

Cam switches  
*Complete switches, 32 to 150 A*

Catalog  
April  
2004





# Cam switches

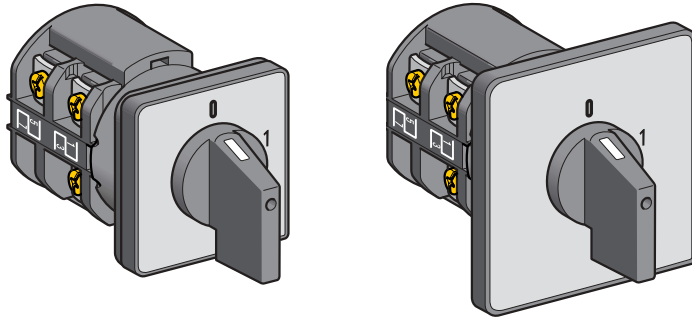
Complete switches, 32 to 150 A

The range of K30 to K150 cam switches (32 to 150 A ratings) comprises only complete switches. These products are more specifically designed for direct control of simple machines.

## Complete switches

- OFF-ON switches
- starter switches
- changeover switches

## Front mounting

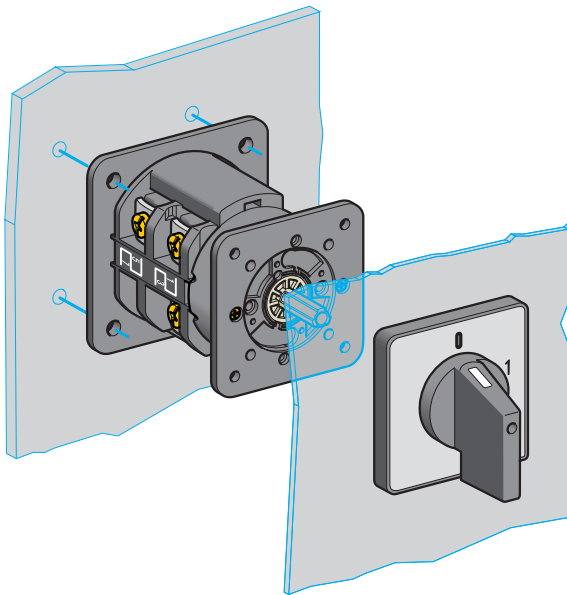


By 4 holes  
with 64 x 64 mm front plate  
32 to 63 A ratings  
K30, K50 and K63

By 4 holes  
with 88 x 88 mm front plate  
115 to 150 A ratings  
K115 and K150

## "Multifixing" mounting method

## Rear mounting



By 4 holes on 48 mm centres  
32 to 63 A ratings  
K30, K50 and K63

By 4 holes on 68 mm centres  
115 to 150 A ratings  
K115 and K150

# Cam switches

Complete switches, 32 to 150 A

Type		K30	K50	K63	K115	K150				
<b>Environment</b>										
Conforming to standards	IEC/EN 60947-3									
Approvals	cULus	120 V - 1-phase	2 hp	3 hp	3 hp	5 hp	7.5 hp			
		240 V - 1-phase	5 hp	7.5 hp	7.5 hp	10 hp	15 hp			
		240 V - 3-phase	5 ph	7.5 ph	10 hp	20 hp	25 hp			
		480 V - 3-phase	20 hp	25 hp	25 hp	30 hp	40 hp			
Protective treatment	Standard version: "TC"									
Ambient air temperature	Operation	- 25...+ 55 °C								
	Storage	- 40...+ 70 °C								
Electric shock protection	Class II, conforming to IEC 536 and NF C 20-030									
Degree of protection conforming to IEC 529 and NF C 20-010	IP 40									
Mechanical durability	300 000 operating cycles									
<b>Contact block characteristics</b>										
Rated insulation voltage	Ui = 690 V conforming to IEC/EN 60947-1 - Degree of pollution 3									
Conventional thermal current	Screw clamp connections	In open air	Ith = 32 A	Ith = 50 A	Ith = 63 A	Ith = 115 A	Ith = 150 A			
Rated operational characteristics	to IEC/EN 60947-5-1	~ AC-15	220...240 V	14 A	16 A	–	–	–		
			380...440 V	6 A	7 A	–	–	–		
	to IEC/EN 60947-3	~ AC-3	3-phase	220...240 V	5.5 KW	7.5 KW	11 KW	15 KW	22 KW	
				3-pole	380...440 V	11 KW	15 KW	18.5 KW	30 KW	37 KW
			1-phase	110 V	2.2 KW	2.5 KW	3 KW	3.7 KW	5.5 KW	
				2-pole	220...240 V	4 KW	5.5 KW	6 KW	7.5 KW	11 KW
			~ AC-23 A	3-phase	380...440 V	5.5 KW	7.5 KW	11 KW	13 KW	18.5 KW
					3-pole	220...240 V	7.5 KW	11 KW	15 KW	30 KW
		1-phase		380...440 V	15 KW	22 KW	30 KW	45 KW	75 KW	
				2-pole	660...690 V	15 KW	22 KW	55 KW	65 KW	65 KW
		~ AC-21 A		1-phase	110 V	2.2 KW	2.5 KW	4 KW	5.5 KW	11 KW
					2-pole	220...240 V	4 KW	5.5 KW	10 KW	15 KW
					380...440 V	7.5 KW	11 KW	18.5 KW	22 KW	37 KW
						32 A	40 A	63 A	100 A	150 A
Rated conditional short-circuit current	Power: kA	5	5	10	15	25				
Short-circuit protection	gG cartridge fuse, A	50	63	80	125	200				
Rated impulse withstand voltage	U imp = 6 kV conforming to IEC/EN 947-1									
Contact operation	Slow break (with positive opening operation)									
Cabling	Screw and captive cable clamp terminals (For 2 x 2.8 x 0.8 mm push-on connectors, please consult your Regional Sales Office)									
	Solid cable		2 x 6 mm <sup>2</sup>	2 x 10 mm <sup>2</sup>	2 x 16 mm <sup>2</sup>	1 x 35 mm <sup>2</sup>	1 x 70 mm <sup>2</sup>			
	Flexible cable with or without cable end		2 x 4 mm <sup>2</sup>	2 x 6 mm <sup>2</sup>	2 x 10 mm <sup>2</sup>	1 x 25 mm <sup>2</sup>	1 x 50 mm <sup>2</sup>			
	Tightening torque		1.2 N.m	2 N.m	2.5 N.m	2.5 N.m	2.5 N.m			
Switching capacity ---	Number of contacts in series	1	2	3						
	Resistive load V T ≤ 1 ms	24	48	70	32 A	50 A	63 A	115 A	150 A	
		48	95	140	32 A	40 A	63 A	100 A	150 A	
		60	120	180	23 A	37 A	30 A	–	–	
		110	220	330	6.5 A	–	–	–	–	
		220	440	660	1.2 A	–	–	–	–	
		440	660	–	0.4 A	–	–	–	–	
	Inductive load V T = 50 ms	24	48	70	32 A	40 A	63 A	100 A	150 A	
		30	60	90	25 A	30 A	55 A	33 A	50 A	
		48	95	140	16 A	20 A	20 A	–	–	
		60	120	180	11 A	15 A	–	–	–	
		110	220	330	3.2 A	3.5 A	–	–	–	

# Cam switches

Complete switches, 32 to 150 A  
 With 64 x 64 mm front plate (ratings 32 to 63 A)  
 and 88 x 88 mm front plate (ratings 115 and 150 A)

## OFF-ON switches

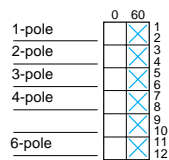
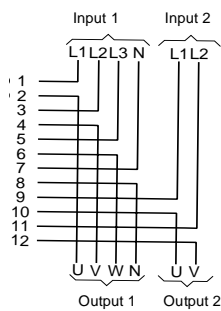
### Front mounting



K30-C003AP



K50-C003AP



Connection scheme and switching scheme	Marking & switch position	Number of poles	Thermal current (Ith) A	Reference	Weight kg
1-pole		1	32	<b>K30-A001AP</b>	0.130
			50	<b>K50-A001AP</b>	0.175
2-pole		2	32	<b>K30-B002AP</b>	0.170
			50	<b>K50-B002AP</b>	0.215
3-pole		3	32	<b>K30-C003AP</b>	0.224
			50	<b>K50-C003AP</b>	0.275
			63	<b>K63-C003AP</b>	0.345
4-pole			115	<b>K115-C003AP</b>	0.680
			150	<b>K150-C003AP</b>	0.790
		6-pole		4	32
	50			<b>K50-D004AP</b>	0.305
	63			<b>K63-D004AP</b>	0.390
6-pole			115	<b>K115-D004AP</b>	0.745
			150	<b>K150-D004AP</b>	0.880
		6-pole		6	32
	50			<b>K50-F006AP</b>	0.530
	63			<b>K63-F006AP</b>	0.590

# Cam switches

Complete switches, 32 to 150 A

With 64 x 64 mm front plate (32 to 63 A ratings)  
and 88 x 88 mm front plate (115 and 150 A ratings)



K63-C003HP



K150-D004HP

## ON-OFF switches

### Front mounting

Connection scheme and switching scheme	Marking & switch position	Number of poles	Thermal current (I <sub>th</sub> )	Reference	Weight
			A		
		3	32	<b>K30-C003HP</b>	0.170
			50	<b>K50-C003HP</b>	0.275
			63	<b>K63-C003HP</b>	0.345
			115	<b>K115-C003HP</b>	0.680
			150	<b>K150-C003HP</b>	0.790
		4	32	<b>K30-D004HP</b>	0.250
			50	<b>K50-D004HP</b>	0.305
			63	<b>K63-D004HP</b>	0.390
			115	<b>K115-D004HP</b>	0.745
			150	<b>K150-D004HP</b>	0.880

### Rear mounting

		3	32	<b>K30-C503HP</b>	0.250
			50	<b>K50-C503HP</b>	0.300
			63	<b>K63-C503HP</b>	0.370
			115	<b>K115-C503HP</b>	0.720
			150	<b>K150-C503HP</b>	0.830
		4	32	<b>K30-D504HP</b>	0.280
			50	<b>K50-D504HP</b>	0.350
			63	<b>K63-D504HP</b>	0.440
			115	<b>K115-D504HP</b>	0.790
			150	<b>K150-D504HP</b>	0.930

# Cam switches

Complete switches, 32 to 150 A  
 With 64 x 64 mm front plate (32 to 63 A ratings )  
 and 88 x 88 mm front plate (115 and 150 A ratings )

## Changeover switches with "O" position

### Front mounting



K50-B001UP

Connection scheme and switching scheme	Marking & switch position	Number of poles	Thermal current	Reference	Weight	
			(Ith) A			kg
		1	32	K30-B001UP	0.170	
			50	K50-B001UP	0.215	
			150	K150-B001UP	0.790	
			2	32	K30-D002UP	0.250
				50	K50-D002UP	0.305
			3	32	K30-F003UP	0.425
				50	K50-F003UP	0.530
				63	K63-F003UP	0.590
				115	K115-F003UP	0.645
				150	K150-F003UP	0.760
			4	32	K30-H004UP	0.485
				50	K50-H004UP	0.610
				63	K63-H004UP	0.680
				115	K115-H004UP	0.750
				150	K150-H004UP	0.880

## Changeover switches without "O" position

### Front mounting



K63-F013UP

		3	32	K30-F013UP	0.425	
			50	K50-F013UP	0.530	
			63	K63-F013UP	0.590	
			3	115	K115-F013UP	0.645
				150	K150-F013UP	0.760
			4	32	K30-H014UP	0.485
				50	K50-H014UP	0.610
				63	K63-H014UP	0.680
				115	K115-H014UP	0.750
				150	K150-H014UP	0.880

# Cam switches

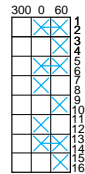
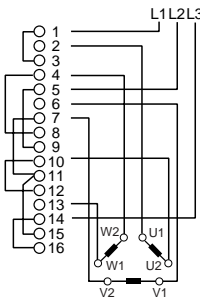
Complete switches, 32 to 150 A  
 With 64 x 64 mm front plate (32 to 63 A ratings)  
 and 88 x 88 mm front plate (115 and 150 A ratings)

## Star-delta switches

### Front mounting



K50-H001YP



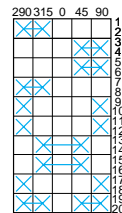
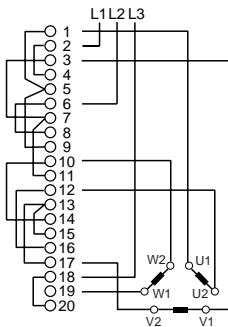
Connection scheme and switching scheme	Marking & switch position	Number of poles	Thermal current (Ith) A	Reference	Weight kg
		3	32	<b>K30-H001YP</b>	0.485
			50	<b>K50-H001YP</b>	0.610
			63	<b>K63-H001YP</b>	0.680
			115	<b>K115-H001YP</b>	0.750
			150	<b>K150-H001YP</b>	0.880

## Reversing star-delta switches

### Front mounting



K115-K006YP



Connection scheme and switching scheme	Marking & switch position	Number of poles	Thermal current (Ith) A	Reference	Weight kg
		3	32	<b>K30-K006YP</b>	0.560
			50	<b>K50-K006YP</b>	0.690
			63	<b>K63-K006YP</b>	0.770
			115	<b>K115-K006YP</b>	0.880
			150	<b>K150-K006YP</b>	0.990



# Cam switches

Complete switches, 32 to 150 A  
 With 64 x 64 mm front plate (32 to 63 A ratings)  
 and 88 x 88 mm front plate (115 and 150 A ratings)  
 Accessories

## Pole change switches for 2-speed motors (for motors with tapped "Dahlander" windings)

Front mounting



K63-H004PP

Connection scheme	Marking & switch position	Number of poles	Thermal current A	Reference	Weight kg
		3	32	<b>K30-H004PP</b>	0.485
			50	<b>K50-H004PP</b>	0.610
			63	<b>K63-H004PP</b>	0.680

## Reversing switches with "O" position

Front mounting



K150-D002WP

Connection scheme	Marking & switch position	Number of poles	Thermal current A	Reference	Weight kg
		2	32	<b>K30-D002WP</b>	0.250
			50	<b>K50-D002WP</b>	0.305
			63	<b>K63-D002WP</b>	0.390
			115	<b>K115-D002WP</b>	0.745
			150	<b>K150-D002WP</b>	0.880
		3	32	<b>K30-E003WP</b>	0.385
			50	<b>K50-E003WP</b>	0.485
			63	<b>K63-E003WP</b>	0.540
			115	<b>K115-E003WP</b>	0.590
			150	<b>K150-E003WP</b>	0.710

## Accessories

Description	For use with	Sold in lots of	Unit reference	Weight kg
<b>Legend holders</b> With blank legend,	Square heads 64 x 64 mm	5	<b>KZN-15</b>	0.020
	Square heads 88 x 88 mm	5	<b>KZN-103</b>	0.040
<b>Blank legends for legend holder</b>	KZN-15	5	<b>KZ-77N</b>	0.025
	KZN-103	5	<b>KZ-100N</b>	0.040
<b>Blank legends for metallic finish front plate</b>	64 x 64	5	<b>KZN-21</b>	0.035
	88 x 88	5	<b>KZN-24</b>	0.045

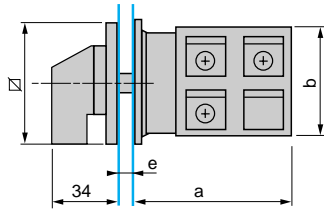
# Cam switches

Complete switches, 32 to 150 A

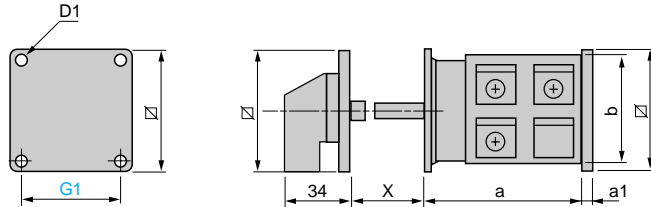
With 64 x 64 mm front plate (32 to 63 A ratings)  
and 88 x 88 mm front plate (115 and 150 A ratings)

## Cam switches from 32 to 150 A

Front mounting



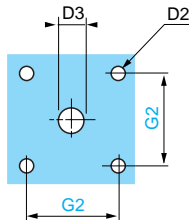
Rear mounting



	K30-A K30-B	K30-C K30-D	K30-E K30-F	K30-H	K30-K	K50-A K50-B	K50-C, K50-D	K50-E K50-F	K50-H	K50-K	K63-A K63-B	K63-C K63-D	K63-E K63-F	K63-H	K63-K
a	41	53.7	66.4	79.1	104.5	45.8	63.3	80.8	98.3	133.3	49.8	71.3	92.8	114.3	157.3
a1	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
b	58	58	58	58	58	60	60	60	60	60	66	66	66	66	66
∅	64	64	64	64	64	64	64	64	64	64	64	64	64	64	64
D1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	5.4	5.4	5.4	5.4	5.4
G1	-	48	-	-	-	-	48	-	-	-	-	48	-	-	-
X	-	78 to 97	-	-	-	-	78 to 97	-	-	-	-	78 to 97	-	-	-
	K115-A K115-B	K115-C K115-D	K115-E K115-F	K115-H	K115-K	K150-A K150-B	K150-C K150-D	K150-E K150-F	K150-H	K150-K					
a	61.5	88	114.5	141	194	67.5	100	132.5	165	230					
a1	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9					
b	84	84	84	84	84	88	88	88	88	88					
∅	88	88	88	88	88	88	88	88	88	88					
D1	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4					
G1	-	68	-	-	-	-	68	-	-	-					
X	-	12...150	-	-	-	-	12...150	-	-	-					

e : thickness of support 0.5 to 5.5 mm.

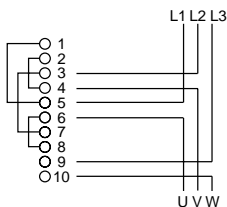
## Support drilling



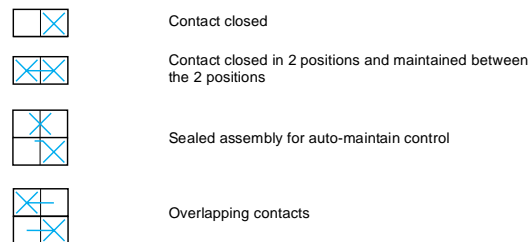
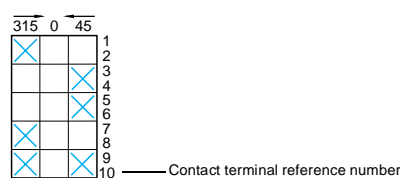
	K30/K50/K63	K115/K150
D2	4.5	6
D3	10	13
G2	48	68

## Contact functions: how to understand the conventions used

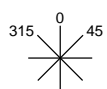
Link positions (factory mounted)



Graphic representation of switching positions and spring return to "O" position



Angular position of switch





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Owing to changes in standards and equipment, the characteristics given in the text and images in this document are not binding until they have been confirmed with us.

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