CZ9 Automatic Transfer Switch

General

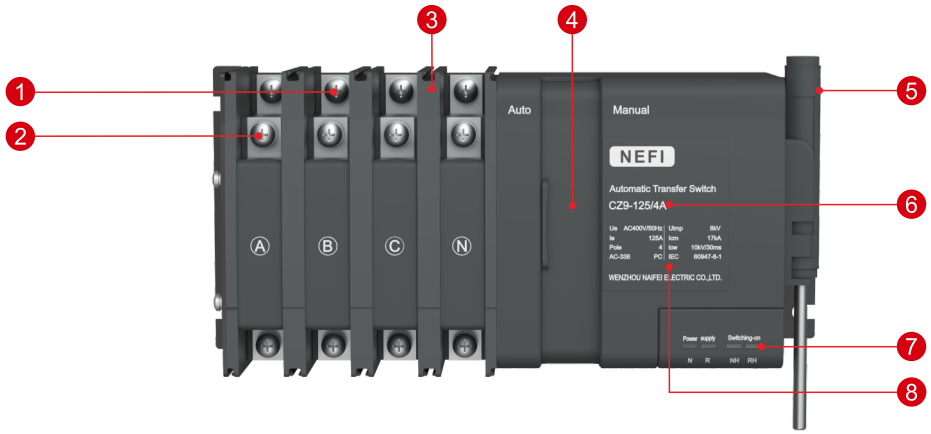
CZ9 series automatic transfer switch is suitable for AC 50Hz, rated working voltage AC400V, and rated operating current up to 630A in three-phase four-wire dual power supply systems. It automatically switches one or more load circuits from one power source to another to ensure continuous power supply. This product is ideal for industrial, commercial, high-rise, and residential buildings, and other critical applications.

Standard: IEC 60947-6.

Features

- Full range of dual-input, single-output (top in and bottom out), easy wiring and cost-effective
- Front handle operation for easy access and time-saving installation.
- Compact design for efficient space utilization.
- Dual-controller options to meet various application needs.
- Low impedance design reduces energy loss.
- Double mechanical and electrical interlock for reliable safety.
- Instant switching mechanism driven by dual springs, ensures stability.
- Rotary contact with arc chute design for strong arc extinguishing and long service life.

Structural Features



1 Terminal on the alternative supply side	2 Terminal on the normal supply side
3 Phase partition	4 Operating handle hole
5 Operating handle	6 Model
7 Indicator	8 Technical data

Selection

CZ9	- 125	4	A	125A	FFD
Model	Shell frame	Number of poles	Controller type	Rated current	Function
ATS (PC class)	63(16~63A) 125(50~125A) 250(125~250A) 630(250~630A)	2:2P 3:3P 4:4P	A: Economy	16A, 20A, 25A, 32A 40A, 50A, 63A ,80A 100A, 125A, 160A, 200A 225A, 250A, 315A, 350A 400A, 450A, 500A, 630A	/
			B: Standard		/:Fire control linkage FF:Fire feedback D:Generator FFD:Fire feedback, Generator

Technical Parameters

Model	CZ9-63	CZ9-125	CZ9-250	CZ9-630
Function	Isolation,switch			
Structure	Integrated			
Electric equipment level	PC class			
Utilization category	AC-33B			
Number of poles	2P, 3P, 4P			
Electrical performance				
Rated insulation voltage Ui(V)	AC800			AC1000
Rated operating voltage Ue (V)	AC400(2P product AC230)			AC415
Rated current Ie(A)	16,20,25,32, 40,50,63	50,63,80, 100,125	125,160,200, 225,250	315,350,400 450,500,630
Rated operating frequency(Hz)	50			
Rated impulse withstand voltage Uimp(kV)	8		12	
Rated impulse withstand current Icw(kA)	5/30ms	10/30ms		25/1ms
Rated short-circuit making capacity Icm(kA)	8	17		52.5
Contact transfer time(s)	0.6±20%			
Operating transfer time(s)	1.3±10%			
Return time(s)	1.3±10%			
Power outage time(s)	0.6±20%			
Operation method	Auto/Manual			
Switch position	Normal(I)， Power outage(O)， Standby (II)			
Mechanical endurance(times)	8000(*)		4000(*)	
Electrical endurance (times)	2000(*)		1000(*)	
Applicable environmental conditions and installation				
Working temperature(℃)	-5~+40			
Altitude(m)	≤2000			
Atmospheric conditions	The relative humidity of the atmosphere shall not exceed 50%at the highest ambient temperature of+40℃.At lower temperatures,there can be higher relative humidity,such as reaching 90%at+20℃ Special measures should be taken for occasional condensation caused by temperature changes;			
Pollution degree	3			
Installation environment	Places without obvious vibration and impact			
EMC environment	Environment B			
Protection degree	IP20			
Power supply voltage deviation range(V)	160±10%			
Normal working voltage range	85%Ue~110%Ue			
Installation	Vertical fixed installation			
Wiring method	Screw wiring			
Connection	Front connection			
Maximum number of conductors allowed to be clamped in	1			2
Maximum screw torque	2.5	6	10	22

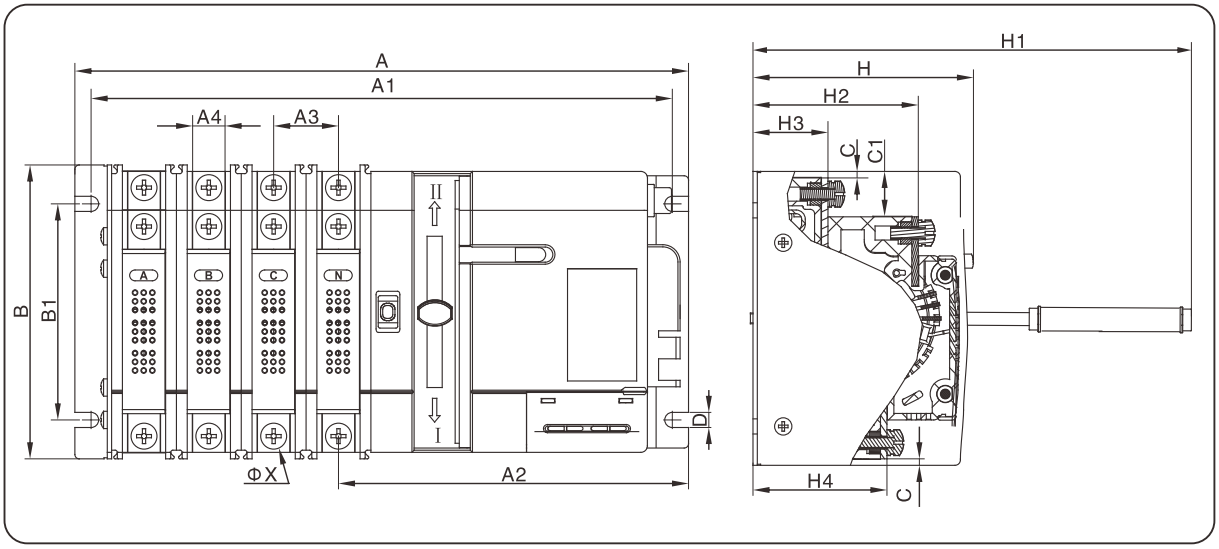
Note:(*) Maintainable

Parameters of Controller

Type	Type A	Type B
Power supply and opening/closing indication	■	■
Automatically transfer and restore operation	■	■
Grid-grid	■	■
Grid-generator(start/stop)	-	□
Three-phase monitoring commonly used to detect phase loss in power supply	■	■
Three-phase monitoring commonly used to detect power loss in power supply	■	■
Single-phase monitoring commonly used to detect phase loss in power supply	■	■
Single-phase monitoring commonly used to detect power loss in power supply	■	■
Handle manual operation	■	■
External wiring terminal of indicator light	■	■
Fire control linkage(24VDC)	-	□
Fire feedback	-	□

Note: “■” Standard, “□” Optional, “-” No

Dimensions and Installation Sizes(mm)

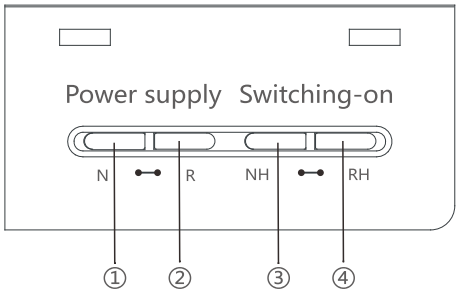


Specifications	A			B	H	A1			B1	A2	A3	A4	H1	H2	H3	H4	C	C1	D	φX
	2P	3P	4P			2P	3P	4P												
63	171	193	215	138	68	144	166	188	106	136	22	13	152	52	24	43	2	13	5.2	6
125	229	259	289	136	102	214	244	274	100	162	30	15	240	77	35	62	4	21	7	6
250	302	347	393	170	128	283	328	374	125	207	45.5	25	257	96	44	79	4	22	9	8
630	460	528	596	255	192	433	501	569	188	325	68	49	367	144	65	118	6	40	13	12

Note: The operating handle is usually removed and used for emergency or manual operation

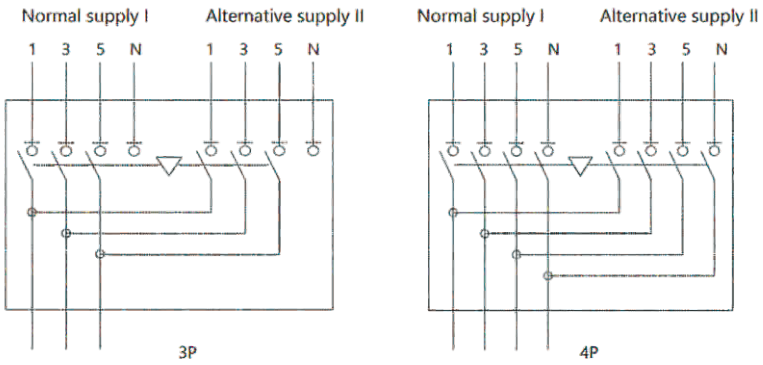
Controller

Interface of the display module of controller



① N:Normal power indication
② R:Standby power indication
③ NH:Normal switch on indication
④ RH:Standby switch on indication

Wiring Diagram



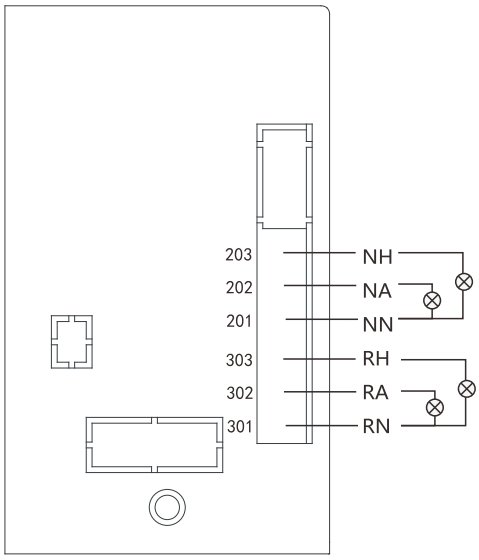
Note: 3P must have the neutral wire connected to the controller
(Normal neutral wire access 101)(Standby neutral wire access 201)

Power Distribution

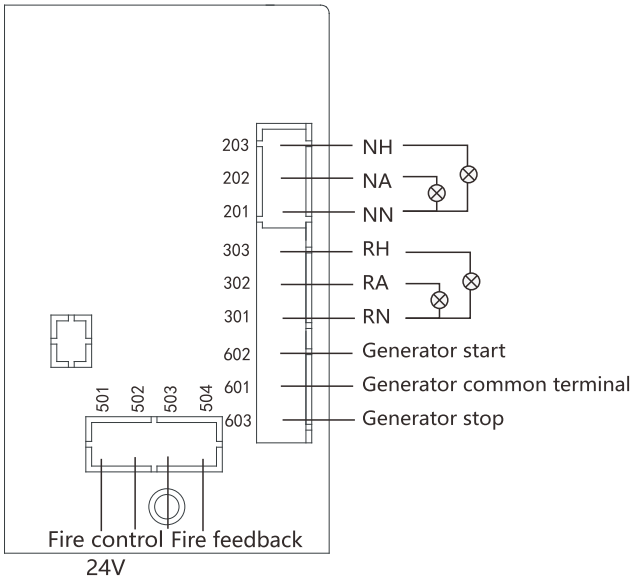
Controller Action Flow

Secondary wiring diagram of economy and basic controllers

A Type



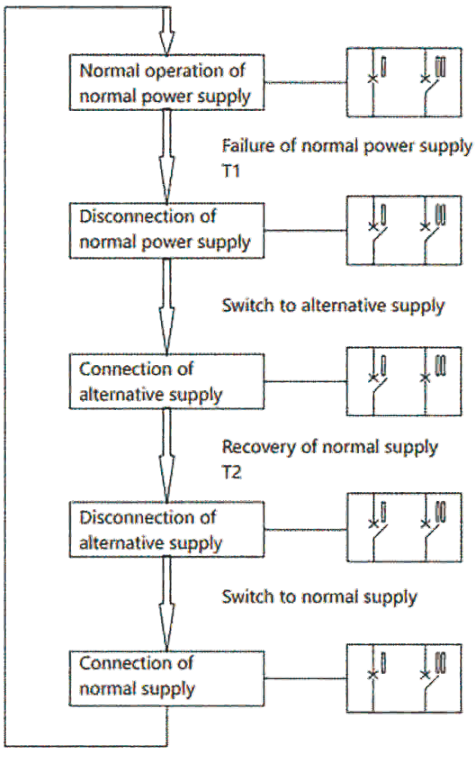
B Type



NH:Normal switch on indication
NA: A-phase of normal power indication
NN:Neutral wire of Normal

RH:Standby switch on indication
RA:A-phase of standby power indication
RN:Neutral wire of Standby

Controller Transfer Flow (Grid to Grid)



Controller Transfer Flow (Grid to Generator)