



## **ONLOAD CHANGE OVER SWITCHES**



### The Product :

**KEW** On load Changeover switches are switch disconnectors with independent manual operation intended to be used in low voltage distribution circuits and motor circuits.

They are capable of making, carrying and breaking current under normal circuit conditions which may include operating overload conditions and also carrying current under specified abnormal circuit conditions such as those of short circuit for a specified time.

### Range :

- Presently available from 63A to 3150A
- Available in 4P (with switched neutral). Above mentioned range is available in open execution and in sheet metal enclosure.

### Conformity :

**KEW** On load Changeover switches are AC – 23 rated conforms to IS/IEC60947-3 as in Switch disconnectors.

### Construction :

**KEW** On load Changeover switch has unique modular construction. The module consists of two independent four pole switches, coupled together and mechanically interlocked by a innovative mechanism to provide three distinct positions – 'I', 'O' and 'II'

In position 'I' supply 'I' is connect to the load and supply 'II' is OFF

In position 'O' both supplies 'I' & 'II' are disconnected from the load.

In position 'II' supply 'II' is connected to the load and supply 'I' is OFF.

Hence in none of the cases supply 'I' and supply 'II' are simultaneously connected.

### Switch Mechanism :

- Quick – make and quick – break for all versions.
- Positive break. Robust & efficient.
- A simple strong and reliable mechanism, provides a total security in disconnection.
- The operating mechanism consists of single front.

### Contact System :

- Double break.
- Knife type with self wipe
- Silver plated copper
- High contact pressure.
- High thermal and dynamic strength to withstand rated fused short circuit current level of 80KA rms.
- Are rated for AC-23A utilization category.
- The moving contact assembly are housed in a polyster reinforced moulded body, having high resistance to tracking and flash over.
- During the operations the neutral closes first and opens last this ensures that the neutral is always there in the circuit and as a result voltage transient don't occur.

### Installation :

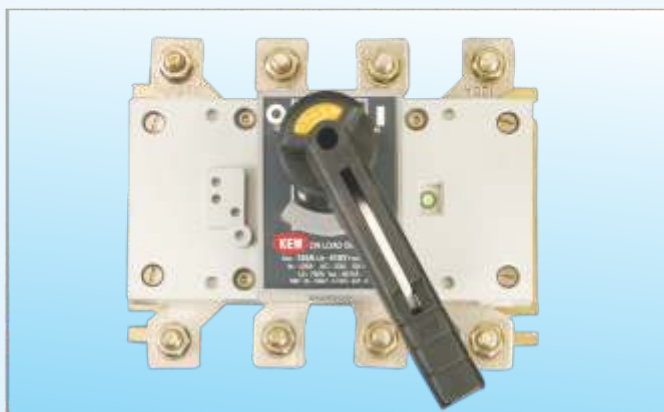
- Ease of installation
- Compact dimensions
- Simple and cost saving installation and connection.
- Strong and ergonomic handle is padlockable in 'O' (off) as well as I & II (ON) position and has got door interlock feature in ON position.
- Connection on terminal is very easy, as they are large and accessible.

### Application :

- The **KEW** on load four pole changeover switches are especially designed for the requirement of three phase four wire power system for safe and fool proof transfer of power from normal supply to auxiliary/emergency supply and vice versa.
- By means of manual operation, changeover performs circuit switching and are mainly used – As a switching control of two independent circuits (circuit I closing/circuit II opening and vice versa)
- **KEW** Changeover Switches are used for various utilization categories specified in IS/60947-3

### The Cubicle On Load Switch Disconnector (Load Break Switch) 4 pole AC-23A

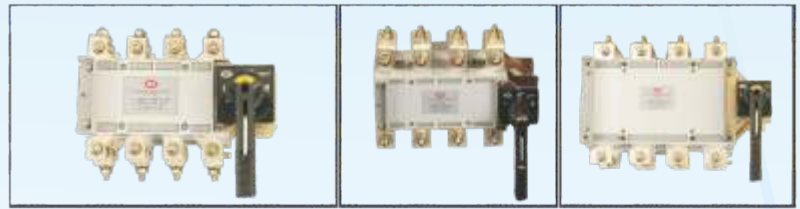
- In 3 frame sizes
- From 40A to 630A.
- In open execution/ with enclosure
- It is capable of making, carrying and breaking currents on load and security breaking of any low voltage electrical circuit.



**KEW**

### Technical Specification And Data

Rated Operational voltage (Ue) : 415V A.C.  
 Rated Operational Current (Ie) : 125A to 630A  
 No. of Poles : 4 Poles (with switched neutral)  
 Utilization Category : AC - 23A  
 Dielectric strength, at 50 Hz : 5 KV



Frame Size	Thermal Current Ithe	A	SIZE - 1			SIZE - 2		SIZE - 3	
			125	160	200	250	320	400	630
LIST NOS.	→ Open Execution With Enclosure		125 KDCO	160 KDCO	200 KDCO	250 KDCO	320 KDCO	400 KDCO	630 KDCO
			125 KDCOE	160 KDCOE	200 KDCOE	250 KDCOE	320 KDCOE	400 KDCOE	630 KDCOE
Rated insulation Voltage (ui)	V		750	750	750	750	1000	1000	1000
Rated impulse withstand Voltage (uimp)	KV		6	8	8	8	8	12	12
Rated Operational Current (Ie)									
at 415V	AC - 23A / B	A	125/125	125/125	125/160	250/250	320/320	400/400	400/500
at 500V	AC - 23A / B	A	100/100	100/100	100/100	200/250	250/250	315/315	315/315
at 260V	DC - 21A / B	A	125/125	160/160	160/160	250/250	320/320	400/400	630/630
	DC - 22A / B	A	125/125	160/160	160/160	250/250	320/320	400/400	500/500
	DC - 23A / B	A	125/125	125/125	125/125	200/200	250/250	400/400	500/500
at 440V	DC - 21A / B	A	125/125	160/160	160/160	250/250	320/320	400/400	500/500
	DC - 22A / B	A	125/125	160/160	125/125	200/200	250/250	400/400	500/500
	DC - 23A / B	A	125/100	125/125	125/125	200/200	250/250	400/315	500/500
Rated making capacity at 415V, AC23A p.f.=0.35	A		1250	1250	1250	2500	3200	4000	4000
Rated breaking capacity at 415V, AC23A, p.f.=0.35	A		1000	1000	1000	2000	2550	3200	3200
Rated Motor Power 415V 3 Ø	KW		55	55	80	132	160	220	280
Rated Capacitor Power 415V	KVAR		55	55	80	100	125	160	250
Fuse Protected Short Circuit Withstand									
• Rated max. Current of gG fuse	A		125	160	200	250	320	400	630
• Rated Conditional Short Circuit Current	KArms		80	80	80	80	80	80	70
• Maximum allowed Cut off Current (peak)	KA		17	18	20	27	33	39	45
• Rated short time withstand Current (1 Sec.)	KA		7	7	7	9	13	13	13

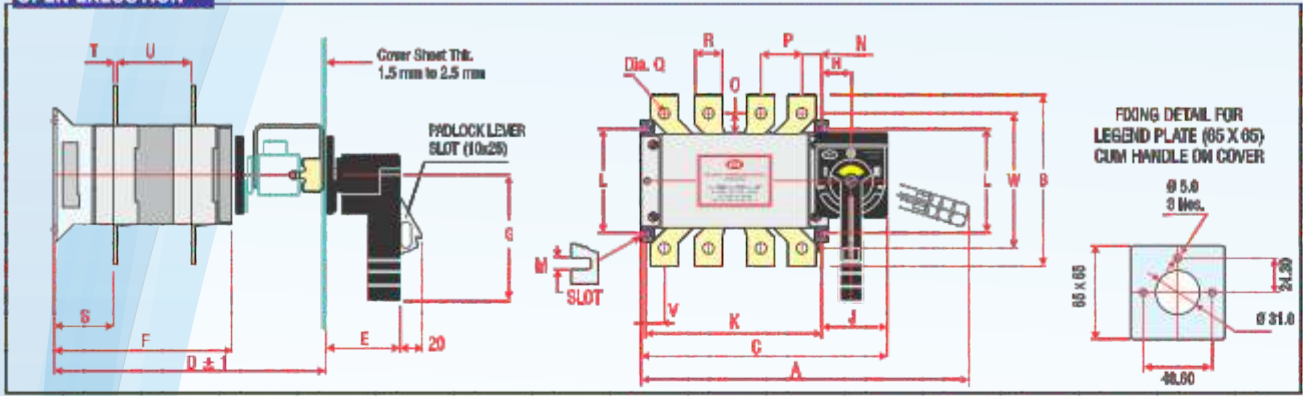
### On Load By Pass Switch – 4 Pole AC – 23A

- In 3 frame sizes
- From 125A to 630A
- In open execution/ with enclosure



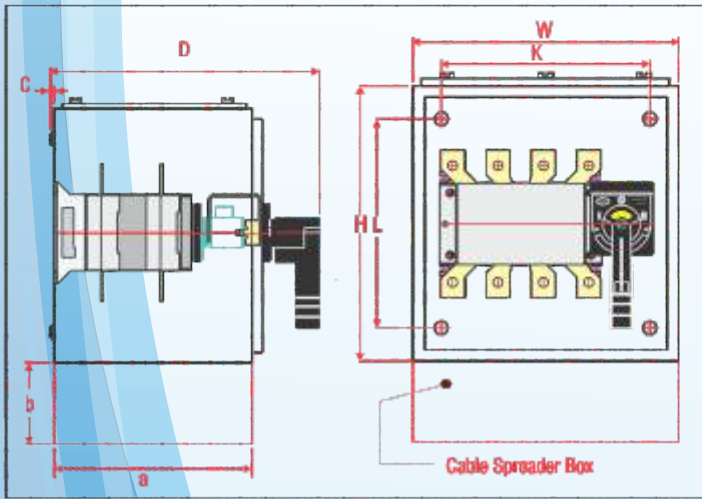
**OVERALL DIMENSIONS FOR FOUR POLE CHANGEOVER SWITCHES**

**OPEN EXECUTION**



FRAME SIZE	RATING (A)	DIMENSIONS OF :																					
		Switch Overall								Switch Mounting			Switch Terminal Connection										
		A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
1	125	300	155	225	235	65	155	110	25	60	160	95	7.0	67	19	48	Ø10	25	52	2.8	65	9.0	125
1	160	300		225	235	65	155	110	25	60	160	95	7.0										
1	200	300		225	235	65	155	110	25	60	160	95	7.0										
2	250	385	192	280	245	62	170	155	32	65	215	110	7.0	75	26	65	Ø12	32	60	4.0	72	10	155
2	320																						
3	400	470	235	360	320	65	245	155	32	75	265	180	9.0	100	22	75	Ø11	40	80	4.7	108	20	205
3	630																						

**WITH ENCLOSURE**



FRAME SIZE	CURRENT RATING (Amp)	DIMENSIONS (mm)							
		H	W	D	a	b	c	K	L
1	125,	290	280	305	210	150	5	220	220
	160 & 200A					200			
						250			
2	250 & 320A	360	335	320	220	300	5	290	265
3	400 & 630A	470	410	390	285	350	5	400	340

**Cable Spreader Boxes : List Nos.**  
(Available as an optional)

Switch Rating	125A	160A	200A	250A	320A	400A	630A
LIST Nos.	KDCOE 26	KDCOE 36	KDCOE 46	KDCOE 56	KDCOE 66		