

# KNC-VFD-CV20-2S Series



## FEATURES

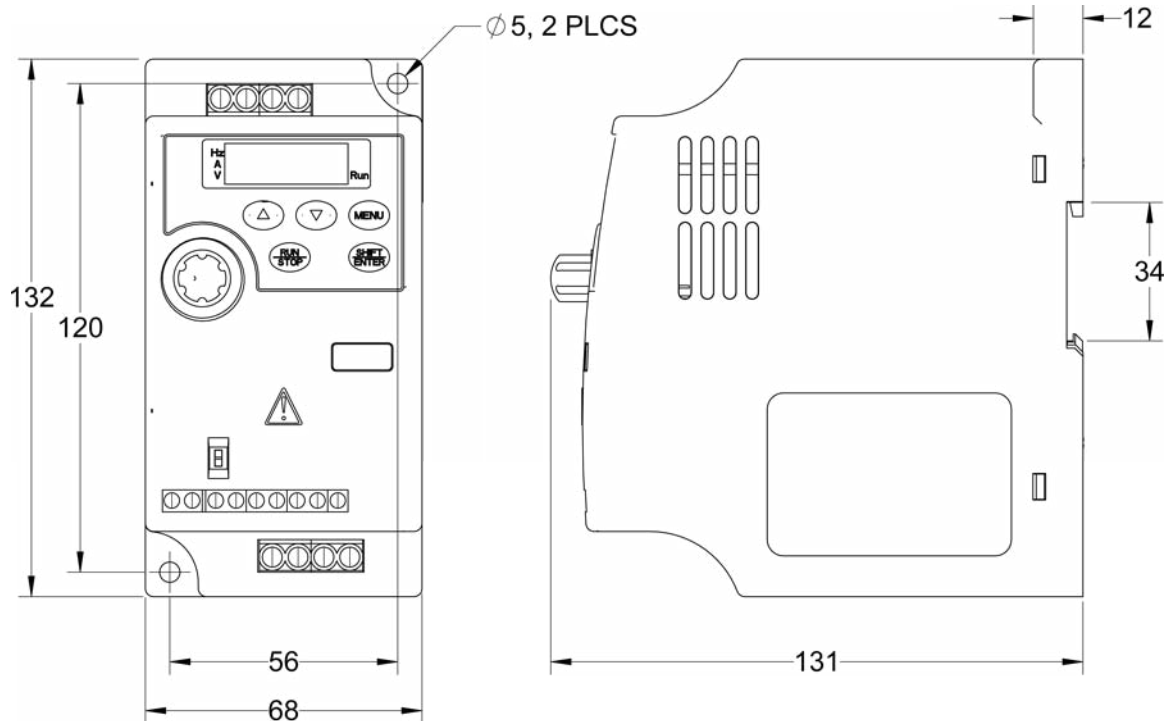
- Control Mode: V/F control; Open-loop vector control
- Carrier frequency up to 15KHz
- Auto torque boost and auto slip compensation function
- Built-in PID control
- Modbus Communication (RS485 baud rate up to 19200bps)
- Sleep/wake up function



## DESCRIPTION

The CV20-2S Series is a rugged line of AC Variable Frequency Drives for OEM and Industrial applications, combining high performance and cost efficiency into one powerful package. Available in input voltages of 180V and 260V and capable of powering AC motors from 0.5 to 2.0Hp, these VFDs are great for normal duty and soft-start operation. These drives provide energy savings and increased efficiency, making them ideal for fan, pump, and HVAC applications. They are equipped with a number of different features such as momentary power loss restarts, flying starts, auto-acceleration/deceleration, and sensorless vector control. These features make the VFDs compatible with most AC motors and allow for flexibility within an application.

## DIMENSIONS



L011450

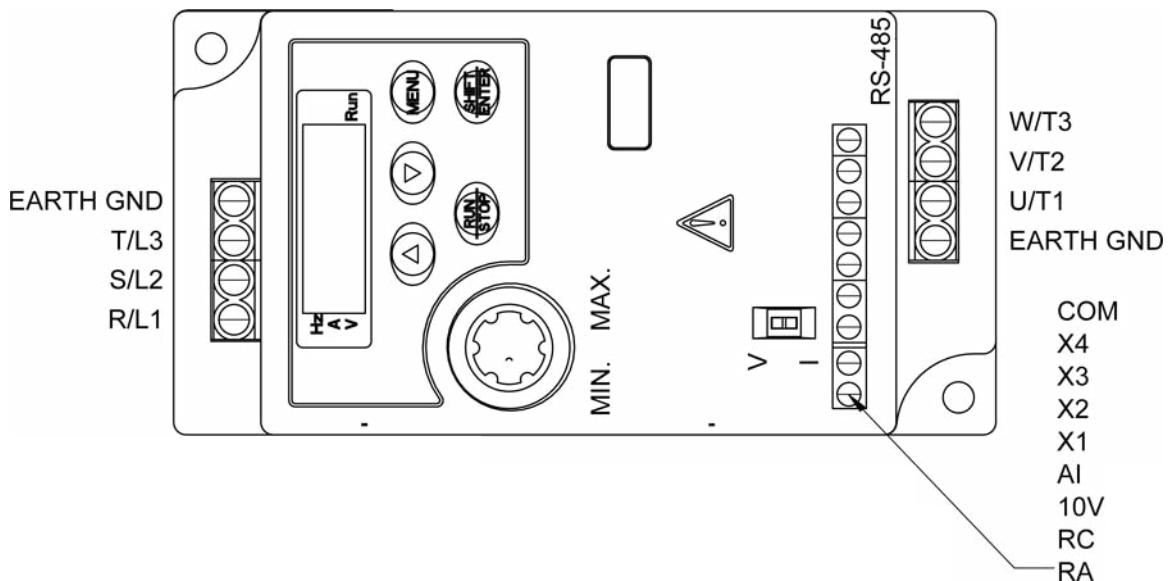
# KNC-VFD-CV20-2S Series



SPECIFICATIONS

MODEL	CV20-2S		
	0004	0007	0015
The Power of Suitable Motor (KW)	0.4	0.75	1.5
<b>OUTPUT</b>			
Voltage (V)	3-Phase, 0~ Rated Input Voltage		
Rate Current (A)	2.5	4.0	7.5
Overload Capacity	150% Rated Current for 1 Minute, 180% Rated Current for 10 Seconds; 10 Minutes Interval (Inverse Time Limit Speciality)		
<b>INPUT</b>			
Rated Voltage/Frequency	Single Phase, 200-240VAC; 50Hz/60Hz		
Allowable Voltage Range	180-260VAC; Voltage Unbalancedness:<3%; Frequency: 5%		
Rated Current (A)	5.3	8.2	14.0
Brake Unit	Built-In		
Protection Class	IP20		
Cooling Method	Cooling by Fan		
Installation Type	Cabinet or Enclosure		

WIRING DIAGRAM



# KNC-VFD-CV20-2S Series



TECHNICAL SPECIFICATIONS

INPUT	
Rated Voltage/Frequency	2S: Single Phase, 200V; 50Hz/60Hz
Allowable Voltage Range	2S:180V~260V; Voltage Unbalanceness:<3%; Frequency: ±5%
OUTPUT	
Voltage	0~Rated Input Voltage
Frequency	0Hz-300Hz
Overload Capacity	150% Rated Current for 1 Minute, 180% Rated Current for 10 Seconds
MAIN CONTROL CHARACTERISTICS	
Control Method	V/F Control
Starting Torque	1Hz: 150% Rated Torque
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 0.05%
Torque Boost	Manual Torque Boost: 0%~30.0%
V/F Pattern	Four Patterns: 1 V/F Curve Mode Set by User and Three Kinds of Torque-Derating Modes (2.0 Order, 1.7 Order, 1.2 Order)
Acceleration/Deceleration Curve	Linear Acceleration/Deceleration. Four Kinds of Acceleration/Deceleration Time
Auto Current Limit	Limit Current During Operation Automatically to Prevent Frequent Over Current Trip
OPERATION FUNCTION	
Operation Command	Operation Panel, Terminal, Communication Control, Support Switching Between These Controls Channels
Frequency Setting	Digital Setting, Analog Voltage Setting, Analog Current Setting
Auxiliary Frequency Setting	Support Main and Auxiliary Setting
OPERATION PANEL	
LED Display	Display Setting Frequency, Output Frequency, Output Voltage, Output Current and more, About 20 Parameters
Key Lock and Function Selection	Lock Part of Keys or All of Keys. Define the Function of Part of Keys
Protection Function	Open Phase Protection (Optional), Overcurrent Protection, Overvoltage Protection, Undervoltage Protection, Overheat Protection, Overload Protection, and more
ENVIRONMENT	
Operating Site	Indoor, Installed in the Environment Free from Direct Sunlight, Dust, Corrosive Gas, Combustible Gas, Oil Mist, Steam and Drip
Altitude	Derated Above 1000m, The Rated Output Current Shall be Decreased by 10% for Every Rise of 1000m
Ambient Temperature	-10°C~ + 40°C (Derated at 40°C~50°C)
Humidity	5%~95%RH, Non-Condensing
Vibration	Less Than 5.9m/s <sup>2</sup> (0.6g)
Storage Temperature	-40°C~ + 70°C
STRUCTURE	
Protection Class	IP20
Cooling Method	Air Cooling, With Fan Control