AXON™ Electric
Where Innovation Meets Electricity

AUTOMATIC TRANSFER SWITCH

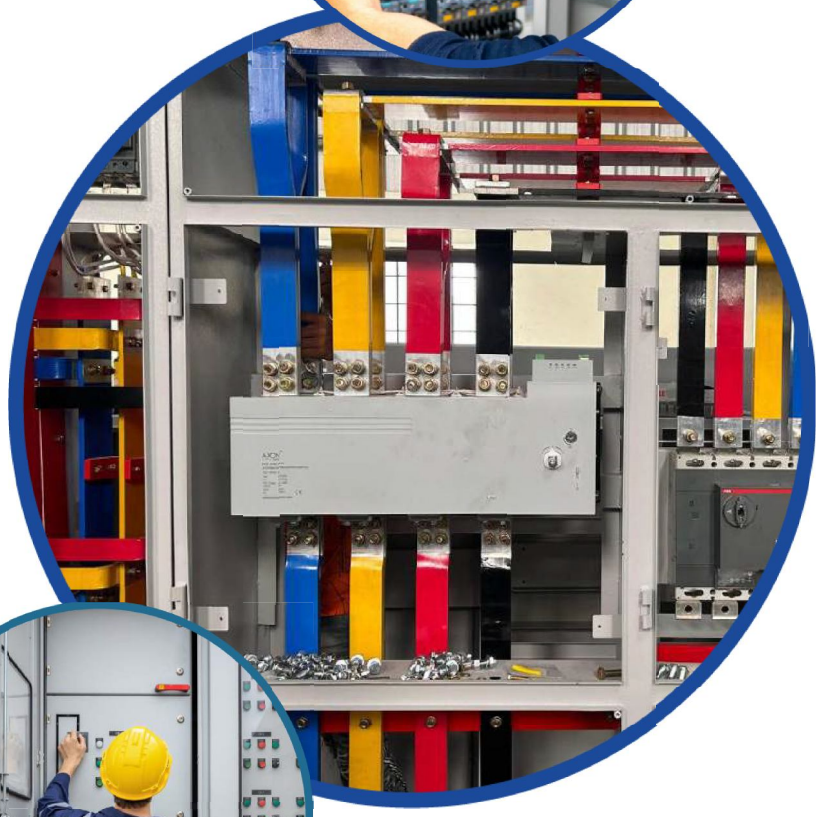
AX2 Series

Product comply to GB/T14048.11 and IEC 60947-6-1

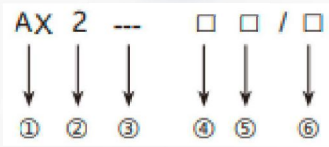
www.axonelcorp.com

APPLICATION

The AX2 Series Automatic Transfer Switch serves as a power switching system between the main power source and an alternative power source. It allows automatic switching between these power sources based on certain conditions or criteria. This switch is capable of handling power distribution networks or motor networks operating at a frequency of 50Hz, with a rated working voltage of 400V. It comes in various rated current capacities, ranging from 63A to 3200A, indicating its ability to handle different load sizes.



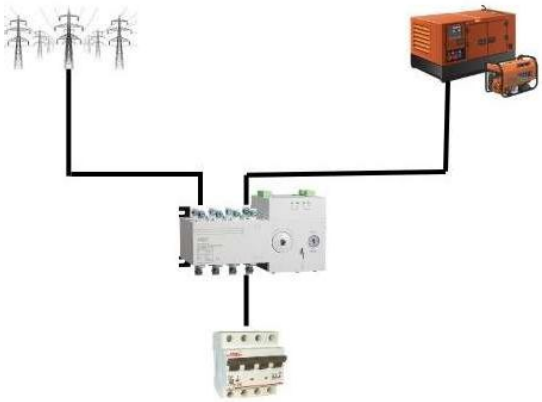
ORDERING CODE



① Company Code
② Automatic Transfer Switch
③ Rated Thermal Current
④ 'B' / 'GB' / 'L'
⑤ Poles 3,4.
⑥ T: Top Entry, B: Bottom Entry

WORKING CONDITIONS

- Ambient temperature:-5℃ ~+40℃，average Temperature should not exceed +35℃ in 24h;
- Atmospheric conditions: Humidity should not exceed 50% at highest ambient temperature +40℃ , higher humidity of 90% is allowed at lower temperature with average temperature +25℃
- Altitude: Installed location altitude should not exceed 2000m



MAIN TECHNICAL DATA

AX2-100-3200A Series Automatic Transfer Switch Electrical & Mechanical Characteristic

Rated Thermal current Ith		125A								160A			250A			630A				1600A			
Rated Insulation Voltage Ui(V)		690																						
Rated Impulse Withstand Volt. Uimp(kV)		8																						
Rated Operational Current Ie(A)		20	25	32	40	63	80	100	125	125	140	160	200	225	250	315	400	500	630	800	1000	1250	1600
Rated short -circuit Making Capacity Icm(kA) Peak		8								17			17			26				55			
Rated Limit short-circuit current Iq(kA)		120																						
Transfer Time		1.7								2.3			3.1			2.1				2.6			
Contact transfer time in sec		0.7								1			1.2			0.8				1			
Weight(kg)	3 pole	3.8								5.8			9.8			20.6				50		58.6	59
	4 pole	4								6.1			10.7			22				54		60.7	61
Utilization Category		AC-33iB(GB),AC-32B (IEC)																						

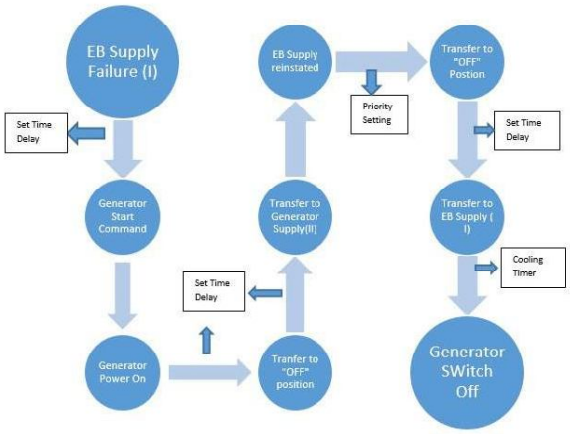
FUNCTION CHARACTERISTIC

Type Item	B	GB	L
Control Voltage	AC230V 50/60Hz		
Aux. power supply	No		DC12-36V
Voltage measure range	No		40~300V
Power Consumption	≤ 10W		≤ 10W
Working Position	(I-O-II) Three working position		
Operating Mode	Manual, Auto	Manual, Remote	Manual, Auto, Remote
Display Mode	LED Indicator		
Transfer Mode	Auto transfer auto recovery	No	Source Priority Setting
Under-volt. Protection	No		160-200V Adjustable
Over-volt. Protection	No		240-290V Adjustable
Over/under Frequency	No		40Hz~60Hz Adjustable
Transfer Delay	No		0-300s Adjustable
Recovery Delay	No		0-300s Adjustable
Phase Monitor	Single Phase (R phase)		(R,Y,B)Three phase monitoring
Generator Control	Yes (One set relay dry contact)	No	Yes (One set relay dry contact)
Fire-linkage	Fire-Emergency (passive contact input with passive contact output)	No	Remote Control (I-O-II)
Isolation Lock	OFF position with isolation and padlock facility		
Overload Setting	No		Adjustable with CT input
Centre Delay	No		0-5s Adjustable
RS485 Communication	No		Optional
Installation Mode	Integrated (No display)		Integrated (No display)/ Split (with display) optional
Source 1 & Source 2 position indicator	Yes 230 Volts Direct supply	Yes 230 Volts Direct supply & 1 set of Passive contact	Yes 230 Volts Direct supply

PRODUCT FEATURES

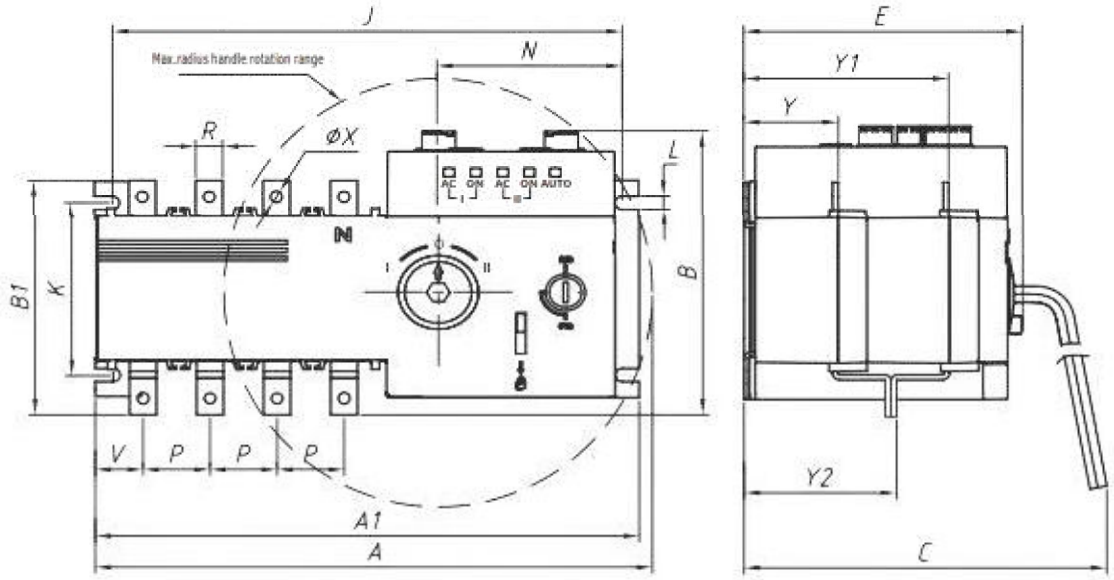
- ATS adopts double complex contact/ horizontal pulling mechanism to ensure self cleaning and proper connection
- Adopts reliable mechanical interlock and electric interlock, Contact units adopts independent load disconnect switch and ensures reliable and safe operation
- ATS moves to Null Point (OFF) under emergency situation (cutoff two way power supply, meet the fire emergency requirements;
- ATS is operated by a single phase motor enabling smooth and reliablee switching
- The driving motor is energised only during change over, under stable working status no supply is provided across the motor, hence avoiding power losses
- The Contact Units have mechanical interlock to ensure the Normal power and Reserve Power works reliably without interference;
- Distinct position indicator, padlock function etc., makes the product reliable and safe during service
- Pass word protected Set varlues, Flexible automation, , high reliability with a working life more than 8000 times;
- Electromechanical integration design, accurate change over, flexible smooth, adopts international advanced logical control technology, high anti-interference ability, no interference outward.
- Easy installation, control circuit adopt plug type terminal connection and provision for spreaders and phase separators gives additional support for safe termination either through Cables or through Bus Bars
- operating functions:Auto, Manual and Remote

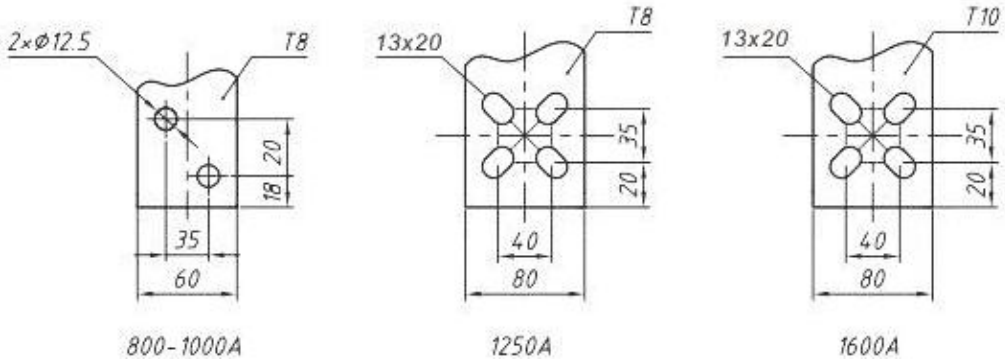
Auto Mode Flow Chart



EB Failures can be due to Under or Over Voltage/Frequency, Phase failure, Phase Sequence fault

AX2-125~1600A DIMENSIONS

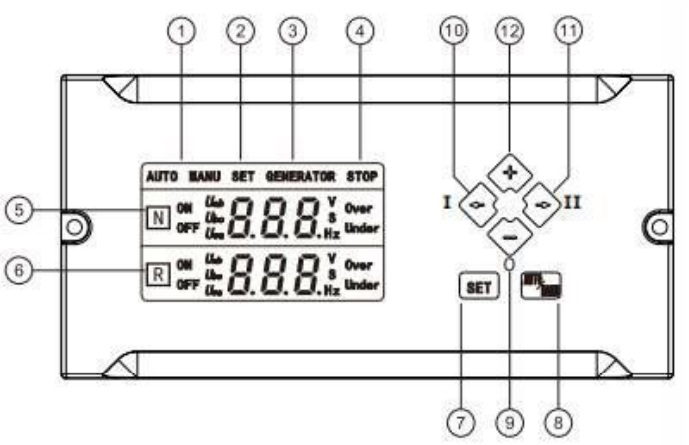


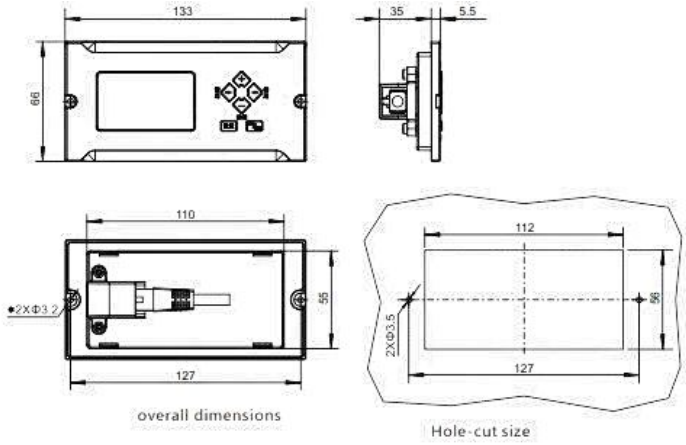


800-1000A 1250A 1600A

	Outline Dimenstion (mm)								Mounting Dimenstions (mm)									
In	A	A1	B	B1	C	E	J		K	L	N	P	R	V	ΦX	Y	Y1	Y2
125A	330	244	135	115	165	125	228		85	6.5	83	30	12	21	6.5	41.5	91.5	66.5
160A	374	301	175	140	200	150	285		102	7	94	36	20	31	8.5	55.5	125.5	92.5
250A	436	373	200	178	250	198	344		108	6.5	99	50	24	37	11	72	157	116
630A	502	433	265	260	295	244	416		180	9	101	65	40	47.5	12	83	193	140
800-1600A	1050	636	345	337	373	320	612		220	11	83.5	120	80	71	13	109	241	196
2000A	800	633	460		542		610				85		80				169	
2500A	800	633	460		542		610				85		80				174	
3200A	800	633	460		542		610				85		80				179	

LCD Display outline dimensions and split mounting hole-cut size





1.Auto, Manual working mode indication
2.Setting status indicate;
3.Generator start signal indicate;
4.ATS OFF position indicate (Such as Fire-Emergency)
5.Source 1 Power status data indication zone: Under working mode: display Source 1 power voltage data and transfer delay
time, Under setting mode: display setting item code;
6.Source 2 power status data indication zone: Under working mode: display Source 2 power voltage data and recovery delay
time, Under setting mode: display setting item code;
7.“SET“ Setting button: press this button will enter into controller setting menu;
8."AUTO/MANU" Auto/Manual transfer mode selection button: under working 1.status it is used as select the Auto and Manual
transfer mode, under the setting status it used as save and exit function
9."0-OFF" button: under manual control mode if any one of the two power is available, push this button will change to "0"-OFF
position; under setting status it is used for data decrease button
10.Transfer to Source 1 power button: under manual mode and source 1 power available, push this button and the ATS will
transfer to Source 1 power position; Under setting mode, it is used for shi□ting between menu line items;
11.Transfer to Source 2 power button: under manual mode and Source 2 power is available, push this button and the ATS will
transfer to source 2 power side; Under setting mode, it used for shi□ting between menu line items
12.Under setting status this button is used as data increase button;

.