

CAM SWITCHES

T Series / G Series / R Series

T Series

12-40 A

Model **RY**/BY
Model **RK**/BK
Model **RM**/BM
Model **RT**/BT
Model **RP**/BP
Model **RQ**/BQ

G Series

12-630 A

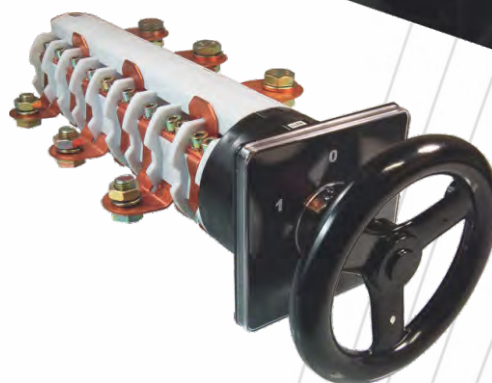
Model **GL**
Model **DI**
Model **LK**
Model **IK**
Model **TL**
Model **LL1**
Model **KS**
Model **CO**

R Series

12-25 A

Model **RY**/BY
Model **RK**/BK
Model **GL**
Model **LL1**
Model **TL**
Model **LK**





We recommend you to follow these simple steps to choose the best cam switch that suits your needs.

STEP 1:

Choose Series (T,G,R)

According to the General features sections (Pages 20,31 & 47), and also your general requirements and economical considerations choose your desired series.

T Series

- Current Rating from 1
- IP65 degree protection
- Highest Technical Spe
- Attractive appearance
- High variety of functio

T Series: Page 20

G Series

- Complete current rati
- Conformity with Intern
- Wide range of switch
- Made of best material
- Fast and easy installa

G Series: Page 31

R Series

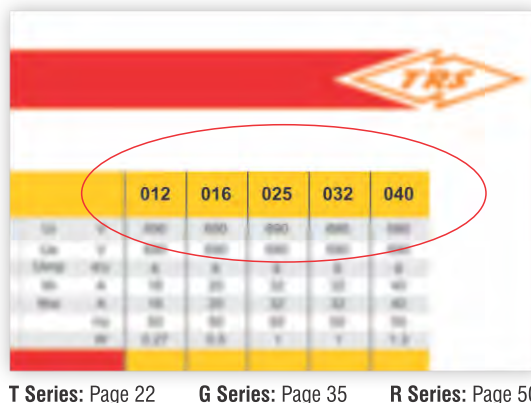
- Current rating from 12
- New rectangular desig
- IP65 protection degree
- IP20 protection degree
- Fast and easy installat

R Series: Page 47

STEP 2:

Choose the 3 Digit Amp Code

Keeping into account the load nature (resistive, inductive or mixed) and the load value and in accordance with the technical data tables (Pages 22,35 & 48) you can choose the 3 digit Amp code of the suitable switch, for instance 063 stands for 63 Amperes.

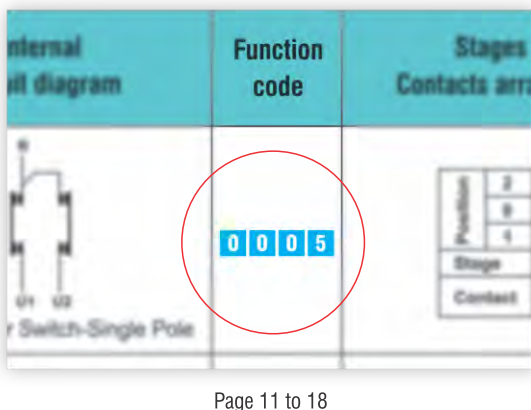


T Series: Page 22 G Series: Page 35 R Series: Page 50

STEP 3:

Choose the switch function code

Based on your requested function, number of poles and steps, external and internal connections of the cam switch, (according to pages 11 to 18) Choose the function code of your switch, which is a 4 character code. For instance 0010 stands for 3 pole Stardelta switch.

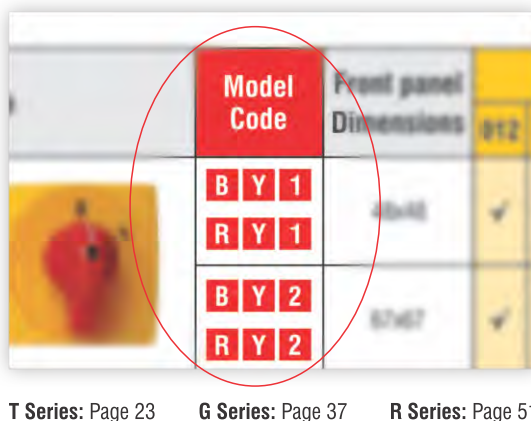


Page 11 to 18

STEP 4:

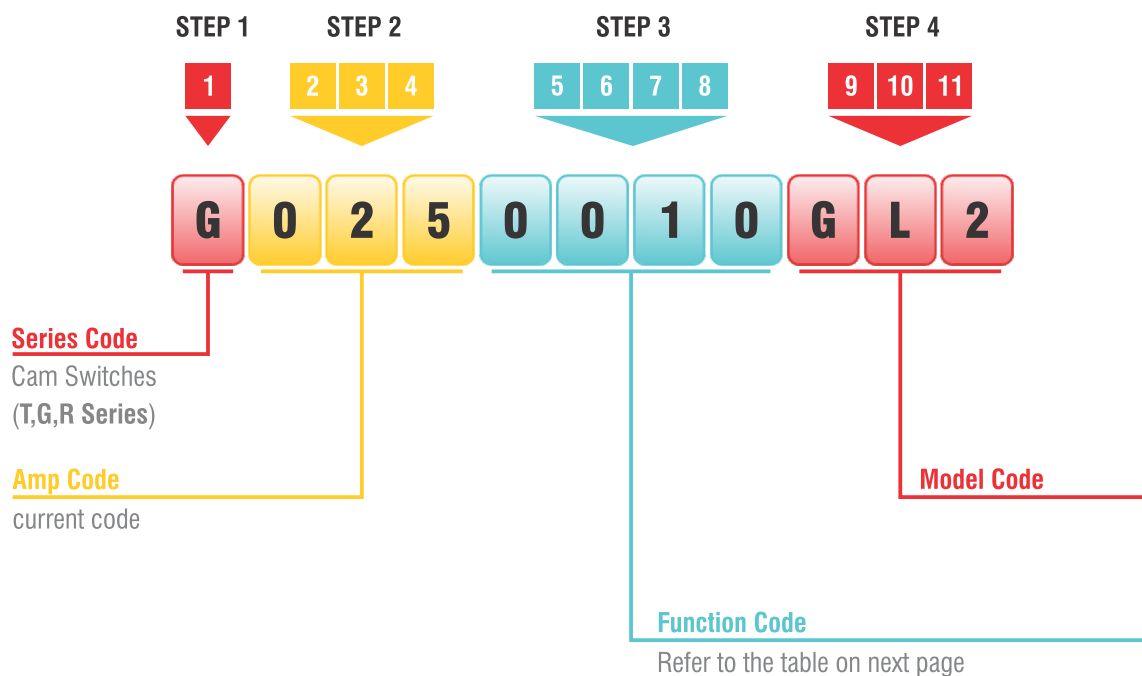
Choose the model code

Finally according to the mounting method of the switch (front mounting, surface mounting, interlocking with panel's door or enclosure), required degree of protection (IP), type and color of plate and knob, choose the appropriate version of the switch this is a 3 character code which is shown in Model selection tables and in the page of each model.



T Series: Page 23 G Series: Page 37 R Series: Page 51

Each Cam switch is defined using a unique 11 digit code:



Example:

part number **G.025.0010.GL2** stands for G series Three poles 25A star-delta switch with black plate & knob in 75x75 mm size.

Note:

If your requested switch function is not present on the common functions table on pages 11 to 18 or you would like to fully configure your cam switch, you may order a custom made cam switch using our special ordering forms designed for this purpose on pages 60 & 61. TRS Co. is always ready to manufacture your special orders. TRS Co. factory has over 5000 custom made cam switch designed in its archives.

Rotary Cam Switches can be offered in a wide variety of functions. The most commonly used functions are introduced in the following table.

On each row one function is described, rotation angle, internal circuit diagram, function code, number of stages and contacts, terminal symbols are illustrated.

If your desired function is not present on this list, please refer to the customized switch ordering forms on pages (60 & 61). Our tech dept. will always be ready to assist customers regarding their desired products.

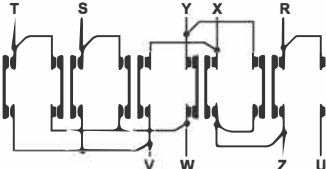
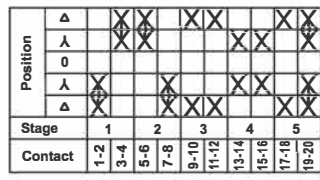
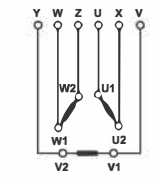
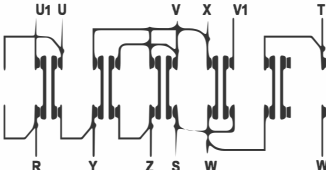
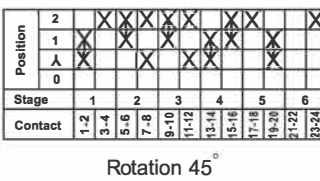
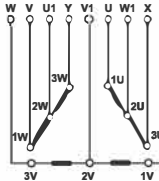
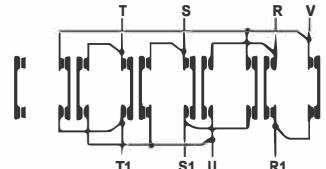
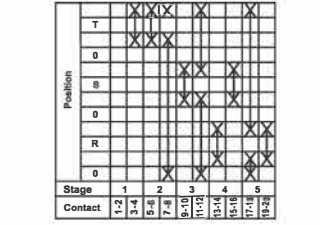
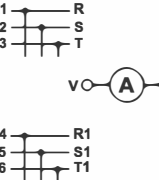
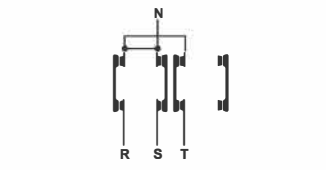
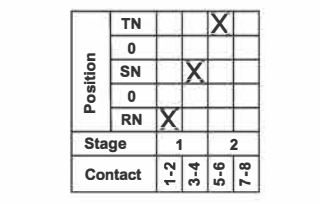
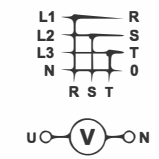
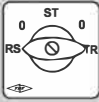
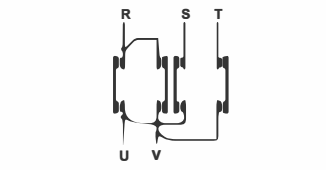
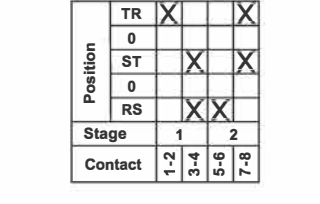
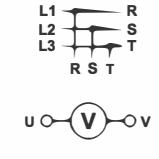
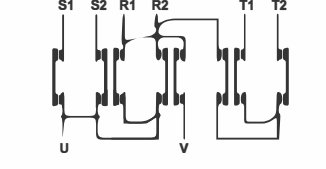
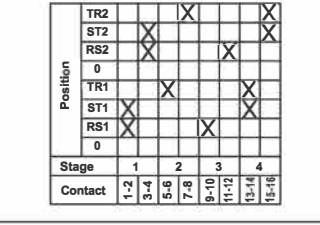
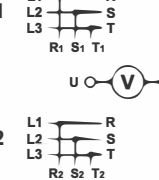
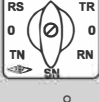
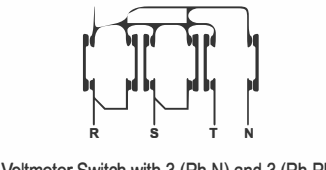
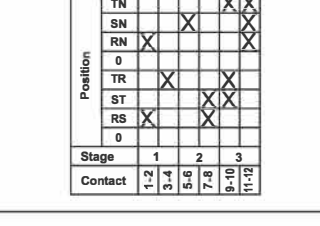
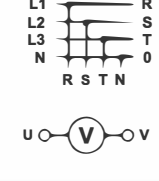
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Cam Switch Functions Code Table



Cam Switches

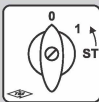
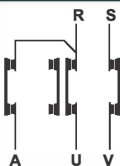
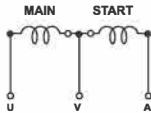
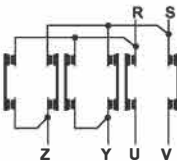
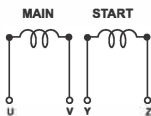
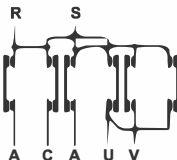
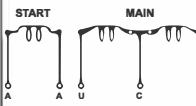
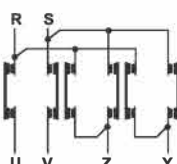
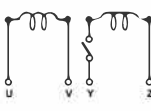
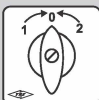
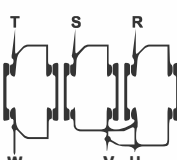
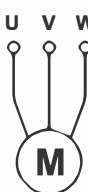
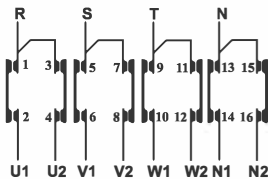
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Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3 R S T
0 0 1 2	 45°	 Reversing Switch with Δ - Δ Starter		
0 0 1 3	 45°	 Pole Changing with Δ - Δ Starter	 Rotation 45°	
0 0 1 4	 60°	 Ammeter Switch for direct measurement (Without CT)		
0 0 1 5	 45°	 Voltmeter Switch with 3 (Ph-N)+off position		
0 0 1 6	 45°	 Voltmeter Switch with 3 (Ph-Ph)+off position		
0 0 1 7	 45°	 Voltmeter Switch with 3 (Ph-Ph)+off position for 2 systems		
0 0 1 8	 45°	 Voltmeter Switch with 3 (Ph-N) and 3 (Ph-Ph)+off position		

Cam Switch Functions Code Table



Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	
0019	 45°	 Voltmeter Switch with 3 (Ph-Ph) and 1 (Ph-N) +off position		 U V
0020	 90°	 Single Pole Ammeter Switch-1CT		 1 3
0021	 90°	 Single Pole Ammeter Switch-2CT		 6 4
0022	 90°	 Single Pole Ammeter Switch-3CT		 11 9
0023	 90°	 Single Pole Ammeter Switch-4CT		 13 5
0029	 45°	 Change-Over Switch contactor with self return A to M		 L1/R START L2/S 1 2
0030	 45°	 Reversing Change-Over Switch contactor with self return A to M		 L1/R L2/S ST 1 2 3 4

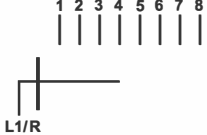
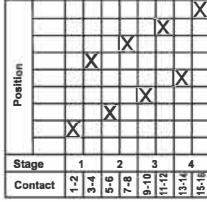
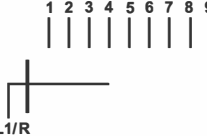
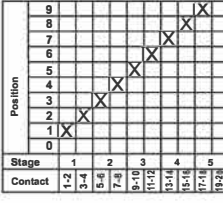
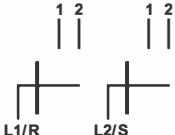
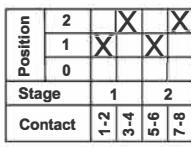
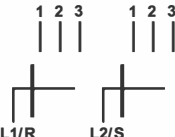
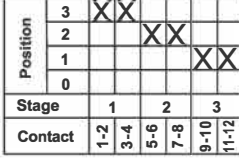
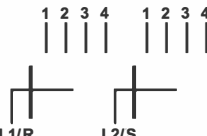
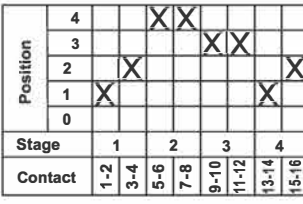
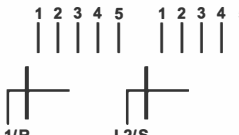
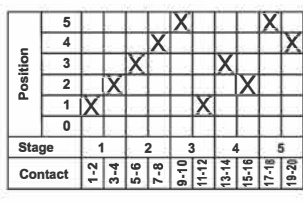
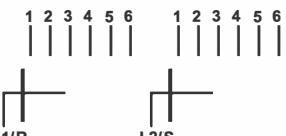
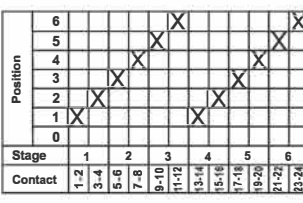
Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3	R S T																																						
0 0 3 1	 45°	 Starter for Single phase motor with Auxiliary phase	<table><tr><td rowspan="3">Position</td><td>ST</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>1</td><td></td><td></td><td></td><td></td></tr><tr><td>0</td><td></td><td></td><td></td><td></td></tr><tr><td>Stage</td><td></td><td>1</td><td>2</td><td></td><td></td></tr><tr><td>Contact</td><td></td><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	Position	ST	X	X	X	X	1					0					Stage		1	2			Contact		1-2	3-4	5-6	7-8												
Position	ST	X	X		X	X																																					
	1																																										
	0																																										
Stage		1	2																																								
Contact		1-2	3-4	5-6	7-8																																						
0 0 3 2	 45°	 Reversing Starter for Single phase motor with Auxiliary phase	<table><tr><td rowspan="4">Position</td><td>ST</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>2</td><td></td><td></td><td></td><td></td></tr><tr><td>0</td><td></td><td></td><td></td><td></td></tr><tr><td>1</td><td></td><td></td><td></td><td></td></tr><tr><td>ST</td><td>X</td><td></td><td></td><td></td><td></td></tr><tr><td>Stage</td><td></td><td>1</td><td>2</td><td>3</td><td></td></tr><tr><td>Contact</td><td></td><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	Position	ST	X	X	X	X	2					0					1					ST	X					Stage		1	2	3		Contact		1-2	3-4	5-6	7-8	
Position	ST	X	X		X	X																																					
	2																																										
	0																																										
	1																																										
ST	X																																										
Stage		1	2	3																																							
Contact		1-2	3-4	5-6	7-8																																						
0 0 3 3	 45°	 Pole changing switch for Single phase motor with Auxiliary phase, to start on the first speed	<table><tr><td rowspan="4">Position</td><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td><td></td></tr><tr><td>1</td><td>X</td><td></td><td></td><td></td></tr><tr><td>ST</td><td>X</td><td></td><td></td><td></td></tr><tr><td>Stage</td><td></td><td>1</td><td>2</td><td>3</td><td></td></tr><tr><td>Contact</td><td></td><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	Position	2	X	X	X	X	0					1	X				ST	X				Stage		1	2	3		Contact		1-2	3-4	5-6	7-8							
Position	2	X	X		X	X																																					
	0																																										
	1	X																																									
	ST	X																																									
Stage		1	2	3																																							
Contact		1-2	3-4	5-6	7-8																																						
0 0 3 4	 45°	 Reversing Switch for single phase motor	<table><tr><td rowspan="4">Position</td><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td><td></td></tr><tr><td>1</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>ST</td><td>X</td><td></td><td></td><td></td></tr><tr><td>Stage</td><td></td><td>1</td><td>2</td><td>3</td><td></td></tr><tr><td>Contact</td><td></td><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	Position	2	X	X	X	X	0					1	X	X	X	X	ST	X				Stage		1	2	3		Contact		1-2	3-4	5-6	7-8							
Position	2	X	X		X	X																																					
	0																																										
	1	X	X		X	X																																					
	ST	X																																									
Stage		1	2	3																																							
Contact		1-2	3-4	5-6	7-8																																						
0 0 3 5	 45°	 Three pole Switch with self return	<table><tr><td rowspan="3">Position</td><td>1</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Stage</td><td></td><td>1</td><td>2</td><td></td><td></td></tr><tr><td>Contact</td><td></td><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	Position	1	X	X	X	X	0										Stage		1	2			Contact		1-2	3-4	5-6	7-8												
Position	1	X	X		X	X																																					
	0																																										
Stage		1	2																																								
Contact		1-2	3-4	5-6	7-8																																						
0 0 3 6	 45°	 Reversing Switch for with self return	<table><tr><td rowspan="4">Position</td><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td><td></td></tr><tr><td>1</td><td>X</td><td></td><td></td><td></td></tr><tr><td>ST</td><td>X</td><td></td><td></td><td></td></tr><tr><td>Stage</td><td></td><td>1</td><td>2</td><td>3</td><td></td></tr><tr><td>Contact</td><td></td><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	Position	2	X	X	X	X	0					1	X				ST	X				Stage		1	2	3		Contact		1-2	3-4	5-6	7-8							
Position	2	X	X		X	X																																					
	0																																										
	1	X																																									
	ST	X																																									
Stage		1	2	3																																							
Contact		1-2	3-4	5-6	7-8																																						
0 0 3 9	 60°	 Change-Over Switch - 4 Poles	<table><tr><td rowspan="4">Position</td><td>2</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>0</td><td></td><td></td><td></td><td></td></tr><tr><td>1</td><td>X</td><td>X</td><td>X</td><td>X</td></tr><tr><td>ST</td><td>X</td><td></td><td></td><td></td></tr><tr><td>Stage</td><td></td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>Contact</td><td></td><td>1-2</td><td>3-4</td><td>5-6</td><td>7-8</td></tr></table>	Position	2	X	X	X	X	0					1	X	X	X	X	ST	X				Stage		1	2	3	4	Contact		1-2	3-4	5-6	7-8							
Position	2	X	X		X	X																																					
	0																																										
	1	X	X		X	X																																					
	ST	X																																									
Stage		1	2	3	4																																						
Contact		1-2	3-4	5-6	7-8																																						

Cam Switch Functions Code Table



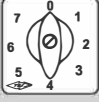
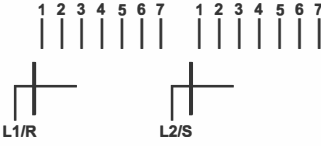
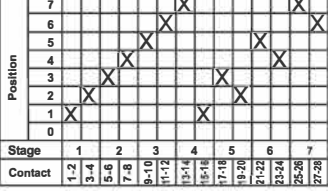
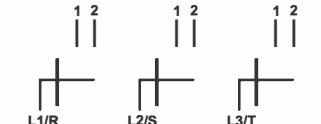
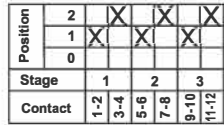
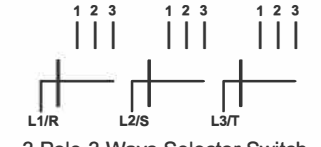
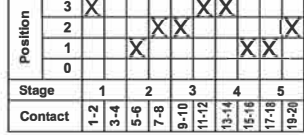
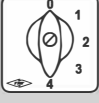
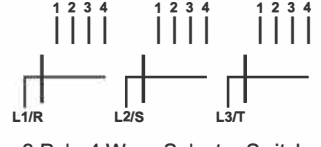
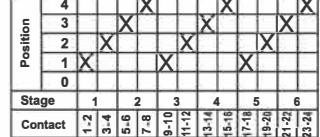
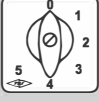
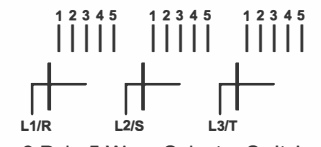
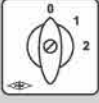
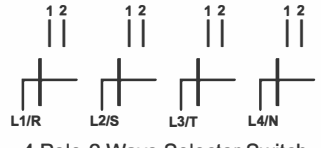
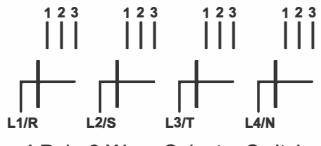
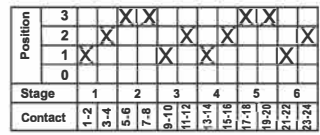
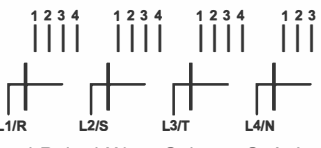
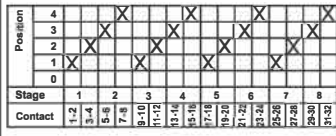
Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	
0 0 6 0	 90°	 Ammeter Voltmeter		
M Z 1 2 *	 45°	 1 Pole-2 Ways Selector Switch With "0" position		
M Z 1 3	 45°	 1 Pole-3 Ways Selector Switch With "0" position		
M Z 1 4	 45°	 1 Pole-4 Ways Selector Switch With "0" position		
M Z 1 5	 45°	 1 Pole-5 Ways Selector Switch With "0" position		
M Z 1 6	 45°	 1 Pole-6 Ways Selector Switch With "0" position		
M Z 1 7	 45°	 1 Pole-7 Ways Selector Switch With "0" position		

*. Function codes beginning with "MZ" start at "0" position. If you change "MZ" to "MN" The positions will start from "1"

Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3
M Z 1 8	 30°	 1 Pole-8 Ways Selector Switch With "0" position		
M Z 1 9	 30°	 1 Pole-9 Ways Selector Switch With "0" position		
M Z 2 2	 45°	 2 Pole-2 Ways Selector Switch With "0" position		
M Z 2 3	 45°	 2 Pole-3 Ways Selector Switch With "0" position		
M Z 2 4	 45°	 2 Pole-4 Ways Selector Switch With "0" position		
M Z 2 5	 45°	 2 Pole-5 Ways Selector Switch With "0" position		
M Z 2 6	 45°	 2 Pole-6 Ways Selector Switch With "0" position		

Cam Switch Functions Code Table



Function code	Positions & Rotation Angles	Internal circuit diagram	Stages and Contacts arrangement	L1 L2 L3 R S T
M Z 2 7	 45°	 2 Pole-7 Ways Selector Switch With "0" position		
M Z 3 2	 45°	 3 Pole-2 Ways Selector Switch With "0" position		
M Z 3 3	 45°	 3 Pole-3 Ways Selector Switch With "0" position		
M Z 3 4	 45°	 3 Pole-4 Ways Selector Switch With "0" position		
M Z 3 5	 45°	 3 Pole-5 Ways Selector Switch With "0" position		
M Z 4 2	 45°	 4 Pole-2 Ways Selector Switch With "0" position		
M Z 4 3	 45°	 4 Pole-3 Ways Selector Switch With "0" position		
M Z 4 4	 45°	 4 Pole-4 Ways Selector Switch With "0" position		



R SERIES

Cam Switches
12-25 A



R Series



Cam Switches
R Series

- ▶ Current rating from 12 to 25 A
- ▶ New rectangular design of selected models of G & T series
- ▶ IP65 protection degree of front panel
- ▶ IP20 protection degree of terminals section
- ▶ Fast and easy installation
- ▶ High variety of functions for resistive, inductive or capacitive loads
- ▶ Made of best material, with high mechanical, electrical & thermal resistance

Model **RY** / **BY**

Model **RK** / **BK**

Model **GL**

Model **LL1**

Model **TL**

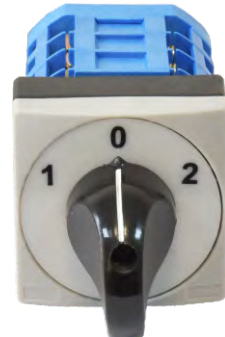
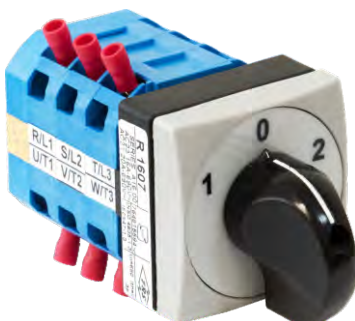
Model **LK**



Cam Switches(R Switches)

■ General features

- ▶ New rectangular design of selected models from G & T series The new design allows the connected wire terminals to be hold firmly in place and connected easily without the terminal neck being bent
- ▶ Terminal Screws have fixed serrated washers that eases the wire & terminal connection significantly
- ▶ Current rating from 12A to 25A
- ▶ IP65 protection of front panel and IP20 protection degree of terminals section
- ▶ High variety of functions for resistive, inductive or capacitive loads
- ▶ Made of best material, with high mechanical, electrical & thermal resistance
- ▶ Fast and easy installation



Technical data table

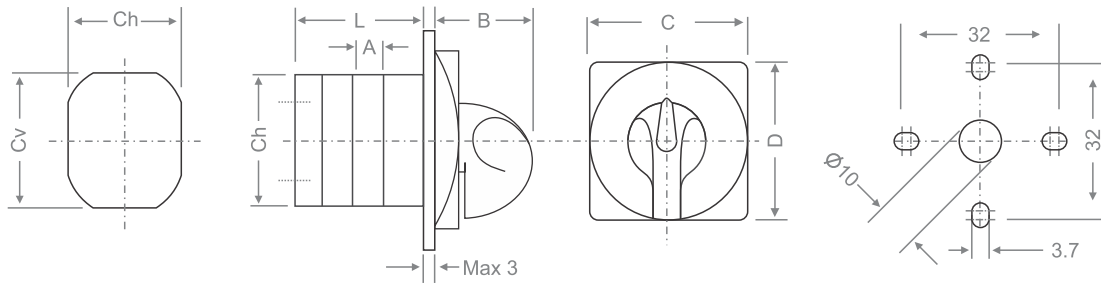


Cam Switches
R Series

Amper Code			012	016	025
Rated insulation voltage	Ui	V	690	690	690
Rated operating voltage	Ue	V	690	690	690
Rated impulse withstand voltage	Uimp	KV	6	6	6
Rated thermal current for open switch	Ith	A	16	20	32
Rated thermal current for enclosed switch	Ithe	A	16	20	32
Rated operating frequency		Hz	50	50	50
Rated dissipation for each pole		W	0.27	0.5	1
Rated operating current					
AC-21A Switching resistive loads, including moderate overloads	Ie	A	12	16	25
AC-22A Switching of mixed resistive and inductive loads, including moderate overloads	Ie	A	12	16	20
AC-20A Connecting and disconnecting under no load conditions			—	—	—
Rated operating power					
AC-23A Switching of motor loads or other highly inductive loads 3 phase-3pole	230V	Kw(A)	3(9)	4(14)	7.5(24)
	400V	Kw(A)	4(9)	7.5(14)	11(20)
	500V	Kw(A)	—	—	11(15)
	690V	Kw(A)	—	—	11(11)
AC-23A Switching of motor loads or other highly inductive loads 1 phase-2pole	110V	Kw(A)	0.75(8.5)	1.1(12)	2.2(25)
	230V	Kw(A)	1.5(8.5)	22(14)	3.7(20)
AC-3 Squirrel cage motors: Starting, switching off motors during running 3 phase-3 pole	230V	Kw(A)	22(7)	3.7(12)	5.5(17)
	400V	Kw(A)	3.5(7)	5.5(10)	9.5(16)
	500V	Kw(A)	—	—	9.5(12.5)
	690V	Kw(A)	—	—	8.5(10)
AC-3 Squirrel cage motors: Starting, switching off motors during running 1 phase-2 pole	110V	Kw(A)	0.37(4)	0.75(9)	1.5(17)
	230V	Kw(A)	1.1(6)	1.5(8)	3(17)
	400V	Kw(A)	—	—	—
AC-4 Squirrel cage motors: Starting, plugging, inching	230V	Kw(A)	—	—	22(7)
	400V	Kw(A)	—	—	3(5.5)
AC-15 Control of AC electromagnetic loads	230V	A	4	6	8
	400V	A	3	4	6
Rated breaking capability in category in AC-23A ($\cos \Phi = 0.45$)	230V	A	72	112	192
	400V	A	72	112	160
Short circuit protection					
Rated short time withstand current	Icw	A	150	240	400
Rated short-circuit make capacity	Icm	A	—	—	2000
Rated conditional short-circuit current		KA	4	4	10
With fuses class gG	500v	A	16	20	35
Protection against short circuit			NDZ	NDZ	NDZ
Maximum current rapid and Time-delay fuses for open version		A	16	20	35
Maximum current for Time-delay fuses for version in box		A	—	16	25
Rated interruption power		A	96	128	260
		Vac	418	418	660
		Cos(Φ)	0.65	0.65	0.35
Electrical life		Cyclesx10 ⁶	0.5	0.8	1
Mechanical life		Cyclesx10 ⁶	2	2	2
		Cycles/hour	120	120	120
Rated insulation voltage	UL	V	600	600	600
Rated operating voltage	UL	V	600	600	600
General Use Current	UL	A	12	16	25
Rated operating power					
1 phase - 2 pole	120V	Hp (A)	0.5	1	2
	240V	Hp (A)	1.5	2	3
3 phase - 3 pole	200V	Hp (A)	1.5	2	5
	240V	Hp (A)	2	3	5.5
	480V	Hp (A)	3	7.5	10
	600V	Hp (A)	5	7.5	15
Connections according to IEC 9471-1 AND EN 60947-1					
Connecting capability with flexible wires	Min-Max	mm ²	2x1.5-4	2x1.5-4	2x2.5-10
	Min-Max	AWG	16-10	16-10	16-8
Connecting capability with sold wires	Min-Max	mm ²	2x1.5-2.5	2x1.5-2.5	2x2.5-6
Connecting terminal screw dimensions		Type	M3.5x7	M3.5x7	M5x16
Screw tightening torque		Nm	1.0	1.0	1.7
Protection degree IEC 529 EN 60529					
Terminal		IP		00	
Ambient conditions					
Operating ambient temperature		°C		-25~+55	
Storage ambient temperature		°C		-30~+70	
Withstand to constant humid according to IEC 60068				2-78	
Withstand to cyclic humid according to IEC 60068				2-30	
Altitude		m		Max:2000m	
Humidity		Percent		Max:90%	
Pollution degree				3	
Installation Group				III	

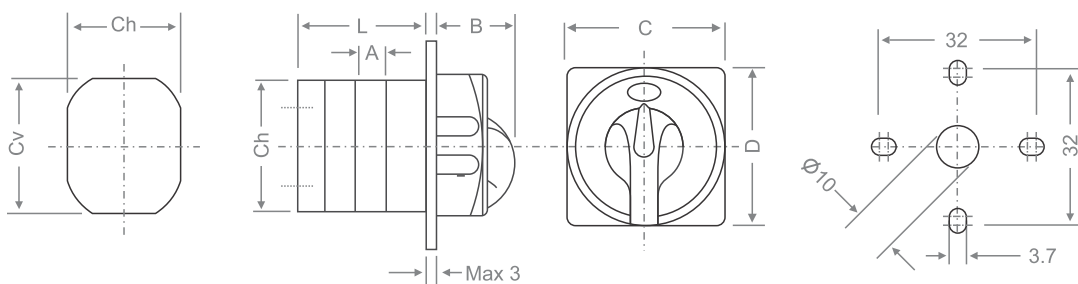
Picture	Model Code	Front panel Dimensions	Amp Code						Ref. to Page	Short Description
			0	1	2	0	1	6		
 	B Y 1 R Y 1	48x48	✓			✓			52	Ip65 General use Attractive design Front & base mounting options DIN rail mounting option (optional adapter)
	B Y 2 R Y 2	67x67	✓			✓				
 	B K 2 R K 2	67x67	✓			✓			52	All RY/BY models Specs + Lockable with a padlock
 	B K 3 R K 3	67x82	✓			✓				
 	G L 1	52x52	✓			✓			53	Ip40 General application Full amp range Front & base mounting options
	G L 2	75x75	✓			✓				
 	L L 1	52x70	✓			✓			53	Same as GL1 with protected label area on front plate
	T L 1	52x52	✓			✓			54	Same as GL1 & GL2 with a different knob design
	T L 2	75x75	✓			✓				
 	L K 2	75x75	✓			✓			54	Ip54 General application Full amp range Lockable with a padlock

RY, BY



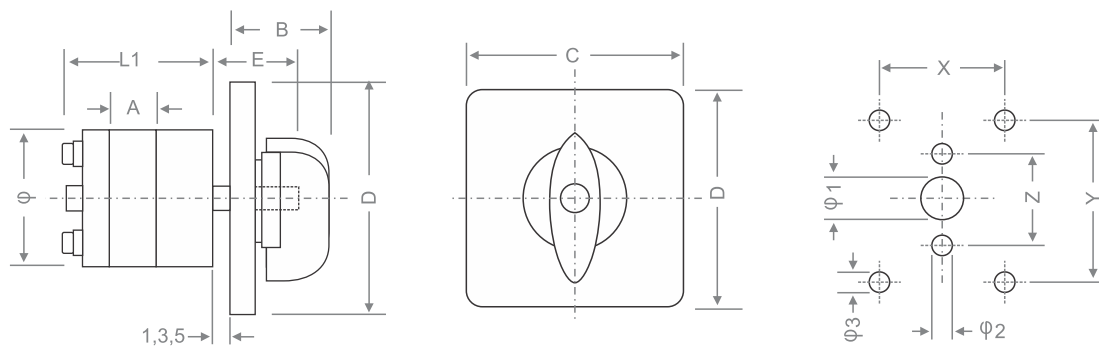
RY&BY							
Switch Amp Code	Cv	Ch	NO.Of Stages				
			1	2	3	4	5
			L				
0 1 2	47	45	37	49	61	73	85
0 1 6	47	45	37	49	61	73	85
Model Code		A	B	C	D		
R Y 1	B Y 1	12	37	48	48		
R Y 2	B Y 2	12	39	68	68		

RK, BK



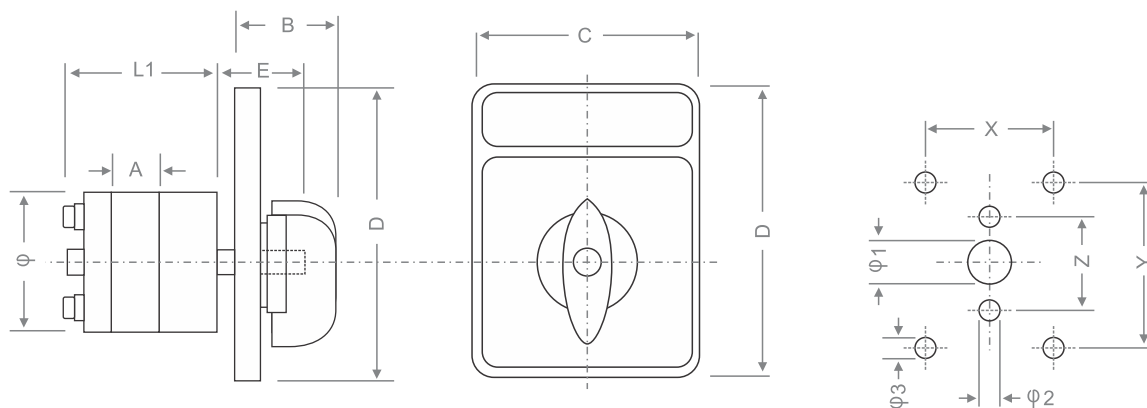
RK, BK								
Switch Amp Code	Cv	Ch	NO.Of Stages					
			1	2	3	4	5	
			L					
0 1 2	47	45	37	49	61	73	85	
0 1 6	47	45	37	49	61	73	85	
Model Code		A		B		C		D
R K 2		B K 2	12	39	68	68		
R K 3		B K 3	12	39	68	83		

■ GL



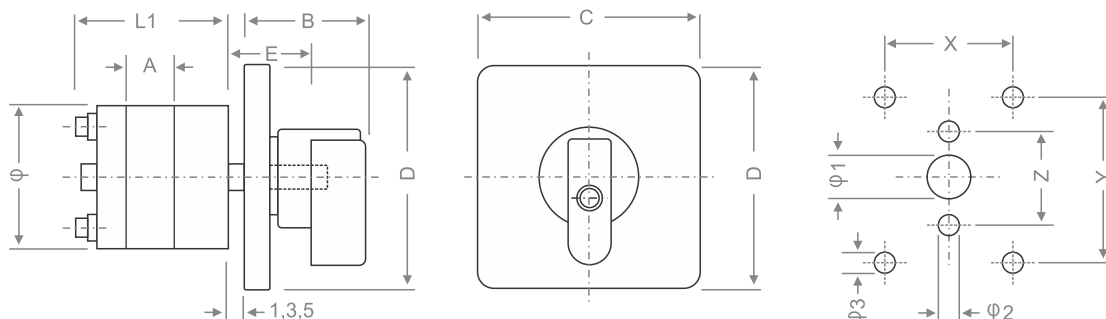
GL									
Model Code	Amp. Code	Cv	Ch	L	A	B	C	D	E
G L 1	0 1 2	47	45	37	12	30	52.5	52.5	22
	0 1 6	47	45	37	12	30	52.5	52.5	22
G L 2	0 1 2	47	45	37	12	32	75	75	22
	0 1 6	47	45	37	12	32	75	75	22

■ LL1



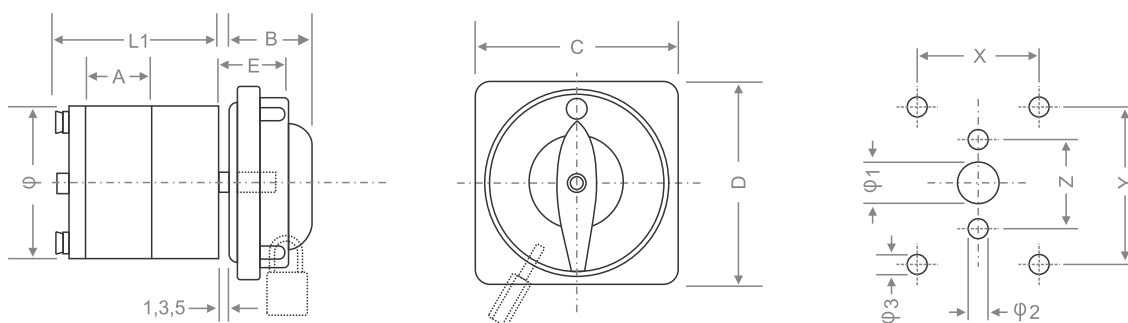
LL1									
Model Code	Amp. Code	Cv	Ch	L	A	B	C	D	E
L L 1	0 1 2	47	45	37	12	30	52.5	70.5	22
	0 1 6	47	45	37	12	30	52.5	70.5	22

TL



GL									
Model Code	Amp. Code	Cv	Ch	L	A	B	C	D	E
TL 1	0 1 2	47	45	37	12	33	52.5	52.5	22
	0 1 6	47	45	37	12	33	52.5	52.5	22
TL 2	0 1 2	47	45	37	12	34.5	75	75	26
	0 1 6	47	45	37	12	34.5	75	75	26

LK



LL1									
Model Code	Amp. Code	Cv	Ch	L	A	B	C	D	E
LK 2	0 1 2	47	45	37	12	32	75	75	21
	0 1 6	47	45	37	12	32	75	75	21