



РУКОВОДСТВО ПО
ЭКСПЛУАТАЦИИ
Цифровой регулятор
скорости

■ FEATURE:

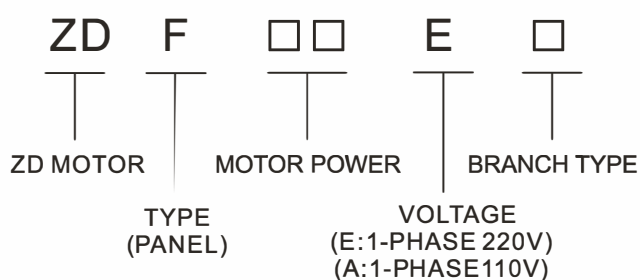
- Using MCU digital control, rich function and good performance
- Using digital-display menu option, easy setting up
- Ratio showed based on users' need, displaying target value automatically
- Able to achieve slow accelerating and slow reducing
- Able to be controlled on panel or external switch
- Panel switch manage to adjust maximum speed, easy and safe speed control
- Internal running capacitor
- Blocking protection, prevent burn because of motor lock.

■ SPEED CONTROLLER SERIES MODEL NUMBER

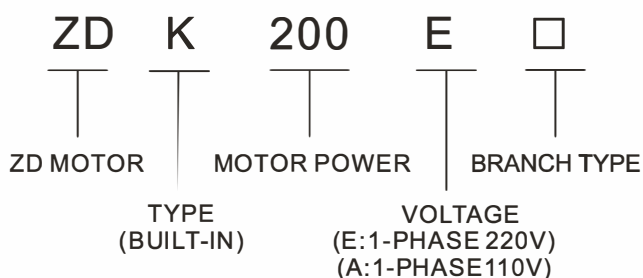
TYPE VOLTAGE POWER	ZDF PANEL SPEED CONTROLLER		ZDK BUILT-IN SPEED CONTROLLER	
	220V	110V	220V	110V
6W	ZDF06E	ZDF06A	ZDK200E	ZDK200A
15W	ZDF15E	ZDF15A		
25W	ZDF25E	ZDF25A		
40W	ZDF40E	ZDF40A		
60W	ZDF60E	ZDF60A		
90W	ZDF90E	ZDF90A		
120W	ZDF120E	ZDF120A		
200W	ZDF200E	ZDF200A		

■ MODEL NO. NAMING RULE

● PANEL TYPE:



● BUILT-IN TYPE:



ZD PANEL TYPE SPEED CONTROLLER

USE MANUAL



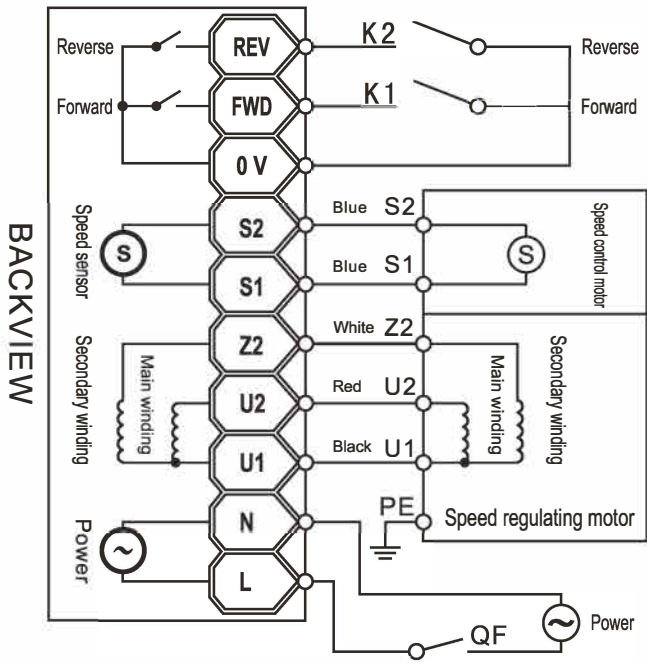
For safe and proper operation, read this manual before use.

- 50/60Hz Auto Matching
- 50/60Hz Manual Matching

■ SPEED CONTROLLER SPECIFICATIONS

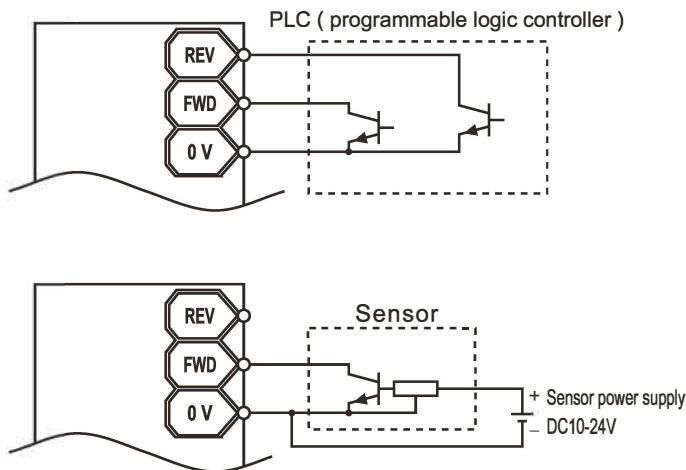
MODEL NO.	ZDF□□E	ZDF□□A	ZDK200E	ZDK200A
MOUNTING TYPE	PANEL		BUILT-IN	
VOLTAGE	SINGLE-PHASE 220V	SINGLE-PHASE 110V	SINGLE-PHASE 220V	SINGLE-PHASE 110V
FREQUENCY	50Hz/60Hz			
RECOMMEND MOTOR TYPE	SPEED CONTROL MOTOR			
RUNNING CAPACITOR	BUILT-IN (installed inside of the speed controller)		EXTERNAL (inside the unit package, for user own connecting)	
CONTROL FUNCTION	Panel or external switch control the speed, slowly speed up and speed down		External switch control the speed, slowly speed up and speed down, quick stop, four-stage speed control	
SPEED CONTROL	PANEL “▲” “▼” BUTTON, SWITCH		PANEL “▲” “▼” BUTTON, SWITCH 0-10V ANALOG	
SPEED CONTROL RANGE	90-3000r/min (users can set based on motor poles, frequency and needs)			
WORKING TEMPERATURE	Ambient temperature -10°C. +45°C(no icing), ambient humidity 85%RH (no frosting)			

Panel Type Speed Controller Diagram



MOTOR WIRE COLOR AND CONNECTION REFERENCE TABLE		
MOTOR WIRE COLOR 1	MOTOR WIRE COLOR 2	CONNECTION POSITON
BLUE	YELLOW(WHITE THIN)	S2
BLUE	YELLOW(WHITE THIN)	S1
WHITE	WHITE	Z2
Red	BLUE	U2
BLACK	RED	U1

Note: this table refers to the wire color of velometer and main/secondary winding mentioned in the above connection diagram.



- Use operation panel buttons to control the motor:
 - 1.No need to install K1, K2 switch
 - 2.Manual set-up
 Operation control type F-03 choose "1" or "4"
 Panel button control
 The power of YT speed regulating motor must be consistent with the speed controller
 The voltage of the power supply and speed controller must be the same. QF is a breaker, to protect the speed controller and the motor when short circuit.

- External switch K1, K2 control the motor
 - 1.Install K1, K2 switch
 - 2.Manual set-up
 Operation control type F-03 choose "2" or "3"
 External switch control
 The power of the motor and speed controller must be the same.

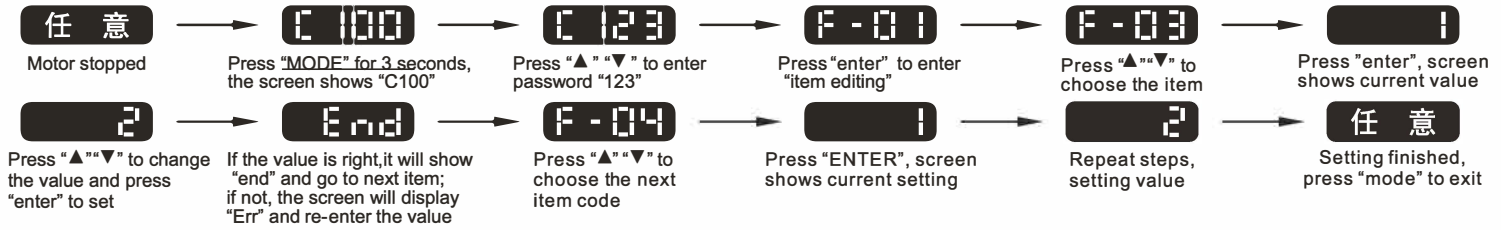
● QF breaker current specs table

Power voltage	Motor power	QF current specs
220V	6-90W	1A
220V	120-200W	2A
110V	6-90W	2A
110V	120-200W	4A

- FWD, REV use PLC programmable logic controller
 PLC output method: NPN or leakage transistor output
- Manual set-up:
 Operation control type F-03 choose "2" or "3"
 external switch control
- FWD, REV use sensor control such as proximity switch, photoelectric switch
 Switch output method: three-wire NPN transistor output
- Manual set-up:
 Operation control type F-03 choose "2" or "3"
 external switch control

■ PANEL TYPE SPEED CONTROLLER MANUAL:

- When editing menu, please note: for safety, F-05, F-29 item editing can not be done when the motor is running, otherwise the setup will fail, and the screen show "Err"



■ THE DETAILS OF PANEL TYPE SPEED CONTROLLER MANUAL

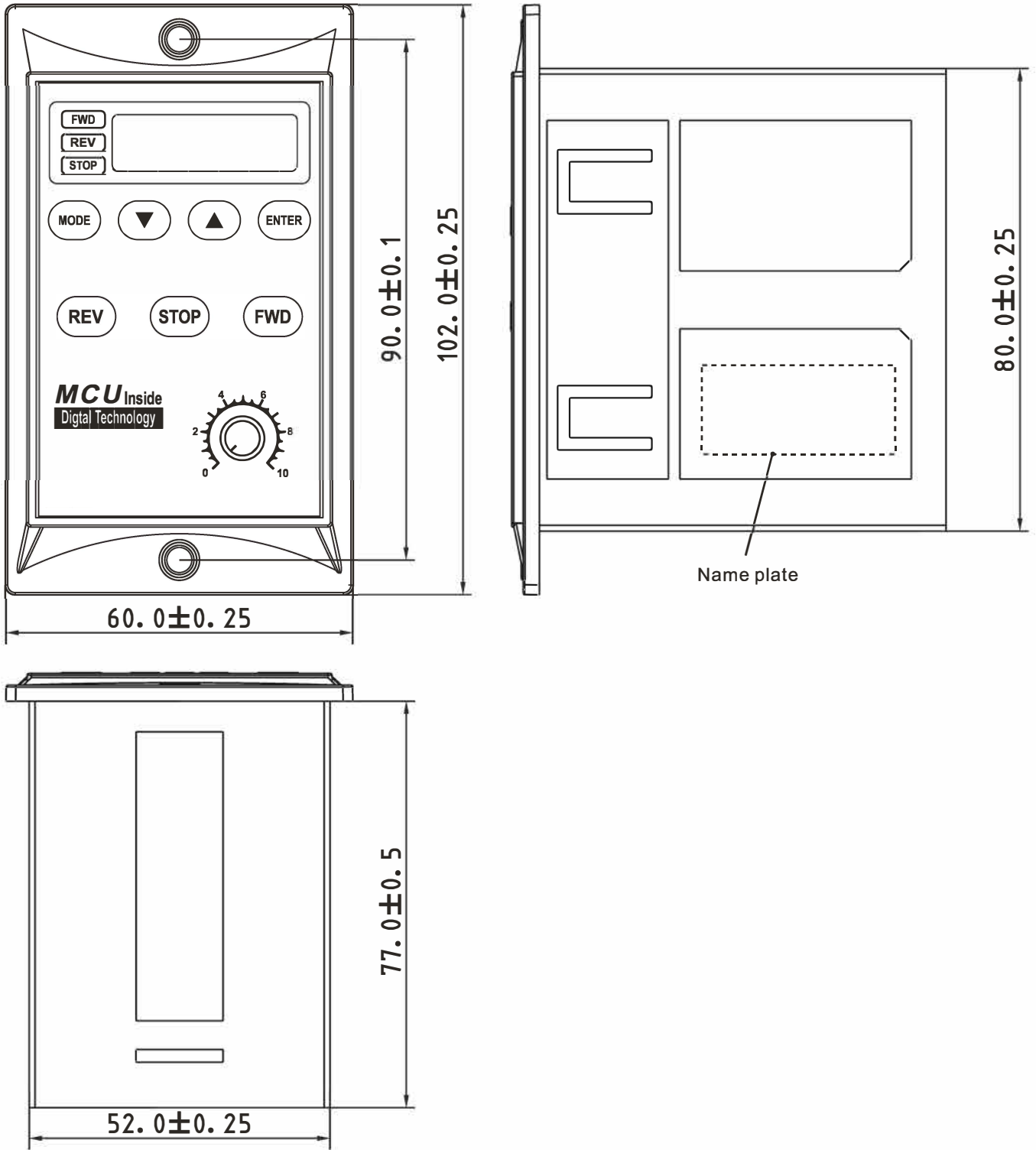
(Auto Match Mode[F-07] item value is 500-1700, Manual Match Mode setting value is 500-3000)

Item code	Function	Value set range	Function description	Default	User settings
F-01	Display content	1.Motor speed value 2.Speed rate value	3.Speed Rate set value=Motor speed set value ÷ Rate	1	
F-02	Rate setting	1.0-999.9	Setting based on display needs, show target value	1.0	
F-03	Operation control mode	1.panel button control, no memory function 2.External switch control, "STOP" button on panel becomes invalid 3.External switch control, "STOP" button on panel becomes valid 4.panel button control, with memory function	Choose "1" to control the motor by panel buttons. Turn on the controller after power off, controller will not remember current running state. When power on, motor remain stop. Choose "4", controller will remember the running state before power off, when power on, power will continue to work in the previous state. Eg: if motor direction is CW before power off, after power on again, motor will run immediately in CW. So when using this model, take care! When using external switch, it can be controlled by external switch K1,K2	1	
F-04	Rotate type	1.CW&CCW is allowed 2.CW is allowed, CCW is not allowed 3.CCW is allowed, CW is not allowed	Restrict motor direction to prevent equipment damage accident	1	
F-05	Rotate direction	1.CCW is not allowed 2.CW is not allowed	Do not need to change motor rotate direction, easy to change motor rotate direction to make it consistent with the habits or requirements	1	
F-06	Speed control mode	1.panel button control "▲" "▼" 2.panel switch	"▲" "▼" control the speed within top and bottom limit. Switch control automatically from 0 to top speed.	1	
F-07	Maximum speed	500-1700	Limit the maximum speed of motor to prevent damage or accident because of over speed	800	
		500-3000		1400	
F-08	Minimum speed	120-1000	Limit the minimum speed of motor to prevent instability, overheating or overload.	120	
		90-1000		90	
F-09	CW starting accelerate time	0-10s(Auto match)	Set to longer time, stable star, longer accelerating time; Set to short time, quich start, short accelerating time	1.0	
		0.1-10s(Manual match)			
F-10	CW stop mode	1.Free stop 2.Slow stop	When select "free stop", if motor stop too quick, then select "slow stop". Modify "F-11", you can control stop time	1	
F-11	CW stop decelerate time	0-10s(Auto match)	Valid when "F-10" is "2"	0	
		0.1-10s(Manual match)		1.0	
F-12	CCW starting accelerate time	0-10s(Auto match)	Set to longer time, stable star, longer accelerating time; Set to short time, quich start, short accelerating time	0	
		0.1-10s(Manual match)		1.0	
F-13	CCW stop mode	1.Free stop 2.Slow stop	When select "free stop", if motor stop too quick, then select "slow stop". Modify "F-11", you can control stop time	1	
F-14	CCW stop decelerate time	0-10s(Auto match)	Valid when "F-13" is "2"	0	
		0.1-10s(Manual match)		1.0	
F-29	Re-setting	1.Not reset 2.Reset		1	
F-30	Version info	Code +version		01.**	
Error warning Er-1: 1.lock by overload 2.wrong connection between motor and controller			Fault Handling: 1.Check and exclude the fault 2.Re-power and solve the problem		

■ Notice

- Don't use this speed controller in an explosive, inflammable atmosphere, corrosive, high humidity or dust environment.
- Avoid the continuous vibration or excessive shock.
- The temperature in the case of speed controller can reach 70°C when the motor in normal operation state, be careful to avoid burns.

■ PANEL TYPE SPEED CONTROLLER INSTALLATION SPECIFICATION





8 (800) 555-63-74 бесплатные звонки по РФ
+7 (473) 204-51-56 Воронеж
+7 (495) 505-63-74 Москва



www.purelogic.ru
info@purelogic.ru
394033, Россия, г. Воронеж,
Ленинский пр-т, 160, офис 149

Пн	Вт	Ср	Чт	Пт	Сб	Вс
8 ⁰⁰ -17 ⁰⁰		8 ⁰⁰ -16 ⁰⁰		выходной		