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Air Circuit Breaker

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Salient Features

- Lightest and most compact of a given capacity.
- Only 4-frame size in the entire range, 630A to 6300A, resulting in maximum interchangeability and minimum inventory of spares.
- High value of breaking capacity, 45KA to 220KA at 500V AC.
- Total breaking time less than 30m. sec including arcing time of less than 10m. sec.
- Highest values of mechanical and electrical endurance due to patented mechanism design and special sintered metal contacts.
- Highest degree of system protection and coordination due to the use of microprocessor based protection releases.
- Most simple to operate and maintain. Only a screw driver and a spanner required to change arcing contact.
- High dielectric strength even in hot and humid conditions due to use of class 'B' and 'F' class insulating materials.
- Fiber glass safety shutter for safety of operating personnel.
- No thermal derating for D.C. application.
- Available in 3 or 4 pole for entire range and also fixed / draw-out version.
- Neutral pole (in 4 pole) closes early and opens later to prevent transient over voltages in loads connected between live and neutral lines.
- Tested for most onerous environmental conditions and approved for marine duty application by India register of shipping.



Full Range

ACB, conforming to IEC 60947 Part 2 and IS 13947 Part 2, are available from 630A to 6300A, 3 pole as well as 4 pole, in all possible versions - Fixed or Drawout, Hand operated or Motorized. The 4 pole incorporate true 4th pole - rating & contacts same as the main poles but with advance closing and delayed opening mechanism to avoid any Switching Surges and Remnant Transients.

Accessories

All commonly required Accessories are also offered along with them as per the customer choice - Auxiliary Switch, Shunt Release, Under Voltage release, Position and Indication Micro-Switch, etc. Also offered are certain Special Accessories like Capacitor Trip, Mechanical Inter-lock kit, different types of Busbar termination kit, etc.



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Applications

These ACB are fit for use in diverse application and are in use in various industries for last more than 15 years - Power Plants, Gas & Petro Chemicals, Steel, Chemicals, Automobile Industry, Telecommunication & Infrastructure, Buildings and Commercial Complexes, etc. They are also being used in some of the very special applications - DC applications, 690 Volts system, Marine & Naval applications, etc

User Friendly, easy to operate and maintain

ACB have features to make it very simple to operate. All type of ACB - even the Manually operated type come with Ratchet charging mechanism to enable effortless, gradual charging of mechanism spring so that, even highest rating ACBs can be charged very easily by any operator. All controls are visible and available in front - Auxiliary Switch, Sliding Contacts, etc. All the accessories like Shunt, closing coil, Under Voltage, etc are fitted in front and do not require calibrations

Safety Built-In

The Drawout ACB can be racked in or out only when the TRIP push button is pressed thus ensuring ACB will not be racked in CLOSED condition. Safety Shutters are supplied as standard. Sliding window in front of both push button - CLOSE and TRIP, facilitates pad locking and avoiding unauthorized operation while maintenance.

Microprocessor Based Over current Trip Device "Type μ IT"

μ IT is a true RMS sensing over current trip device, requiring no external supply for its basic function. It is available in two types, i.e., μ IT-100 for industrial application and μ IT-G for generator protection.

- Error free and user-friendly setting of current and time delay.
- Provides highest degree of system protection co-ordination.
- Self powered by the built in current transformer.
- No mal-operation due to external disturbances.
- Built in operation check function.
- Visual fault discrimination by LEDs.
- Three phase and earth fault in one single compact unit.
- Self-monitoring of trip unit with blinking indication
- Function blocking facility provided.

Under voltage Trip – AC/DC

It automatically opens the breaker when voltage drops below set level. It can also be used for tripping the breaker from remote by using on 'a'-contact of its relay. UVT for AC can be instantaneous / time delay type.



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Thermal – Magnetic Trips Device

- Direct acting instantaneous trip with settings, 5-50 kA
- Adjustable overload settings 80-120%.
- Provision for remote tripping / electrical reset as optional features with overload relay.

National & International Certification

These ACBs have been tested at various laboratories for their conformity to various standards - ASTA, CPRI, ERDA, etc and meets the Safety requirements as per European standards to carry CE marking. They have also undergone rigorous testing to establish their suitability for Marine applications.

Certified by ERTL for

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|-----------------------------|----------------|
| ▪ Damp Heat Test | IS 9000-PG4 |
| ▪ Dry Heat Test | IS 9000-PG3 |
| ▪ Vibrating Test | IEC255-4 |
| ▪ Radio Frequency | |
| ▪ Interference (RFI) | IEC801-3 |
| ▪ Electrostatic Discharge | (ESD) IEC801-2 |
| ▪ Electrical fast transient | (EFT) IEC801-4 |
| ▪ Surge | IEC 801 – 5 |
| ▪ Impulse | IEC 801 – 4 |