

Open Transition Automatic Transfer Switches

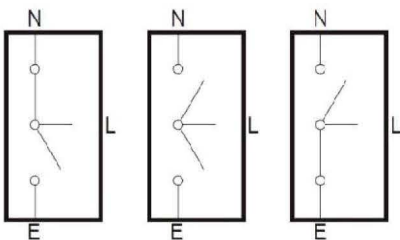
WN Type (100A – 3200A) Open Transition Automatic Transfer Switches

It is a hi-speed open transition transfer switch with off position that automatically transfer to break position before making an operation. Single coil solenoid operates at the time of the transfer action and mechanical held after that.

Open Transition Transfer Switch with OFF Position
A ↔ OFF ↔ B



New model with improved insulated feature and safety.



Open Transition Transfer Switch with OFF Position
A ↔ OFF ↔ B

Features

Full insulated feature

The breaking part is fully enclosed in a mold structure to completely prevent electrical accidents due to the insulation degradation resulting from an electric shock due to a physical contact or attachment of dust or foreign substances when used for a long time.

Safe Conduction

All phases are designed to have a certain contact pressure which allows them to maintain a safe conducting performance. It is protected by Latch device so the intensity of the over-current is high in case of a short circuit.

Hi-Speed Transfer Switch

Switches is operated in very fast operation less than 100 msec*
Transfer time

One-coil solenoid Mode

It is a Compact Type where closing of commercial power and reserved power is possible with 1 closing solenoid coil.

Electrically operated Mechanically held

Switches is electrical operate at the time of transfer action and lock position by mechanical after transfer is complete

Silver Alloy Contacts

Main Contacts are silver alloy to resist welding and sticking
Arcing contacts are separated from the main contacts to perform a high withstand and closing capability

unique-structured arc shute

By adopting a unique-structured arc shute, the operational cycle is semi-permanent because the arc breaking time is short and the contact consumption is little. A stable breaking can always be implemented regardless of the operating voltage by applying a trip operation that uses a breaking mechanism

OFF Position Mode

After checking the stability and safety of the circuit, OFF Position is possible due to the trip structure for the transfer mode. That is, operation by A → off → B, B → off → A as well as A → off → A, B → off → B and instantaneous transfer are possible.

Breaking Feature

A stable breaking can always be implemented regardless of the operating voltage by applying a trip operation that uses a breaking mechanism.

Neutral : Early Make Late Brake/Full Current Rated

To protect the Floating Neutral, using a 4-pole (Neutral) "Early Make Late Break" structure design. The neutral make earlier than the main phases and it breaks later. Moreover, the neutral contact is capable of carrying full current rated.(100% neutral)

Various Products

There are various products with the rated voltage and current up to 600V, 100-3200A and they are molded in a dust - proof structure. DC load switch is also possible.

Standard Applying

UL1008 : Standard for Automatic Transfer Switches

IEC 60947-6-1 : Low Voltage Switch and Control Gear : Multi Function Equipment : Automatic Transfer Switch Equipment

*Depend on rated current

Type			WN-100			WN-200			WN-250/WN400			WN-630		WN-800		
Rated Current(In)	A		100			200			250/400			630		800		
Rated Voltage(Ue)	V		AC600			AC600			AC600			AC600		AC600		
Rated Insulation Voltage(Ui)	V		AC800			AC800			AC800			AC800		AC800		
Rated Impulse Voltage(Uimp)	kV		8			8			8			8		8		
Pole	P		2, 3, 4			2, 3, 4			2, 3, 4			3, 4		3, 4		
Throw	T		Double Throw													
Connection Type	Front		•			•			•			•		•		
	Back		•			•			•			•		•		
Performance																
Short Time Current(1s)	I _{cw}	kA	14			25			35			50		50		
Short Circuit Peak Current	I _{cm}	kA	14			25			35			50		50		
Fuse Mounting		kA	200			200			200			200		200		
Switch Capacity	Class		AC-33B			AC-33B			AC-33B			AC-33B		AC-33B		
Endurance	Electrical	Cycles	50,000			50,000			50,000			50,000		10,000		
	Mechanical	Cycles	250,000			250,000			250,000			250,000		50,000		
Transfer Sequence			A ↔ B, A ↔ off ↔ B													
Operation Time	Closing	msec	≤55			≤55			≤55			≤60		≤100		
	Open	msec	≤20			≤20			≤20			≤20		≤30		
Conditions of Uninterruptible Transfer			2P	3P	4P	2P	3P	4P	2P	3P	4P	3P	4P	3P	4P	
Closing	AC/DC 110V	A	4	4	5	4	4	5	5	5	7.2	6.4	9	8	10	
	AC 220V	A	2	2	2.5	2	2	2.5	2.5	2.5	3.6	3.2	4.5	4	5	
Open	AC/DC 110V	A	1.4			1.4			1.4			3		3		
	AC 220V	A	0.7			0.7			0.7			1.5		1.5		
Dimensions & Weights																
Front Size (mm)		H	192	192	192	192	192	192	254	254	254	278	278	298	298	
		W	218	254	290	218	254	290	248	299	350	340	400	400	480	
		D	118	118	118	118	118	118	119	119	119	143	143	143	143	
Back Size (mm)		H	174	174	174	174	174	174	208	208	208	248	248	267	267	
		W	218	254	290	218	254	290	248	299	350	340	400	400	480	
		D	144	144	144	144	144	144	164	164	164	176	176	178	178	
Weight	Front	kg	4.5	6	8	4.5	6	8	7.5	9	10.5	15	18	20	24	
	Back	kg	4.5	6	8	4.5	6	8	6	8	10	14	17	19	23	

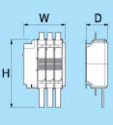
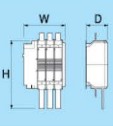
* Note1) Switching Capacity : AC-33B :

Overcurrent Switching Performance (Closing 10 × I_e, Breaking 10 × I_e, Cosφ = 0.35),

Rated Load Switching Performance (Closing 1 × I_e, Breaking 1 × I_e, Cosφ = 0.8

* Note2) Open : The switch in the circuit is opened to the Off position at Power A or B.

Open Transition Automatic Transfer Switches

Type		WN-1000	WN-1250	WN-1600	WN-2000	WN-2500/WN-3000/ WN-3200						
Rated Current(I _n)	A	1000	1250	1600	2000	2500/3000/3200						
Rated Voltage(U _e)	V	AC600	AC600	AC600	AC600	AC600						
Rated Insulation Voltage(U _i)	V	AC800	AC800	AC800	AC800	AC800						
Rated Impulse Voltage(U _{imp})	kV	8	8	8	8	8						
Pole	P	3, 4	3, 4	3, 4	3, 4	3, 4						
Throw	T	Double Throw										
Connection Type	Front	•	•	•	-	-						
	Back	•	•	•	•	•						
Performance												
Short Time Current(I _{sw})	kA	50	65	65	85	85						
Short Circuit Peak Current I _{cm}	kA	50	65	65	85	85						
Fuse Mounting	kA	200	200	200	200	200						
Switch Capacity ^{Note1)}	Class	AC-33B	AC-33B	AC-33B	AC-33B	AC-33B						
Endurance	Electrical	Cycles	10,000	10,000	10,000	5,000	5,000					
	Mechanical	Cycles	50,000	50,000	50,000	10,000	10,000					
Transfer Sequence		A ↔ B, A ↔ off ↔ B										
Operation Time	Closing	msec	≤100	≤115	≤115	≤140	≤180					
	Open	msec	≤30	≤30	≤30	≤35	≤35					
Conditions of Uninterruptible Transfer		3P	4P	3P	4P	3P	4P	3P	4P	3P	4P	
Closing	AC/DC 110V	A	8	10	8	10	13	16	13	16	-	-
	AC 220V	A	4	5	4	5	4	5	6.5	8	8	9
Open ^{Note2)}	AC/DC 110V	A	3	4	4	4	4	-	-	-	-	
	AC 220V	A	1.5	2	2	2	2	2	-	-	-	
Dimensions & Weights												
Front Size (mm)		H	298	298	535	535	535	535	-	-	-	-
		W	400	480	453	536	453	536	-	-	-	-
		D	143	143	228	228	228	228	-	-	-	-
Back Size (mm)		H	267	267	380	380	380	380	380	380	380	380
		W	400	480	453	536	453	536	528	636	603	736
		D	178	178	261	261	261	261	261	261	261	261
Weight	Front	kg	21	25	52.5	63.5	58	69	-	-	-	-
	Back	kg	20	24	50	60	55	65	65	85	92.5	119