



INVERTER

## Z5000-BF Series

IP54/65 High Protection Inverter



## 1-1 Z5000-BF Technical Specification

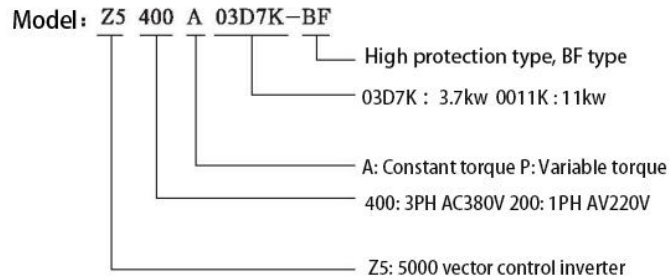
Item		Z5000-BF Series
Control Mode		Sensorless flux vector control (SFVC) Voltage/Frequency (V/F) Control
Maximum frequency		Vector control: 0-320Hz V/F control: 0-3200Hz
Carrier frequency		1kHz~16kHz The carrier frequency is automatically adjusted based on the load features.
Input frequency resolution		Digital setting:0.01Hz Analog setting: Maximum frequency 0.025%
Start torque		G: Type:0.5Hz/150%(SVC) P: Type:0.5Hz/100%
Speed range		1:100(SVC)
Speed stability accuracy		±0.5%(SVC)
Overload capacity		G Type:60s for 150% of the rated current, 3s for 180% of the rated current. P Type:60s for 120% of the rated current, 3s for 150% of the rated current.
Torque boost		Auto-boost ; Customized boost:0.1%~30.0%
V/F curve		Line V/F curve; Multi-point V/F curve; N-power V/F curve
V/F separation		2 types: complete separation; half separation
Ramp Mode		Straight-line ramp ; S-curve ramp ; Four groups of acceleration/deceleration time:0~6500.0s
Auto voltage regulation (AVR)		It can keep constant output voltage automatically when the mains voltage changes
Rapid current limit		It helps to avoid frequent over current faults of the AC drive.
Torque limit and control		It can keep constant output voltage automatically when the mains voltage changes
Onboard PID		It realizes process-controlled closed loop control system easily
JOG control		JOG frequency range: 0.00~50.00 Hz JOG acceleration/deceleration time: 0.0~6500.0s
DC braking		DC braking frequency : 0.00Hz to maximum frequency Braking time : 0.0-100.0s Braking action current value: 0.0%-100.0%
Instantaneous blackout doesn't stop		The load feedback energy compensates the voltage reduction so that the AC drive can continue to run for a short time.
Timing control		Timing range:0.0Min~6500.0Min
Communication		RS485 / Ether cat(optional)
Run command channel		Given by the panel, control terminals, serial communication port, can be switched by many ways
Frequency source		10 kinds of frequency source, given by digital analog voltage, analog current, pulse, serial port. It can be switched by many ways
Auxiliary frequency source		10 kinds of frequency source, can easily realize micro adjustment, frequency Synthesizer
Input terminals		6 digital input terminals, one of which supports up to100 kHz high-speed pulse

		input (optional). 2 analog input terminal, one of which only supports 0-10 V voltage input and the other supports 0-10V voltage input or 4-20 mA current input.
	Output terminals	1 digital output terminal      1 relay output terminal 1 analog output terminal: that supports 0-20 mA current output or 0-10v voltage output
	Multiple protection modes	Motor short-circuit detection at power-on, output phase loss protection, over-current protection, over-voltage protection, under voltage protection, overheat protection and overload protection.

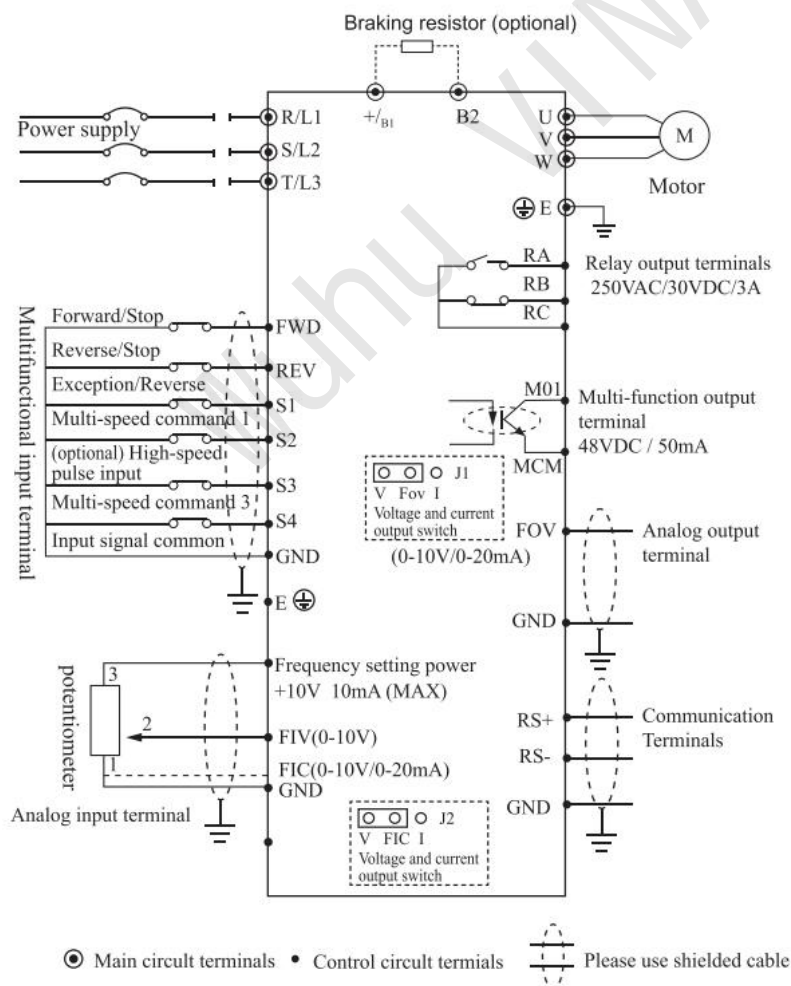
## 1-2 Z5000-BF Specification

Model	Rated output power (kW)	Rated input current (A)	Rated output current (A)	Motor Power (kW)
Input voltage (v): 1PH AC 220V±15%				
Z5200A0D75K-BF	0.75	7.2	5	0.75
Z5200A01D5K-BF	1.5	10	7	1.5
Z5200A02D2K-BF	2.2	16	11	2.2
Input voltage (v): 3PH AC 380V±15%				
Z5400A0D75K-BF	0.75	3.8	2.5	0.75
Z5400A01D5K-BF	1.5	5	3.7	1.5
Z5400A02D2K-BF	2.2	5.8	5	2.2
Z5400A03D7K-BF	3.7	10	9	3.7
Z5400A05D5K-BF	5.5	15	13	5.5
Z5400A07D5K-BF	7.5	20	17	7.5
Z5400A0011K-BF	11	26	25	11
Z5400A0015K-BF	15	35	32	15
Z5400A0018K-BF	18	38	37	18
Z5400A0022K-BF	22	46	45	22
Z5400A0030K-BF	30	62	60	30
Z5400A0037K-BF	37	76	75	37
Z5400A0045K-BF	45	92	90	45
Z5400A0055K-BF	55	113	110	55
Z5400A0075K-F	75	157	150	75
Z5400A0090K-BF	90	180	176	90
Z5400A0110K-BF	110	214	210	110
Z5400A0132K-BF	132	256	253	132
Z5400A0160K-BF	160	307	300	160

### 1-3 Product description



### 1-4 Typical Wiring diagram



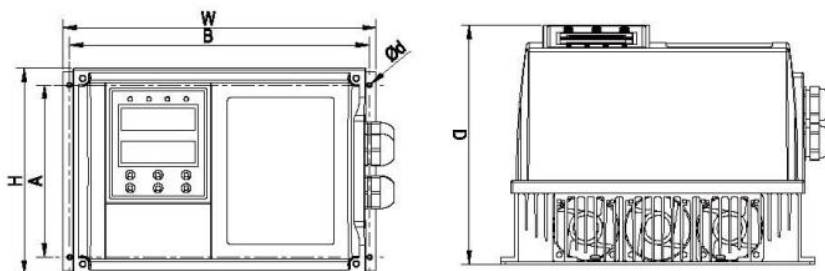
### 1-5 Z5000-BF series dimension

Model	Motor	Output Current	Mounting dimension(mm)					
			Overall dimension					
			W	H	D	A	B	Φd
Z5200A0D75K-BF	0.75	5	188	122	134	178	105	4
Z5200A01D5K-BF	1.5	7						
Z5200A02D2K-BF	2.2	11						
Z5400A0D75K-BF	0.75	2.5						
Z5400A01D5K-BF	1.5	3.7						
Z5400A02D2K-BF	2.2	5						
Z5400A03D7K-BF	3.7	9	235	154	179	225	129	4
Z5400A05D5K-BF	5.5	13						
Z5400A07D5K-BF	7.5	17						
Z5400A0011K-BF	11	25						
Z5400A0D75K-BF-V	0.75	2.5	140	190	138	130	160	4.5
Z5400A01D5K-BF-V	1.5	3.7						
Z5400A02D2K-BF-V	2.2	5						
Z5400A03D7K-BF-V	3.7	9	192	280	178	180	200	5.5
Z5400A05D5K-BF-V	5.5	13						
Z5400A07D5K-BF-V	7.5	17						
Z5400A0011K-BF-V	11	25						
Z5400A0015K-BF	15	32						
Z5400A0018K-BF	18	37	236	300	204	225	250	7
Z5400A0022K-BF	22	45						
Z5400A0030K-BF	30	60	236	400	231	225	175+175	7
Z5400A0037K-BF	37	75						

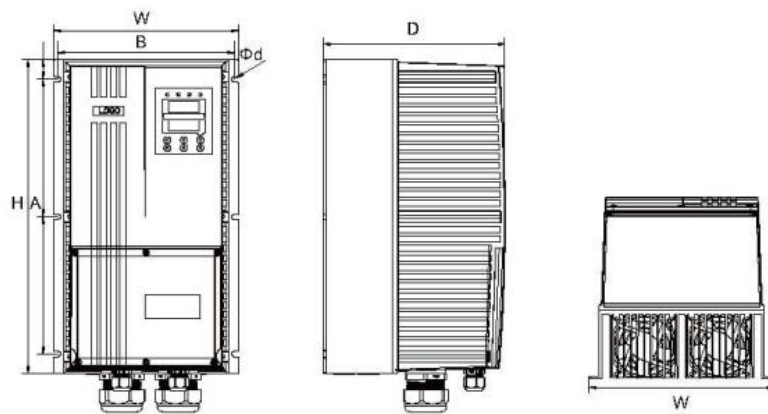
Note:

380v/0.75-11kw Horizontal installation and vertical installation exist at the same time. -V indicates vertical installation. Above 15kw is installed vertically

#### a. Horizontal installation



b. Vertical installation



45-110kW

Model	Motor	Output current	Overall dimension(mm)				Mounting dimension(mm)		
			W	H	H1	D	A	B	Φd
Z5400A0045K-BF	45	90	300	450	482	278	210	465	9
Z5400A0055K-BF	55	110							
Z5400A0075K-BF	75	150							
Z5400A0090K-BF	90	176	400	520	560	275	300	535	9
Z5400A0110K-BF	110	210							
Z5400A0132K-BF	132	253	400	800	864	321.5	330	780	11
Z5400A0160K-BF	160	300							

