



**SHIRKE**  
ELECTRO PVT.LTD.  
S I N C E 1 9 7 8

## SWITCH TO **RELIABILITY**



### **SHIRKE SWITCHES**

Being technologically superior products they deliver more than that. They are symbol of reliability.

Reliability in  
Products, People, Process & Service



## 40 years of excellence in switching Low Tension electricity

- 1978** Laid foundation stone in Nasik and started the journey towards leading switch manufacturer "Shirke Electro" with dedicated Design & Development team for LT electrical switches.
- 1980** Introduced 100% indigenus Rotary Cam & Rotary Knife switches for circuit breaker and electrical panel building OEM's.
- 1983** Relocated factory at sector W-72 MIDC, Ambad, Nashik for manufacturing of rotary switches, with in-house machining set up of press shop, molding shop and tool room.
- 1985** Diversified business with introduction of motor starters and honored as a "0" defect product manufacturer by Crompton Greaves in 1987.
- 1991** Registered as a Private Limited entity in the name of "Shirke Electro Pvt. Ltd" with its corporate office established at sector L-25 MIDC Ambad Nashik.
- 1994** Established 2nd manufacturing base at sector L-25 MIDC Ambad with introduction of SDF exclusively designed, developed & manufactured for Crompton Greaves
- 1996** Declared as a green channel supplier of Crompton Greaves Ambad location in 1996.
- 1997** Introduced rotary Tap Position Indicator, DSS and Sequence Selector Switches for Transformer Panel builders, especially for CTR and now they are exclusively using Shirke switches for their OLTC & RTCC panels.
- 1998** Introduced and adopted lean manufacturing techniques such as KANBAN, SPF & JIT with implementation of QMS.
- 2000** Diversified in white labeling business with Schneider Electric for SDF ranging from 32Amp to now 630 Amp, L-25 facility is a virtual factory & green channel manufacturer for Schneider Electric.
- 2003** Established in-house testing laboratory equipped complete set up of test and measurement instruments for Rotary Cam & Rotary Knife Switches.
- 2005** Spread wings for export of rotary cam switches in USA, Europe, Middle East and Asian continents.
- 2008** Introduction of Auxiliary Knife Switches for circuit breaker and isolator panel builders. With this flagship product Shirke Electro has acquired major clientele includes Siemens, ABB, Alstom, AREVA, Schneider, BHEL, Jyoti Ltd. & Other OEM's at PAN India locations.

- 2010 Designed, developed and manufactured 7.5 & 12 KV 100% indigenous Vacuum Contactors for Crompton Greaves.
- 2011 Diversified business with Motor Starters and Concealed Metal Boxes for wire and cable giant Polycab.
- 2015 Started white labeling business of rotary cam switches for Panasonic India and V-Guard limited for their Phase Selector Distribution boards.
- 2016 Succeeded in localizing of Auxiliary Switches from design to manufacture for leading German locomotive switchgear manufacturer Schaltbau & major Korean OEM in T & D, Hyosung.
- 2018 Introduced India's first DC Isolator switch for renewable energy segment up to 16A ,1000 VDC & 32A , 600 VDC
- 2019 Added a safety feather in Auxiliary Knife Switches family with introduction of IP20x protection popularly known as finger proof, this switch is tested and now marching towards Siemens Global Location.

During this journey of 40 years "Shirke Electro" has build a trust worthy relation with its global customer base by delivering more & more values for its products & services as they say, "SWITCH TO RELIABILITY"

## Product Range



# BREAKER CONTROL SWITCHES

CAM series- C20,C40



Breaker Control switches are used for tripping or closing of breakers either locally or from remote location. These switches offer advantage of having unlimited combinations of switching angles and indexing angles with stay put and spring return momentary contacts. Lost motion contacts can be cascaded, used for additional protection or for activating annunciator. The switches are modular in design hence multiple poles can be achieved as per demand of application

## Features:

- Attractive combination of colors for Knob, Handle & Escutcheon plates.
- Silver alloy contacts used has a very high durability & endurance.
- A double break contact ensures positive making & breaking.
- Modular design to achieve any number of poles with minimum components.
- Superior insulating material ensures electrical & mechanical stability.

Specification	Series - C20	Series - C40			
Conventional Free Air Thermal Current (Ith)	16A	20A	25A	32A	40A
Rated Operational Voltage (Ue) A.C.	440V	440V	440V	440V	440V
Rated Operational Current (Ie) A.C..	16A	20A	25A	32A	40A
Rated Operational Current (Ie) D.C.	1A	2A	2A	2A	2A
Rated Impulse Withstand Voltage (Uimp)	2.5KV	2.5KV	3.0KV	3KV	3KV
Dielectric Strength	2.5KV	2.5KV	2.5KV	2.5KV	2.5KV
Insulation Resistance	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm
Mechanical Life	10,00,000	10,00,000	10,00,000	10,00,000	10,00,000
Electrical Life	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Conforms to IEC Standards	IEC-60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3
Utilization Category	AC-15, AC-21A, AC-23A, DC-13A				

# INSTRUMENTATION SWITCHES

CAM series- C10,C20



These Switches are used as mode selector switch to measure currents and voltages of various circuits. Ammeter Selector Switch – is basically a normal three position switch. In large Electrical distribution panel, an ammeter is used to monitor current through each line; with or without CT. The basic idea behind the use of ammeter selector switch is to reduce the number of ammeters used to monitor line currents. Voltmeter Selector Switch – Is used to measure voltages between phases, between phase and neutral with one voltmeter and a switch, it is available in three & six positions; with and without off.

## Features:

- Attractive combination of colours for Knob, Handle & Escutcheon plates.
- Silver alloy contacts used has a very high durability & endurance.
- A double break contact ensures positive making & breaking.
- Modular design to achieve any number of poles with minimum components.
- Superior insulating material ensures electrical & mechanical stability.

Specification	Series - C10			Series - C20	
Conventional Free Air Thermal Current (Ith)	6A	6A	10A	12A	16A
Rated Operational Voltage (Ue) A.C.	440V	440V	440V	440V	440V
Rated Operational Current (Ie) A.C.	6A	6A	10A	12A	16A
Rated Operational Current (Ie) D.C.		1A	1A	1A	1A
Rated Impulse Withstand Voltage (Uimp)	2.5KV	2.5KV	2.5KV	2.5KV	2.5KV
Dielectric Strength	2.5KV	2.5KV	2.5KV	2.5KV	2.5KV
Insulation Resistance	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm
Mechanical Life	10,00,000	10,00,000	10,00,000	10,00,000	10,00,000
Electrical Life	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Conforms to IEC Standards	IEC - 60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3
Utilization Category	AC-1, AC-2	AC-1, AC-2 AC-21A, AC-23A	AC-15, AC-21A, AC-23A, DC-13A		

## ON-OFF / CHANGEOVER / MULTISTEP SWITCHES

CAM series- C10,C20,C40,C80



Rotary cam changeover and multi step switches are used for connecting or disconnecting circuits working as controlling or changeover function. It can be also used to control three phase asynchronous motor or as command control. It has wide applications such as circuit controlling, testing equipment, motor controlling, and command controlling and electric welding machine current controlling.

### Features:

- Attractive combination of colors for Knob, Handle & Escutcheon plates.
- Cams used for contacting makes it suitable for switching in various programmable combinations.
- Silver alloy contacts used has a very high durability & endurance.
- A double break contact ensures positive making & breaking.
- Modular design to achieve any number of poles with minimum components.
- Superior insulating material ensures electrical & mechanical stability.
- Opened & are closed using springs to a force to achieve desirable contact pressure. Two poles can be arranged in each set of contact housing making it compact for the application.

Specification	Series - C10	Series - C20	Series - C40	Series - C80	
Conventional Free Air Thermal Current (Ith)	6A/10A	10A/12A/16A	20A/25A 32A/40A	63A	80A
Rated Operational Voltage (Ue) A.C.	440V	440V	440V	440V	440V
Rated Operational Current (Ie) A.C.	6A/10A	10A/12A/16A	20A/25A 32A/40A	63A	80A
Rated Operational Current (Ie) D.C.	1A	1A	2A	2A	2A
Rated Impulse Withstand Voltage (Uimp)	2.5KV	2.5KV	3.0 KV	4.0KV	4.0KV
Dielectric Strength	2.5Kv	2.5KV	2.5KV	2.5KV	2.5KV
Insulation Resistance	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm
Mechanical Life	10,00,000	10,00,000	10,00,000	10,00,000	10,00,000
Electrical Life	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Conforms to IEC Standards	IEC - 60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3
Utilization Category	AC-1, AC-2	AC-15, AC-13A	AC-15, AC-21A, AC-23A, DC-13A		
	AC-21A, AC-23A				

# PHASE SELECTOR SWITCHES

CAM series- C40,C80



Phase Changeover Rotary Switches are used in Distribution boards. It consists of three changeover switches, each per phase, having all three phases as input. The user has a choice of changing over single phase loads using these switches. It helps to fight the common problem of phase cut in a three phase connection having single phase loads. These switches are specifically designed to fit in the distribution box having less depth to suit slimmer walls.

## Features:

- Attractive combination of colors for Knob, Handle & Escutcheon plates.
- Silver alloy contacts used has a very high durability & endurance.
- A double break contact ensures positive making & breaking.
- Modular design to achieve any number of poles with minimum components.
- Superior insulating material ensures electrical & mechanical stability.
- Available in FR & Non FR material

Specification	Series - C40			Series - C80	
	25A	32A	40A	63A	80A
Conventional Free Air Thermal Current (Ith)	25A	32A	40A	63A	80A
Rated Operational Voltage (Ue) A.C.	440V	440V	440V	440V	440V
Rated Operational Current (Ie) A.C.	25A	32A	40A	63A	80A
Rated Operational Current (Ie) D.C.	2A	2A	2A	2A	2A
Rated Impulse Withstand Voltage (Uimp)	3.0KV	3.0KV	3.0KV	4.0KV	4.0KV
Dielectric Strength	2.5KV	2.5KV	2.5KV	2.5KV	2.5KV
Insulation Resistance	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm
Mechanical Life	10,00,000	10,00,000	10,00,000	10,00,000	10,00,000
Electrical Life	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Conforms to IEC Standards	IEC - 60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3
Utilization Category	AC-15, AC-21A, AC-23-A, DC-13A				

# MACHINE POWER SWITCHES

CAM series- C10,C20,C40,C80



Rotary cam switches are used for controlling, automating, monitoring movements of a machine motor. These are used successfully on presses, stamping machines, forging presses, sheet metal forming machines, welding machinery, lathe machines, packaging machines, assembly machinery, transfer lines, transport equipment, lifts, elevators, construction machinery, mining equipment, steelworks and in the automobile industry. This design offers large number of possible switching combinations with multiple numbers of poles along with consistent quality and reliability.

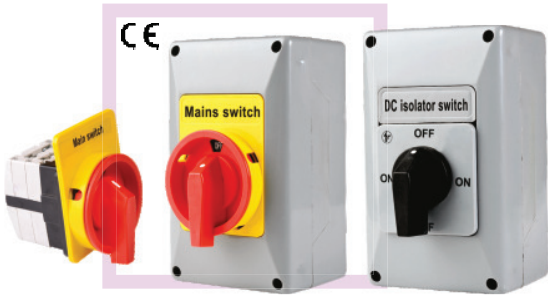
## Features:

- Attractive combination of colors for Knob, Handle & Escutcheon plates.
- Cams used for contacting makes it suitable for switching in various programmable combinations.
- Silver alloy contacts used has a very high durability & endurance.
- A double break contact ensures positive making & breaking.
- Superior insulating material ensures electrical & mechanical stability.

Specification	Series - C10	Series - C20	Series - C40	Series - C80	
Conventional Free Air Thermal Current (Ith)	6A/10A	10A/12A/16A	20A/25A 32A/40A	63A	80A
Rated Operational Voltage (Ue) A.C.	440V	440V	440V	440V	440V
Rated Operational Current (Ie) A.C.	6A/10A	10A/12A/16A	20A/25A 32A/40A	63A	80A
Rated Operational Current (Ie) D.C.	1A	1A	2A	2A	2A
3Ø Motor Rating @ 440 / 460 VAC	2.0 HP	3.0 HP	5.0/7.5/10.0 /12.5 HP	25.0 HP	40 HP
Rated Impulse Withstand Voltage (Uimp)	2.5KV	2.5KV	3.0 KV	4.0KV	4.0KV
Dielectric Strength	2.5Kv	2.5KV	2.5KV	2.5KV	2.5KV
Insulation Resistance	≥ 500 Mohm	≥ 500 Mohm	≥ 500 Mohm	≥ 500 Mohm	≥ 500 Mohm
Mechanical Life	10,00,000	10,00,000	10,00,000	10,00,000	10,00,000
Electrical Life	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Conforms to IEC Standards	IEC - 60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3
Utilization Category	AC-1, AC-2	AC-15, AC-13A	AC-15, AC-21-A, AC-23-A, DC-13-A		
	AC-21A, AC-23A				



# DC ISOLATOR SWITCHES



This DC isolator switch is used between DC PV arrays and grid-connected inverters. Positioned adjacent to the inverter a DC switch is required to provide a means of manually isolating the entire PV array during system installation or any subsequent maintenance.

Photovoltaic-installations have to be equipped with DC-isolators according to IEC 60364-7-712/ IEC 60947. Switch Disconnectors (SI) ensures a reliable switching up to 16A with 1000V in the category DC21B.

**Salient features :**

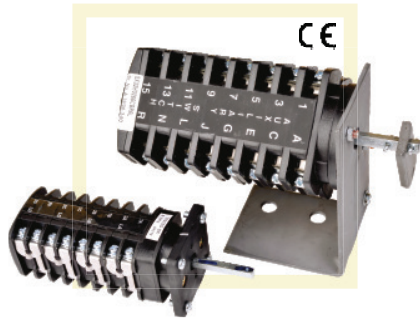
- Switch has a robust and aesthetically designed heavy duty Flame retardant (FR) material used in its construction.
- This switches are with IP 65 protection helps it to withstand harsh environmental conditions
- Switch has been tested as per IEC 60947-3: 2012.
- Silver plated wiping self cleaning contacts ensure longer life.
- Various mounting options like Din Rail, Front or Rear mounting are available.
- Finger protection is a standard feature.

Also this switch is available in IP 67 protection enclosure variant with an SPD installed with it.

Specification		
Conventional Free Air Thermal Current	32A	16A
Rated Operational Voltage (Ue)	650 VDC	1000 VDC
Rated Operational Current (Ie)	DC-21B	DC-21B

# ROTARY CAM AUXILIARY SWITCHES

CAM series- C20,C40



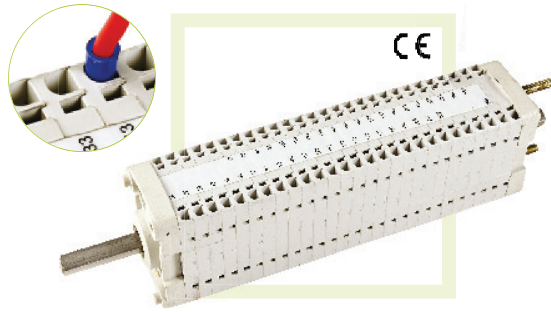
Rotary auxiliary cam switches are modular in design and are versatile for switching a.c. as well as low voltage d.c. resistive and inductive loads. They are used as auxiliary contacts in equipments such as MV and HV vacuum circuit breakers, gas circuit breakers, isolators, RMU's and various equipments.

## Features :

- Silver alloy contacts used has a very high durability & endurance.
- A double break contact ensures positive making & breaking.
- Modular design to achieve any number of poles with minimum components.
- Superior insulating material ensures electrical & mechanical stability.
- Available in various mounting arrangements and levers

Specification	Series - C20		Series - C40		
	10A	16A	20A	25A	32A
Conventional Free Air Thermal Current (Ith)	10A	16A	20A	25A	32A
Rated Operational Voltage (Ue) A.C..	440V	440V	440V	440V	440V
Rated Operational Current (Ie) A.C	10A	16A	20A	25A	32A
Rated Operational Current (Ie) D.C.	1A	1A	2A	2A	2A
Rated Impulse Withstand Voltage (Uimp)	2.5KV	2.5KV	3.0KV	3.0KV	3.0KV
Dielectric Strength	2.5KV	2.5KV	2.5KV	2.5KV	2.5KV
Insulation Resistance	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm	≥500 Mohm
Mechanical Life	10,00,000	10,00,000	10,00,000	10,00,000	10,00,000
Electrical Life	1,00,000	1,00,000	1,00,000	1,00,000	1,00,000
Conforms to IEC Standards	IEC - 60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3	IEC-60947-3
Utilization Category	AC-15, AC-21A, AC-23A, DC-13A				

## AUXILIARY KNIFE SWITCHES IP 20 GEN III (CORONA)



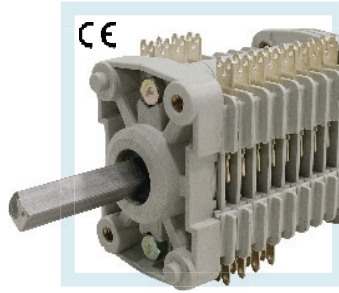
Rotary auxiliary knife switches popularly known as wafer switches due to their modular & compact designs are very versatile for switching a.c. as well as d.c. resistive & inductive Loads. They are used as auxiliary contacts in equipments such as MV & HV - Vacuum Circuit Breakers, Gas Circuit Breakers, Isolators & various equipments.

### Features :

- Screw less terminals that accepts pin type push-on lugs provides ease & convenience of wiring.
- This feature makes the user highly productive while wiring & safe while working on site for repairs.
- The connection is secured for lifetime & sustains accidental wire pull.
- Termination is completely insulated and has IP20 protection (Finger Proof/Shock Proof)
- Contacts severe PD3 environment from temperature ranging from -30 deg to 70 deg.
- Engineering plastics used for insulating and supporting conduction path, are fire retardant.
- High speeds of switching can be achieved due to knife type switching elements.

Parameter	Value
Conventional Free Air Thermal Current (Ith)	10A
Rated Operational Voltage (Ue).	220 VDC
Rated Operational Current (Ie)	3A DC
Short Time Withstand Current (30ms)	2A
Utilization Category	DC-13A
Class	I
Dielectric Strength	2.5 KV
Rated Impulse Withstand Voltage (Uimp)	8 KV
Insulation Resistance	≥ 500 MΩ
Mechanical Life	2,00,000 Operations
Electrical Life	50,000 Operations
Ingress Protection Level	Ip20
Possible Switching Combinations	Up to 30 NO + 30 NC With Various Programs
Switching Capability	Time Constant of 20 ms (L/R) for conductive load
Conforms to IEC Standards	IEC- 60947-5

## AUXILIARY SWITCH WITH FINS GEN II (ASTRO)



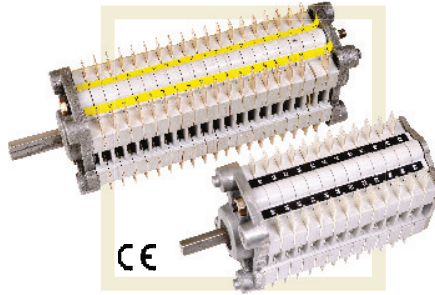
Rotary auxiliary knife switches popularly known as wafer switches due to their modular & compact designs are very versatile for switching a.c. as well as d.c. resistive & inductive Loads. They are used as auxiliary contacts in equipments such as MV & HV - Vacuum Circuit Breakers, Gas Circuit Breakers, Isolators & various equipments.

### Features :

- Used engineered Flame Retardant material for contact housing, top & end shields to function at higher temperatures up to 960 Deg.
- Superior insulating material ensures electrical & mechanical stability
- Modular design to achieve any number of poles with minimum components.
- Brass inserts used in threads to endure more than required torque while mounting.
- Provided fins between two contacts, The main advantage of providing fins on each contact housing disc is to increase "Creepage Distance" between two conductive parts in order to withstand higher impulse withstand voltage.

Parameter	Value
Conventional Free Air Thermal Current (Ith)	10A
Rated Operational Voltage (Ue)	220 VDC
Rated Operational Current (Ie)	3A DC
Short Time Withstand Current (30ms)	2A
Utilization Category	DC-13A
Class	I
Dielectric Strength	2.5 KV
Rated Impulse Withstand Voltage (Uimp)	8 KV
Insulation Resistance	≥ 500 MΩ
Mechanical Life	2,00,000 Operations
Electrical Life	50,000 Operations
Possible Switching Combination	Up to 30 NO + 30 NC With Various Programs
Switching Capability	Time Constant of 20 ms (L/R) for conductive load
Conforms to IEC Standards	IEC- 60947-5

# AUXILIARY SWITCH GEN I (ARENA)



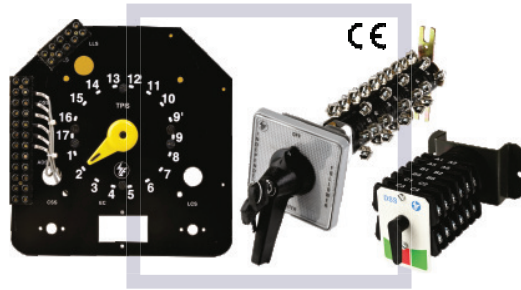
Rotary auxiliary knife switches popularly known as wafer switches due to their modular & compact designs are very versatile for switching a.c. as well as d.c. resistive & inductive Loads. They are used as auxiliary contacts in equipments such as MV & HV - Vacuum Circuit Breakers, Gas Circuit Breakers, Isolators & various equipments.

## Features :

- Used engineered Flame Retardant material for contact housing, top & end shields to function at higher temperatures up to 960 Deg.
- Superior insulating material ensures electrical & mechanical stability.
- Modular design to achieve any number of poles with minimum components.
- Brass inserts used in threads to endure more than required torque while mounting.

Parameter	Value
Conventional Free Air Thermal Current (I <sub>th</sub> )	10A
Rated Operational Voltage (U <sub>e</sub> )	220 VDC
Rated Operational Current (I <sub>e</sub> )	3A DC
Short Time Withstand Current (30ms)	2A
Utilization Category	DC-13A
Class	I
Dielectric Strength	2.5 KV
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	8 KV
Insulation Resistance	≥ 500 MΩ
Mechanical Life	2,00,000 Operations
Electrical Life	50,000 Operations
Possible Switching Combination	Up to 30 NO + 30 NC With Various Programs
Switching Capability	Time Constant of 20 ms (L/R) for conductive load
Conforms to IEC Standards	IEC- 60947-5

## SWITCHES FOR TRANSFORMER PANELS (OLTC & RTCC)



TPI (Tap Position Indicator)

DSS (Directional Sequence Selector)

SSS (Sequence Selector Switches)

Raise Lower & Local Remote Changeover Switches

The TPI switches are uniquely designed for the application. They can be operated in various indexing angles such as 10 deg, 16.36 deg, 20 deg and 36 deg. The contacts are self cleaning and hence suitable for the application where the frequency of operation is very less. The design of this switch offers very high reliability of operation along with options for cascaded multiple poles.

DSS is CAM operated multiple contact switch used to control direction of OLTC motor supply during operation & cutoff after completion of OLTC operation.

### Features :

- Used in onload tapchangers as a tap position indicator switch with various other inbuilt functions such as selector, odd-even & limit switch.
- Value engineered for customer requirement with superior performance.
- Various programme can be achieved in a single switch.
- Flexible design to suit varied customer plans.
- In built dial position indicator.

Type - RXTC - Rating 6 Amp. 220 V A.C.

Type - DSS

2 Pole 32 Amp / 35Amp

3 Pole 32 Amp / 35Amp

4 Pole 32 Amp / 35Amp

5 Pole 32 Amp / 35Amp

# OUR VALUED CUSTOMERS



SIEMENS



Panasonic



Raychem RPG



Shreem ELECTRIC LTD



adani



SWITCH TO RELIABILITY

## APPROVALS



## CERTIFICATIONS



## IEC STANDARD

Followed during type testing at ERDA

IEC 60947 - 5 -1: 2016

IEC 60947 - 3 : 2015

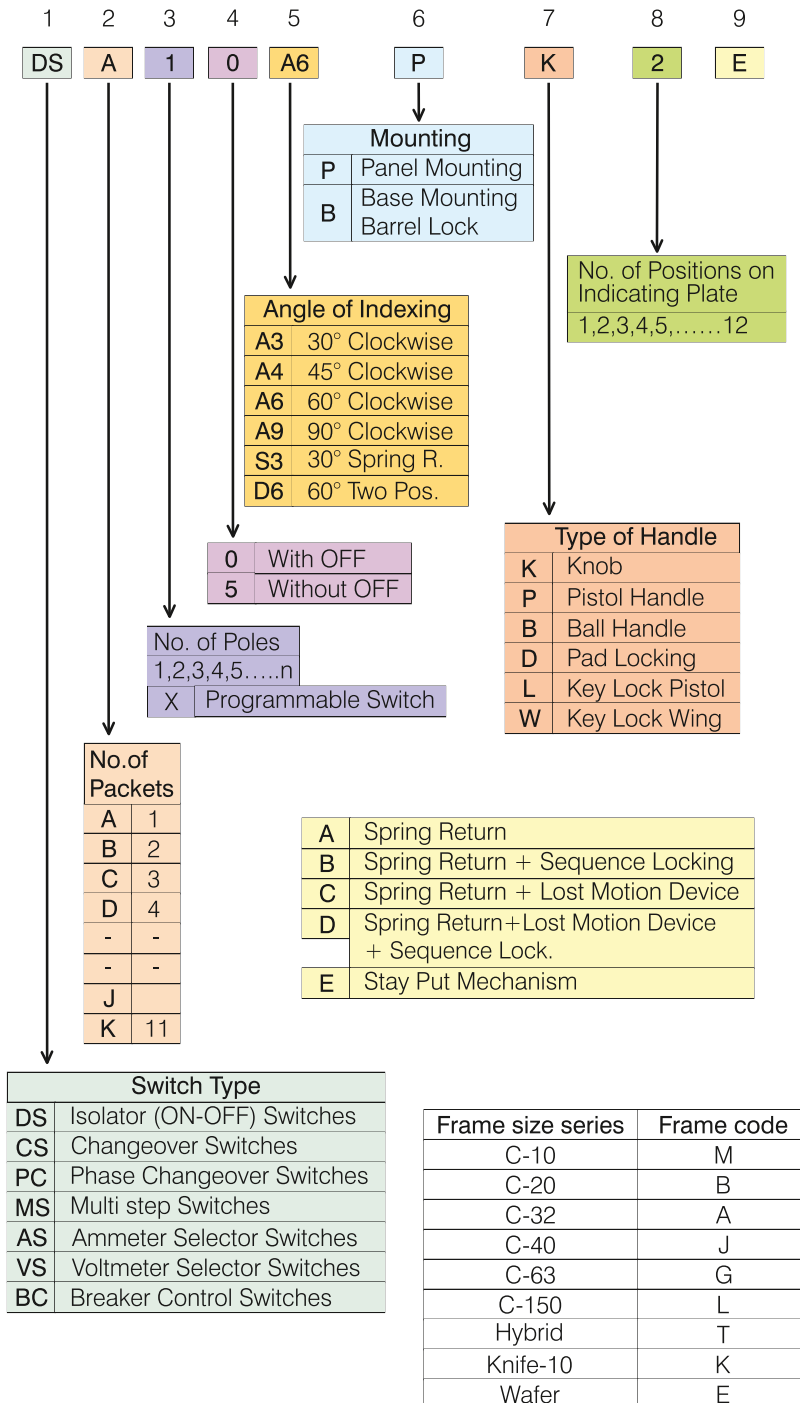
IEC 62271 - 100 : 2012

IEC 62271 - 1 : 2011



# 9 CELL ORDERING CATALOG CODE


DSA10A6PK2 - One Pole ON-OFF Switch 60 Deg. Operation





PALLET

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