the degree requirement of IEC61800-3 C3<br>Optional external filter, meet the degree requirement of IEC61800-3 C2                                                                                                                      |

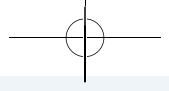
## Standard Wiring

Wiring diagram of the main circuit



Wiring diagram of the control board





## Type Selection

Power ratings and dimension

| VFD model          | Rated output power<br>(kW) | Input current<br>(A) | Rated output current<br>(A) | Gross weight<br>(kg) | Packaging dimension<br>(mm) |
|--------------------|----------------------------|----------------------|-----------------------------|----------------------|-----------------------------|
| 3-phase 220VAC±15% |                            |                      |                             |                      |                             |
| GD200A-0R7G-2      | 0.75                       | 5                    | 4.5                         | 4.1kg                | 360x250x265                 |
| GD200A-1R5G-2      | 1.5                        | 7.7                  | 7                           |                      |                             |
| GD200A-2R2G-2      | 2.2                        | 11                   | 10                          |                      |                             |
| GD200A-004G-2      | 3.7                        | 17                   | 16                          | 7.4kg                | 445x295x320                 |
| GD200A-5R5G-2      | 5.5                        | 21                   | 20                          |                      |                             |
| GD200A-7R5G-2      | 7.5                        | 31                   | 30                          |                      |                             |
| GD200A-011G-2      | 11                         | 43                   | 42                          | 11kg                 | 550x375x375                 |
| GD200A-015G-2      | 15                         | 56                   | 55                          |                      |                             |
| GD200A-018G-2      | 18.5                       | 71                   | 70                          | 32kg                 | 695x410x470                 |
| GD200A-022GP-2     | 22                         | 81                   | 80                          |                      |                             |
| GD200A-030G-2      | 30                         | 112                  | 110                         |                      |                             |
| GD200A-037G-2      | 37                         | 132                  | 130                         | 67kg                 | 760x445x580                 |
| GD200A-045G-2      | 45                         | 163                  | 160                         |                      |                             |
| GD200A-055G-2      | 55                         | 181                  | 190                         |                      |                             |
| 3-phase 380VAC±15% |                            |                      |                             |                      |                             |
| GD200A-0R7G-4      | 0.75                       | 3.4                  | 2.5                         | 2.5kg                | 275 x205 x235               |
| GD200A-1R5G-4      | 1.5                        | 5.0                  | 3.7                         |                      |                             |
| GD200A-2R2G-4      | 2.2                        | 5.8                  | 5                           |                      |                             |
| GD200A-004G/5R5P-4 | 4/5.5                      | 13.5/19.5            | 9.5/14                      | 4.1kg                | 360 x250 x265               |
| GD200A-5R5G/7R5P-4 | 5.5/7.5                    | 19.5/25              | 14/18.5                     |                      |                             |
| GD200A-7R5G/011P-4 | 7.5/11                     | 25/32                | 18.5/25                     | 7.4kg                | 445 x295 x320               |
| GD200A-011G/015P-4 | 11/15                      | 32/40                | 25/32                       |                      |                             |
| GD200A-015G/018P-4 | 15/18.5                    | 40/47                | 32/38                       |                      |                             |
| GD200A-018G/022P-4 | 18.5/22                    | 47/56                | 38/45                       | 9kg                  | 460 x340 x330               |
| GD200A-022G/030P-4 | 22/30                      | 56/70                | 45/60                       | 11kg                 | 550 x375x375                |
| GD200A-030G/037P-4 | 30/37                      | 70/80                | 60/75                       |                      |                             |
| GD200A-037G/045P-4 | 37/45                      | 80/94                | 75/92                       | 32kg                 | 695 x410x470                |
| GD200A-045G/055P-4 | 45/55                      | 94/128               | 92/115                      |                      |                             |
| GD200A-055G/075P-4 | 55/75                      | 128/160              | 115/150                     |                      |                             |
| GD200A-075G/090P-4 | 75/90                      | 160/190              | 150/180                     | 67kg                 | 760 x445 x580               |
| GD200A-090G/110P-4 | 90/110                     | 190/225              | 180/215                     |                      |                             |
| GD200A-110G/132P-4 | 110/132                    | 225/265              | 215/260                     |                      |                             |
| GD200A-132G/160P-4 | 132/160                    | 265/310              | 260/305                     | 110kg                | 971 x631 x565               |
| GD200A-160G/185P-4 | 160/185                    | 310/345              | 305/340                     |                      |                             |
| GD200A-185G/200P-4 | 160/185                    | 310/345              | 305/340                     |                      |                             |
| GD200A-200G/220P-4 | 185/200                    | 345/385              | 340/380                     | 165kg                | 1086x826x595                |
| GD200A-220G/250P-4 | 220/250                    | 430/485              | 425/480                     |                      |                             |
| GD200A-250G/280P-4 | 250/280                    | 485/545              | 480/530                     |                      |                             |
| GD200A-280G/315P-4 | 280/315                    | 545/610              | 530/600                     | 450kg                | 1850x840x820                |
| GD200A-315G/355P-4 | 315/355                    | 610/625              | 600/650                     |                      |                             |
| GD200A-355G/400P-4 | 355/400                    | 625/715              | 650/720                     |                      |                             |
| GD200A-400G-4      | 400                        | 715                  | 720                         | 450kg                | 1850x840x820                |
| GD200A-500G-4      | 500                        | 890                  | 860                         |                      |                             |

Remarks:

(1)The input current of the VFD 0.75G-315G/350P is tested when the input voltage is 380V and there is no DC reactor and output/input reactor.

(2)The current of the VFD 350G/400P-500G is tested when the input voltage is 380V and there is input reactor.

(3)Rated output current is defined when the rated output voltage is 380V.

## Installation Dimensions

Wall mounting

(unit: mm)

| Model                 |              | W1  | W2  | H1  | H2    | D1    | Installation holes |
|-----------------------|--------------|-----|-----|-----|-------|-------|--------------------|
| 3-phase 220VAC series | 0.75kW~2.2kW | 146 | 131 | 256 | 243.5 | 181   | 6                  |
|                       | 4kW~7.5kW    | 170 | 151 | 320 | 303.5 | 216   | 6                  |
|                       | 11kW~15kW    | 255 | 237 | 407 | 384   | 245   | 7                  |
|                       | 18.5kW~30kW  | 270 | 130 | 555 | 540   | 325   | 7                  |
|                       | 37kW~55kW    | 325 | 200 | 680 | 661   | 365   | 9.5                |
| 3-phase 380VAC series | 0.75kW~2.2kW | 126 | 115 | 186 | 175   | 155   | 5                  |
|                       | 4kW~5.5kW    | 146 | 131 | 256 | 243.5 | 171   | 6                  |
|                       | 7.5kW~15kW   | 170 | 151 | 320 | 303.5 | 199.6 | 6                  |
|                       | 18.5kW       | 230 | 210 | 342 | 311   | 219.4 | 6                  |
|                       | 22kW~30kW    | 255 | 237 | 407 | 384   | 245.6 | 7                  |
|                       | 37kW~55kW    | 270 | 130 | 555 | 540   | 332.6 | 7                  |
|                       | 75kW~110kW   | 325 | 200 | 680 | 661   | 373.6 | 9.5                |
|                       | 132kW~200kW  | 500 | 180 | 870 | 850   | 368.4 | 11                 |
|                       | 220kW~315kW  | 680 | 230 | 960 | 926   | 387.9 | 13                 |

Flange mounting

(unit: mm)

| VFD model             |              | W1    | W1  | W3  | W4   | H1  | H2  | H3  | H4   | D1    | D2    | Installation holes |
|-----------------------|--------------|-------|-----|-----|------|-----|-----|-----|------|-------|-------|--------------------|
| 3-phase 220VAC series | 0.75kW~2.2kW | 170.2 | 131 | 150 | 9.5  | 292 | 276 | 260 | 6    | 167   | 84.5  | 6                  |
|                       | 4kW~7.5kW    | 191.2 | 151 | 174 | 11.5 | 370 | 351 | 324 | 15   | 196.3 | 113   | 6                  |
|                       | 11kW~15kW    | 275   | 237 | 259 | 11   | 445 | 426 | 404 | 10   | 245   | 119   | 7                  |
|                       | 18.5kW~30kW  | 270   | 130 | 261 | 11   | 445 | 426 | 404 | 10   | 245   | 119   | 7                  |
|                       | 37kW~55kW    | 325   | 200 | 317 | 58.5 | 680 | 661 | 626 | 23   | 363   | 182   | 9.5                |
| 3-phase 380VAC series | 0.75kW~2.2kW | 150.2 | 115 | 130 | 7.5  | 234 | 220 | 190 | 13.5 | 155   | 65.5  | 5                  |
|                       | 4kW~5.5kW    | 170.2 | 131 | 150 | 9.5  | 292 | 276 | 260 | 6    | 171   | 84.5  | 6                  |
|                       | 7.5kW~15kW   | 191.2 | 151 | 174 | 11.5 | 370 | 351 | 324 | 12   | 199.6 | 113   | 6                  |
|                       | 18.5kW       | 250   | 210 | 234 | 12   | 375 | 356 | 334 | 10   | 219.4 | 108   | 6                  |
|                       | 22kW~30kW    | 275   | 237 | 259 | 11   | 445 | 426 | 404 | 10   | 245   | 119   | 7                  |
|                       | 37kW~55kW    | 270   | 130 | 261 | 65.5 | 555 | 540 | 516 | 17   | 332.6 | 167   | 7                  |
|                       | 75kW~110kW   | 325   | 200 | 317 | 58.5 | 680 | 661 | 626 | 23   | 373.6 | 182   | 9.5                |
|                       | 132kW~200kW  | 500   | 180 | 480 | 60   | 870 | 850 | 796 | 37   | 368.4 | 178.5 | 11                 |

Floor mounting

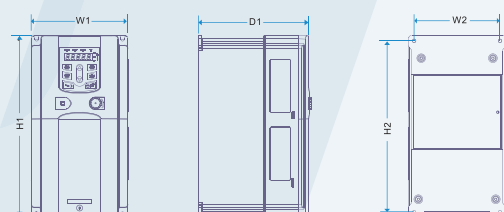
(unit: mm)

| VFD model   | W1  | W1  | W3  | W4  | H1   | H2   | D1  | D2  | Installation holes |
|-------------|-----|-----|-----|-----|------|------|-----|-----|--------------------|
| 220kW~315W  | 750 | 230 | 714 | 680 | 1410 | 1390 | 380 | 150 | 13\12              |
| 355kW~500kW | 620 | 230 | 553 | -   | 1700 | 1678 | 560 | 240 | 22\12              |

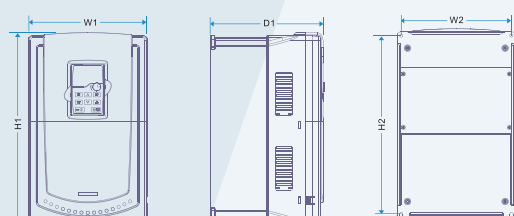
# Installation Diagram

- 3-phase 220VAC series  
Wall Mounting for 0.75-55kW VFDs

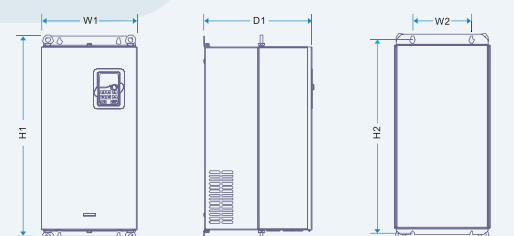
0.75-7.5kW Installation diagram



11-15kW Installation diagram

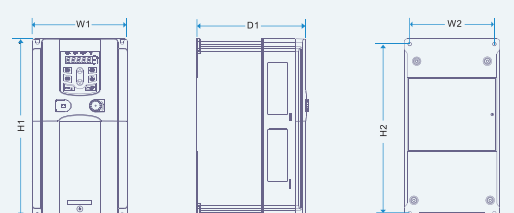


18.5-55kW Installation

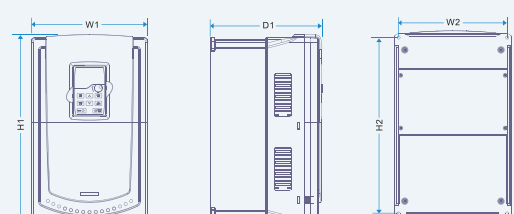


- 3-phase 380VAC series  
Wall Mounting for 0.75-315kW VFDs

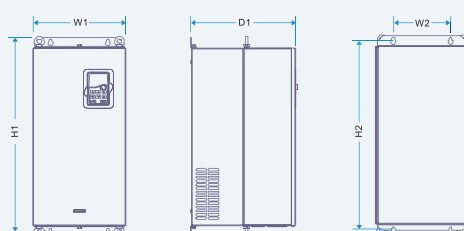
0.75-15kW Wall mounting Installation diagram



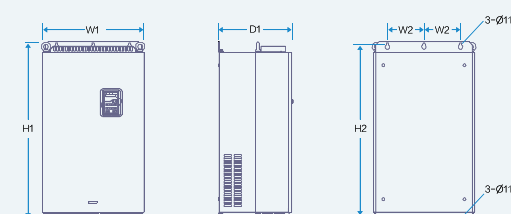
18.5-30kW Wall mounting Installation diagram



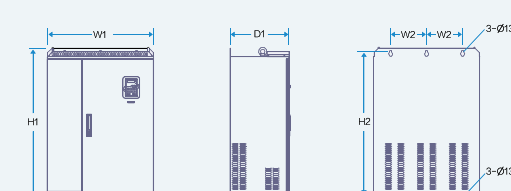
37-110kW Wall mounting Installation diagram



132-200kW Wall mounting Installation diagram

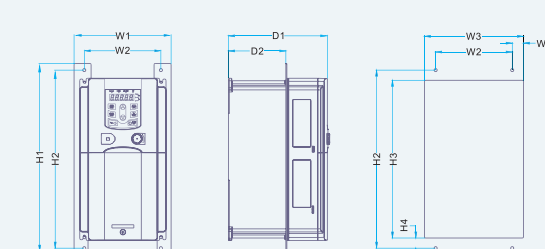


220-315kW Wall mounting Installation diagram

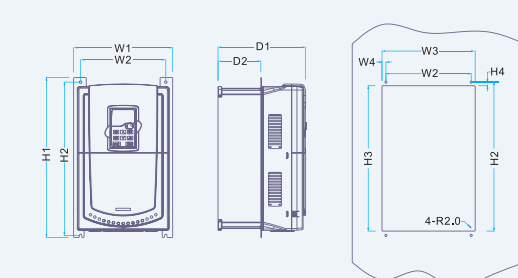


- 3-phase 220VAC series  
Flange Mounting for 0.75-55kW VFDs

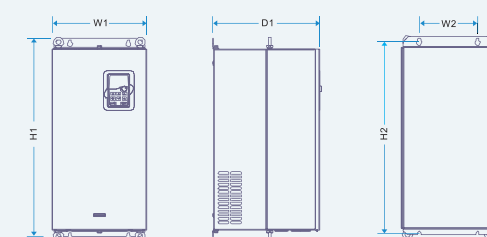
0.75-7.5kW Flange mounting installation diagram



11-15kW Flange mounting installation diagram

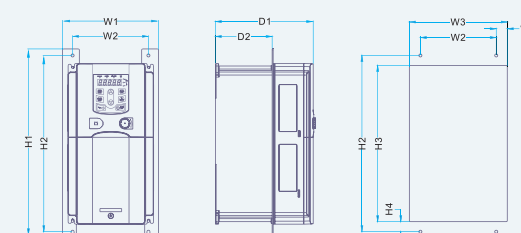


18.5-55kW Flange mounting installation diagram

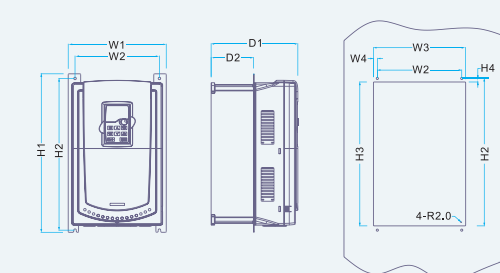


- 3-phase 380VAC series  
Flange Mounting for 0.75-200kW VFDs

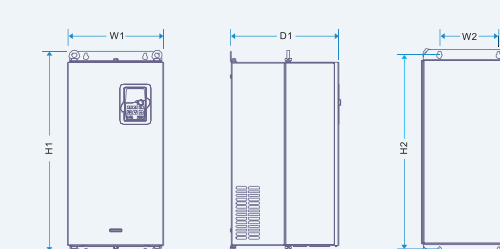
0.75-15kW Flange mounting Installation diagram



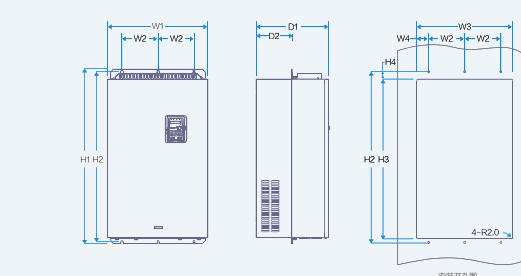
18.5-30kW Flange mounting Installation diagram



37-110kW Flange mounting Installation diagram

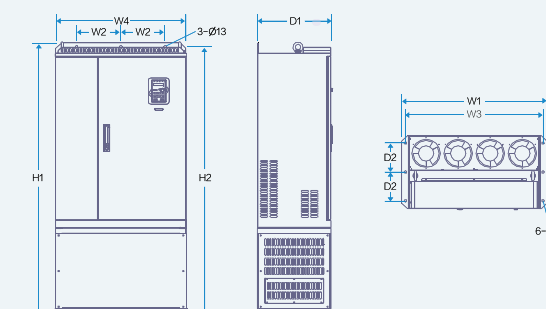


132-200kW Flange mounting Installation diagram

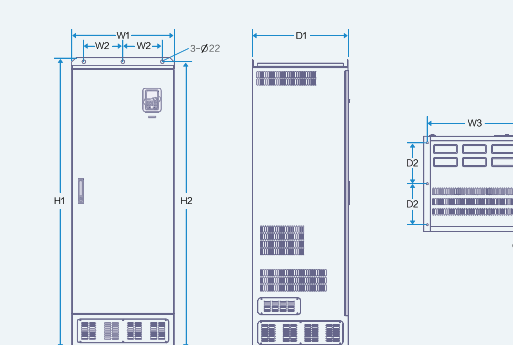


- Floor Mounting for 200-500kW VFDs

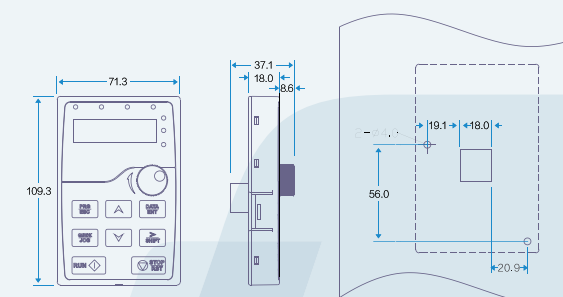
220-315kW Floor mounting Installation diagram



355-500kW Floor mounting Installation diagram



- Dimensions for Keypad



## Optional Parts

### • Flange mounting panel

Needed for 0.75G-30G//37P VFDs.  
Not needed for 37G/40P-200G//220P VFDs.



### • Installation bracket for the keypad

Installation bracket or M3 screw can be used in the installation of external keypad.  
The bracket of 0.75G-30G//37P VFDs is standard.  
The bracket of 37G/40P-500G VFDs is optional



### • LCD keypad

10 rows of high definition displaying  
Compatible with the LED keypad



### • Filters

| VFD model                             |                         | input filter   | output filter  |
|---------------------------------------|-------------------------|----------------|----------------|
| GD200A<br>3-phase<br>380VAC<br>Series | G:0.75—2.2kW            | FLT-P04006L-B  | FLT-L04006L-B  |
|                                       | G:4—5.5kW P:5.5—7.5kW   | FLT-P04016L-B  | FLT-L04016L-B  |
|                                       | G:7.5—11kW P:11—15kW    | FLT-P04032L-B  | FLT-L04032L-B  |
|                                       | G:15—18.5kW P:18.5—22kW | FLT-P04045L-B  | FLT-L04045L-B  |
|                                       | G:22—30kW P:30—37kW     | FLT-P04065L-B  | FLT-L04065L-B  |
|                                       | G:37—45kW P:45—55kW     | FLT-P04100L-B  | FLT-L04100L-B  |
|                                       | G:55—75kW P:75—90kW     | FLT-P04150L-B  | FLT-L04150L-B  |
|                                       | G:90kW P:110kW          | FLT-P04200L-B  | FLT-L04200L-B  |
|                                       | G:110—132kW P:132—160kW | FLT-P04250L-B  | FLT-L04250L-B  |
|                                       | G:160—200kW P:185—220kW | FLT-P04400L-B  | FLT-L04400L-B  |
|                                       | G:220—280kW P:250—315kW | FLT-P04600L-B  | FLT-L04600L-B  |
|                                       | G:315—400kW P:355-400kW | FLT-P04800L-B  | FLT-L04800L-B  |
|                                       | G:450—500kW             | FLT-P041000L-B | FLT-L041000L-B |

Remarks: IEC61800-3 C2 degree requirement can be achieved by using the external filters.

### • Installation base

Only optional in 220G/250P-315G/350P VFDs .Its bases can be built in an input AC (or DC) reactor or an output AC reactor



### • Heat-releasing hole

VFD needs to derate when selecting a cover consult with the INVT technicians for the detailed information.



### • AC single-phase 220V input auxiliary power supply

For more convenient debugging

### • Reactor

The VFDs of 37G/45P and above can be connected with external DC reactor, The reactor can improve the power factor and avoid damage to the rectifier bridge caused by overcurrent and damage to the rectifier circuit by harmonic

| VFD model          | Input reactor          | DC reactor | Output reactor |
|--------------------|------------------------|------------|----------------|
| GD200A-0R7G-4      | ACL2-1R5-4             | /          | OCL2-1R5-4     |
| GD200A-1R5G-4      | ACL2-1R5-4             | /          | OCL2-1R5-4     |
| GD200A-2R2G-4      | ACL2-2R2-4             | /          | OCL2-2R2-4     |
| GD200A-004G/5R5P-4 | ACL2-004-4             | /          | OCL2-004-4     |
| GD200A-5R5G/7R5P-4 | ACL2-5R5-4             | /          | OCL2-5R5-4     |
| GD200A-7R5G/011P-4 | ACL2-7R5-4             | /          | OCL2-7R5-4     |
| GD200A-011G/015P-4 | ACL2-011-4             | /          | OCL2-011-4     |
| GD200A-015G/018P-4 | ACL2-015-4             | /          | OCL2-015-4     |
| GD200A-018G/022P-4 | ACL2-018-4             | /          | OCL2-018-4     |
| GD200A-022G/030P-4 | ACL2-022-4             | /          | OCL2-022-4     |
| GD200A-030G/037P-4 | ACL2-030-4             | /          | OCL2-030-4     |
| GD200A-037G/045P-4 | ACL2-037-4             | DCL2-037-4 | OCL2-037-4     |
| GD200A-045G/055P-4 | ACL2-045-4             | DCL2-045-4 | OCL2-045-4     |
| GD200A-055G/075P-4 | ACL2-055-4             | DCL2-055-4 | OCL2-055-4     |
| GD200A-075G/090P-4 | ACL2-075-4             | DCL2-075-4 | OCL2-075-4     |
| GD200A-090G/110P-4 | ACL2-090-4             | DCL2-090-4 | OCL2-090-4     |
| GD200A-110G/132P-4 | ACL2-110-4             | DCL2-110-4 | OCL2-110-4     |
| GD200A-132G/160P-4 | ACL2-132-4             | DCL2-132-4 | OCL2-132-4     |
| GD200A-160G/185P-4 | ACL2-160-4             | DCL2-160-4 | OCL2-160-4     |
| GD200A-185G/200P-4 | ACL2-200-4             | DCL2-200-4 | OCL2-200-4     |
| GD200A-200G/220P-4 | ACL2-200-4             | DCL2-200-4 | OCL2-200-4     |
| GD200A-220G/250P-4 | ACL2-250-4             | DCL2-250-4 | OCL2-250-4     |
| GD200A-250G/280P-4 | ACL2-250-4             | DCL2-250-4 | OCL2-250-4     |
| GD200A-280G/315P-4 | ACL2-280-4             | DCL2-280-4 | OCL2-280-4     |
| GD200A-315G/355P-4 | ACL2-315-4             | DCL2-315-4 | OCL2-315-4     |
| GD200A-355G/400P-4 | standard configuration | DCL2-350-4 | OCL2-350-4     |
| GD200A-400G-4      | standard configuration | DCL2-400-4 | OCL2-400-4     |
| GD200A-450G-4      | standard configuration | DCL2-500-4 | OCL2-500-4     |
| GD200A-500G-4      | standard configuration | DCL2-500-4 | OCL2-500-4     |

## Braking system

The 380V VFDs ≤30G/37P and 220V VFDs ≤15G are build-in braking unit for standard, the others are external braking unit for optional, please choosing the resistor and power of braking resistor for site situation(require of braking torque and amount). Braking resistor can increase braking torque of VFD , In the table it designs the resistor power according to 100% braking torque,10% braking count, 50% braking count, 80% braking count; and customers can choose braking system according to specific process and work condition.

| VFD model          | braking unit model    | 100% braking torque fit braking resisters(Ω) | power of braking resister(kW) (10% braking count) | power of braking resister(kW) (50% braking count) | power of braking resister(kW) (80% braking count) | allowing minimum braking resister(Ω) |
|--------------------|-----------------------|----------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|--------------------------------------|
| GD200A-0R7G-4      | built-in braking unit | 653                                          | 0.1                                               | 0.6                                               | 0.9                                               | 240                                  |
| GD200A-1R5G-4      |                       | 326                                          | 0.23                                              | 1.1                                               | 1.8                                               | 170                                  |
| GD200A-2R2G-4      |                       | 222                                          | 0.33                                              | 1.7                                               | 2.6                                               | 130                                  |
| GD200A-004G/5R5P-4 |                       | 122                                          | 0.6                                               | 3                                                 | 4.8                                               | 80                                   |
| GD200A-5R5G/7R5P-4 |                       | 89                                           | 0.75                                              | 4.1                                               | 6.6                                               | 60                                   |
| GD200A-7R5G/011P-4 |                       | 65                                           | 1.1                                               | 5.6                                               | 9                                                 | 47                                   |
| GD200A-011G/015P-4 |                       | 44                                           | 1.7                                               | 8.3                                               | 13.2                                              | 31                                   |
| GD200A-015G/018P-4 |                       | 32                                           | 2                                                 | 11                                                | 18                                                | 23                                   |
| GD200A-018G/022P-4 |                       | 27                                           | 3                                                 | 14                                                | 22                                                | 19                                   |
| GD200A-022G/030P-4 |                       | 22                                           | 3                                                 | 17                                                | 26                                                | 17                                   |
| GD200A-030G/037P-4 |                       | 16                                           | 5                                                 | 23                                                | 36                                                | 17                                   |
| GD200A-037G/045P-4 | DBU100H-060-4         | 13                                           | 6                                                 | 28                                                | 44                                                | 11.7                                 |
| GD200A-045G/055P-4 | DBU100H-110-4         | 10                                           | 7                                                 | 34                                                | 54                                                | 6.4                                  |
| GD200A-055G/075P-4 |                       | 8                                            | 8                                                 | 41                                                | 66                                                |                                      |
| GD200A-075G/090P-4 |                       | 6.5                                          | 11                                                | 56                                                | 90                                                |                                      |
| GD200A-090G/110P-4 | DBU100H-160-4         | 5.4                                          | 14                                                | 68                                                | 108                                               | 4.4                                  |
| GD200A-110G/132P-4 |                       | 4.5                                          | 17                                                | 83                                                | 132                                               |                                      |
| GD200A-132G/160P-4 | DBU100H-220-4         | 3.7                                          | 20                                                | 99                                                | 158                                               | 3.2                                  |
| GD200A-160G/185P-4 | DBU100H-320-4         | 3.1                                          | 24                                                | 120                                               | 192                                               | 2.2                                  |
| GD200A-185G/200P-4 |                       | 2.8                                          | 28                                                | 139                                               | 222                                               |                                      |
| GD200A-200G/220P-4 |                       | 2.5                                          | 30                                                | 150                                               | 240                                               |                                      |
| GD200A-220G/250P-4 | DBU100H-400-4         | 2.2                                          | 33                                                | 165                                               | 264                                               | 1.8                                  |
| GD200A-250G/280P-4 |                       | 2.0                                          | 38                                                | 188                                               | 300                                               |                                      |
| GD200A-280G/315P-4 | Two DBU100H-320-4     | 3.6*2                                        | 21*2                                              | 105*2                                             | 168*2                                             | 2.2*2                                |
| GD200A-315G/355P-4 |                       | 3.2*2                                        | 24*2                                              | 118*2                                             | 189*2                                             |                                      |
| GD200A-355G/400P-4 |                       | 2.8*2                                        | 27*2                                              | 132*2                                             | 210*2                                             |                                      |
| GD200A-400G-4      | Two DBU100H-400-4     | 2.4*2                                        | 30*2                                              | 150*2                                             | 240*2                                             | 1.8*2                                |
| GD200A-450G-4      |                       | 2.2*2                                        | 34*2                                              | 168*2                                             | 270*2                                             |                                      |
| GD200A-500G-4      |                       | 2*2                                          | 38*2                                              | 186*2                                             | 300*2                                             |                                      |

## Sales Network



★ INVT Headquarters

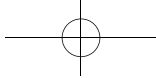
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