

INSTAshift | MANUAL CHANGEOVER SWITCH



Designed to cater the need for
a new beginning in electrical distribution

The **InstaShift** Manual Changeover Switches are manually operated 4 pole Changeover Switches having ratings 40 A to 800 A in 4 different frame sizes. The main components of this changeover switch are proven technology devices fulfilling all the requirements for LV distribution.



Suitable for

Safe changeover, source inversion or switching ON-load between two low voltage power circuits as well as their safe isolation.

Standards Conformity

IS / IEC 60947-3

IS / IEC 60947-6-1

USPs

- 3 Stable Positions
- Staggered Terminals
- Load and Line Reversibility
- Neutral Pole Interchangeability
- IP 43 Enclosure (available on demand)
- Suitable for Aluminium termination
- Easy wiring facilities for auxiliary switches
- 360° Mounting Orientation

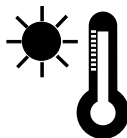
Product Salient Features

Safety



- Power Control and Safety between Primary and Secondary Source
- Fully Assembled and Tested Solution
- Quick Make – Quick Break
- Unaffected from typical Vibration and Shock
- Provision of Phase Separators, Source Separators and add-on Auxiliary Switches
- Door Interlock and Padlock Facility

Environmental Conditions



IP Rating

- IP2X against direct contact from front.
- IP32 in Enclosure versions.
- IP43 available as an option on request.

Operating Conditions

- Temperature: + 50 °C without derating.
- Hygrometry: 80% humidity at 55 °C, 95% humidity at 40 °C without condensation.
- Altitude: - Up to 2000 m without de-rating.

Termination



- Shorting links mounted on all ratings
- Compact in size
- Extended outgoing terminals

Reliability



- Switches are designed to be virtually maintenance free across their entire extended lifespan and offer reliable performance in any and all possible circumstances.
- Durability has been ensured by testing switches against the IS / IEC 60947-3 standard at stringent utilization category.
- Minimal downtime with the possibility to perform easy maintenance.

Modularity



- Manual Transfer Switching Equipment can be converted to RTSE/ATSE by adding motor module and voltage sensing kit as an accessory.

Technical Characteristics



	Unit	
Rating	A	
Reference Standards		
No. of Poles		
No. of Breaks per pole		
Electrical Characteristics		
Rated Operational Voltage (U_e)	VAC	
Rated Insulation Voltage (U_i)	V	
Rated Impulse Withstand Voltage (U_{imp})	kV	
Rated Frequency	Hz	
Pollution Degree		
Conventional thermal current (I_{th}) at 50 °C	A	
Conventional enclosed thermal current (I_{the}) at 50 °C	A	
Rated Operational Current (I_e) according to IEC 60947-3		
415 VAC, AC-21A/ AC-22A/ AC-23A	A	
415 VAC, AC-21A/ AC-22A	A	
Rated Breaking Capacity for AC-23A	A	
Rated Making Capacity for AC-23A	A	
Rated Breaking Capacity for AC-22A / AC-21A	A	
Rated Making Capacity for AC-22A / AC-21A	A	
Short-time withstand (I_{cw}), 1s	kArms	
Short-circuit making capacity, I_{cm}	kA _{peak}	
Mechanical Endurance	O-I-O-II-O cycle	
Electrical Endurance	O-I-O-II-O cycle	
Rated fuse short-circuit current at 415 V, 50 Hz / 60 Hz	kArms	
Termination		
Termination		
Max. Al. cable with Lug	mm ²	
Max. Link width	mm	
Max. Link thickness	mm	
Recommended Cable	mm ²	
Recommended Busbar	mm	
Termination tightening torque	Nm	
Installation and connection - Fixed, front connection		
Installation		
Wiring		
Weight	kg	
As per IEC 60947-6-1		
Class of Equipment		
Rated short time withstand current I_{cw} (r.m.s) 415 V, 0.03 s	kArms	
Rated short time withstand current I_{cw} (r.m.s) 415 V, 0.06 s	kArms	
Short-circuit making capacity (I_{cm})	kA _{peak}	
Rated Operational current (I_e):		
415VAC, AC-31B	A	
415VAC, AC-32B	A	
415VAC, AC-33B	A	

INSTAshift | AUTOMATIC CHANGEOVER SWITCH



Designed for safe changeover, source inversion or switching ON-load between two low voltage power circuits as well as their safety isolation

Today the needs are increasing for a reliable and independent power changeover system during power failures. In such event, the stand-by power is expected to take over automatically which is achieved efficiently by Automatic Transfer Switch. The InstaShift Automatic Changeover Switches enable Precise Changeover and Smooth Operation through motor operated mechanism. Range comprises of 125 A to 800 A Four Pole Changeover Switches in 3 different frame sizes.



- Available with 3 different controllers - B Type, M Type, H Type
- Provision For Unit / Door Mountable HMI Kit

Standards Conformity

IS / IEC 60947-6-1

Exploded View - B Type

1. Changeover Switch
2. Motorized Unit
3. Display Module B Type
4. Emergency Handle



Salient Features (B Type):

- Allows Mode of Operations like Auto, Remote and Manual
- Offers Protection by Switching in case of :
 - Phase Missing
 - Voltage unbalance
- Allows Setting for :
 - Under and Over Voltage
 - Under and Over Frequency