

VicRuns

Caring for Machinery Caring for Energy

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VD20 Series Frequency Converter

ABOUT US

VicRuns Technology is a high-tech innovative enterprise integrating product development, manufacturing, sales and service in the fields of high-performance motor drive and control, new energy power conversion and control, and industrial robot servo control. With the deep integration of high-performance motor drive technology, power conversion technology and industrial Internet of Things technology, it serves China's high-end intelligent equipment and other fields, and has long been committed to providing users with durable and reliable standardized products and personalized system solutions.

The company's headquarters has a standardized production base of 20,000 square meters, and the production equipment and inspection and testing equipment are at the domestic advanced level. The company has a technology R&D and management team with doctoral, master and invention rights holders as the core, and has established long-term industry-university-research cooperation relationships with Hunan University and other institutions.

The company has been recognized as a high-tech enterprise, a software enterprise, and a famous trademark in Hunan Province for more than ten consecutive years. It has more than 60 national patents (including more than 20 invention patents), more than 30 software copyrights, and many main technical indicators of the product have reached the advanced level of similar products in the world or the leading domestic level.

Service outlets cover the whole country, with more than 100 marketing outlets, more than 20 offices, 3 overseas, products are exported to the United States, Russia, Vietnam, Indonesia, Thailand, India and other countries.



APPLICATION SCENES

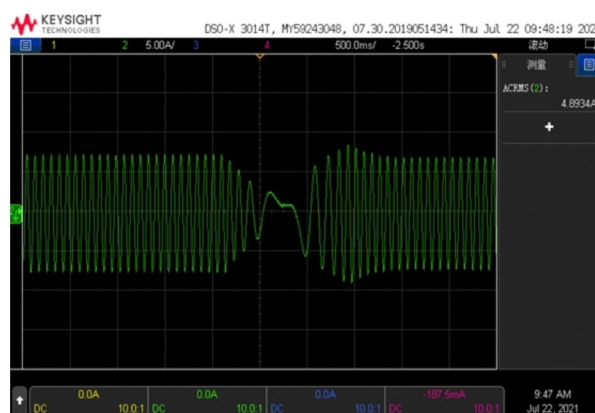


PRODUCT ADVANTAGE

Excellent Performance

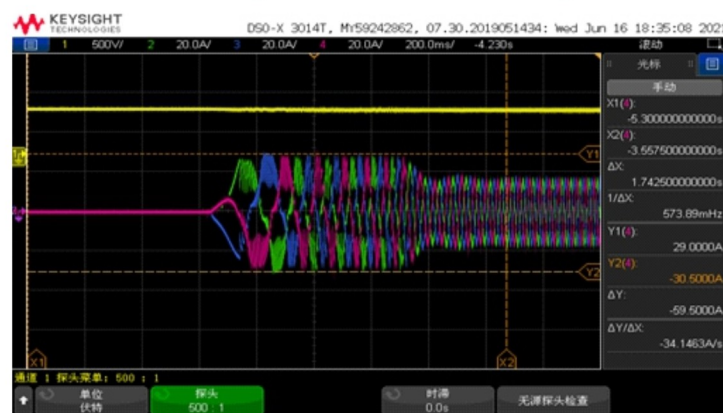
Excellent Control Performance

Adopting advanced motor control algorithm, multiple control modes, excellent control performance, can adapt to various complex operating conditions.



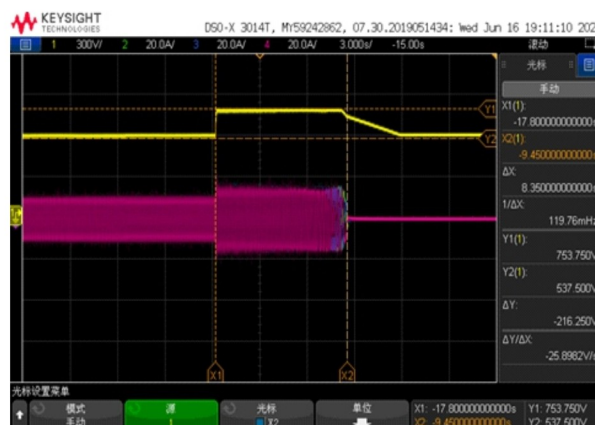
Overcurrent Suppression

The overcurrent suppression function is to automatically limit the load current to not exceed the set overcurrent suppression point during operation by real-time monitoring of the load current to prevent fault tripping caused by excessive current. This function is especially suitable for some loads with large inertia or drastic changes.



Overvoltage Suppression

When the bus voltage reaches or exceeds the overvoltage suppression point during the operation of the inverter, the inverter will automatically adjust the operation frequency to suppress the rise of the bus voltage, so as to ensure that the inverter will not cause overvoltage protection due to excessive bus voltage.

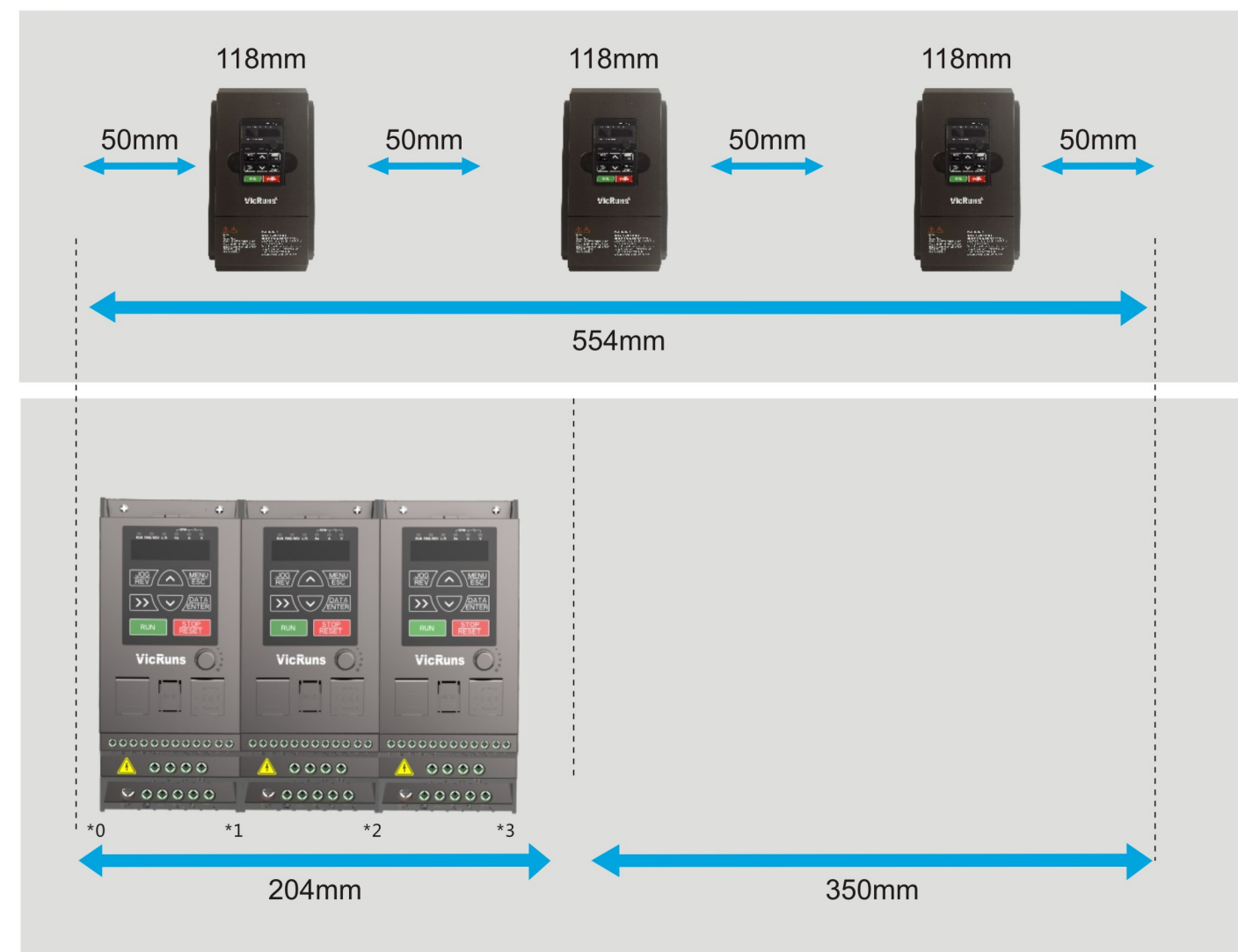


SMART DESIGN

Excellent Structure Design--Book-style Design

Book-style narrow body design greatly saves installation space and is convenient for multiple units to be installed side by side.

380V 2.2kW



PRODUCT ADVANTAGE

Easy to Install

Various Installation Methods

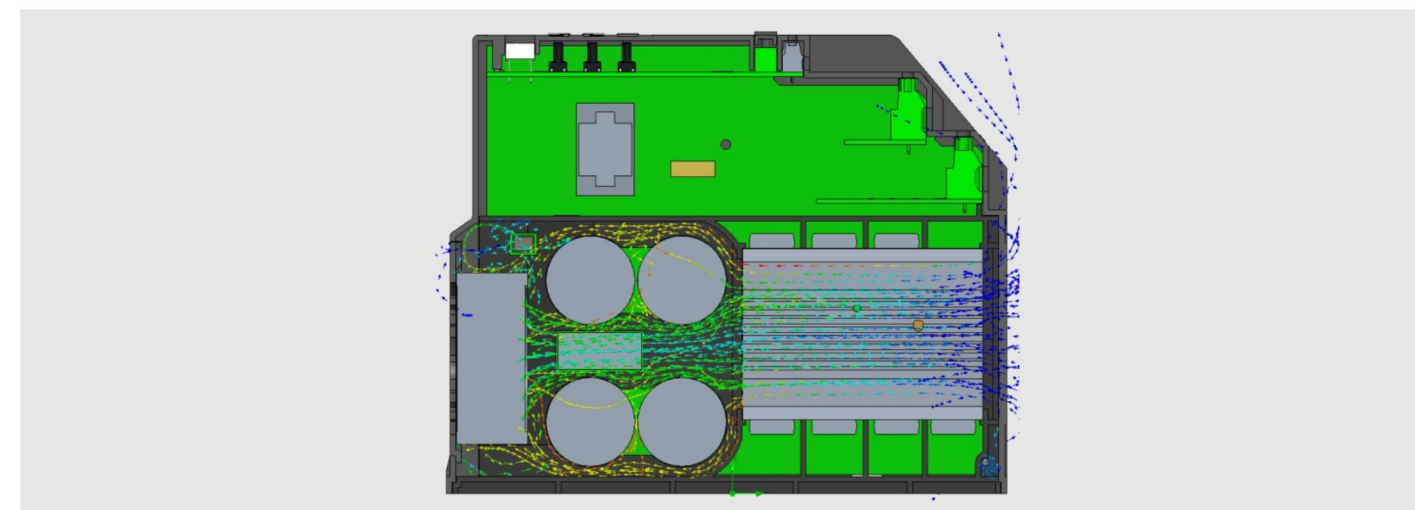
Side by side installation / rail installation / side installation (only supported within 2.2kW).



Stable and Reliable

Independent Air Duct Design

Completely independent air duct design greatly improves the protection level and adapts to harsh working conditions.



No Need to Remove the Cover to Replace the Fan

The cooling fan can be quickly replaced without opening the cover, which is convenient for on-site maintenance.



PRODUCT ADVANTAGE

Terminal Specifications

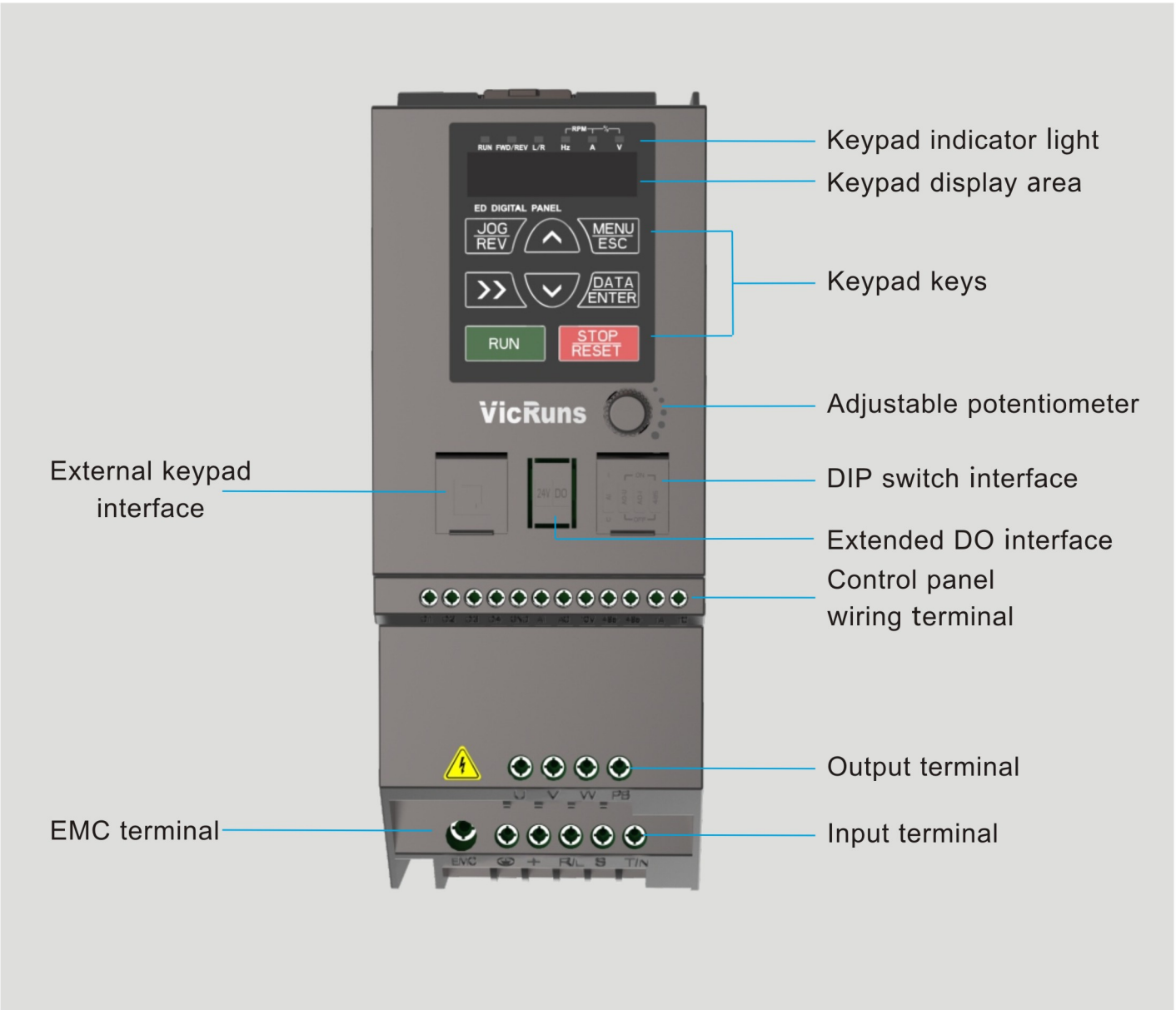
Number of Control Terminals

Serial No.	Unit Circuit	Qty	Remarks
1	Digital input	4	Three ordinary input, one high-speed input (optional)
2	Digital output	1	One ordinary output (optional)
3	Relay output	1	Normally open output
4	Analog input	1	Current/voltage optional
5	Analog output	1	current/voltage optional
6	Power output	2	10V output standard, 24V output standard
7	Power output	1	485 communication

Compact Structure

Structure Hardware Features

The layout is simple and reasonable, the wiring operation is convenient, the whole series adopts narrow-body design, and the structure is compact.



PRODUCT DESCRIPTION

Model Description

VD20-4T-2.2 GB

① ② ③ ④

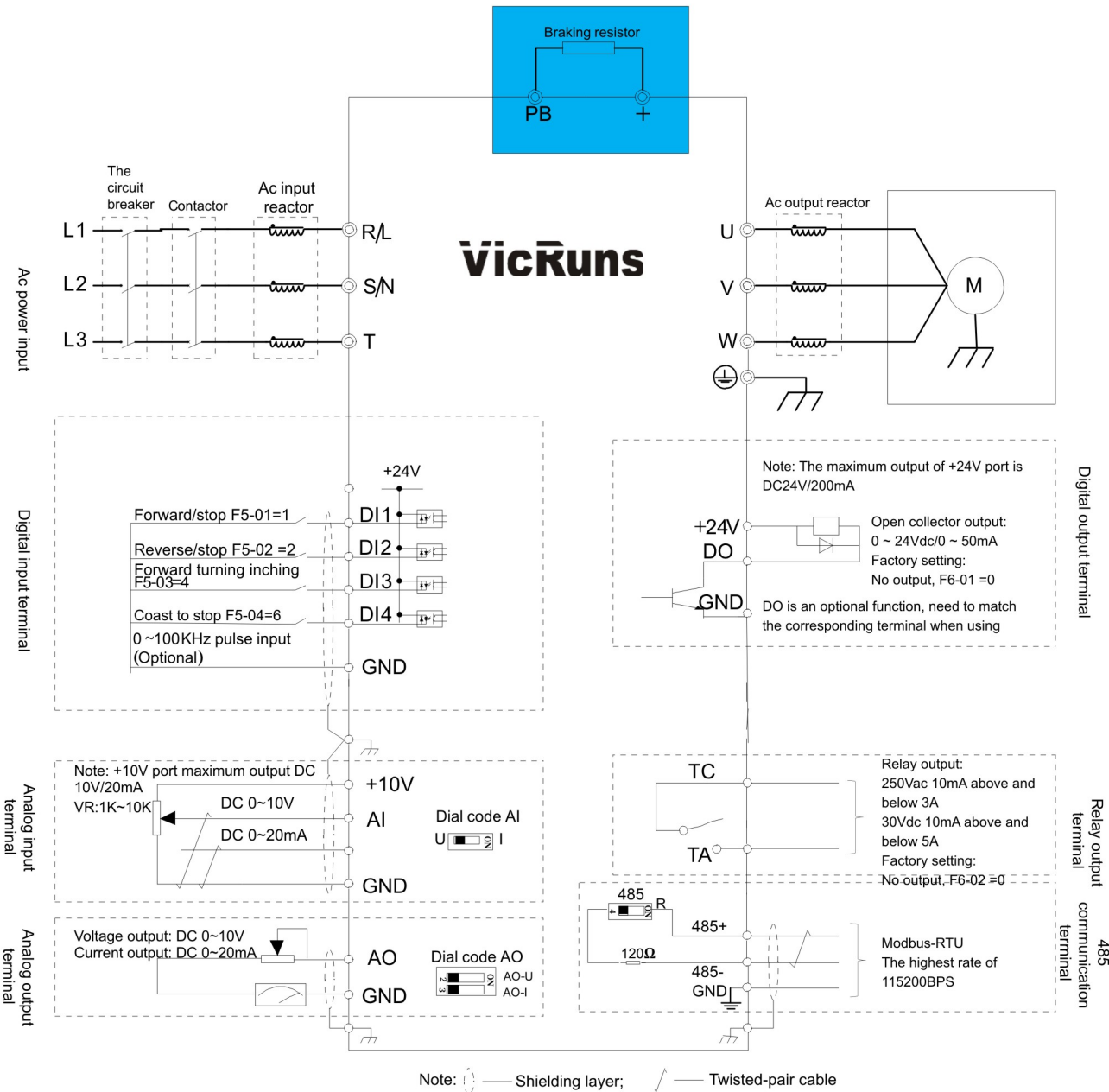
① Inverter series		
② Voltage grade	2S	Single phase 220V
	2T	Three phase 220V
	4T	Three phase 380V
③ Adaptable motor power		G type 2.2kW motor
④ Braking Unit	Built-in braking unit	
	None	

Inverter Rated Parameters

Inverter Power (kW)			4T						
			0.4 GB	0.7 GB	1.5 GB	2.2 GB	3.0 GB	4.0 GB	5.5 GB
Output	Adapt Motor	(kW)	0.4	0.75	1.5	2.2	3.0	4.0	5.5
		(HP)	0.5	1.0	2.0	3.0	4.0	5.5	7.5
	Rated output current (A)		1.5	2.5	3.8	5.1	8.0	9.6	13
	Output voltage		0~rated input voltage						
	Maximum output frequency		600Hz (can be changed by parameter)						
	Carrier frequency		0.5kHz~12kHz						
Overload capacity			150% rated current for 60sec						
Input	Rated input current (A)		1.9	4.0	5.0	5.8	9.2	11	14.6
	Rated voltage Rated frequency		AC: three phase 380V, 50/60Hz						
	Allowable voltage fluctuation range		-15%~15%						
	Allowable frequency fluctuation range		±5%						
	Power capacity (kVA)		1.0	1.5	3.0	4.0	5.5	6.5	8.9

Inverter Power (kW)			2S				2T			
			0.4 GB	0.7 GB	1.5 GB	2.2 GB	0.4 GB	0.7 GB	1.5 GB	2.2 GB
Output	Adapt Motor	(kW) (HP)	0.4 0.5	0.75 1	1.5 2	2.2 3	0.4 0.5	0.75 1	1.5 2	2.2 3
	Rated output current (A)		2.3	4.8	7.0	9.6	2.3	4.8	7.0	9.6
	Output voltage		0~rated input voltage							
	Maximum output frequency		600Hz (can be changed by parameter)							
	Carrier frequency		0.5kHz~12kHz							
	Overload capacity		150% rated current for 60sec							
Input	Rated input current (A)		5.4	9.8	14	23	4.0	6.0	7.8	10.5
	Rated voltage		AC : Single phase220V , 50/60Hz				AC : Three phase 220V , 50/60Hz			
	Rated frequency									
	Allowable voltage fluctuation range		-15%~15%							
	Allowable frequency fluctuation range		±5%							
	Power capacity (kVA)		1.0	2.0	3.0	4.0	1.5	3.0	4.0	5.9

Standard Wiring Diagram



- 1) Terminal © means main circuit terminal, terminal ○ means control circuit terminal;
- 2) "B" after the product model indicates the built-in braking unit of the standard model;
- 3) The power connection terminals for single-phase 220V models are L and N.
- 4) Digital input DI4 and digital output DO are optional functions;

PRODUCT DESCRIPTION

Optional Keypad Specifications



Keypad Options

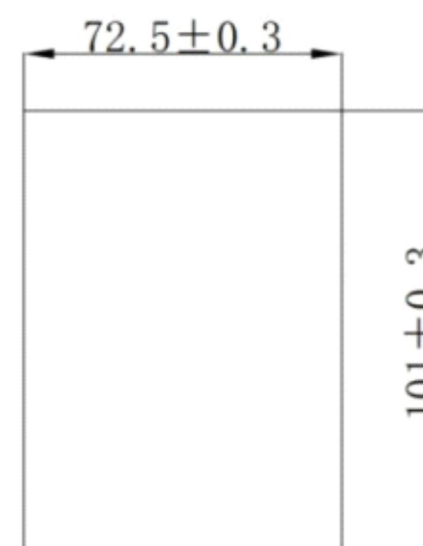
Optional keypad 1



Optional keypad 2



Keypad Hole Size 1

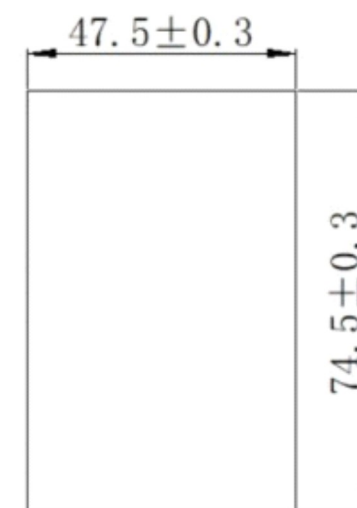


The hole size of the new style right-angle square keypad external (recommended)

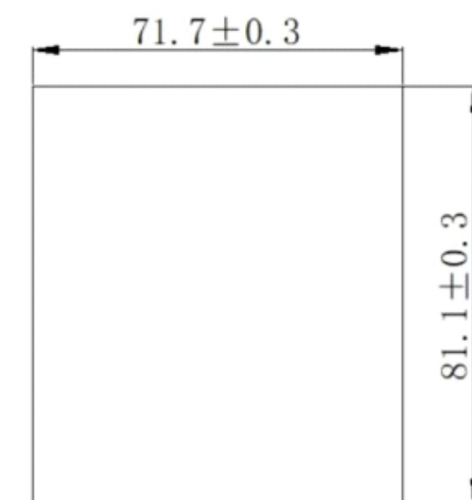


The hole size of the new style right-angle square keypad + the external lead tray

Keypad Hole Size 2



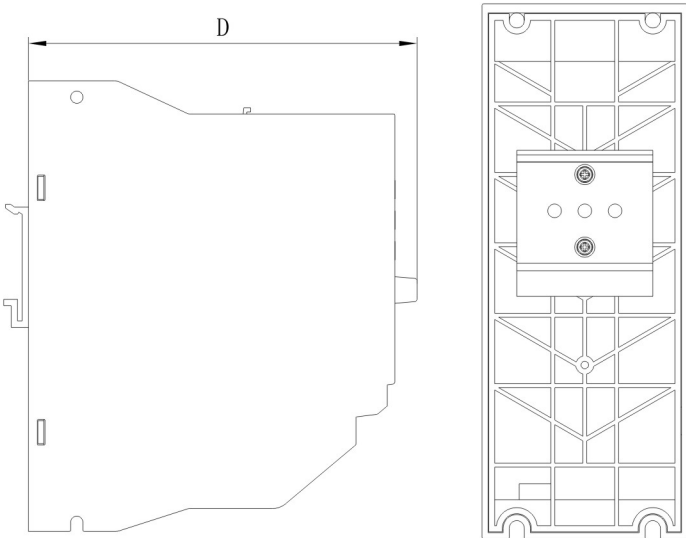
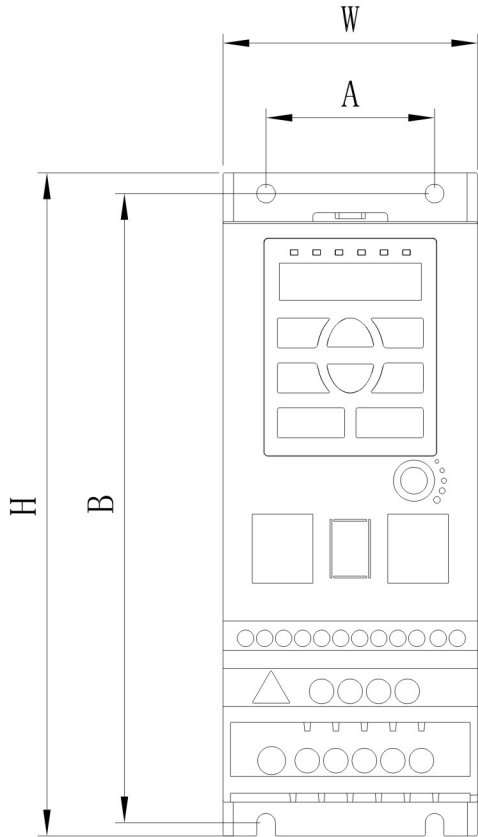
The installation hole size when the keypad does not have a tray outside



The installation hole size when the keypad and the tray are externally introduced

MOUNTING DIMENSIONS

Product Appearance and Installation Dimension



Model	Mounting Hole (mm)			Dimensions (mm)		Installation Aperture (mm)	G.W (kg)
	A	B	H	W	D		
Single-phase/three-phase power supply: 220V, 50/60Hz Range: -15%~15%							
VD20-2S/2T-0.4GB	45	168	177	68	152	5	1.1
VD20-2S/2T-0.7GB							
VD20-2S/2T-1.5GB							
VD20-2S/2T-2.2GB							
Three-phase power supply: 380V, 50/60Hz Range: -15%~15%							
VD20-4T-0.4GB	45	168	177	68	152	5	1.1
VD20-4T-0.7GB							
VD20-4T-1.5GB							
VD20-4T-2.2GB							
VD20-4T-3.0GB	63	186	196	75	172	4.5	1.4
VD20-4T-4.0GB							
VD20-4T-5.5GB							
VD20-4T-7.5GB	93.5	244	255	107.5	165	4.5	/
VD20-4T-11GB							

Adapted models (three-phase 380V: 0.4kW-5.5kW / single-phase, three-phase 220V: 0.4kW-2.2kW)
Standard: wall-mounted installation;
Optional: rail-mounted installation (Full Range); side installation (supported by models within 2.2kW)