



# CST SERIES

## - CAM SWITCHES

- Complete range of cam switches for control, instrumentation and motor starting applications.
- Available for currents from 6 A to 200 A.
- Quick and easy installation.
- Compact size with many switching programs.
- Multi pole design.
- Long distance visibility.
- Touch-proof terminals with IP20 protection.

TYPES:

**CST1** - CHANGEOVER

**CST2** - MULTI-STEP

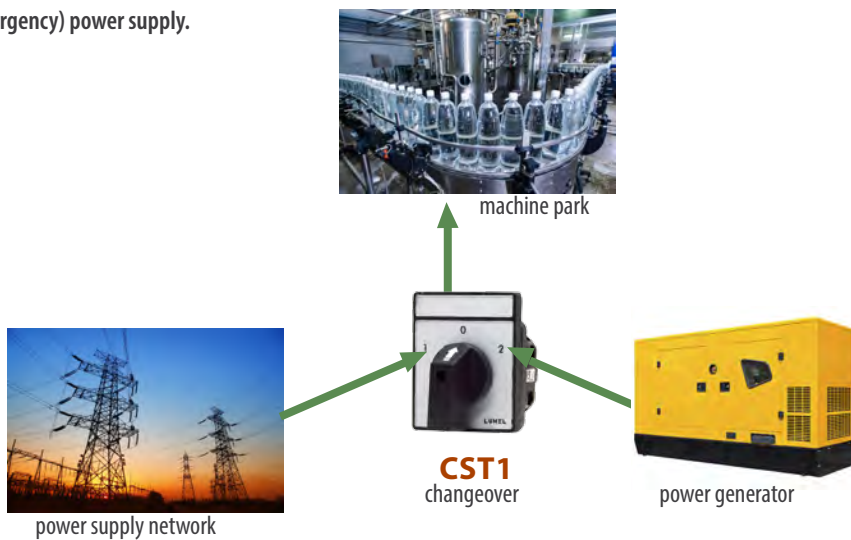
**CST3** - ISOLATOR

**CST4** - SELECTOR

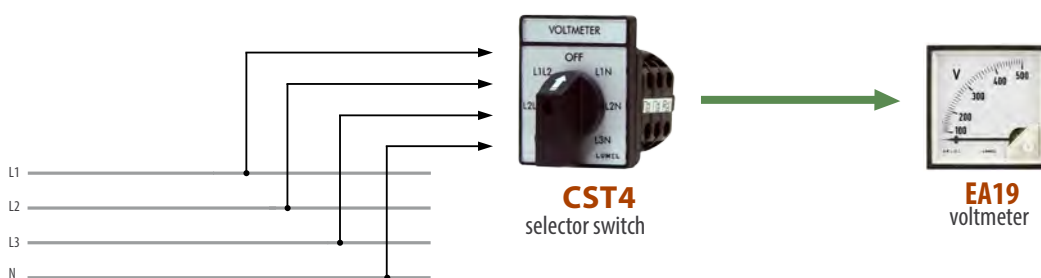


### APPLICATION EXAMPLES

Switching on the (emergency) power supply.



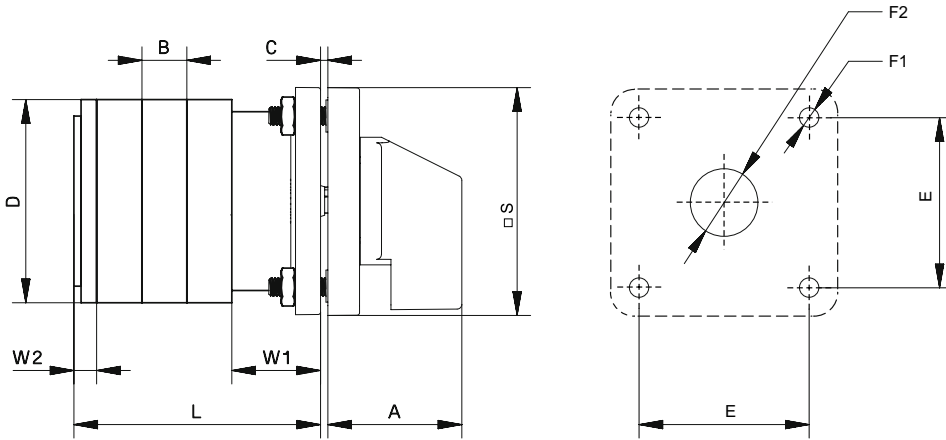
Measurement of phase and phase-to-phase voltage using only one voltmeter.



# CST1/CST2/CST3/CST4

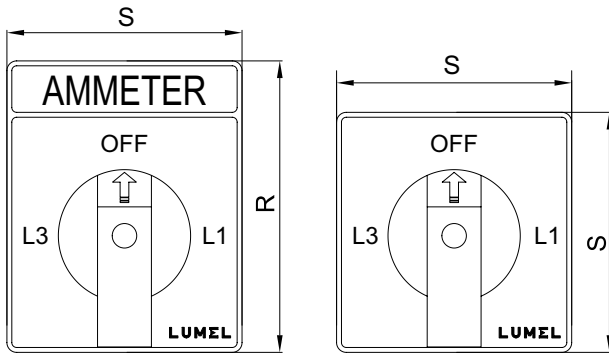
## - CAM SWITCHES

### EXTERNAL DIMENSIONS



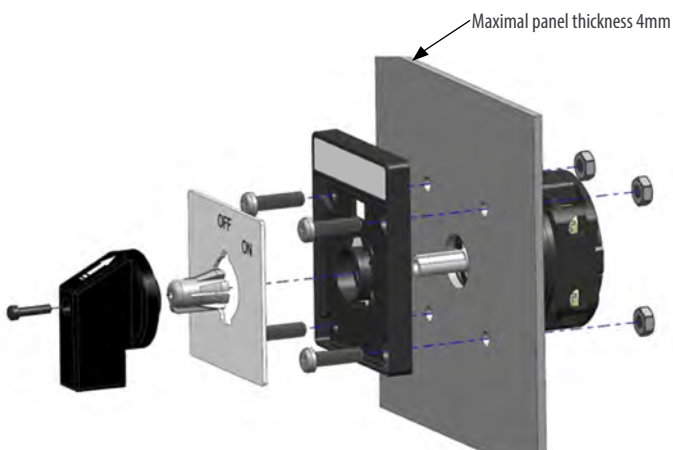
$$L = \text{No. of Stages of Prog} \times B + W1 + W2$$

Drilling plane



Type	A	B	C <sub>(max)</sub>	D	E	F1	F2	R	S	W1	W2
6 A	29 mm	9.7 mm	4 mm	32 mm	36 mm	4 mm	8 mm	48 mm	48 mm	13 mm	7 mm
10 A	29 mm	9.5 mm	4 mm	43 mm	36 mm	4 mm	7 mm	60 mm	48 mm	19 mm	5 mm
16 A	29 mm	9.5 mm	4 mm	43 mm	36 mm	4 mm	7 mm	60 mm	48 mm	19 mm	5 mm
20 A	29 mm	9.5 mm	4 mm	43 mm	36 mm	4 mm	7 mm	60 mm	48 mm	19 mm	5 mm
25 A	34 mm	14.3 mm	4 mm	53 mm	48 mm	4 mm	12 mm	64 mm	64 mm	24 mm	6.2 mm
32 A	34 mm	14.3 mm	4 mm	53 mm	48 mm	4 mm	12 mm	64 mm	64 mm	24 mm	6.2 mm
40 A	34 mm	14.3 mm	4 mm	53 mm	48 mm	4 mm	12 mm	64 mm	64 mm	24 mm	6.2 mm
63 A	34 mm	14.3 mm	4 mm	53 mm	48 mm	4 mm	12 mm	64 mm	64 mm	24 mm	6.2 mm
100 A	49 mm	29 mm	4 mm	88 mm	68 mm	5.5 mm	18 mm	88 mm	88 mm	27 mm	7 mm
200 A	49 mm	29 mm	4 mm	88 mm	68 mm	5.5 mm	18 mm	88 mm	88 mm	27 mm	7 mm

### INSTALLATION



### AC DUTY RATINGS

Class	Application
AC-1	Non-Inductive or slightly inductive loads ( $\cos\phi \geq 0,95$ ); Resistance furnaces
AC-3	Squirrel-cage motors: starting switching off motors during running
AC-15	Control of AC electromagnetic loads
AC-21-A	Switching of resistive loads, including moderate overloads (frequent switching)
AC-23-A	Switching of motor loads or other highly inductive loads (frequent switching)

# CST1/CST2/CST3/CST4 - CAM SWITCHES

## TECHNICAL DATA

PARAMETERS		UNIT	6 A	10 A	16 A	20 A	25 A	32 A	40 A	63 A	100 A	200 A
Rated operational voltage (Ue)		V	440	440	690	690	690	690	690	690	690	690
Rated insulation voltage (Ui)		V	440	440	690	690	690	690	690	690	690	690
Rated uninterupted current (Ith)		A	8	12	20	25	25	32	40	63	100	200
Rated short time withstand current (Icw)		A	72	120	192*	240*	300	384	480	756	1200	2400
Rated impulse withstand voltage (Uimp)		kV	4	4	4	4	6	6	6	6	6	6
Rated Fuse short circuit current		kA	3	3	5	5	10	10	10	10	15	25
Fuse size (Type gG/ gM)		A	6	10	16	20	25	32	50	63	100	200
The power of the receiver in terms of use												
AC23A 3 phase	220-240V	kW	1.1	1.8	3	3.7	4.7	5.5	7.5	11	22	22
	380-440V	kW	1.8	3	5.5	7.5	7.5	11	15	18.5	37	37
	500V	kW	-	-	5.5	7.5	11	15	18.5	22	45	45
	660-690V	kW	-	-	5.5	7.5	11	15	18.5	22	45	45
AC23A 1 phase	110V	kW	0.25	0.37	0.55	0.75	1.5	2.2	2.2	3	-	-
	220-240V	kW	0.5	0.75	1.5	2.2	3	3.7	5.5	7.5	-	-
	380-440V	kW	0.75	1.1	2.2	3.7	5.5	7.5	7.5	11	-	-
AC3 3 phase	220-240V	kW	1.1	1.5	3	3	4.7	5.5	7.5	11	22	22
	380-440V	kW	1.8	2.2	5.5	5.5	7.5	11	15	18.5	37	37
	500V	kW	-	-	5.5	5.5	11	15	18.5	22	45	45
	600-690V	kW	-	-	5.5	5.5	11	15	18.5	22	45	45
AC3 1 phase	110V	kW	0.25	0.3	0.55	0.6	1.5	2.2	2.2	3	-	-
	220-240V	kW	0.5	0.55	1.5	2.2	3	3.7	5.5	7.5	-	-
	380-440V	kW	0.75	0.75	2.5	3	5.5	7.5	7.5	11	-	-
AC21A/AC1		A	6	10	16	20	25	32	40	63	100	200
AC15	220-240V	A	2	2.5	5	5	8	14	16	16	20	-
	380-440V	A	1	1.5	4	4	5	6	7	7	10	-
Terminal cross-section												
Single / Multiple	Min	mm <sup>2</sup>	0.7	0.7	1.5	1.5	2.5	2.5	4	4	10	10
	Max	mm <sup>2</sup>	1.5	1.5	4	4	4	6	10	16	35	70
Fine strand with sleeve	Min	mm <sup>2</sup>	0.7	0.7	1	1	1.5	1.5	2.5	2.5	10	10
	Max	mm <sup>2</sup>	1.5	1.5	2.5	2.5	4	4	6	16	35	50
Terminal screw		metric	M3	M3	M3	M3	M4	M4	M4	M4	M10	M10
Terminal tightening torque		Nm	0.8	0.8	0.8	0.8	1.2	1.2	1.2	1.2	2.5	2.5

\* Rated short time withstand current (0.5s- current)

## RATED OPERATING CONDITIONS

Frequency	50/60 Hz	
Operating temperature	-25°C...60°C	
Storage temperature	-40°C...80°C	
Installation category	III	
Altitude a.s.l.	2000 m	
Protection grade	IP50 from frontal side	IP20 from terminal side
Standards	IEC 60947-1, IEC 60947-3, IEC 60947-5	

## SWITCH LIFE

Mechanical Life	100 000 operations at 300 cycles/hr	
Electrical Life	10 000 operations at 100% rated duty at 120 cycles/hr	
Contacts	double break	type AgNi
	double break	type AgCdO

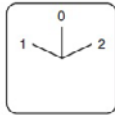
# CST1 SERIES

## - CHANGEOVERS

### WIRING DIAGRAMS AND CODING

#### CHANGEOVERS CST1

Ordering code CST1-60L\_02OF\_\_00



Changeover CST1-		60L	02OF		00
<b>Rated current:</b>					
6 A	A				
10 A	B				
16 A	C				
25 A	D				
32 A	E				
40 A	F				
63 A	G				
100 A	H				
200 A	I				
<b>Pole:</b>					
1 pole		1			
2 poles		2			
....		...			
6 poles		6			
<b>Front plate colour:</b>					
silver background and black knob		A			
yellow background and red knob		Y			
<b>Acceptance tests:</b>					
without additional quality requirements		0			
with an extra quality inspection certificate		1			

#### ITEMS AVAILABLE FROM OUR STOCK:

##### CST1-C60L1020FA000

- Changeover 16A, angle 60°, rotation angle <360°, 1 pole, 2 ways, with OFF, rectangular knob, silver background, black knob

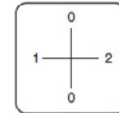
##### CST1-C60L1020FY000

- Changeover 16A, angle 60°, rotation angle <360°, 1 pole, 2 ways, with OFF, rectangular knob, yellow background, red knob

Description	CST1			CST1			CST1		
	6A	10A	16A	25A	32A	40A	63A	100A	200A
	Stage number								
1-polar 2-way + OFF	1	1	1	1	1	1	1	1	1
2-polar 2-way + OFF	2	2	2	2	2	2	2	2	2
3-polar 2-way + OFF	3	3	3	3	3	3	3	3	3
4-polar 2-way + OFF	4	4	4	4	4	4	4	4	4
5-polar 2-way + OFF	5	5	5	5	5	5	5	5	5
6-polar 2-way + OFF	6	6	6	6	6	6	6	6	6

OUTPUT SIDE	1A	2A	1B	2B	1C	2C	1D	2D	1E	2E	1F	2F
INPUT SIDE	LA	LA	LB	LB	LC	LC	LD	LD	LE	LE	LF	LF
POLES	1		2		3		4		5		6	
0												
1	X		X		X		X		X		X	
2		X		X		X		X		X		X

Ordering code CST1-90T\_02OF\_\_00



Changeover CST1-		90T	02OF		00
<b>Rated current:</b>					
6 A	A				
10 A	B				
16 A	C				
25 A	D				
32 A	E				
40 A	F				
63 A	G				
100 A	H				
200 A	I				
<b>Pole:</b>					
1 pole		1			
2 poles		2			
....		...			
6 poles		6			
<b>Front plate colour:</b>					
silver background and black knob		A			
yellow background and red knob		Y			
<b>Acceptance tests:</b>					
without additional quality requirements		0			
with an extra quality inspection certificate		1			

Description	CST1			CST1			CST1		
	6A	10A	16A	25A	32A	40A	63A	100A	200A
	Stage number								
1-polar 2-way + OFF	1	1	1	1	1	1	1	1	1
2-polar 2-way + OFF	2	2	2	2	2	2	2	2	2
3-polar 2-way + OFF	3	3	3	3	3	3	3	3	3
4-polar 2-way + OFF	4	4	4	4	4	4	4	4	4
5-polar 2-way + OFF	5	5	5	5	5	5	5	5	5
6-polar 2-way + OFF	6	6	6	6	6	6	6	6	6

OUTPUT SIDE	1A	2A	1B	2B	1C	2C	1D	2D	1E	2E	1F	2F
INPUT SIDE	LA	LA	LB	LB	LC	LC	LD	LD	LE	LE	LF	LF
POLES	1		2		3		4		5		6	
0												
1	X		X		X		X		X		X	
2		X		X		X		X		X		X

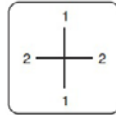
# CST1 SERIES

## - CHANGEOVERS

### WIRING DIAGRAMS AND CODING

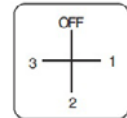
#### CHANGEOVERS CST1

Ordering code CST1-90T02WF-00



Changeover CST!		-	90T	-	02WF	-	-	00											
<b>Rated current:</b>		6 A	A	10 A	B	16 A	C	25 A	D	32 A	E	40 A	F	63 A	G	100 A	H	200 A	I
<b>Pole:</b>		1 pole	1	2 poles	2	....	...	6 poles	6										
<b>Front plate colour:</b>		silver background and black knob		A		yellow background and red knob		Y											
<b>Acceptance tests:</b>		without additional quality requirements		0		with an extra quality inspection certificate		1											

Ordering code CST1-90T03OF-00



Changeover CST!		-	90T	-	03OF	-	-	00											
<b>Rated current:</b>		6 A	A	10 A	B	16 A	C	25 A	D	32 A	E	40 A	F	63 A	G	100 A	H	200 A	I
<b>Pole:</b>		1 pole	1	2 poles	2	3 poles	3												
<b>Front plate colour:</b>		silver background and black knob		A		yellow background and red knob		Y											
<b>Acceptance tests:</b>		without additional quality requirements		0		with an extra quality inspection certificate		1											

Description	CST1								
	6A	10A	16A	25A	32A	40A	63A	100A	200A
	Stage number								
1-polar 2-way	1	1	1	1	1	1	1	1	1
2-polar 2-way	2	2	2	2	2	2	2	2	2
3-polar 2-way	3	3	3	3	3	3	3	3	3
4-polar 2-way	4	4	4	4	4	4	4	4	4
5-polar 2-way	5	5	5	5	5	5	5	5	5
6-polar 2-way	6	6	6	6	6	6	6	6	6

Description	CST1								
	6A	10A	16A	25A	32A	40A	63A	100A	200A
	Stage number								
1-polar 3-way + OFF	2	2	2	2	2	2	2	2	2
2-polar 3-way + OFF	3	3	3	3	3	3	3	3	3
3-polar 3-way + OFF	5	5	5	5	5	5	5	5	5

OUTPUT SIDE	1A	2A	1B	2B	1C	2C	1D	2D	1E	2E	1F	2F
INPUT SIDE	LA	LA	LB	LB	LC	LC	LD	LD	LE	LE	LF	LF
POLES	1		2		3		4		5		6	
0												
1	X		X		X		X		X		X	
2		X		X		X		X		X		X

OUTPUT SIDE	1A	2A	1B	3A	2B	2B	1C	2C	3C
INPUT SIDE	LA	LA	LB	LA	LB	LB	LC	LC	LC
POLES	1		2	1	2		3		3
OFF									
1	X		X				X		
2		X			X			X	
3				X		X			X

# CST1 SERIES

## - CHANGEOVERS

### WIRING DIAGRAMS AND CODING

#### CHANGEOVERS CST1

#### CODING OF CST1 SERIES

Changeover CST1		-	-	0	-	-	-	-	F	-	-	00
<b>Rated current:</b>												
6 A	A											
10 A	B											
16 A	C											
25 A	D											
32 A	E											
40 A	F											
63 A	G											
100 A	H											
200 A	I											
<b>Angle:</b>												
60°	6											
90°	9											
----- 0												
<b>Rotation angle:</b>												
360°	T											
less than 360° *	L											
<b>Pole:</b>												
1 pole	1											
2 poles	2											
....	...											
6 poles	6											
<b>No. of ways:</b>												
2 ways	02											
3 ways	03											
<b>OFF way:</b>												
without OFF**	W											
with OFF	O											
----- F												
<b>Front plate colour:</b>												
silver background and black knob	A											
yellow background and red knob	Y											
<b>Acceptance tests:</b>												
without additional quality requirements	0											
with an extra quality inspection certificate	1											
<b>Version:</b>												
standard	00											
custom-made***	XX											

\* - only for rotation angle 60°

\*\* - only for rotation angle 90°

\*\*\* - only after agreeing with the manufacturer

# CST1/CST2/CST3/CST4 SERIES

## - CAM SWITCHES

### ACCESSORIES - ORDERING

Ordering code	Description	View	Cam switch type
20-042-06-00007	CAM SWITCH KNOB (Black)		CST1,CST2,CST3,CST4
20-042-06-00008	CAM SWITCH KNOB (Red)		CST1,CST2,CST3,CST4
20-042-06-00009	FRONT PLATE CAM SWITCH (Yellow)		CST1,CST2,CST3,CST4
20-042-06-00010	Yellow BLANK PAPER FOR MARKING PLATE		CST1,CST2,CST3,CST4
20-042-06-00011	Yellow BLANK PAPER FOR NAME PLATE		CST1,CST2,CST3,CST4
20-042-06-00012	BLANK NAME PLATE		CST1,CST2,CST3,CST4
20-042-06-00013	BLANK MARKING PLATE		CST1,CST2,CST3,CST4
20-042-06-00016	SCREWS AND NUTS		CST1,CST2,CST3,CST4