

FV100-5T Series

Kinco

FEATURES

- **Input Voltage Range of 480-540VAC**
- **Power Rating 7.5kW - 90kW Watts**
- **Methods of Control: V/F Control, Closed-Loop Vector, Open Loop Vector**
- **Open Phase (optional), Overcurrent, Overvoltage, Undervoltage, Overheat, and Overload Protection**
- **Sleep/Wake Up Function**



DESCRIPTION

The Kinco KNC-VFD-FV100-5T Series combines power and performance into one compact package. With 480 VAC Three-Phase input, this drive offers from 7.5kW - 90kW (10 - 120 HP) of power to drive your Three-Phase AC motor. This series offers unique control methods to achieve high torque and accuracy, and variable speed range. Other features for this drive include flexible I/O terminals, overcurrent, overvoltage, undervoltage, and overheat protection, acceleration and deceleration times, and vector control.

SPECIFICATIONS

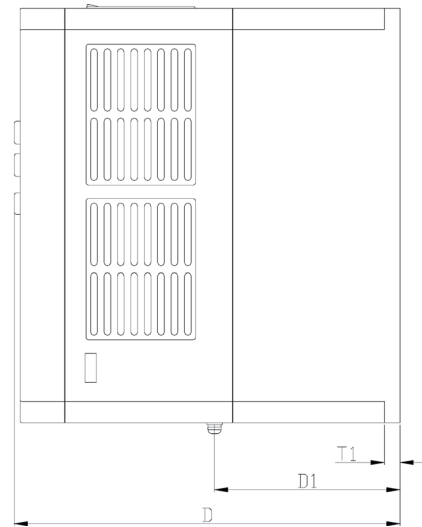
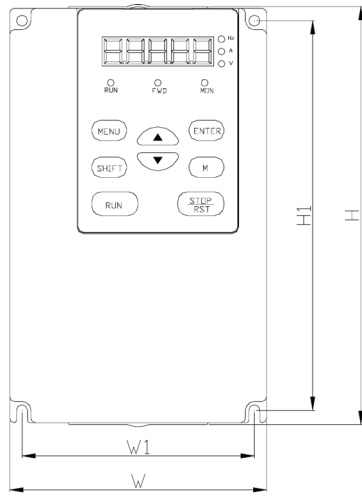
| SERIES # | Input Voltage Range | Max Power (KW) | Max Power (HP) | Rated Current (A) | Overload Tolerance for One Minute (A) | Installation Type |
|----------------|---------------------|----------------|----------------|-------------------|---------------------------------------|-------------------|
| FV100-5T-0075G | 3-Phase, 480V | 7.5 | 10 | 17 | 25 | Wall Mount |
| FV100-5T-0110G | 3-Phase, 480V | 11 | 15 | 25 | 37 | Wall Mount |
| FV100-5T-0150G | 3-Phase, 480V | 15 | 20 | 32 | 48 | Wall Mount |
| FV100-5T-0185G | 3-Phase, 480V | 18.5 | 25 | 37 | 55 | Wall Mount |
| FV100-5T-0220G | 3-Phase, 480V | 22 | 30 | 45 | 67 | Wall Mount |
| FV100-5T-0300G | 3-Phase, 480V | 30 | 40 | 60 | 90 | Wall Mount |
| FV100-5T-0370G | 3-Phase, 480V | 37 | 50 | 75 | 112 | Wall Mount |
| FV100-5T-0450G | 3-Phase, 480V | 45 | 60 | 90 | 135 | Wall Mount |
| FV100-5T-0550G | 3-Phase, 480V | 55 | 74 | 110 | 165 | Wall Mount |
| FV100-5T-0750G | 3-Phase, 480V | 75 | 100 | 152 | 228 | Wall Mount |
| FV100-5T-0900G | 3-Phase, 480V | 90 | 120 | 176 | 264 | Wall Mount |

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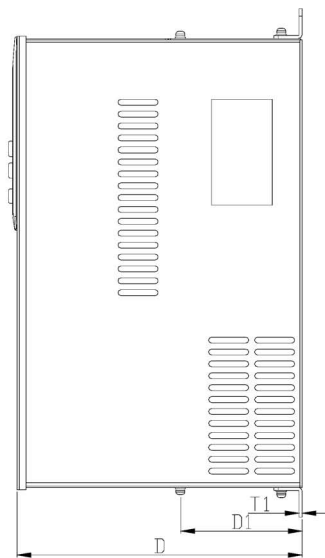
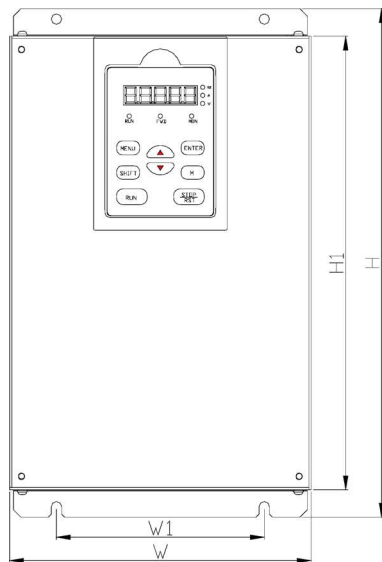
FV100-5T Series

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FV100-5T-0075G ~ FV100-5T-0450G



FV100-5T-0550G ~ FV100-5T-0900G



DIMENSIONS

| Item | W | W1 | H | H1 | D | D1 | T1 |
|----------------|-----|-----|-----|-----|-----|-------|-----|
| FV100-5T-0075G | 165 | 110 | 274 | 264 | 193 | - | 2 |
| FV100-5T-0110G | 194 | 120 | 324 | 312 | 197 | - | 2 |
| FV100-5T-0150G | 194 | 120 | 324 | 312 | 197 | - | 2 |
| FV100-5T-0185G | 194 | 120 | 324 | 312 | 197 | - | 2 |
| FV100-5T-0220G | 297 | 200 | 451 | 433 | 224 | - | 3 |
| FV100-5T-0300G | 297 | 200 | 451 | 433 | 224 | - | 3 |
| FV100-5T-0370G | 320 | 220 | 535 | 512 | 224 | 88.5 | 3 |
| FV100-5T-0450G | 320 | 220 | 535 | 512 | 224 | 88.5 | 3 |
| FV100-5T-0550G | 373 | 240 | 649 | 628 | 262 | 102.5 | 3 |
| FV100-5T-0750G | 373 | 240 | 649 | 628 | 262 | 102.5 | 3 |
| FV100-5T-0900G | 440 | 340 | 758 | 737 | 285 | 102 | 2.5 |

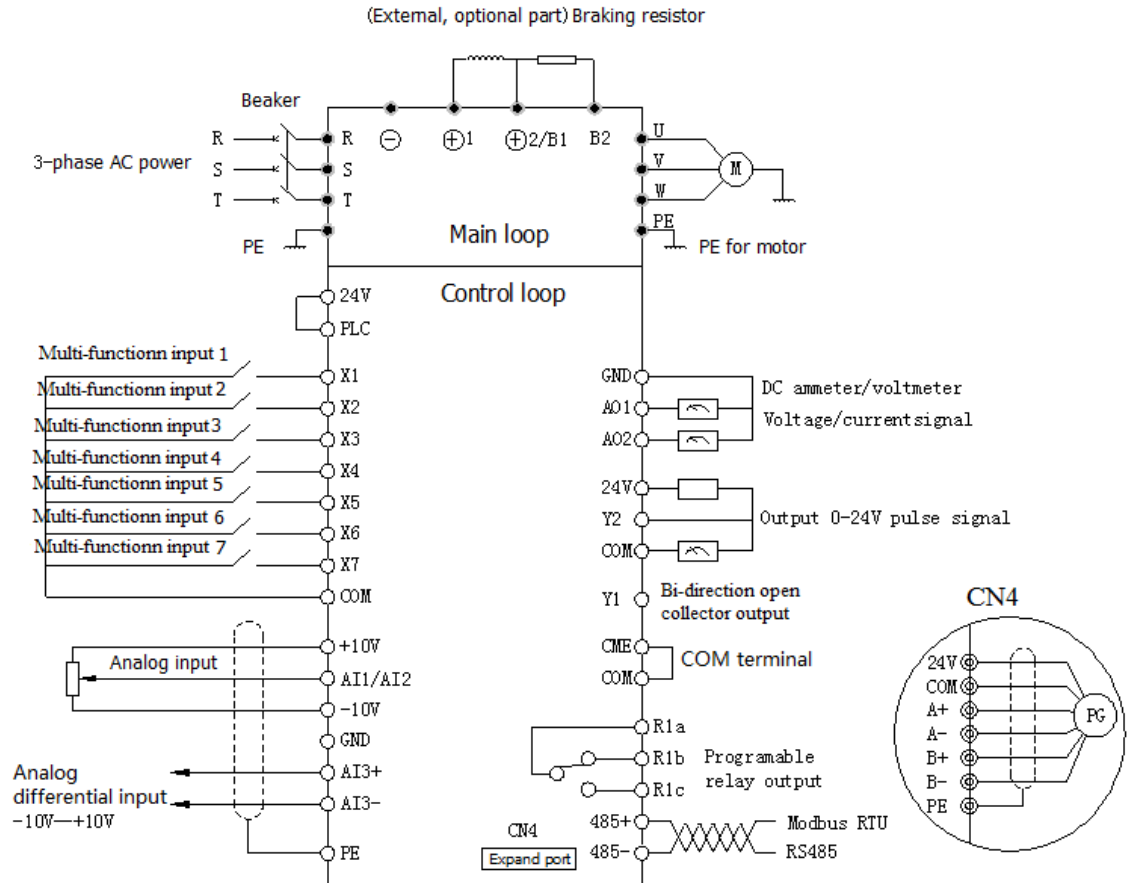
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| INPUT | |
|----------------------------------|---|
| Rated Voltage/Frequency | 3-phase, 480-540V AC; 50Hz/60Hz |
| Allowable Voltage Range | 420-560V AC; Voltage Tolerance:<3%; Frequency: ±5% |
| OUTPUT | |
| Rated Voltage | 0~Rated Input Voltage |
| Frequency | 0Hz-300Hz (0Hz-3000Hz Custom) |
| Overload Capacity | 150% Rated Current for 1 Minute, 180% Rated Current for 10 Seconds |
| MAIN CONTROL CHARACTERISTICS | |
| Control Method | Vector Control Without PG, V/F Control |
| Modulation Mode | Space Vector PWM Modulation |
| 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 |
| Jog | Range of Jog Frequency: 0.20Hz-50.00Hz; Acc/Dec Time of Jog Operation: 0.1-60.0s, Interval of Jog Operation is also settable. |
| Multiple Speed Operation | Implement Multiple Speed Operation by Digital Inputs |
| FUNCTIONS | |
| Operation Command | Keypad Setting, Terminal Setting, Communication Setting |
| Frequency Command Setting | Digital Setting, Analog Voltage Setting, Analog Current Setting |
| Auxiliary Frequency Setting | Implement Flexible Auxiliary Frequency Trim and Frequency Synthesis |
| Pulse Output Terminal | 0.1-100kHz Pulse Output. For example setting frequency, output frequency |
| Analog Output Terminal | 1 Channel Analog Output (0/4~20mA or 0/2~10V) |
| LED Display | Display frequency setting, frequency output, voltage output, current output and so on, about 20 parameters |
| Parameters Copy | Copy parameters by operation panel |
| Keys Lock and Function Selection | Lock part of keys or all the keys. Define the function of part of keys, in case of misoperation |
| Protection Function | Open Phase Protection (optional), Overcurrent Protection, Overvoltage Protection, Undervoltage Protection, Overheat Protection, and Overload Protection |
| 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) |
| Humidity | 5%~95%RH, Non-Condensing |
| Vibration | Less Than 5.9m/s ² (0.6g) |
| Storage Temperature | -40°C~ + 70°C |

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| SPECIFICATIONS | |
|---------------------|--|
| Protection Class | IP20 |
| Cooling Method | Air Cooling, with Fan Control |
| Installation Method | Wall-Mounted |
| Efficiency | Power Under 45kW ≥ 93%; Power Above 55kW ≥ 95% |

| MODEL | FV100-5T | | | | | | | | | | |
|----------------------------------|---|------|------|------|------|------|------|------|------|------|------|
| | 0075 | 0110 | 0150 | 0185 | 0220 | 0300 | 0370 | 0450 | 0550 | 0750 | 0900 |
| The Power of Suitable Motor (KW) | 7.5 | 11 | 15 | 18.5 | 22 | 30 | 37 | 45 | 55 | 75 | 90 |
| OUTPUT | | | | | | | | | | | |
| Voltage (V) | 3-Phase, 0~ Rated Input Voltage | | | | | | | | | | |
| Rate Output Current (A) | 17 | 25 | 32 | 37 | 45 | 60 | 75 | 90 | 110 | 152 | 176 |
| Overload Capacity | 150% Rated Current for 1 Minute; 180% Rated Current for 10 Seconds; | | | | | | | | | | |
| INPUT | | | | | | | | | | | |
| Rated Voltage/Frequency | 3 Phase, 480V~540V AC; 50Hz/60Hz | | | | | | | | | | |
| Allowable Voltage Range | 420V~560VAC; Voltage Tolerance:<3%; Frequency: ± 5% | | | | | | | | | | |
| Rated Input Current (A) | 20.5 | 26 | 35 | 38.5 | 46.5 | 62 | 76 | 92 | 113 | 157 | 180 |
| Brake Unit | Built-In (optional) | | | | | | | | | | |



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