

Kaycee for Commitment...
Kaycee for Quality...



KAYCEE
Brand that set the standards

ROTARY CAM SWITCHES



CE Approved

KAYCEE ROTARY CAM SWITCHES

KAYCEE Rotary Cam Switches have been engineered and designed especially to meet the requirements of latest concepts in switching technology demanding miniaturization and sophistication in control engineering. These are guaranteed for optimum performance and meet the most arduous industrial applications. Kaycee Rotary Cam Switches are hand-operated, assembled on packet principle giving choice of multi-position and multi-pole circuits.

Switches for Motor Control application covers a wide range of applications such as switching, controlling and starting of 3 phase AC squirrel cage induction motors.

RATING 6A/440VAC, 10A/440VAC 6A/250VDC (Thermal) 12A/380VAC
 25A/250VAC 10A/440VAC 25A/250VDC (Thermal) 32 AMP / 250 VAC

SPECIFICATION IS 60947 Part I & III & V

ELECTRICAL DATA	Continues current lth	10A/12A/25A AC 25A & 6A DC	Make break operation at rated current & voltage for AC Thermal at rated current but for Make break 0.5A/220VDC
	Insulation Voltage	250VDC, 550 VAC	
	Operational Voltage	220VDC & 250VAC, 380VAC, 440VAC	
	High Voltage	2.1 KV (R.M.S)	
	Ambient Temperature	55 °C	
	Frequency of	240 cycles / hours	
	Mechanical Life	For rated thermal current 25A/DC	50,000 Operation
		For rated 10A & 12A	50,000 Operations
		For rated 25A	50,000 Operations
	Electrical Life	For rated thermal current 25A/DC	10,000 Operations
		For rated 10A & 12A	Depends upon the application
		For rated 25A	Depends upon frequency & load
	For rated 10A & 12A	Depends upon the application	
	For rated 25A	Depends upon frequency & load condition.	
	IP TEST :	IP 55 from front	

MECHANICAL

Switches for Motor control application covers a wide range of applications such as switching, controlling and starting of 3 phase AC squirrel cage induction motors

Switching Angle

The switches are manufactured to suit switching angles like 30° , 45° , 60° , and 90° depending on the number of ways/ positions, in case of stayput switches. However, the switching angle restricted to 30° in case of switches having spring return arrangement.

- F. Letter X after above group of letters indicates Base mounting switch while absence of X indicates panel mounting switch.
- G. Special Codes:
 AP - Ammeter Selector Switch
 VP - Voltmeter Selector Switch
 MB - Make before Break contacts
 RM - Spring return mechanism (Revertible Mechanism)
 E - Switches with enclosure
- H. Group of letters written after stroke indicates the accessories, fitted with the switch.
 P - Pistol Grip Handle
 W - Wing type knob
 B - Ball type handle
 LG - Centre key lock with Lever type handle
 TG - Centre key lock with 'Tee' type handle

EXAMPLE

2V23BO/RM/GB

Explanation :

- 2 - No. of discs
 V - Rating of 25A/250VAC
 2 - No. of poles
 3 - 30° angle of throw
 BO - 2 way with off
 RM - Spring return mechanism (Revertible Mechanism)
 GB - Grey Flush Plate with Black knob

ELECTRICAL RATING : Rated Thermal Current : 6A DC. Rated Insulation Voltage: 250 VDC.

Mechanical Life : Upto 50,000 cycles of operations.

DC Breaking capacity : For 10,000 operations, ratings are given in the table below :

Voltage	No. of contacts in series	Resistive	Inductive 10 M.Sec	Inductive 20 M.Sec	Inductive 40 M.Sec
50	1	6*	5	3.75	1.5
	2	-	-	-	5.00
	3	-	-	-	-
110	1	0.5	0.6	0.37	0.25
220	1	0.25	0.12	0.07	0.05

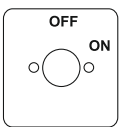
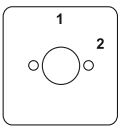
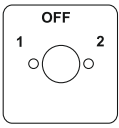
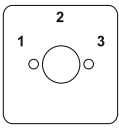
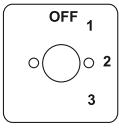
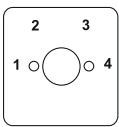
ELECTRICAL RATING : Rated Thermal Current : 25A DC. Rated Insulation Voltage: 250 VDC.

Mechanical Life : Upto 50,000 cycles of operations.

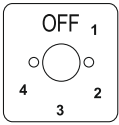
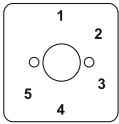
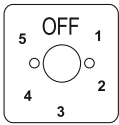
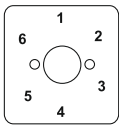
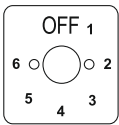
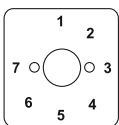
DC Breaking capacity : For 10,000 operations, ratings are given in the table below :

Voltage	No. of contacts in series	Resistive	Inductive 10 M.Sec	Inductive 20 M.Sec	Inductive 40 M.Sec
50	1	20	20	15*	6
110	1	3	2.5	1.5*	1
220	1	1	0.5	0.3	0.2

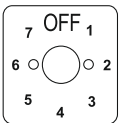
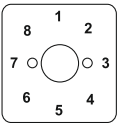
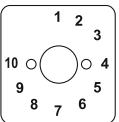
STANDARD CAM SWITCHES

CODE	DESCRIPTION	POLES	6 Amps.	10 Amps.	6 Amps.		12 Amps.		25 Amps.		
			Type for AC	Type for AC	Type for DC	'Y' Dimn.	Type For AC	'Y' Dimn.	Type for AC	Type for DC	'Y' Dimn.
O	ON OFF 2 Position 60° 	1	1R16O	1S16O	1TD 16O	33	1T16O	33	1V16O	1MD 16O	19
		2	1R26O	1S26O	1TD 26O	33	1T26O	33	1V26O	1MD 26O	19
		3	2R36O	2S36O	2TD 36O	43	2T36O	43	2V36O	2MD 36O	32
		4	2R46O	2S46O	2TD 46O	43	2T46O	43	2V46O	2MD 46O	32
B	2 Way NO OFF 2 Position 60° 	1	1R16B	1S16B	1TD 16B	33	1T16B	33	1V16B	1MD 16B	19
		2	2R26B	2S26B	2TD 26B	43	2T26B	43	2V26B	2MD 26B	32
		3	3R36B	3S36B	3TD 36B	52	3T36B	52	3V36B	3MD 36B	45
		4	4R46B	4S46B	4TD 46B	62	4T46B	62	4V46B	4MD 46B	58
BO	2 Way with OFF 3 Position 60° 	1	1R16BO	1S16BO	1TD 16BO	33	1T16BO	33	1V16BO	1MD 16BO	19
		2	2R26BO	2S26BO	2TD 26BO	43	2T26BO	43	2V26BO	2MD 26BO	32
		3	3R36BO	3S36BO	3TD 36BO	52	3T36BO	52	3V36BO	3MD 36BO	45
		4	4R46BO	4S46BO	4TD 46BO	62	4T46BO	62	4V46BO	4MD 46BO	58
C	3 Way NO OFF 3 Position 60° 	1	2R16C	2S16C	2TD 16C	43	2T16C	43	2V16C	2MD 16C	32
		2	3R26C	3S26C	3TD 26C	52	3T26C	52	3V26C	3MD 26C	45
		3	5R36C	5S36C	5TD 36C	71	5T36C	71	5V36C	5MD 36C	71
		4	6R46C	6S46C	6TD 46C	81	6T46C	81	6V46C	6MD 46C	84
CO	3 Way with OFF 4 Position 45° 	1	2R14CO	2S14CO	2TD 14CO	43	2T14CO	43	2V14CO	2MD 14CO	32
		2	3R24CO	3S24CO	3TD 24CO	52	3T24CO	52	3V24CO	3MD 24CO	45
		3	5R34CO	5S34CO	5TD 34CO	71	5T34CO	71	5V34CO	5MD 34CO	71
		4	6R44CO	6S44CO	6TD 44CO	81	6T44CO	81	6V44CO	6MD 44CO	84
D	4 Way NO OFF 4 Position 60° 	1	2R16D	2S16D	2TD 16D	43	2T16D	43	2V16D	2MD 16D	32
		2	4R26D	4S26D	4TD 26D	62	4T26D	62	4V26D	4MD 26D	58
		3	6R36D	6S36D	6TD 36D	81	6T36D	81	6V36D	6MD 36D	84
		4	8R46D	8S46D	8TD 46D	100	8T46D	100	8V46D	8MD 46D	110

STANDARD CAM SWITCHES

CODE	DESCRIPTION	POLES	10 Amps.	6 Amps.	12 Amps.		25 Amps.			
			Type for AC	Type for DC	'Y' Dimn.	Type for AC	'Y' Dimn.	Type for AC	Type for DC	'Y' Dimn.
DO	4 Way with OFF 5 Position 60° 	1	3S16DO	3TD 16DO	52	3T16DO	52	3V16DO	3MD 16DO	45
		2	5S26DO	5TD 26DO	71	5T26DO	71	5V26DO	5MD 26DO	71
		3	8S36DO	8TD 36DO	100	8T36DO	100	8V36DO	8MD 36DO	110
		4	10S46DO	10TD 46DO	119	10T46DO	119	10V46DO	10MD 46DO	136
E	5 Way NO OFF 5 Position 60° 	1	3S16E	3TD 16E	52	3T16E	52	3V16E	3MD 16E	45
		2	5S26E	5TD 26E	71	5T26E	71	5V26E	5MD 26E	71
		3	8S36E	8TD 36E	100	8T36E	100	8V36E	8MD 36E	110
		4	10S46E	10TD 46E	119	10T46E	119	10V46E	10MD 46E	136
EO	5 Way with OFF 6 Position 60° 	1	3S16EO	3TD 16EO	52	3T6EO	52	3V16EO	3MD 16EO	45
		2	6S26EO	6TD 26EO	81	6T26EO	81	5V26EO	6MD 26EO	71
		3	9S36EO	9TD 36EO	109	9T36EO	109	8V36EO	9MD 36EO	110
		4	12S46EO	12TD 46EO	138	12T46EO	138	12V46EO	12MD 46EO	162
F	6 Way NO OFF 6 Position 60° 	1	3S16F	3TD 16F	52	3T16F	52	3V16F	3MD 16F	45
		2	6S26F	6TD 26F	81	6T26F	81	6V26F	6MD 26F	84
		3	9S36F	9TD 36F	109	9T36F	109	9V36F	9MD 36F	123
		4	12S46F	12TD 46F	138	12T46F	138	12V46F	12MD 46F	162
FO	6 Way with OFF 7 Position 45° 	1	4S14FO	4TD 14FO	62	4T14FO	62	4V14FO	4MD 14FO	58
		2	7S24FO	7TD 24FO	90	7T24FO	90	7V24FO	7MD 24FO	97
		3	11S34FO	11TD 34FO	128	11T34FO	128	11V34FO	11MD 34FO	149
G	7 Way NO OFF 7 Position 45° 	1	4S14G	4TD 14G	62	4T14G	62	4V14G	4MD 14G	58
		2	7S24G	7TD 24G	90	7T24G	90	7V24G	7MD 24G	97
		3	11S34G	11TD 34G	128	11T34G	128	11V34G	11MD 34G	149

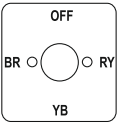
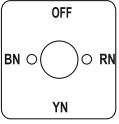
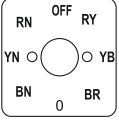
STANDARD CAM SWITCHES

CODE	DESCRIPTION	POLES	10 Amps.	6 Amps.	12 Amps.		25 Amps.			
			Type for AC	Type for DC	'Y' Dimn.	Type for AC	'Y' Dimn.	Type for AC	Type for DC	'Y' Dimn.
GO	7 Way with OFF	1	4S14GO	4TD 14GO	62	4T14GO	62	4V14GO	4MD 14GO	58
	8 Position 45°	2	8S24GO	8TD 24GO	100	8T24GO	100	8V24GO	8MD 24GO	110
		3	12S34GO	12TD 34GO	138	12T34GO	138	12V34GO	12MD 34GO	162
H	8 Way NO OFF	1	4S14H	4TD 14H	62	4T14H	62	4V14H	4MD 14H	58
	8 Position 45°	2	8S24H	8TD 24H	100	8T24H	100	8V24H	8MD 24H	110
		3	12S34H	12TD 34H	138	12T34H	138	12V34H	12MD 34	162
HO	8 Way with OFF	1	5S13HO	5TD 13HO	71	5T13HO	71	5V13HO	5MD 13HO	7
	9 Position 30°	2	10S23HO	10TD 23HO	119	10T23HO	119	10V23HO	10MD 23HO	136
J	9 Way NO OFF	1	5S13J	5TD 13J	71	5T13J	71	5V13J	5MD 13J	71
	9 Position 30°	2	9S23J	9TD 23J	109	9T23J	109	9V23J	9MD 23J	123
JO	9 Way with OFF	1	5S13JO	5TD 13JO	71	5T13JO	71	5V13JO	5MD 13JO	71
	10 Position 30°	2	10S23JO	10TD 23JO	119	10T23JO	119	10V23JO	10MD 23JO	136
K	10 Way NO OFF	1	5S13K	5TD 13K	71	5T13K	71	5V13K	5MD 13K	71
	10 Position 30°	2	10S23K	10TD 23K	119	10T23K	119	10V23K	10MD 23K	136
										

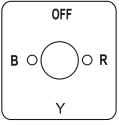
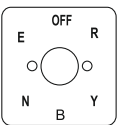
STANDARD CAM SWITCHES

CODE	DESCRIPTION	POLES	10 Amps.	6 Amps.	12 Amps.		25 Amps.			
			Type for AC	Type for DC	'Y' Dimn.	Type for AC	'Y' Dimn.	Type for AC	Type for DC	'Y' Dimn.
KO	10 Way with OFF	1	6S13KO	6TD 13KO	81	6T13KO	81	6V13KO	6MD 13KO	84
	11 Position 30°	2	11S23KO	11TD 23KO	128	11T23KO	128	11V23KO	11MD 23KO	149
L	11 Way NO OFF	1	6S13L	6TD 13L	81	6T13L	81	6V13L	6MD 13L	84
	11 Position 30°	2	11S23L	11TD 23L	128	11T23L	128	11V23L	11MD 23L	149
LO	11 Way with OFF	1	6S13LO	6TD 13LO	81	6T13LO	81	6V13LO	6MD 13LO	84
	12 Position 30°	2	12S23LO	12TD 23LO	138	12T23LO	138	12V23LO	12MD 23LO	162
M	12 Way NO OFF	1	6S13M	6TD 13M	81	6T13M	81	6V13M	6MD 13M	84
	12 Position 30°	2	12S23M	12TD 23M	138	12T23M	138	12V23M	12MD 23M	162
RO	REVERSING with OFF	2	2S26RO	2TD 26RO	42	2T26RO	42			
	3 Position 60°	3	3S36RO	3TD 36RO	52	3T36RO	52			

INSTRUMENTS SWITCHES VOLTMETER SELECTOR

Code	Description	6 Amps	10 Amps		12 Amps	
		Type	Type	'Y' Dimn.	Type	'Y' Dimn.
VP	 <p>Voltage between phases with OFF 4 Position 90°</p>	3R39VP	3S39VP	52	3T39VP	52
VN	 <p>Voltage between phases and Neutral with OFF 4 Position 90°</p>	3R49VN	3S49VN	52	3T49VN	52
VPN	 <p>Voltage between phases and each Phase and Neutral with OFF 8 Position 45°</p>	4R44VPN	4S44VPN	62	4T44VPN	62

AMMETER SELECTOR

AP	 <p>Current in each phase with OFF 4 Position 90°</p>	4R39AP	4S39AP	62	4T39AP	62
APN	 <p>Current in each phase neutral and leakage with OFF 3 Position 60°</p>	6R56APN	6S56APN	81	6T56APN	81

MOTOR CONTROL SWITCHES

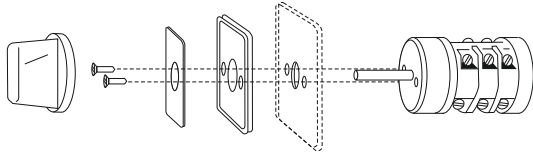
	Application	Type	Indicating Plate Marking	No. of Position	Angle of throw	No. Of Packets	'Y' Dimn.
1.	ON OFF	2M6OB	OFF ON OFF	2	60°	2	32
2.	Reversing	3M6KB	1-OFF-1	3	60°	3	45
3.	Star / Delta	4M6SDB	0-●-⊕-	3	60°	4	58
4.	Two Speed Pole Changing						
	a. Separate Windings	3M6PCB	0-1-2	3	60°	3	45
	b. Dahlander Windings	4M6PCB	0-1-2	3	60°	4	58
	c. Reversing	7M4PCKB	2-1-0-1-2	5	45°	7	97
5.	System Selector	3M6CB	1-0-2	3	60°	3	45

Motor Control Switches having disc built-up upto 4 disc can be supplied in sheet steel enclosure.

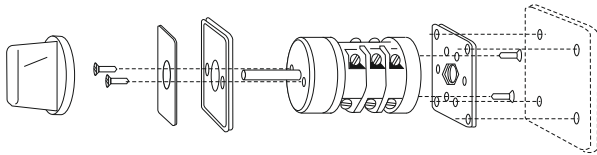
10-12 Amp.

**MOUNTING DETAILS
 (EXPLODED VIEW)**

PANEL MOUNTING



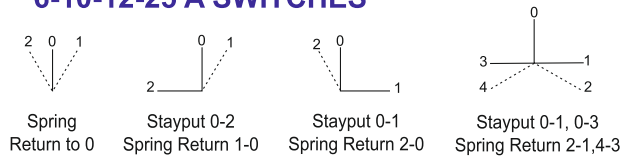
BASE MOUNTING



**SWITCHING ANGLES OF
 SPRING RETURN**

Angle of Throw Stayput Position 90°
 Spring Return Position 30°

6-10-12-25 A SWITCHES



6-10-12 A SWITCHES



Note : 10-12 Amp cam switches with spring return can be offered up to 3 packets.

25 Amp

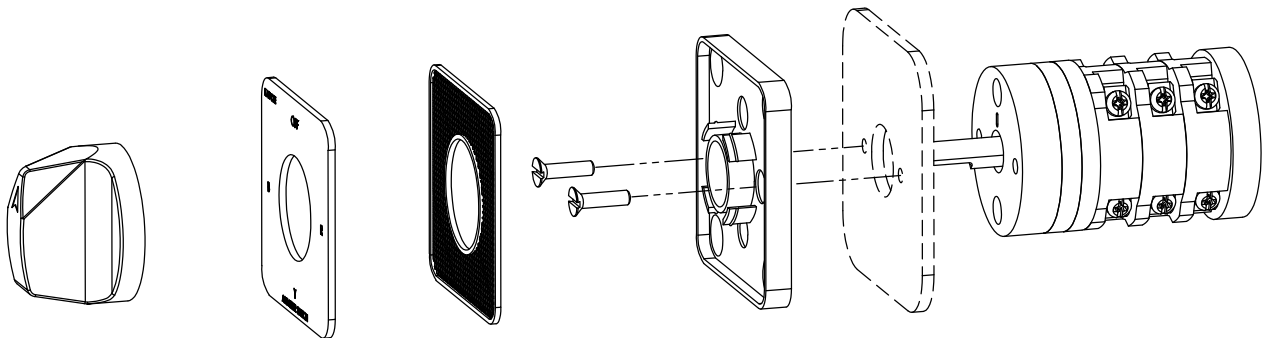


1) Handle

The switch is supplied with a choice of three handles - Wing type and ball type and Pitol grip type - (as illustrate) Which has a predetermined position with respect to the spindle fix the handle by means of a screw provided with the switch.

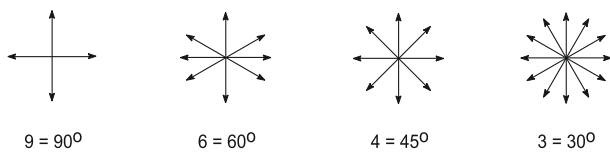
2. Switch Mounting with indicating plate

The Switch is provided with 4 M4 CSK head screws - Background Plate - indicating plate - 2 - No 4 self tapping screws handle. Mount the switch from the back of the panel with 4-M4 CSK head screws. Fix the indicating plate over the escutcheon plate with 2 No 4x8 self tapping screws and replace the handle as shown.

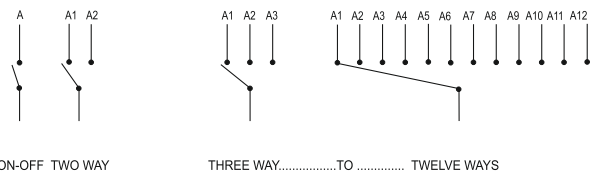


10-12-25 Amp

SWITCHING ANGLES



**TYPICAL SCHEMATIC DIAGRAMS
 (SINGLE POLE)**

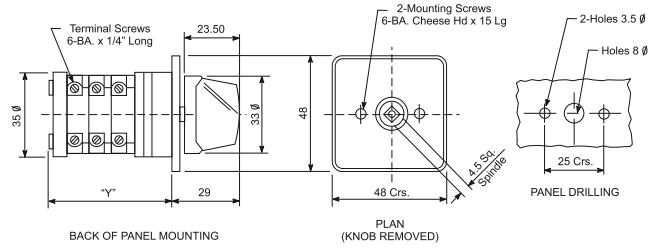


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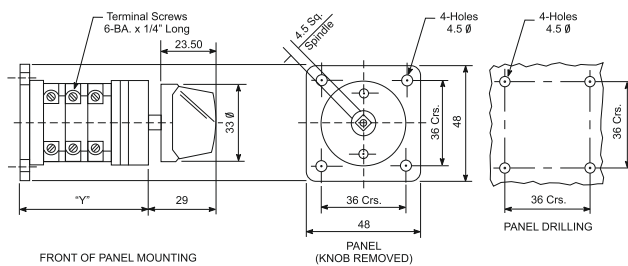
(All in mm.)

6/12 Amp. Cam Switch

No. OF DISCS	DIM "Y"
1	33
2	43
3	52
4	62
5	71
6	81
7	90
8	100
9	109
10	119
11	128
12	138



No. OF DISCS	DIM "Y"
1	36
2	46
3	55
4	65
5	74
6	84
7	93
8	103
9	112
10	122
11	131
12	141



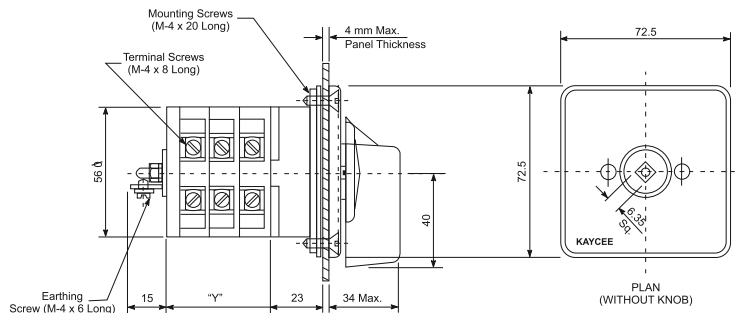
GENERAL TOLERANCES	
Full Figure	± 1
Up to 1st Decimal	± 0.5
Up to 2nd Decimal	± 0.25

Dr. No. CS-C 11037/2

DIMENSION

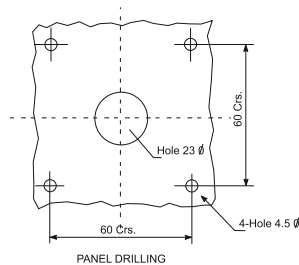
(All in mm.)

25 Amp. Cam Switch With Escutcheon Plate With Wing Type Knob



No. OF DISCS	2	3	4	5	6	7	8	ADD FOR EACH DISC
DIMENSION "Y"	32	45	58	71	84	97	110	13

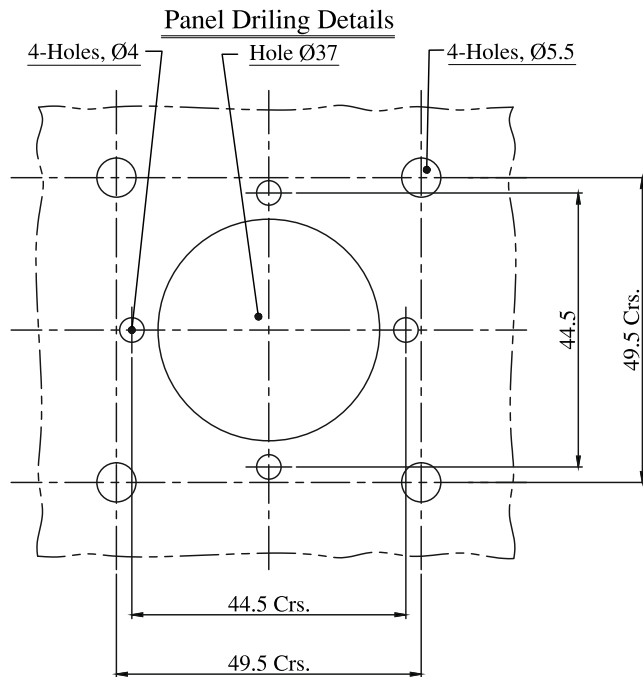
GENERAL TOLERANCES	
Full Figure	± 1
Up to 1st Decimal	± 0.5
Up to 2nd Decimal	± 0.25



Dr. No. CS-C 10067/1

DIMENSION
 (All in min.)

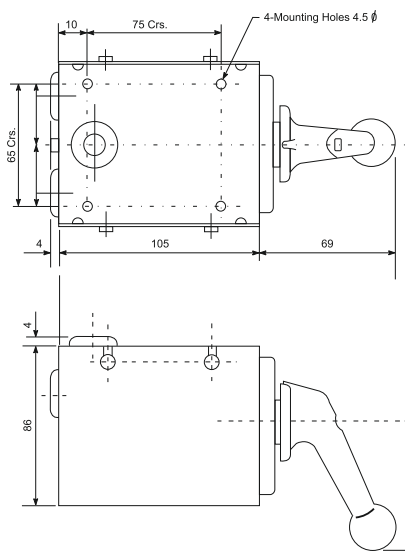
DRG.NO.-PD-005/1



CS-C.10100
 25Amp. Cam Switch With
 Centre Key Lock(LG/TG)

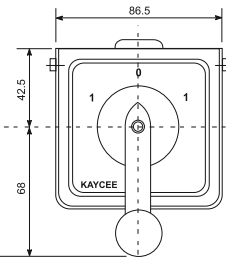
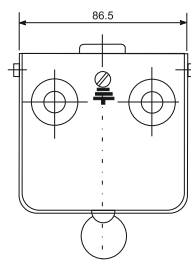
DIMENSION
 (All in mm.)

**25 Amp. Cam Switch
 With Enclosure
 (Only up to 4 Disc switch)**



Drg. No. CS-C 10049

GENERAL TOLERANCES	
Full Figure	± 1
Up to 1st Decimal	± 0.5
Up to 2nd Decimal	± 0.25



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