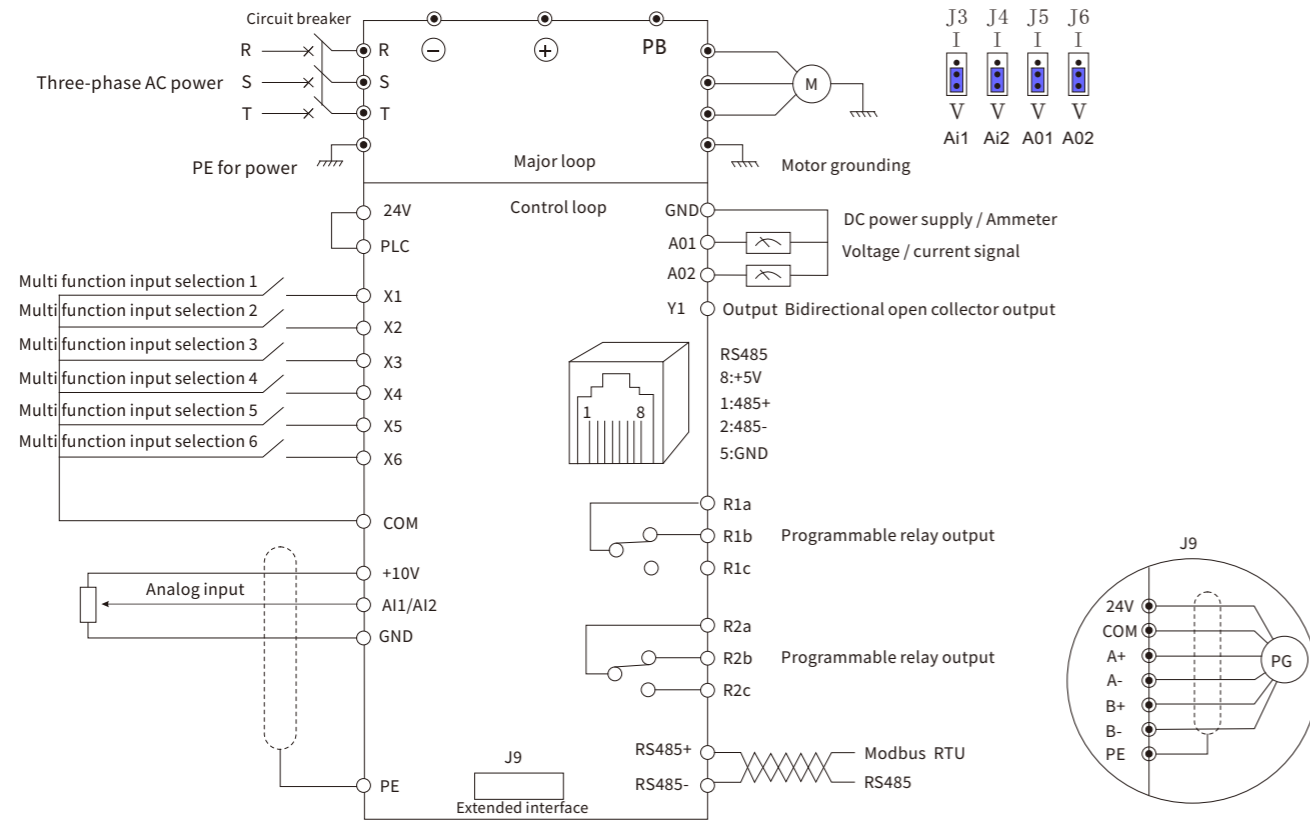
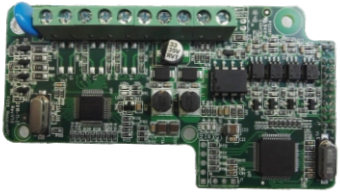
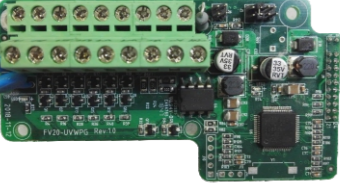


## Wiring Diagram Of Product Terminal



## FV20 Optional Expansion Card

Picture	Model	Description
	FV20-Resolver	Rotate transformer PG card Support rotate encoder, and support CAN function.
	FV20-UWVPG	Collector differential encoder Support ABZUVW encoder and CAN function

# Kinco

High  
Performance  
VFD

## Kinco FV20 Series



**Kinco® Automation**

www.en.kinco.cn Email:sales@kinco.cn

(All trademarks and logos in this brochure are property of and registered by their respective owners.)

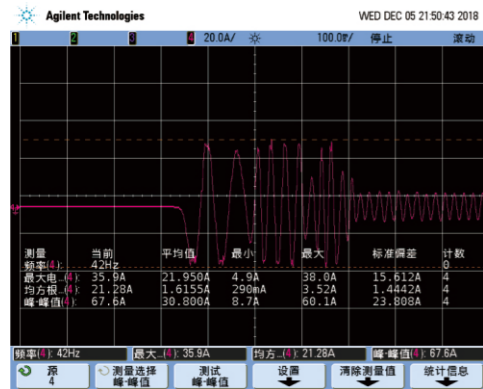
K1C20-2207

## Product Positioning

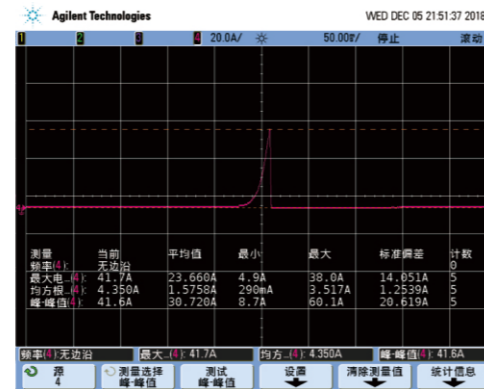
Fv20: high cost performance vector VFD, Has been fully replaced FV100 series

## Product Features

- Low speed, high torque, small torque ripple, automatic current limiting, avoid over current fault caused by sudden load or other reasons

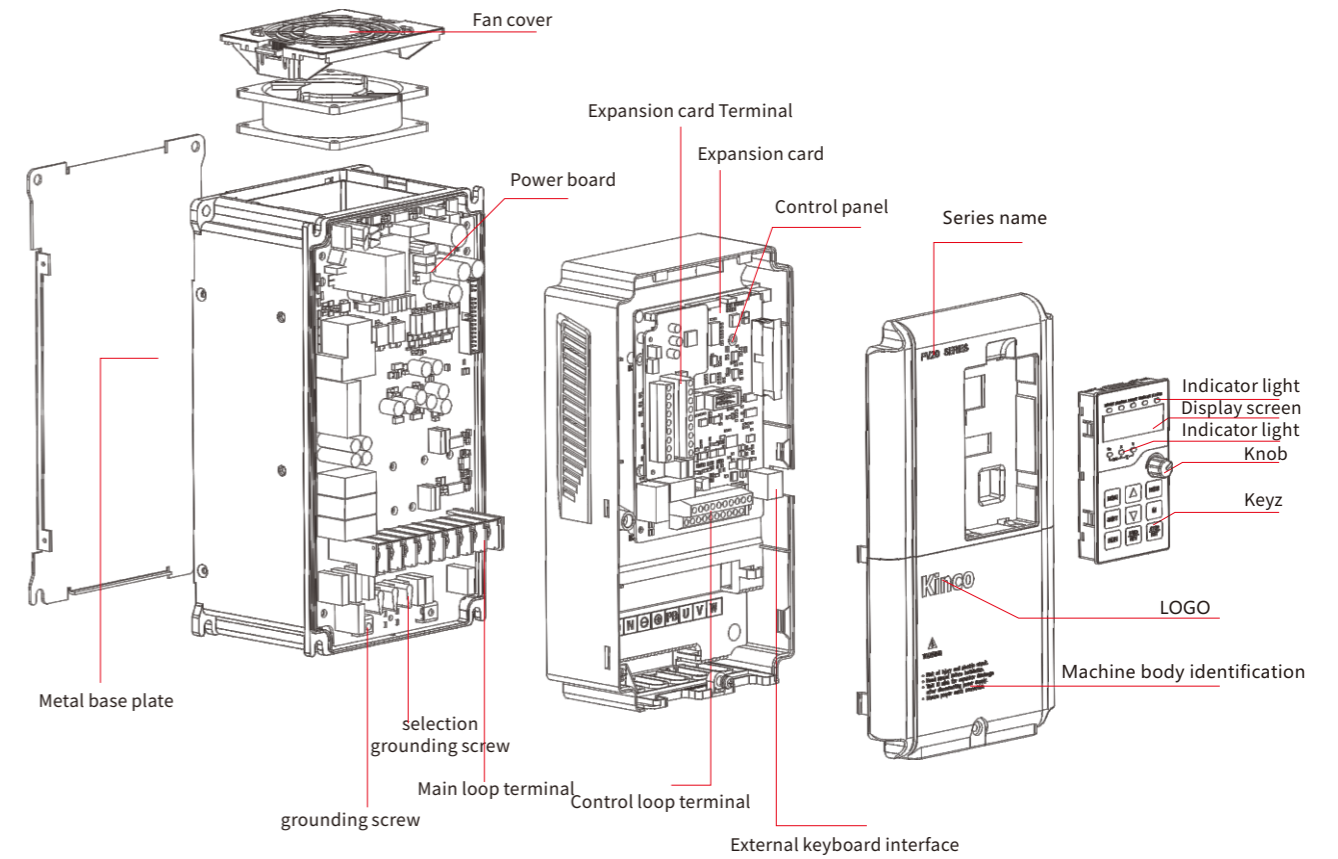


Automatic current limiting function on



Automatic current limiting function off

- Optimized structure design, high power density, built-in brake unit under 45KW
- Strict reliability design, support the company background monitoring software



## Product Model Description

### FV20-4T-0150G/0185L-037

FV	Closed loop vector
2	The second generation product
0	Standard type
...	Other types
4T	3-phase power supply 380V AC
2s	Single phase power supply 220v AC

037	No.37 software non-standard
Nothing	Standard configuration RS485
0150G	15KW constant torque
0185L	18.5KW constant power

CAN communication function requires an expansion card

### Forward / Reverse indicator

ON:Reverse  
OFF: Forward

### Current limit indicator

ON: Current limit  
OFF: No limit

### Command source indicator

LOC:ON: Local control LOC  
REMOTE:OFF: Remote control

### Fault indicator

ON: Fault alarm  
OFF: Normal

### Running indicator

ON :Running;  
Flashing:Self-learning status  
OFF: shutdown state

### Unit indicator

### Potentiometer

### MENU key

### Add / Sub key

### SHIFT key

### Run key

### Forward / Reverse key

### ENTER key

### Multi-function

### STOP / RESET key



### Technical Specification

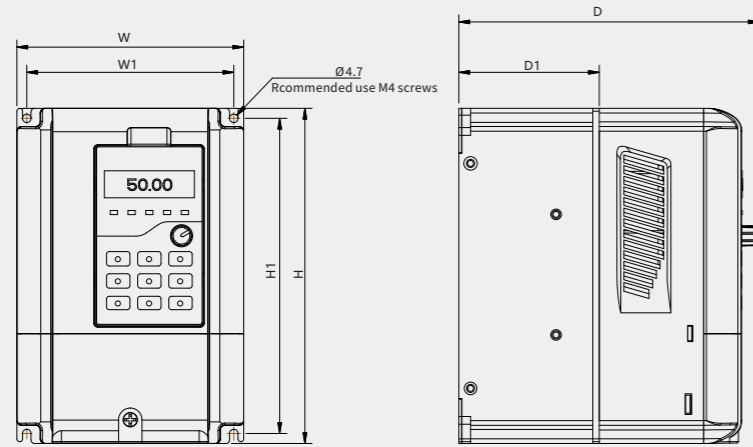
Item	Description	
Input	Rated Voltage/ frequency	single-phase,220V AC,50HZ/60HZ;three-phase,380V AC,50HZ/60HZ three-phase,220V AC,50HZ/60HZ
	Applicable voltage range	4T:320V~460V; 2T/2S:180V~260V; Voltage unbalancedness: <3%; Frequency tolerance: ±5%
Output	Rated voltage	0~Rated input voltage
	Frequency	0Hz~300Hz ((Customized 0Hz~3000Hz)
	Overload capacity	G Type:150% 1 minute, 180% 10 seconds; L type :110% 1 minute, 150% 1 second
Control characteristics	Control method	Vector control without PG , Vector control with PG , V/F contro
	Modulation method	Space vector PWM modulation
	Starting Torque	0.5Hz: 150% of rated torque(Vector control without PG), 0.0Hz: 200% of rated torque(Vector control with PG)
	Frequency accuracy	Digital setting: Max. frequency× ±0.01%; Analog setting: Max. frequency× ±0.2%
	Frequency resolution	Digital setting: 0.01Hz; Analog setting : Max. frequency×0.05%
	Torque boost	Manual torque boost: 0%~30.0%(Only V / F mode is valid)
	V/F pattern	4 patterns:1 pattern is V/F curve setting by users. 3 patterns are drop torque characters curve (2.0 power,1.7 power,1.2 power)
	Acceleration /Deceleration curve	Linear or S-curve acceleration and deceleration mode; Four kinds of acceleration and deceleration time
	Auto current limit	The current is automatically limited during operation to prevent frequent over-current fault tripping
Customized function	Jogging	Jogging frequency range: 0.00Hz~50.00Hz. Jogging acceleration/deceleration time: 0.1~60.0s.
	Multiple speed operation	Implement multiple speed operation by digital inputs.
Operation function	Operation command	Keypad setting, Terminal setting, Communication setting
	Frequency command	Digital setting, Analog voltage setting, Analog current setting, Pulse setting
	Auxiliary frequency setting	Implement flexible auxiliary frequency trim and frequency synthesis.
	Pulse output	0.1kHz ~ 100kHz pulse square wave signal output, can achieve the set frequency, output frequency and other physical quantities output
Operation panel	Analog output	2 channels analog output(0/4~20mA or 0/2~10V);Output setting frequency ,output frequency and so on
	LED Display	Display setting frequency, output frequency, output voltage, output current and so on, about 20 parameters.
	Parameters copy	Copy parameters by operation panel.
Protection function	Keys lock and function selection	Lock part of keys or all the keys. Define the function of part of keys to prevent misoperation
	Overcurrent protection, Overvoltage protection, Undervoltage protection, Overheat protection, Overload protection, Open phase protection (optional), etc.	
	Operating site	
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 (The ambient temperature is between 40 °C and 50 °C, reduce the rating for use)
	Humidity	5%~95%RH, No water condensation
	Vibration	Less than 5.9 M / S2 (0.6g)
	Storage temperature	-40°C~+70°C
Structure	Protection class	IP20
	Cooling method	Self cooling, air cooling, with fan control
Installation method	Wall mounted, cabinet mounted	
Effeciency	45kW or below: ≥93%; 55kW or above: ≥95%	

### Technical Specification

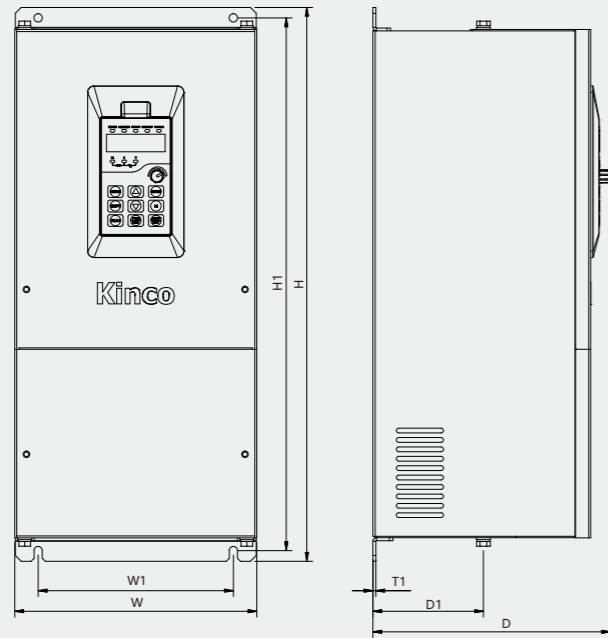
VFD model	Power capacity KVA	Input current A	Output current A	Adaptive motor KW
<b>220V,50/60HZ:Singel-phase 220V AC,50/60HZ</b>				
FV20-2S-0004G	1.0	5.3	2.5	0.4
FV20-2S-0007G	1.5	8.2	4.0	0.75
FV20-2S-0015G	3.0	14.0	7.5	1.5
FV20-2S-0022G	4.0	23.0	10.0	2.2
<b>380V, 50/60HZ:three-phase 380V AC,50/60HZ</b>				
FV20-4T-0007G/0015L	1.5	3.4	2.3	0.75
FV20-4T-0015G/0022L	3.0	5.0	3.7	1.5
FV20-4T-0022G/0037L	4.0	5.8	5.5	2.2
FV20-4T-0037G/0055L	5.9	10.5	8.8	3.7
FV20-4T-0055G/0075L	8.5	14.5	13.0	5.5
FV20-4T-0075G/0110L	11.0	20.5	17.0	7.5
FV20-4T-0110G/0150L	17.0	26.0	25.0	11
FV20-4T-0150G/0185L	21.0	35.0	32.0	15
FV20-4T-0185G/0220L	24.0	38.5	37.0	18.5
FV20-4T-0220G/0300L	30.0	46.5	45.0	22.0
FV20-4T-0300G/0370L	40.0	62.0	60.0	30.0
FV20-4T-0370G/0450L	50.0	76.0	75.0	37.0
FV20-4T-0450G/0550L	60.0	92.0	90.0	45.0
FV20-4T-0550G/0750L	72.0	113.0	110.0	55.0
FV20-4T-0750G/0900L	100.0	157.0	152.0	75.0
FV20-4T-0900G/1100L	116.0	180.0	176.0	90.0
FV20-4T-1100G/1320L	138.0	260.0	210.0	110.0
FV20-4T-1320G/1600L	167.0	232.0	252.0	132.0
FV20-4T-1600G/1850L	200.0	282.0	304.0	160.0
FV20-4T-1850G/2000L	230.0	326.0	350.0	185.0
FV20-4T-2000G/2200L	250.0	352.0	380.0	200.0
FV20-4T-2200G/2500L	280.0	385.0	426.0	220.0
FV20-4T-2500G/2800L	320.0	437.0	470.0	250.0
FV20-4T-2800G/3150L	445.0	491.0	520.0	280.0
FV20-4T-3150G/3550L	500.0	580.0	600.0	315.0
FV20-4T-3550G/4000L	565.0	624.0	665.0	355.0
FV20-4T-4000G/4500L	630.0	670.0	690.0	400.0
FV20-4T-6000G	990.0	1035.0	1050.0	600.0
FV20-4T-8000G	1250.0	1300.0	1350.0	800.0
FV20-4T-10000G	1500.0	1650.0	1725.0	1000.0

## Size

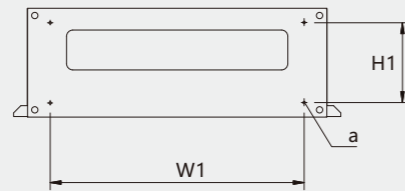
The overall dimension of VFD is shown in the figure below



Applicable model : FV20-4T-0450G/0550L Models below



Applicable model : FV20-4T-0550G/0750L~FV20-4T-8000G



Applicable model : FV20-4T-10000G Model

## Mechanical Parameters

VFD model (G: Constant torque load; L: Fan and pump load)	Outline and installation dimensions (mm)							Approximate weight (Gross weight)
	W	H	D	W1	H1	D1	Mounting hole d	
FV20-2S-0004G	126	186	167	115	175	78	4.7	2
FV20-2S-0007G								
FV20-2S-0015G								
FV20-2S-0022G								
FV20-4T-0007G/0015L								
FV20-4T-0015G/0022L								
FV20-4T-0022G/0037L								
FV20-4T-0037G/0055L	146	256	181	131	243	95	5.8	6
FV20-4T-0055G/0075L								
FV20-4T-0075G/0110L								
FV20-4T-0110G/0150L								
FV20-4T-0150G/0185L	170	320	207	151	303	118.5	5.8	8
FV20-4T-0185G/0220L								
FV20-4T-0220G/0300L								
FV20-4T-0300G/0370L	225	360	224	206	341	130	6.5	9
FV20-4T-0370G/0450L								
FV20-4T-0450G/0550L								
FV20-4T-0550G/0750L	285	617	258	220	596	132	10	35
FV20-4T-0750G/0900L								
FV20-4T-0900G/1100L	320	639	317	240	620	152	11	60
FV20-4T-1100G/1320L								
FV20-4T-1320G/1600L								
FV20-4T-1600G/1850L	530	940	385	340	910	206	14	114
FV20-4T-1850G/2000L								
FV20-4T-2000G/2200L								
FV20-4T-2200G/2500L	690	1006	380	500	974	207	14	156
FV20-4T-2500G/2800L								
FV20-4T-2800G/3150L								
FV20-4T-3150G/3550L	810	1228	400	520	1196	209	14	225
FV20-4T-3550G/4000L								
FV20-4T-4000G/4500L								
FV20-4T-6000G	810	1328	400	520	1296	/	14	450
FV20-4T-8000G								
FV20-4T-10000G	1480	1807	600	Seat type installation W1*H1=1040*440 d=14				460
FV20-2T-0004G	126	186	167	115	175	78	4.7	2
FV20-2T-0007G								
FV20-2T-0015G								
FV20-2T-0022G	146	256	181	131	243	95	5.8	6
FV20-2T-0037G/0055L								
FV20-2T-0055G/0075L	170	320	207	151	303	118.5	5.8	8
FV20-2T-0075G/0110L								
FV20-2T-0110G/0150L								
FV20-2T-0150G/0185L	225	360	224	206	341	130	6.5	9
FV20-2T-0185G/0220L								
FV20-2T-0220G/0300L								