## FEATURES

- **Control Mode: V/F control; Open-loop vector control**
- **Auto torque boost and auto slip compensation function**
- **Built-in PID control**
- **Modbus Communication (RS485 baud rate up to 4800-19200bps)**
- **Sleep/wake up function**

DESCRIPTION

The CV20-1S 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 120V and output voltages of 220V, which are capable of powering AC motors from 0.25 to 1Hp, 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.
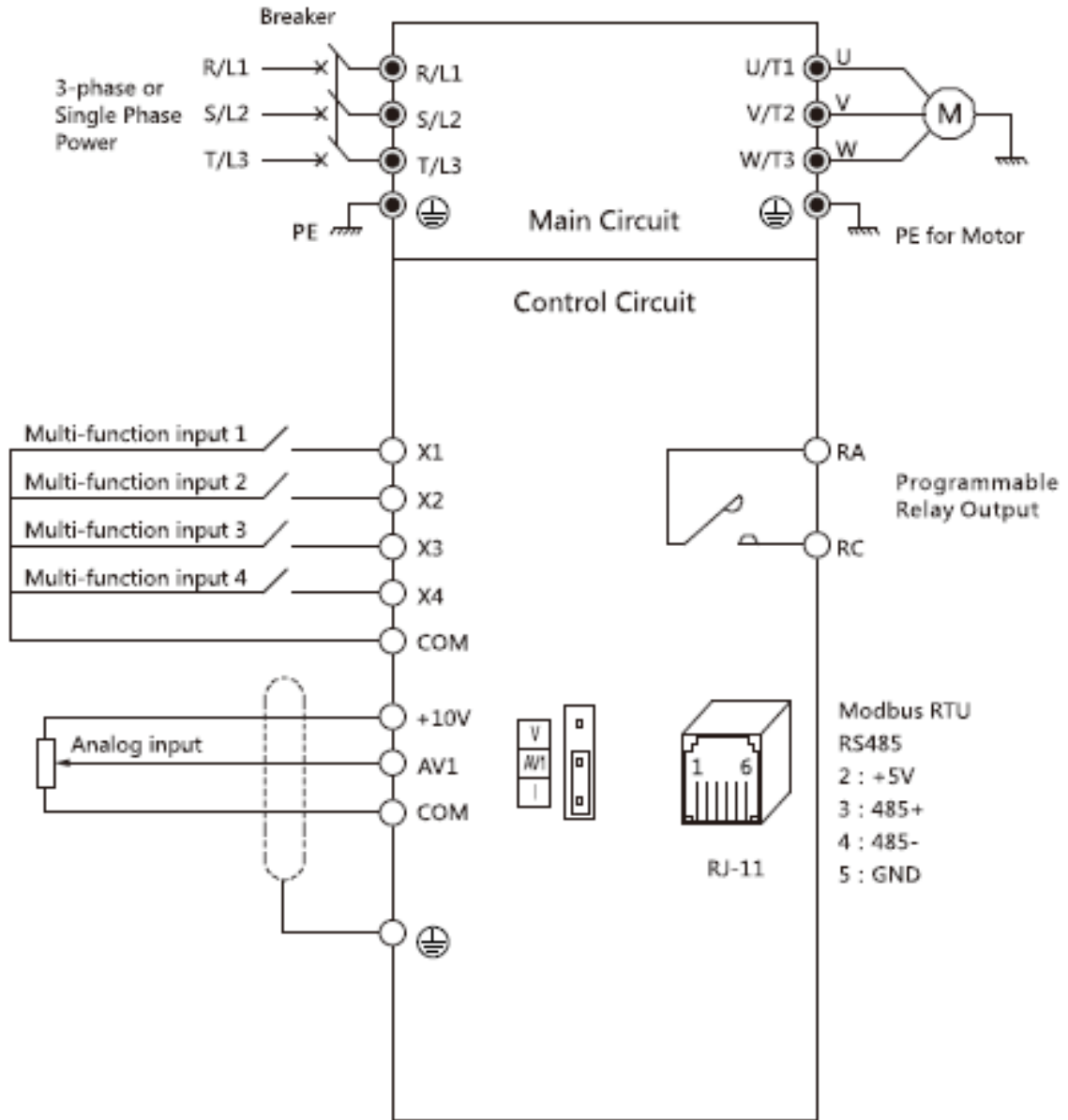
DIMENSIONS
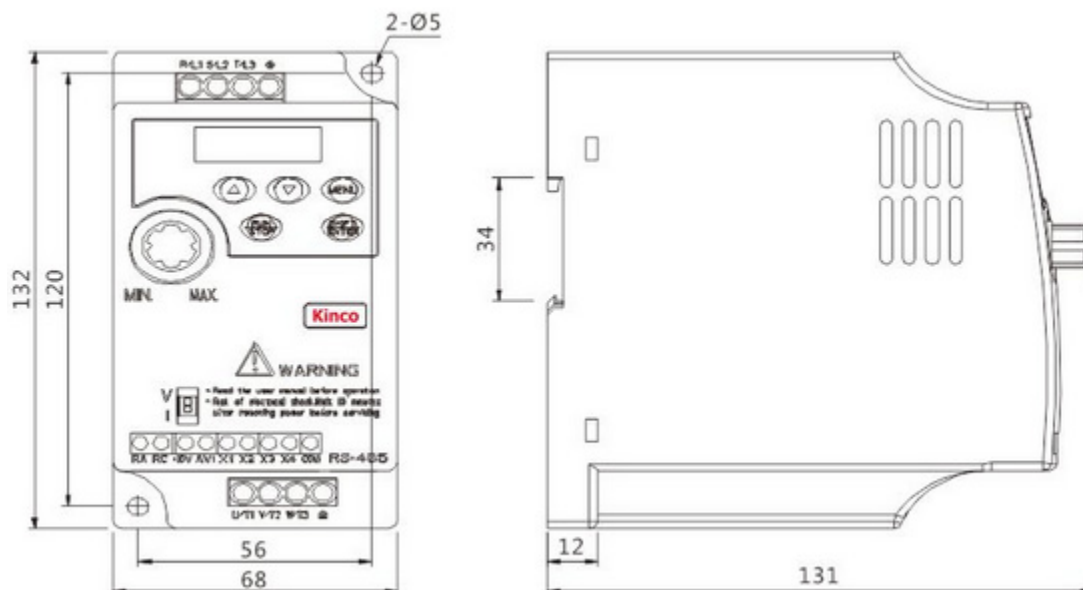
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MODEL	CV20-1S		
	0002	0004	0007
The Power of Suitable Motor (KW)	0.2	0.4	0.75
OUTPUT			
Input Voltage (V)	1S: Single Phase, 100-120VAC; 50Hz/60Hz		
Output Voltage (V)	3 Phase, Twice the Input Voltage		
Rated Output Current (A)	2.5	4.0	7.5
Overload Capacity	150% Rated Current for 1 Minute, 180% Rated Current for 10 Seconds		
INPUT			
Rated Voltage/Frequency	Single Phase, 200V~240V; 50Hz/60Hz		
Allowable Voltage Range	1S: 90-130V; Voltage Unbalancedness:<3%; Frequency: 5%		
Rated Input Current (A)	6	9	18
Brake Unit	Built-In		
Protection Class	IP20		
Cooling Method	Air Cooling, with Fan Control		
Installation Type	Wall Mount		

SERIES #	Input Voltage Range	Output Voltage Range	Max Power (hp)	Rated Current (A)	Overload Tolerance for One Minute (A)	Installation Type
CV20-1S-0002G	Single-Phase, 100-120V	Three-Phase, 200-240V	0.25	2.5	3.75	Wall Mount
CV20-1S-0004G	Single-Phase, 100-120V	Three-Phase, 200-240V	0.50	4.0	6	Wall Mount
CV20-1S-0007G	Single-Phase, 100-120V	Three-Phase, 200-240V	1	7.5	11.25	Wall Mount

SPECIFICATIONS

WIRING DIAGRAM

Breaker

3-phase or Single Phase Power

R/L1 —✕— R/L1   U/T1 U
S/L2 —✕— S/L2   V/T2 V   M
T/L3 —✕— T/L3   W/T3 W

PE ⏚ ⊕   Main Circuit   ⊕ ⏚ PE for Motor

Control Circuit

Multi-function input 1 ╱ X1   RA
Multi-function input 2 ╱ X2   Programmable Relay Output
Multi-function input 3 ╱ X3   RC
Multi-function input 4 ╱ X4

COM

+10V

Analog input   AV1

COM

⏚

V
AV1

RJ-11
1   6

Modbus RTU RS485
2 : +5V
3 : 485+
4 : 485-
5 : GND

ANAHEIM AUTOMATION

TECHNICAL SPECIFICATIONS

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	4 Patterns: 1 V/F Curve Mode Set by User and 3 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 Auxilary Setting
Operation Panel	
LED Display	Display Setting Frequency, Output Frequency, Output Voltage, Output Current. About 20 Parameters
Key Lock and Function Selection	Lock Part of Keys or All the 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 So On
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)
Humility	5%~95%RH, Non-Condensing
Vibration	Less Than 5.9m/s^2 (0.6g)
Storage Temperature	-40°C~ + 70°C
Structure	
Protection Class	IP20
Cooling Method	Air Cooling, With Fan Control