

## CZM9 Automatic Transfer Switch



### General

CZM9 series automatic transfer switch is suitable for AC 50/60Hz power systems with rated voltage AC400V and current up to 800A. It enables automatic switching between two power sources to ensure uninterrupted power supply. In case of overvoltage, undervoltage, or phase loss, it switches to the backup source or starts the generator. Equipped with RS485 interface and MODBUS-RTU protocol, it supports real-time data upload, remote monitoring, and control. Widely used in hospitals, malls, banks, hotels, high-rise buildings, and other critical facilities where power continuity is essential.

Standard: IEC 60947-6-1

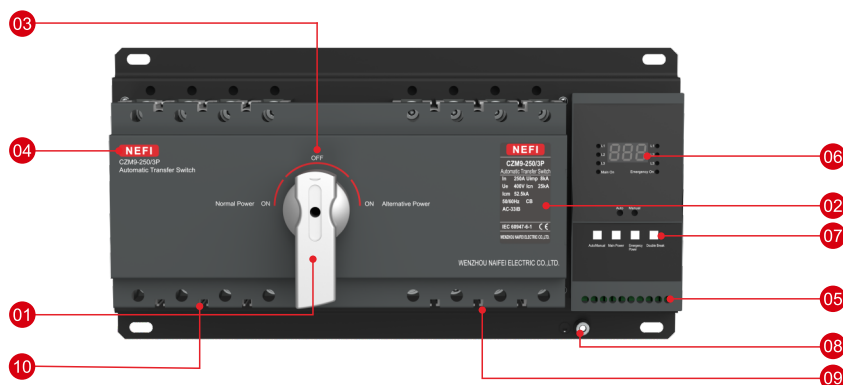
## Operating Conditions

Type	Operating and Installation Conditions
Ambient temperature	-5°C ~ +40°C
Installation altitude	≤2000m
Max humidity at 40°C	≤ 50%
Max humidity at 20°C	≤ 90%

## Selection

CZM9	125	M	3P	125A	W2
Model	Shell frame	Breaking capacity	Number of poles	Rated current	Controller code
Dual power automatic transfer switch	63(16~63A)	M: Standard type	3:3P 4:4P	10, 16, 25, 32, 40 50, 63, 80, 100, 125 140, 160, 180, 200 225, 250, 315, 400 500, 630, 800	Default: LED Y: LCD W2: Split LED display W3: Split LCD display
	125(16~125A)				
	250(100~250A)				
	400(250~400A)				
	630(400~630A)				
	800(630~800A)				

### Structural Features



- 01 Handle
- 03 Main contact position indication
- 05 Signal terminal
- 07 Controller control button
- 09 Alternative power load side

- 02 Nameplate
- 04 Trademark
- 06 Controller display
- 08 Enclosure grounding terminal
- 10 Normal power load side

## Technical Parameters

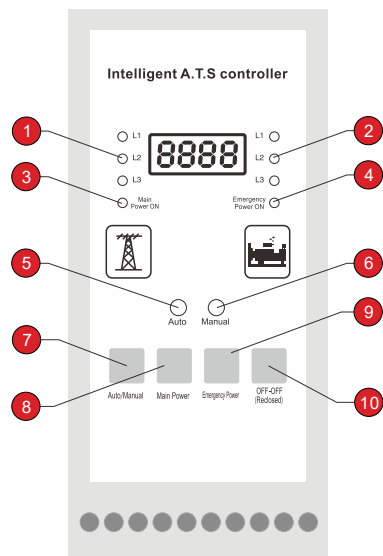
Type	CZM9					
Shell frame	63	125	250	400	630	800
Rated working current In(A)	10,16,20,25 32,40,50,63	16,20,25 32,40,50,63 80,100,125	100,125,140 160,180,200 225,250	250, 315 350, 400	400,500,630	630,800
Number of poles	3, 4					
Electrical class	Class CB					
Use category	AC33iB					
Rated working voltage Ue(V)	AC380, 400					
Rated insulation voltage Ui(V)	AC690					AC800
Rated impulse withstand voltage Uimp(KV)	8					
Rated short-circuit breaking capacity Icn(KA)	15	25	25	35	35	35
Electrical life	1000			1000	500	
Mechanical life	5000			3000	2500	
Rated working system	Uninterrupt working system					
Overvoltage transfer setpoint	AC230V-AC300V					
Undervoltage transfer setpoint	AC150V~AC210V					
Contact switch time	<4s					
Disconnection delay	1s-240s continuously adjustable					
Shutdown delay	1s-240s continuously adjustable					

## Function Introduction

Function	Full-function type
Manual mode	■
Automatic mode	■
Motor protection function	■
Main contact working position (performing circuit breaker)	
Normal power supply closed	■
Reserve power supply closed	■
Double break	■
<b>Automatic control</b>	
Monitoring normal power supply	■
Monitoring reserve power supply	■
Self-throwing and self-reset	■
Self-throwing and non self-reset	■
Reserve for each other	■
Power grid-power grid	■
Power grid-power generation	■
Phase failure instantaneous protection	■
Under-voltage protection 150-210V	adjustable
Over-voltage protection 230-300V	adjustable
Fire control function	■
Changeover time delay 0-240s continuously adjustable	■
Returning time delay 0-240s continuously adjustable	■
Frequency display	■
Communication function	optional
<b>Indication</b>	
N on/R on/double break indication	■
Normal power supply indication	■
Reserve power supply indication	■
Fault tripping indication	■
Parameter setting indication	■
Voltage real time indication	■
Normal three phase voltage protection	three phase
Reserve three phase voltage protection	three phase

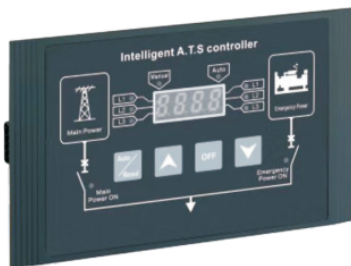
## Controller

Automatic transfer switch according power supply condition and the parameter that user set to choose if transfer from one power to the other power. It's function depends on the controller. There are 3 types(Y, w2 and w3) of controller. The features and functionality of controller as following.



### Y type controller panel instruction

- 1 Normal power L1, L2, L3 phase power indicator
- 2 Alternative power L1, L2, L3 phase power indicator
- 3 Indicator light for normal power on.
- 4 Indicator light for alternative power on.
- 5 Indicator light for automatic working status.
- 6 Indicator light for manual working status
- 7 Automatic/Manual button
- 8 Main power
- 9 Emergency power
- 10 OFF-OFF (reclosed) button



**W2 (LED)**



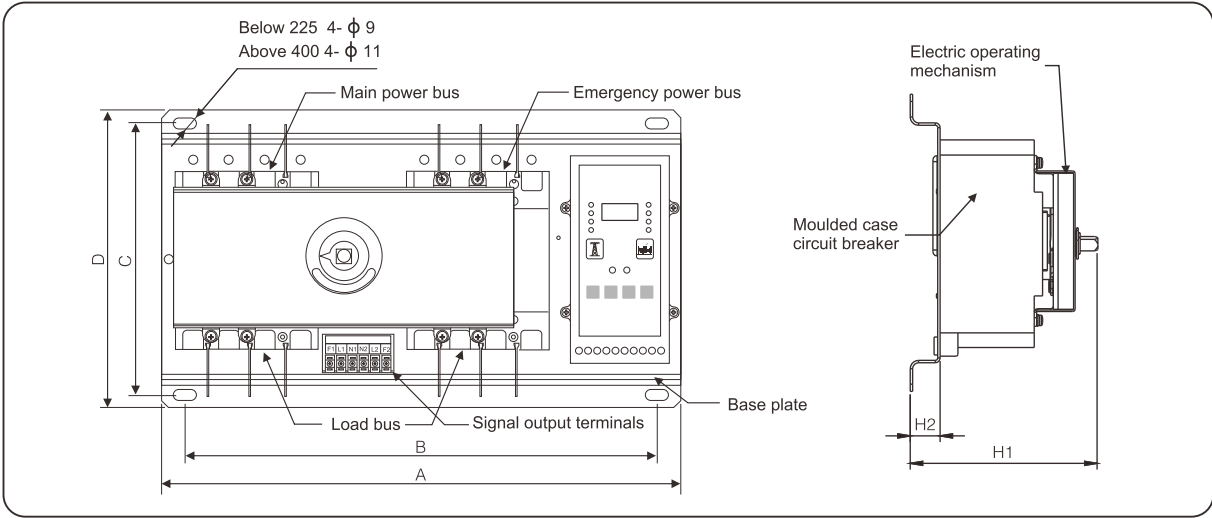
**W3 (LCD)**

### Technical data

Controller	Y type Controller	W2 type Controller	W3 type Controller
Working power supply	AC160-250V 50/60Hz	DC12V(Provided by the in side of Y type controller)	
Installation	Integral type	Split type	
Position	3 Positions		
Mode of operation	Auto,manual and electro-manual operation		
Voltage monitoring function	3 phase over-voltage,under-voltage and phase loss monitoring		
Frequency monitoring function	Frequency monitoring		
Generator control	A set of 3A relay dry contact		
Fire linkage control	Passive contact input,with a set of normally open passive signal feedback contact		
Mode of conversion	According to users requirement could set at A uto Can set at Auto transfer and auto recover,Auto transfer and non-auto recovery or utility generator type mode according to user's requirement.		
Display	LED display		LCD display
Conversion time delay	0.5s-60s continuously adjustable		
Return time delay	0.5s-60s continuously adjustable		

Model	Match circuit breaker	Pole	Rated short circuit making capacity(lcm)	Rated short circuit breaking capacity(lcn)	Rated current of circuit breaker (A)	Rated insulation voltage(V)
CZM9-63	CM1-63	3	31.5	15	10,16,20,32,40,50,63	690
		4	31.5	15		
CZM9-125	CM1-125	3	52.5	25	16,20,32,40,50,63,80,100,125	690
		4	52.5	25		
CZM9-250	CM1-250	3	52.5	25	125,160,180,200,225,250	690
		4	52.5	25		
CZM9-400	CM1-400	3	73.5	35	250,315,350,400	690
		4	73.5	35		
CZM9-630	CM1-630	3	73.5	35	500,630	690
		4	73.5	35		
CZM9-800	CM1-800	3	73.5	35	700,800	800
		4	73.5	35		

Dimensions and Installation Sizes(mm)



Specification	A		D	B		C	H1	H2
	3P	4P		3P	4P			
CZM9-63	380	405	250	340	365	230	<160	25
CZM9-125	405	435	250	365	395	230	<170	25
CZM9-250	450	480	250	410	440	230	<190	25
CZM9-400	570	620	330	510	560	300	<200	25
CZM9-630	680	740	330	620	680	300	<250	25
CZM9-800	750	820	330	690	760	300	<250	25

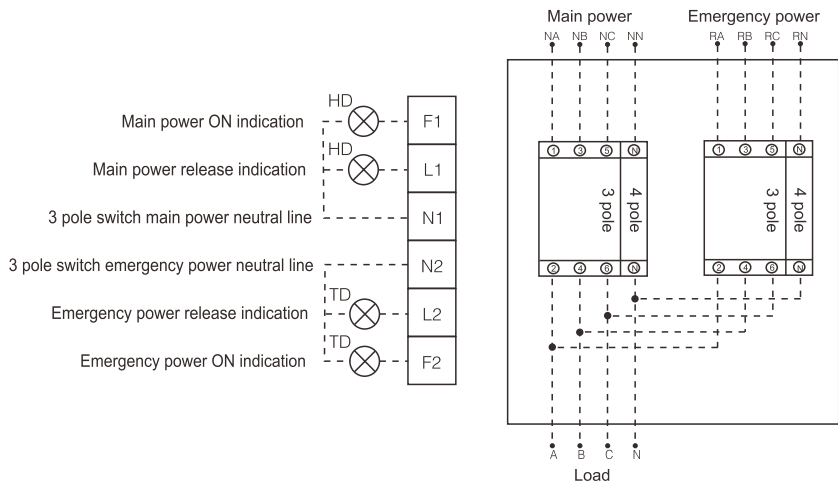
Installation and Wiring

Switch Installation

- Fix the device and select wiring based on rated current.
- Ensure the phase sequence of main and emergency power is the same.

Split Type Controller Installation

- Fix the controller to the panel using two support brackets.
- Ensure the controller is correctly inserted into the switching device and firmly secured.
- Confirm all contact points are reliable and fuses are intact.
- For insulation withstand tests, remove the controller first to prevent damage.
- For 3P switches: connect the main neutral wire to N1, and the emergency neutral wire to N2. Wiring must be correct and secure to ensure ATS works properly.
- For 4P switches: connect both neutral wires to their respective breaker N poles.
- Ensure the switching device is grounded at the marked grounding point.
- Indicator lights can be connected to corresponding terminals for status observation (refer to wiring diagram).



**Note:**  
This diagram applies to three-phase four-wire. When using three-phase three-wire system, the neutral line of main power connects to terminal N1 port, neutral line of emergency power connects to terminal N2 port.  
HD main power indication AC220V(User-provided).  
TD main power indication AC220V(User-provided).