KNC-VFD-KC100 Series

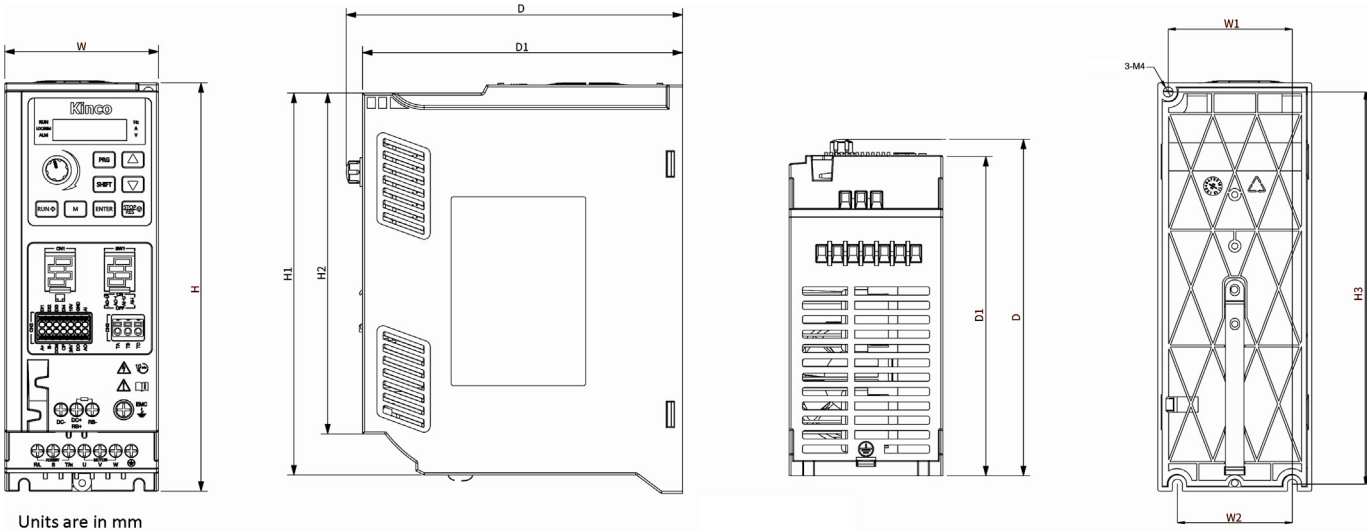
FEATURES

- **Slim 65mm Body**
- **Single-Phase 220V/400W-2200W or Three-Phase 440V/750W-5500W**
- **Input Output Terminals Used Without Tightening Screws**
- **European Crimping Terminal**
- **4 Digital Inputs & 1 Digital Output**
- **1 Analog Input & 1 Analog Output**
- **1 Relay Output**

DESCRIPTION

The KNC-VFD-KC100 series is a high performance vector inverter that has a narrow rectangle design, crimping terminal and independent air duct design. The air duct design has benefits such as convenient installation, easy wiring, tremendous heat dissipation, top of the line performance and comprehensive protection. The KNC-VFD-KC100 series is a complete system, process oriented and strict in the development process of software, hardware, and structure, with attention to detail and the user experience. These VFD's can be used in sewage treatment, manufacturing production lines, fan ventilation systems, logistics and transportation, air conditioner cooling systems, wood working machinery, and various automated production equipment.

DIMENSIONS



Units are in mm

Part #	Power (Watts)	Dimension (mm)						Mounting Hole Location (mm)			Hole Diamater of Installation (mm)	Weight (lbs)
		W	H	H1	H2	D	D1	W1	W2	H3		
KNC-VFD-KC100-2S-0R40G	400	65	177	168.5	145	148	139	50	45	168	3-M4	1.87
KNC-VFD-KC100-2S-0R75G	750											
KNC-VFD-KC100-4T-0R75G	750											1.98
KNC-VFD-KC100-4T-01R5G	1500											

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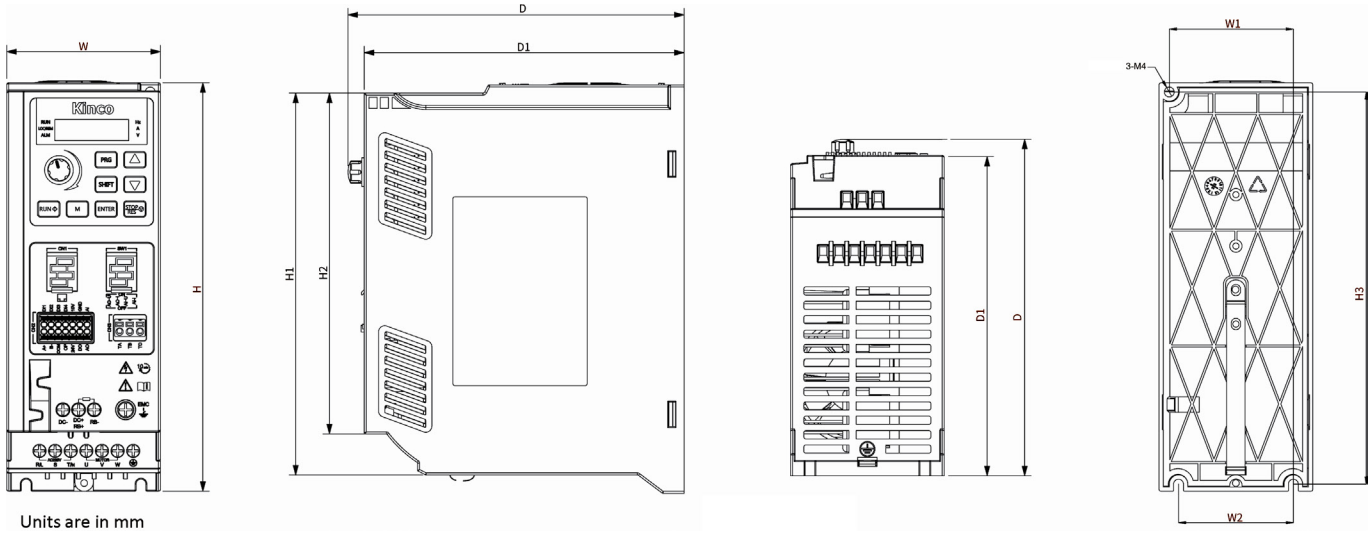

Units are in mm

Part #	Power (Watts)	Dimension (mm)						Mounting Hole Location (mm)			Hole Diamater of Installation (mm)	Weight (lbs)
		W	H	H1	H2	D	D1	W1	W2	H3		
KNC-VFD-KC100-2S-01R5G	1500	75	199	190	166	163	156	60.5	56	191	3-M4	2.64
KNC-VFD-KC100-2S-02R2G	2200											
KNC-VFD-KC100-4T-02R2G	2200											2.82
KNC-VFD-KC100-4T-03R7G	3700											
KNC-VFD-KC100-4T-05R5G	5500											

SPECIFICATIONS

SERIES #	Input Voltage Range	Max Power (Watts)	Max Power (HP)	Rated Current (A)	Installation Type
KNC-VFD-KC100-2S-0R40G	Single-Phase, 200-240VAC	400	0.5	2.5	Wall-Mounted
KNC-VFD-KC100-2S-0R75G	Single-Phase, 200-240VAC	750	1	4	Wall-Mounted
KNC-VFD-KC100-2S-01R5G	Single-Phase, 200-240VAC	1500	2	7.5	Wall-Mounted
KNC-VFD-KC100-2S-02R2G	Single-Phase, 200-240VAC	2200	3	10	Wall-Mounted
KNC-VFD-KC100-4T-0R75G	Three-Phase, 380-480VAC	750	1	2.3	Wall-Mounted
KNC-VFD-KC100-4T-01R5G	Three-Phase, 380-480VAC	1500	2	3.7	Wall-Mounted
KNC-VFD-KC100-4T-02R2G	Three-Phase, 380-480VAC	2200	3	5.5	Wall-Mounted
KNC-VFD-KC100-4T-03R7G	Three-Phase, 380-480VAC	3700	5	8.8	Wall-Mounted
KNC-VFD-KC100-4T-05R5G	Three-Phase, 380-480VAC	5500	7	13	Wall-Mounted

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SPECIFICATIONS

MODEL	KC100-2S			
	0R40G	0R75G	01R5G	02R2G
The Power of Suitable Motor (Watts)	400	750	1500	2200
INPUT				
Rated Voltage(V) / Rated Frequency	1-Phase 200V ~ 240V 50Hz/60Hz			
Rated Input Current (A)	5.3	8.2	14.0	23.0
Fluctuation Range	Voltage: -15% ~ +10%, Voltage Imbalance Rate: <3%, Frequency: ±5%			
Power Supply Capacity (kVA)	1.0	1.5	3	4
OUTPUT				
Output Current (A)	2.5	4.0	7.5	10
Output Voltage	Output of Rated Condition: 3-Phase, 0 ~ Input Voltage			
Range of Output Frequency	0 ~ 600Hz			
Overload Capacity	60s at 150% the Rated Current, 3s at 180% Rated Current			
COOLING METHOD				
Forced Air Cooling				

MODEL	KC100-4T				
	0R75G	01R5G	02R2G	03R7G	05R5G
The Power of Suitable Motor (Watts)	750	1500	2200	3700	5500
INPUT					
Rated Voltage(V) / Rated Frequency	3-Phase 380V ~ 480V 50Hz/60Hz				
Rated Input Current (A)	3.4	5.0	5.8	10.5	14.5
Fluctuation Range	Voltage: -15% ~ +10%, Voltage Imbalance Rate: <3%, Frequency: ±5%				
Power Supply Capacity (kVA)	1.5	3.0	4.0	5.9	8.5
OUTPUT					
Output Current (A)	2.3	3.7	5.5	8.8	13.0
Output Voltage	Output of Rated Condition: 3-Phase, 0 ~ Input Voltage				
Range of Output Frequency	0 ~ 600Hz				
Overload Capacity	60s at 150% the Rated Current, 3s at 180% Rated Current				
COOLING METHOD					
Forced Air Cooling					

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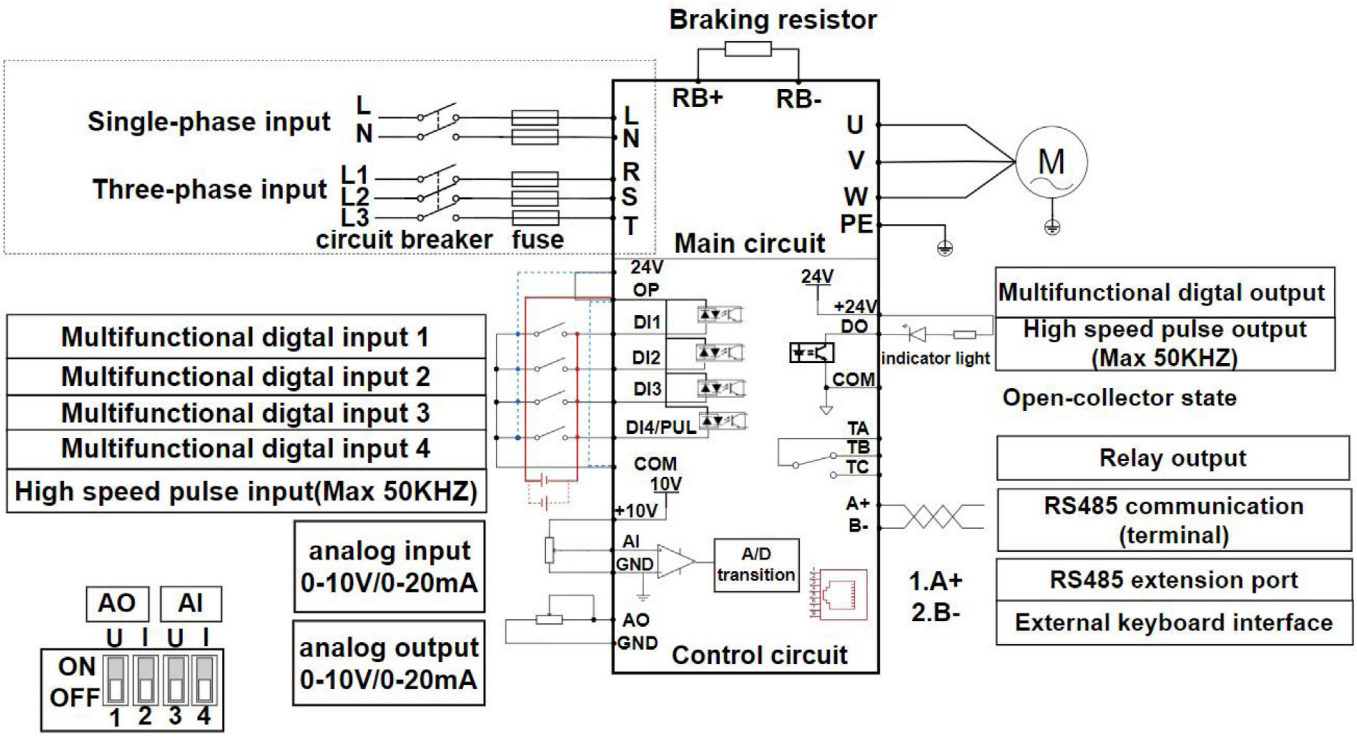
WIRING DIAGRAM

The power wiring diagrams of the KC100 Three-Phase and Single-Phase models are displayed in dotted lines. Connect cables according to the actual models.



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TECHNICAL SPECIFICATIONS

	MAIN CONTROL CHARACTERISTICS
Control Method	V/F Control, Sensorless Vector Control (SVC), Voltage Frequency Separation Control
Starting Torque	0.5Hz: 150% Rated Torque (Vector Control Without PG)
Frequency Accuracy	Digital Setting: Max. Frequency x ±0.01%; Analog Setting: Max. Frequency x ±0.2%
Frequency Resolution	Digital Setting: 0.01Hz; Analog Setting: Max. Frequency x 0.1%
Torque Boost	Automatic Boost: 0.0%; Manual Torque Boost: 0.1%~30.0%
V/F Pattern (Curve)	4 Patterns: Multi-Point V/F Curve, Reduced Torque Characteristic Curve, Half V/F Seperation, Complete V/F Separation
Acceleration/Deceleration Curve	Straight-Line or S-Curve Acceleration/Deceleration; Four Groups of Acceleration/Deceleration Time.
	CUSTOMIZED FUNCTION
Operation Command	Keypad Setting, Terminal Setting, Communication Setting
Frequency Command	Digital Setting, Analog Voltage Setting, Analog Current Setting
Auxiliary Frequency Setting	Implement Flexible Auxiliary Frequency Trim and Frequency Synthesis
Input Terminals	4 Digital Input Terminals, 1 of which Supports High-Speed Pulse Input up to 50KHz
	1 Analog Input Terminal, Support 0 ~ 10V / 0 ~ 20mA Input
Output Terminals	1 Relay Output Terminal, Including Normally Closed and Normally Open Sub
	1 Analog Output Terminal, Support 0 ~ 10V Voltage Output
	1 Digital Output Terminal, 0.1kHz~50kHz Pulse Square Wave Signal Output, Capable of Outputting Physical Quantities Such as Set Frequency and Output Frequency
	1 Way 485 Communication Terminal
Protection Function	Overcurrent Protection, Overvoltage Protection, Undervoltage Protection, Overheat Protection, Overload Protection, Missing Phase Protection (Selectable) and So On
	ENVIRONMENT
Altitude	In areas with an altitude exceeding 1000m, due to the poor heat dissipation effect of the frequency converter due to the thin air, it needs to be derated for use, with a 1% derating for every 100m increase.
Ambient Temperature	-10°C ~ +50°C
Humidity	5%~95%RH, Non-Condensing
Vibration	Less Than 5.9m/s^2 (0.6g)
Storage Temperature	-20°C ~ +60°C
Overvoltage Class	OVCIII
Pollution Levels	PD2
Level of Protection	IP20
Installation Method	Wall-Mounted

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