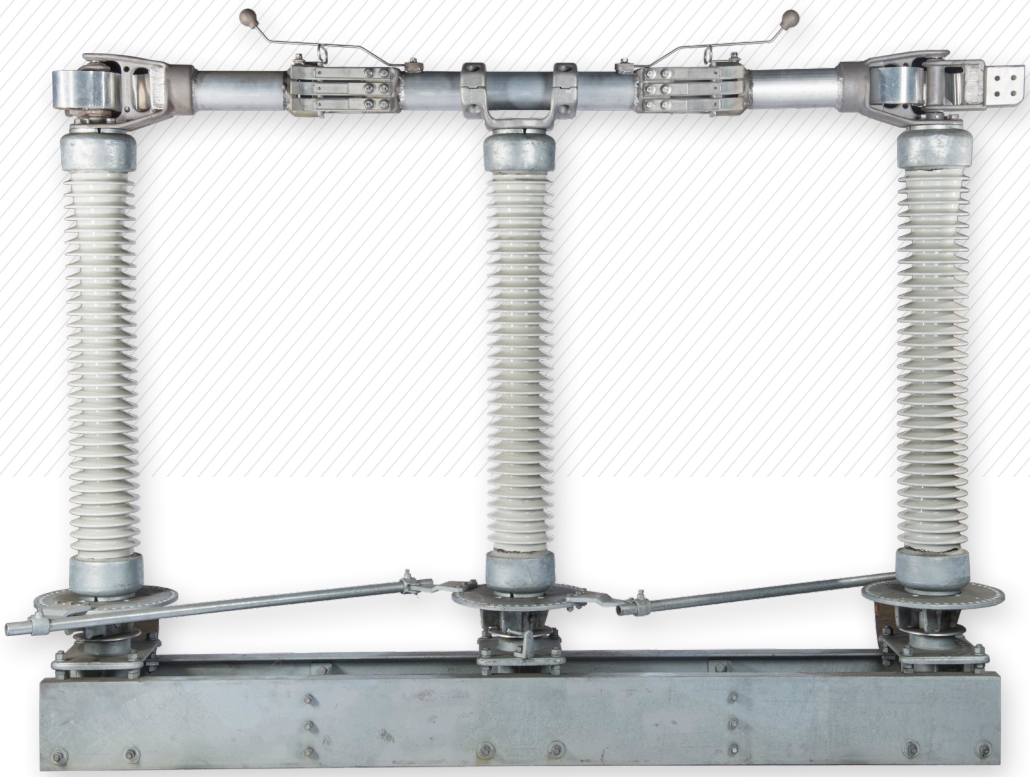
TYPE ATR

ALUMINUM DOUBLE CENTER BREAK SWITCH



Product Information

ATR Aluminum Double Center Break

The ATR is a three insulator, double center break outdoor air disconnect switch constructed primarily of aluminum. Operation is accomplished by the rotation of all three insulators making the double center break switch the easiest operating of all group operated switches. Proven by years of field experience, this switch takes full advantage of unique construction methods to provide both simple operation and long-term dependability. The ATR is commonly used in three-phase line or substation applications such as transformer or line disconnecting, breaker isolating, bypassing or bus sectionalizing. Operation of the ATR may be accomplished by either manual control or motor operator.

Features

- ***Testing.*** The ATR has been extensively tested to meet or exceed current IEEE standards. A comprehensive test brochure is available outlining electrical and mechanical design tests conducted on the ATR.

- ***Contacts.*** The ATR is supplied with line high pressure silver-to-silver jaw contacts producing the highest conductivity initially and over time. The contact fingers, fabricated from hard drawn copper, are silver plated, then electro-tin plated. The male contact, also of hard drawn copper, has a brazed silver overlay and is electro-tin plated. These methods and materials used in the application of the silver provide surfaces of differing hardness with anti-galling properties, resulting in minimal wear over years of operation.

- ***Blade.*** The blade is constructed of heat-treated aluminum tubing with heat-treated aluminum castings welded to the hinge and jaw ends.

- ***Bearings.*** The ATR incorporates rugged switch bearings consisting of stainless steel balls, stainless steel races, ductile iron bearing housing and rotors. Factory adjusted stops are provided with the bearing for ease of synchronization during installation.

- ***Bases.*** Hot dipped structural steel channel is used for the construction of the switch base. Leveling studs are provided on the bearings for insulator alignment. Bases and base mounting dimensions can be customized to customer specifications and structure.

- ***Laminated shunt.*** The laminated conductor is constructed of commercially pure aluminum strip, which does not work harden during operation. Extensive mechanical, electrical, and environmental testing along with years of field experience, prove this approach to current transfer superior to conventional enclosed or open hinge contact design. Transfer of the current at the hinge end of the blade is accomplished with a welded aluminum laminated conductor, precisely formed and assembled to give thousands of trouble-free operations. This eliminates bolted or sliding pressure connections, threaded joints, or high-pressure contacts, enabling ease of operation. Welded connections create a single conductive path from the hinge terminal pad to the jaw end of the blade.

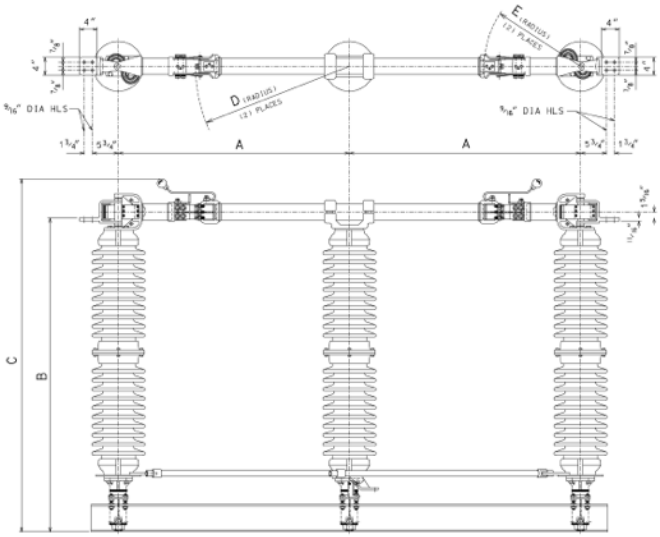
Accessories

- Auxiliary Switches: up to 16 contact decks are standard
- Outriggers: custom designed for customer application
- Connectors: can be added to customer switch order upon request

Load Break Devices

- Arcing Horn: standard on all switches

Configurations



- DIMENSIONS SHOWN IN INCHES
- WEIGHT SHOWN IN POUNDS (INSULATORS INCLUDED)
- 138 - 500 kV 5" BOLT CIRCLE STATION POST INSULATORS
- DIMENSIONS NOT FOR CONSTRUCTION PURPOSES
- CONTACT FACTORY FOR CERTIFIED PRINTS

CAT NO.	RATINGS				DIMENSIONS					STD MTG	WEIGHT
	VOLTAGE (kV)		CURRENT (A)								
	NOM	BIL	CONT.	MOM.	A	B	C	D	E		1 POLE
ATR-14520	138	650	2000	100,000	51	69 5/16	70	34	21 1/4	8 1/4 x 90	1500
ATR-14530	138	650	3000	120,000	48	73 7/16	79 5/8	26	26 7/16	8 1/4 x 90	1500
ATR-17020	161	750	2000	100,000	60	80	89 15/16	33 5/16	33 11/16	8 3/4 x 108	1650
ATR-17030	161	750	3000	120,000	60	84 1/2	90 2/3	33 1/2	31 3/4	8 3/4 x 108	1700
ATR-24520	230	900	2000	100,000	60	98 3/8	108 3/16	34 11/16	33 5/8	8 3/4 x 108	2300
ATR-24530	230	900	3000	120,000	60	102 3/4	114 5/8	33 1/2	31 3/4	8 3/4 x 108	2350
ATR-36220-1050	345	1050	2000	100,000	84	113 1/8	123	49 3/16	42 3/8	11 x 150	2750
ATR-36220-1300	345	1300	2000	100,000	84	127 1/8	137	49 3/16	42 3/8	11 x 150	3000
ATR-36230-1050	345	1050	3000	120,000	84	116 7/8	126 5/8	48 5/8	40 1/2	11 x 150	2800
ATR-36230-1300	345	1300	3000	120,000	84	130 7/8	140 11/16	48 5/8	40 1/2	11 x 150	3050
ATR-36255-1300	345	1300	5500	120,000	84	130 15/16	155	48 5/8	40 1/2	11 x 150	3300
ATR-55020-1550	500	1550	2000	100,000	*	*	*	*	*	*	*
ATR-55020-1800	500	1800	2000	100,000	*	*	*	*	*	*	*
ATR-55030-1550	500	1550	3000	100,000	132	153	162 13/16	96 5/8	40 1/2	11 x 216	4000
ATR-55030-1800	500	1800	3000	100,000	132	177	186 13/16	96 5/8	40 1/2	11 x 216	4250
ATR-55040-1800	500	1800	4000	100,000	132	177	189 7/8	96 11/16	41 3/4	11 x 216	4500

Numbering Sequence

ATR	V	A	I	P	TR	LB	OP
	145	20	SIP	5		AH	N
	170	30	SEP	7		N	SH
	245	32	NA		SEE CHART		WG
	362	40	CS				MO
	550	55	INC				P
							SH-P
							WG-P

Variant Configuration Key

V - Voltage (kV)
A - Current (A)
I - Insulator Ship Method
P - Pivot Size (inches)
TR - Insulator TR
LB - Load Break Device
OP - Operator

Insulator Shipping Methods

SIP - SHIP IN PLACE
SEP - SHIPPED SEPARATE
NA - INSULATORS NOT INCLUDED
CS - CUSTOMER SUPPLIED
INC - WITH INSULATORS BULKED PACKED

Load Break Options

AH - ARCING HORN
N - NONE

Operator Options

N - NONE SUPPLIED
SH - SWING HANDLE
WG - WORM GEAR
MO - MOTOR OPERATOR
P - MOTOR OP PROVISIONS
SH-P - MOTOR OP PROVISIONS SH
WG-P - MOTOR OP PROVISIONS WG

Example - ATR-24532-INC5304AHWG

VOLTAGE (kV)		INS TR
NOM	BIL	
145	650	288
170	750	291
245	900	304
362	1050	312
362	1300	324
550	1470	330
550	1550	379
550	1800	391

CURRENT (A)			
CONT	PEAK	MOM	3 SEC
1200	99,000	61,000	38,000
2000	164,000	100,000	63,000
3000	195,000	120,000	75,000
4000	195,000	120,000	75,000
5500	195,000	120,000	75,000

For product inquiries, please contact your local sales representative or customer service representative.