KNC-VFD-FV100-2T Series

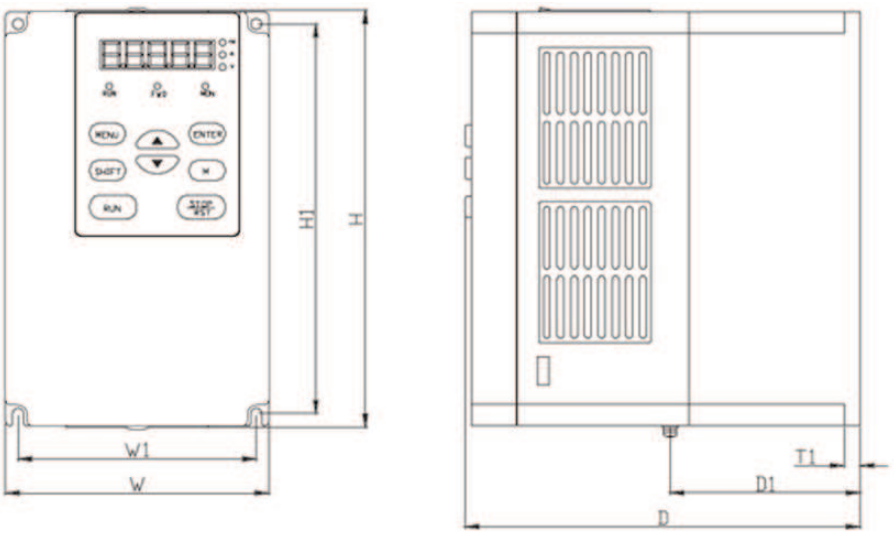
FEATURES

- **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**
- **Standard equiped Modbus (RS485 baud rate up to 38400bps)**
- **Sleep/wake up funtion**

DESCRIPTION

The FV100-2T 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 240VAC and capable of powering AC motors from 0.50 to 30Hp, 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



Item	W	W1	H	H1	D	D1	T1
FV100-2T-0004G	115	106	185	176	171	65	7
FV100-2T-0007G	115	106	185	176	171	65	7
FV100-2T-0015G	115	106	185	176	171	65	7
FV100-2T-0022G	115	106	185	176	171	65	7
FV100-2T-0037G	115	106	185	176	171	65	7
FV100-2T-0055G	165	110	274	264	193	-	2
FV100-2T-0075G	165	110	274	264	193	-	2
FV100-2T-0110G	194	120	324	312	197	-	2
FV100-2T-0150G	297	200	451	433	224	89	3
FV100-2T-0185G	297	200	451	433	224	89	3
FV100-2T-0220G	297	200	451	433	224	89	3

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KNC-VFD-FV100-2T Series

SPECIFICATIONS

SERIES #	Input Voltage Range	Max Power (KW)	Max Power (HP)	Rated Current (A)	Overload Tolerance for One Minute (A)	Installation Type
FV100-2T-0004G	3-Phase, 240V	0.40	0.5	2.5	2	Cabinet or Enclosure
FV100-2T-0007G	3-Phase, 240V	0.75	1	4.0	3	Cabinet or Enclosure
FV100-2T-0015G	3-Phase, 240V	1.5	2	7.5	6	Cabinet or Enclosure
FV100-2T-0022G	3-Phase, 240V	2.2	3	10	11	Cabinet or Enclosure
FV100-2T-0037G	3-Phase, 240V	3.7	5	16	15	Cabinet or Enclosure
FV100-2T-0055G	3-Phase, 240V	5.5	7.5	24.5	36	Cabinet or Enclosure
FV100-2T-0075G	3-Phase, 240V	7.5	10	30	45	Cabinet or Enclosure
FV100-2T-0110G	3-Phase, 240V	11	15	42	63	Cabinet or Enclosure
FV100-2T-0150G	3-Phase. 240V	15	20	55	82	Cabinet or Enclosure
FV100-2T-0185G	3-Phase. 240V	18.5	25	70	105	Cabinet or Enclosure
FV100-2T-0220G	3-Phase, 240V	22	30	80	120	Cabinet or Enclosure

MODEL	FV100-2T										
	0004	0007	0015	0022	0037	0055	0075	0110	0150	0185	0220
The Power of Suitable Motor (KW)	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22
Voltage (V)	3-Phase, 0~ Rated Input Voltage										
Rate Output Current (A)	2.5	4.0	7.5	10	16	24.5	30	42	55	70	80
Overload Capacity	150% 1 Minute; 180% 10 Seconds; 200% 0.5 Second; 10 Minutes Interval (Inverse Time Limit Speciality)										
Rated Voltage/Frequency	3 Phase, 200V~240V AC; 50Hz/60Hz										
Allowable Voltage Range	180V~260VAC; Voltage Unbalancedness:≤3%; Allowable Frequency Fluctuation; ± 5%										
Rated Input Current (A)	3.2	6.3	9	15	22	30	35	43	56	71	81
Brake Unit	Built-In										
Protection Class	IP20										
Cooling Method	Cooling by Fan										

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TECHNICAL SPECIFICATIONS

SPECIFIC	
	INPUT
Rated Voltage/Frequency	2T: 3-phase, 200-240VAC; 50Hz/60Hz
Allowable Voltage Range	2T: 180-260VAC; Voltage Unbalanceness:<3%; Frequency: ±5%
	OUTPUT
Voltage	0~Rated Input Voltage
Frequency	OHz-300Hz (0Hz-1000Hz Custom)
Overload Capacity	G Type: 150% Rated Current for 1 Minute, 180% Rated Current for 10 Seconds
	MAIN CONTROL CHARACTERISTICS
Control Method	Vector Control Without PG, V/F 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 0.05%
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 Power, 1.7 Power, 1.2 Power)
Acceleration/Deceleration Curve	Linear Acceleration/Deceleration. Four Kinds of Acceleration/Deceleration Time
Auto Current Limit	Limit Current During Operation Automatically to Prevent Frequent Overcurrent Trip
	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
Analog Output	1 Channel Analog Output (0/4~20mA or 0/2~10V)
Protection Function	Overcurrent Protection, Overvoltage Protection, Undervoltage Protection, Overheat Protection, Overload Protection, Missing Phase Protection (Selectable) and So On
	ENVIRONMENT
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)
Humity	5%~95%RH, Non-Condensing
Vibration	Less Than 5.9m/s^2 (0.6g)
Storage Temperature	-40°C~ + 70°C

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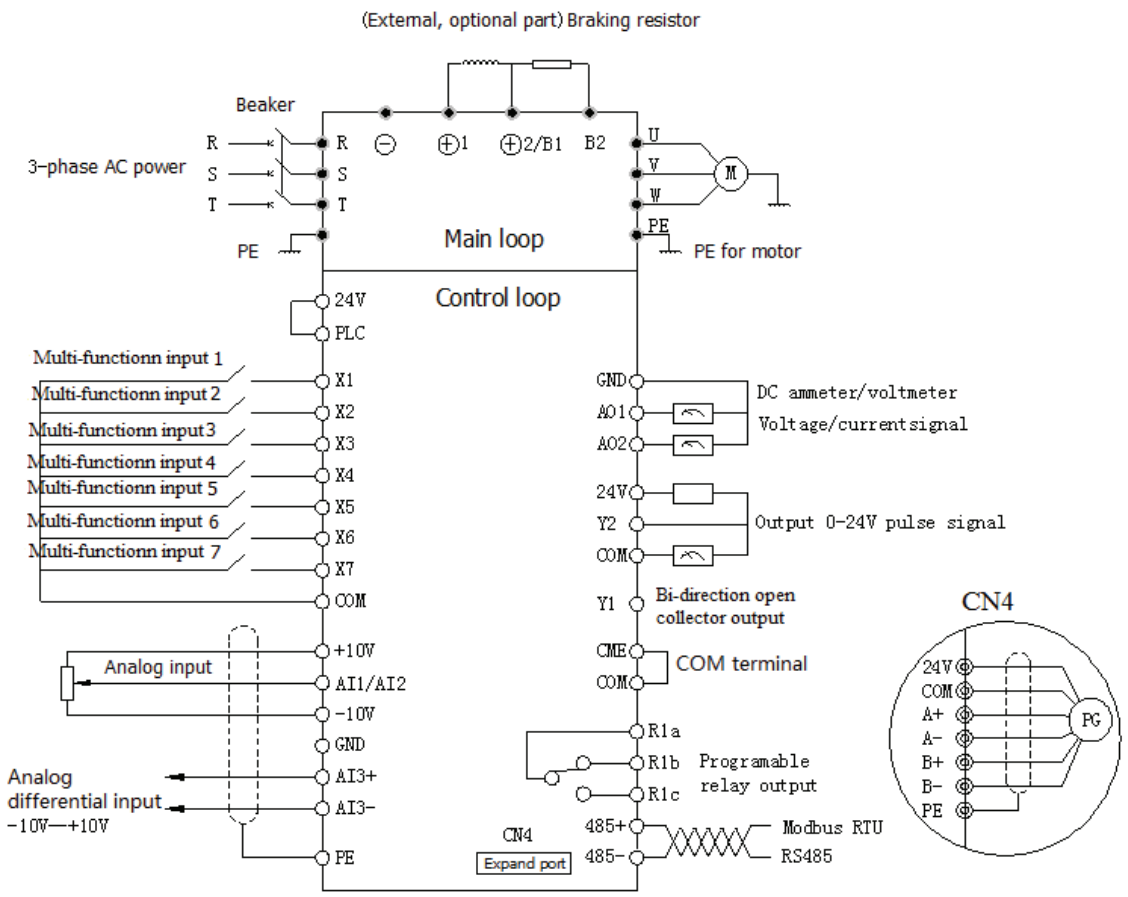
WIRING DIAGRAM



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