LW39-16B Cam Switch 16A Siemens APT

Technical Data

Working conditions: the Altitude≤2000m
Ambient temperature -25℃ -+55℃
Relative Air Humidity≤90%
Installation Class: III
Pollution Class: III

Standards

GB14048.5
IEC60947-5-1

Electrical Technical Data:

Model		LW39-10	LW39-16A (B, C)	LW39-25	LW39-63
Rated Insulation Voltage Ui GB/T14048.1	V	440	690	690	690
Rated Thermal Current Ith GB/T14048.1	A	10	16	25	63
Rated Impulse Withstand Voltage 1min Uimp GB/T14048.1	V	2500	2500	2500	2500
AC Rated operational Current Ie					
AC-21 switching of Resistive Loads GB14048.3	A	10	16	25	63
AC-15 switching of control devices contactors valves ect Loads					
COSØ=0.4 24V	A	10	16	25	28
48V	A	5	8	22	25
110V	A	4	5	18	22
220V	A	2	3	12	16
380V	A	1.2	1.8	8	8
AC-3 squirrel-Cage Asynchronous Motor					
Direct-on-line starting, start-delta starting GB/T14048.3 Appendix A					
3-phase 3-pole 380V	KW	1.5	3	5.5	15
AC-4 Cage Asynchronous Motor					
Startup, braking, reverse, inching					
GB14048.3 Appendix A					
3-phase 3-pole 380V	KW	0.37	1.2	4	6
DC Rated operational Current Ie					
DC-21 switching of Resistive Loads G814048.3					
Number of Series Contacts					
1 2 3 4					
24 48 70 95	A	10	16	25	
48 60 95 110	A	6	12	22	
Voltage V 110 220 300	A	0.56	1	5	
220 440	A	0.24	0.4	2.5	
440	A	0.1	0.27	1.25	
DC-13 switching of control devices contactors valves ect Loads					
T=300ms G814048.5					
Number of Series Contacts					
1 2 3 4					
24 48 70 95	A	8	12	20	
48 60 95 110	A	1.2	2	8	
Voltage V 110 220 300	A	0.25	0.4	2.5	
220 440	A	0.12	0.2	1.25	
440	A		0.1	0.5	
AC electrical endurance	10,000 times	20	20	20	10
DC electrical endurance	10,000 times	10	10	10	
Mechanical endurance	10,000 times	30	30	30	30

LW39 Series Cam switches

LW39-16B Series

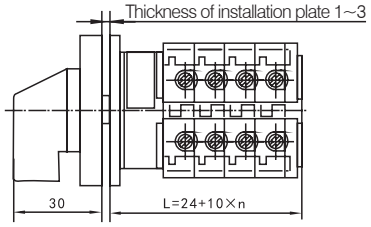
Have tiny visual appearance, look good and fresh with reliable structure. With the international popular built-in wiring,is safety and reliable.

- Ith is 16A, built-in wiring is safety and reliable
- Operation angle: 30°, 45° , 60° , 90°
- The maximum number of contact poles: 12; less than 8 poles is better

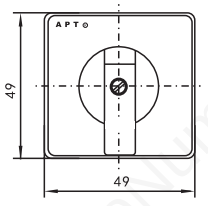
Note: if the working condition is under 100mA @ 24V, please remark in the purchase order. The contactor will be gold-plating.

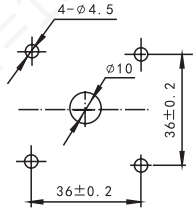
Normal Type LW39-16B

Positioning Angle: 30°, 45° , 60° , 90° Maximum Number poles12, no more than 8 poles is better, Handles Type: all



n is the number of the contact system polees, n=1-12



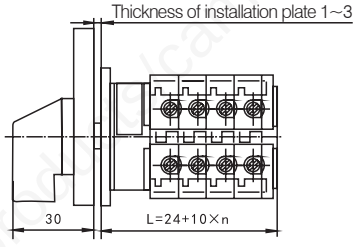


The installation hole size

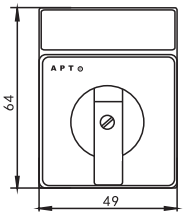
Ordered Model: LW39 - 16B - □ - □ / □□□ Refer to page 15 for details

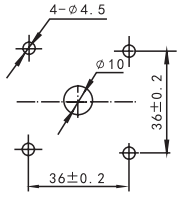
With Label Type LW39-16B P

Positioning Angle: 30°, 45°, 60°, 90 ° Maximum Number poles12 , no more than 8 poles is better, Handles Type: all



n is the number of the contact system polees, with a maximum of 12



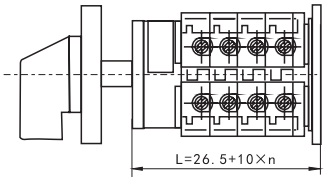


The installation hole size

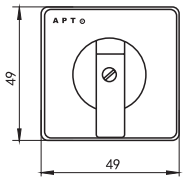
Ordered Model: LW39 - 16B P - □ - □ / □□□ Refer to page 15 for details

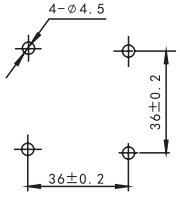
Base–mounted Type: LW39-16B M

Positioning Angle: 30°, 45, 60°, 90 ° Maximum Number poles, no more than 8 poles is better, Handles Type: all



n is the number of the contact system polees, with a maximum of 12

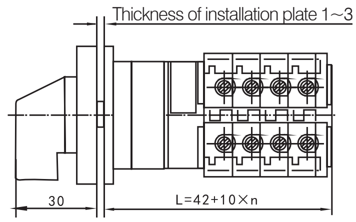
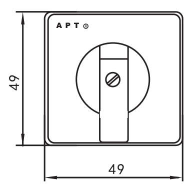
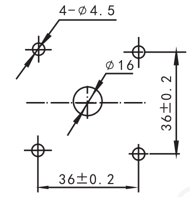




Base installation size (center hole size Ø10)

Ordered Model: LW39 - 16B M - □ - □ / □□□ Refer to page 15 for details

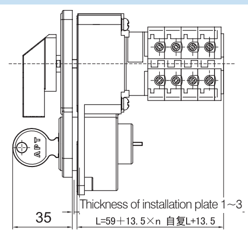
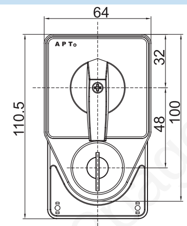
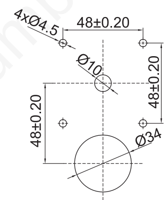
Pull-out spring return Type: LW39-16B ZL

	Positioning feature: 9GC or B1 Maximum Number poles 12, no more than 8 poles is better, Handles Type: all		
	 n is the number of the contact system polees, with a maximum of 12		 The installation hole size

Ordered Model: LW39 - 16B ZL - □ - □ / □□□ Refer to page 15 for details

Note: applicable positioning features: -90° ,0° ,90° (Code 9GC); auto-resetting feature: -30° → O° ← 30° (Code B1)

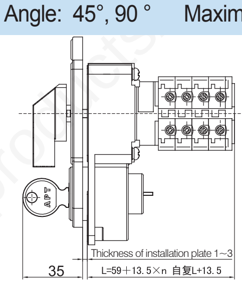
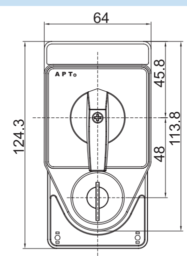
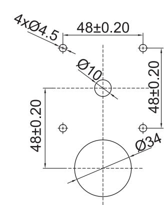
Panel with Key-lock Type LW39-16B YM

	Positioning Angle: 45°,90 ° Maximum Number poles 12, no more than 8 poles is better, Handles Type: A,B,D		
	 (n is the number of the contact system polees n=1~12)		 The installation hole size

Ordered Model: LW39 - 16BYM - □ - □ / □□□ Refer to page 15 for details

Key Operation: it can be removed at each position and the handle will be locked after the key is taken out. if there is any other requirement, please show us.

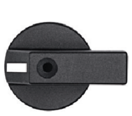
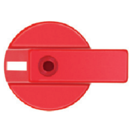
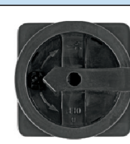
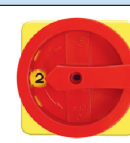
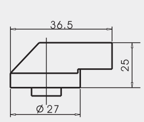
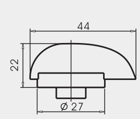
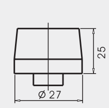
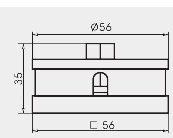
Panel with Key-lock with label Type LW39-16B PYM

	Positioning Angle: 45°, 90 ° Maximum Number poles 12, no more than 8 poles is better, Handles Type: A, B, D		
	 (n is the number of the contact system polees n=1~12)		 The installation hole size

Ordered Model: LW39 - 16B PYM- □ - □ / □□□ Refer to page 15 for details

Key Operation: it can be removed at each position and the handle will be locked after the key is taken out. if there is any other requirement, please show us.

Handles for LW39-16B (defaulted as AK handle if no requirement is specified)

Code	Ak	Ar	Bk	Dk	Gk	Gr
Handle						
Size						

LW39 Series Cam switches

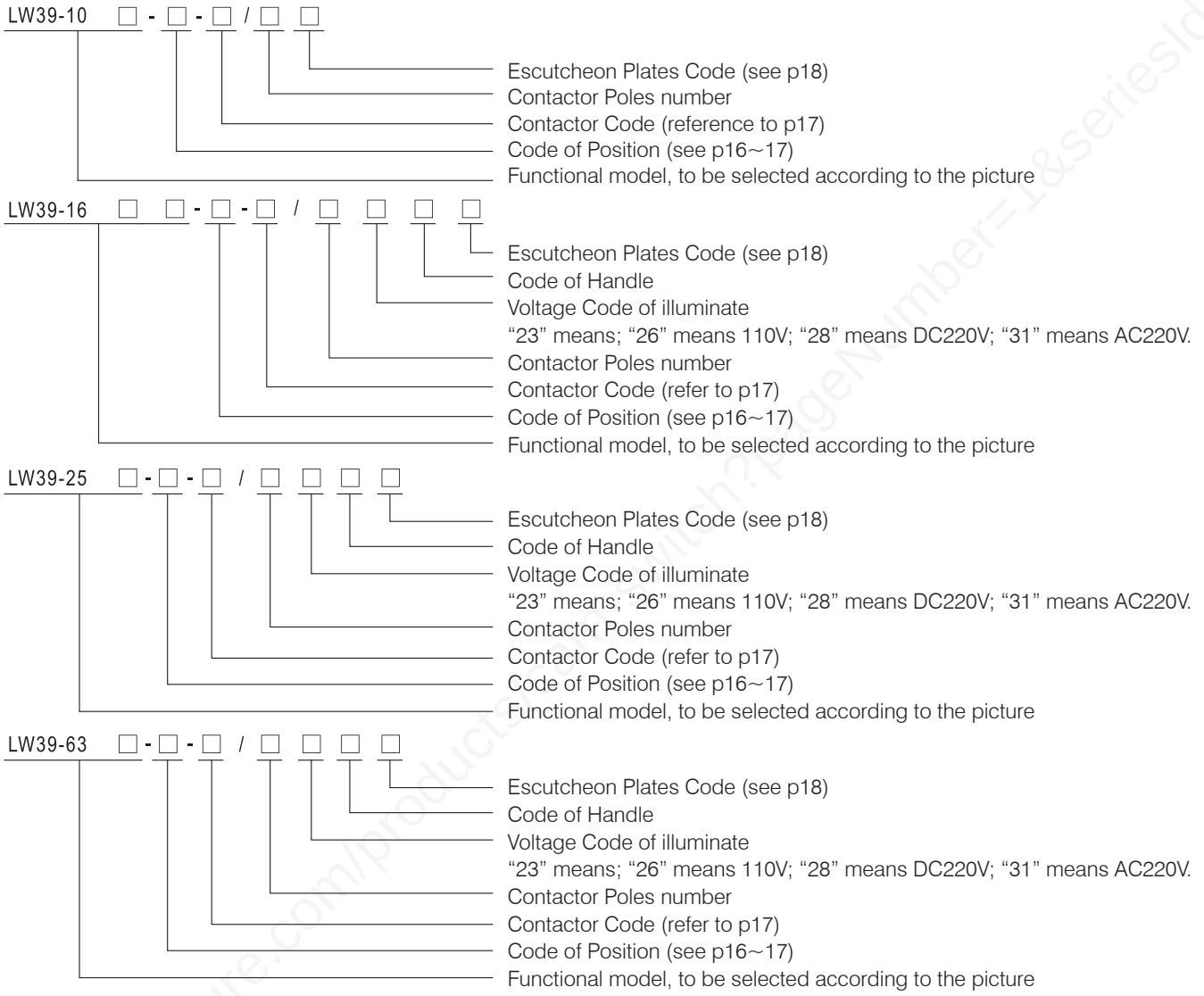
Model definition

Please provide the specific model when the user order LW39 series cam switches. There are three ways to confirm the model:

(1) Select from the models of the ordinary cam switches (please reference to P21—26). Please show us if there is any further requirement;

(2) Please tell us the model according to the description of model;

(3) Fill the blank contactor diagram (p28) and we will help you confirm the model.



- LW39-63/16, Please provide the contactor diagram and we will help you to confirm the model.
- Description of illuminate color code and voltage code:
- "g" means green and "r" means red
- "23" means AC/DC24V, "26" means AC/DC110V, "28" means DC220V, and "31" means AC220V.

Note:

1. The color code has sequence requirement when the cam switch has illuminate modular, with the panel face the front and write the color code from left to right.
2. For example: "-gr23", shows that the left is green light and the right is red light. "-rg"23" shows that the left is red light and the right is green light.
3. Wiring terminal of illuminate modular:
4. The defaulted wiring terminal is common negative poles: X1(-), XO(-), X2(+). Please show us if there is any special wiring requirement.

Code of Position

The code of position indicates the gear features of the cam switches, including maintained type and spring-return type.

(1) Maintained type: it does not have spring return function. LW39 series cam switches have 30°, 45°, 60° and 90° position. Please attention the position of each models and fill the position codes when you ordered.

Position	Applicable Model	Position circle	Example
30°	LW39-10、LW39-16、LW39-25、LW39-63		"3KC" indicates 30° position, starting from K and ending at C with clockwise. It has 5 positions K, O, A, B, C.
45°	LW39-10、LW39-16、LW39-25、LW39-63		"4OB" indicates 45° position , starting from O and ending at B with clockwise. It has 3 positions O, A, B.
60°	LW39-16B、LW39-16C、LW39-63		"6KE" indicates 60° position, starting from K and ending at E clockwise. It has 4 positions - K, A, C. E
90°	LW39-10、LW39-16、LW39-25、LW39-63		"9GC" indicates 90° position, starting from G and ending at C with clockwise. It has 3 positions - G, A, C.

Position Code Description: □ □ □

Ending position

Starting position

"3" indicates 30°, "4" indicates 45°, "6" indicates 60° and "9" indicates 90°

Note: if the switch is operated without limited in a circle, the ending and starting position will be the same letter, for example: "3JJ" indicates 30° position, starting from -90° with 12 positions without limited.

(2) Spring return Type: one or more position for spring-return type have spring-return function. LW39 series cam switches have various spring-return function types for option.
The following table show the commonly used spring-return functions codes.
Please attention the application models.

Spring-return Position code	Operation Position (Angle)	LW39-10	LW39-16A	LW39-16B LW39-16C	LW39-25	LW39-163
A1	0° ←30°	Y*				
A2	0° ←45°		Y	Y	Y	Y
B1	-30° →0° ←30°	Y*				
B2	-45° →0° ←45°		Y	Y	Y	Y
B3	-60° →-30° →0° ←30° ←60°			Y*		
B4	-90° -45° 0° 45° ←90°		Y	Y	Y	Y
B5	-90° -45° 0° ←45°		Y	Y	Y	Y
B6	-90° →-60° →-30° →0° ←30° ←60° ←90°			Y		
B7	-90° →-45° 0° 45° 90° 135°			Y		
BA	-90° →-45° →0° ←45° ←90°		Y	Y	Y	
BC	-45° →0° 0° ←45°		Y		Y	
BD	-30° →0 ° 0° ←30°			Y*		
Z1	-135° →-90° 0° ←45°		Y	Y	Y	Y
ZA	-90° →-45° 0° 45° ←90°		Y	Y	Y	Y

LW39 Series Cam switches

Code of Positioning Feature	Handle Operation Position (Angle)	LW39-10	LW39-16A	LW39-16B LW39-16C	LW39-25	LW39-163
ZB	-90° →-45° 0° 45°		Y	Y	Y	Y
ZC	-45° 0° 45° ←90°		Y	Y	Y	Y
ZD	-90° 0° ←45°		Y	Y	Y	Y
ZE	0° 45° ←90°		Y	Y	Y	Y
ZF	-45° 0° ←45°		Y	Y	Y	Y
ZG	-45° →0° 45°		Y	Y	Y	Y
ZK	-45° →0° 45° 90°		Y	Y	Y	Y
W	-120° →-90° 0° ←30°	Y*		Y*		
WA	-90° 0° ←30°	Y*				
WB	-30° →0° 90°	Y*				
WC	0° 90° ←120°	Y*		Y*		
WR	-120° →-90° 0° 90° ←120°	Y*		Y*		
WS	-90° 0° 90° ←120°	Y*		Y*		
WT	-120° →-90° 0° 90°	Y*		Y*		
WU	-90° -30° →0° ←30°			Y*		
WV	-90° 0° ←30° 90°			Y*		
WW	-90° -30° →0° ←30° 90°			Y*		

Precautions: "*", means the number poles of the cam switch is less than 3;
if you have more requirement ,please contact our technical department.

Contactor Codes

The contactor codes can be showed in the model with the following two ways:

1. Inquiry the contactor codes in the 'contactor codes handbook';
2. We can provide you the contactor code according your contactor diagram (P28);

For example:

Requirements: 3 position; the 1st position has 4 contactors closed, the 2nd position has 2 contactors closed and the 3rd position has 4 contactors closed. The contactor codes can be got in the 'contactor codes handbook' as: 424/3.

Junction Code	424/3		
Operation Gear	1	2	3
1-2	×		×
3-4	×		×
5-6	×		×
7-8	×		×
9-10		×	
11-12		×	

If contactor codes can't be found in 'contactor codes handbook' ,you can provide the contactor diagrams to us (fill with "x" letter as the contactor closed on the blank contactor diagram on the P28),and add the "x" letter after the contactor code as the customer requirement.

contactor Code: 424X

Junction Code	424×/3		
Operation Gear	1	2	3
1-2	×		×
3-4	×		
5-6		×	×
7-8	×		×
9-10			×
11-12	×	×	

Note: X in contactor diagram means that the contactor closed.

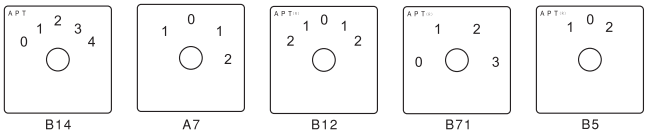
Escutcheon Plates Code

The Escutcheon Plates Code of panel indicate the specific requirements for the prints on the panels of the cam switches. The user can select escutcheon plate code according to “Ordinary escutcheon Codes of Panel”, or provide the requirements for customization. If there are no show in the Order Models, we will provide the panels according to the defaulted escutcheon plates code rule.

1. Defaulted Escutcheon Plates Code:

(1) If one position have no contactor closed, this position plate shall be “0” and then the position on both sides shall be show in sequence of Arabic figure as “1”, “2”, “3”…… For 3 position cam switche, there is not the plate as of 1-0-1, instead of 1-0-2.

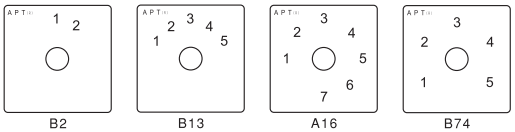
For example:



B14 A7 B12 B71 B5

(2) If the position haven’t “0”, each position will be showed in sequence of Arabic figure as “1”, “2”, “3”……(clockwise).

For example:



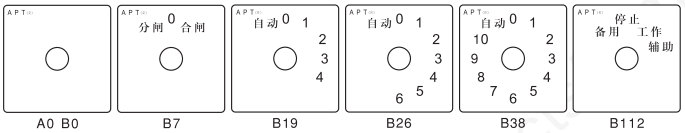
B2 B13 A16 B74

2. Ordinary escutcheon plates:

Notes: the codes starting with A are applicable for LW39-10, LW39-16A, LW39-25 and LW39-63

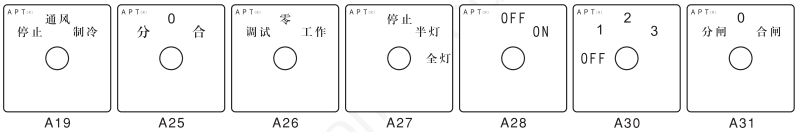
The codes starting with B are applicable for LW39-16B and LW39-16C

Positioning Angle - 30°



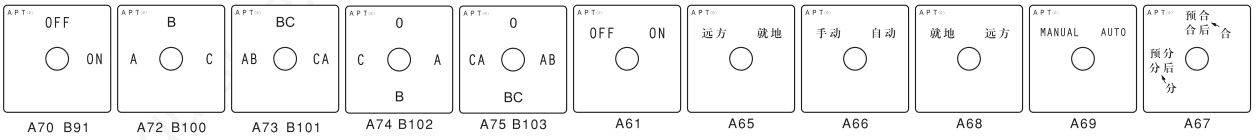
A0 B0 B7 B19 B26 B38 B112

Positioning Angle - 45°



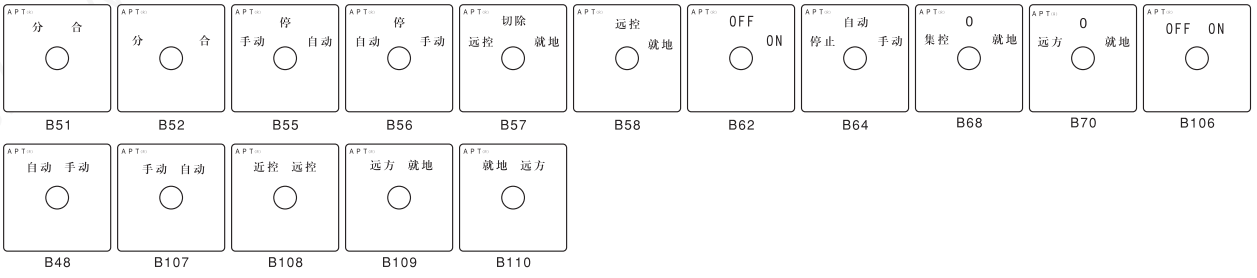
A19 A25 A26 A27 A28 A30 A31

Positioning Angle - 90° and Combined Angles



A70 B91 A72 B100 A73 B101 A74 B102 A75 B103 A61 A65 A66 A68 A69 A67

Positioning Angle - 60°



B51 B52 B55 B56 B57 B58 B62 B64 B68 B70 B106 B48 B107 B108 B109 B110

3. Special Plate, add the letter “P” after the pole code.

Model and Revision Specification

LW39 series cam switches have been very popular used by users in the market. With the continuously increased in these years, the product functions and models have been also updated so that the meanings of the models of the initially designed products cannot satisfy the ordering demands of the customers. Therefore, after the careful study, it has been decided that the meanings of the original product models shall be modified in this revision.

The main modifications are as follows:

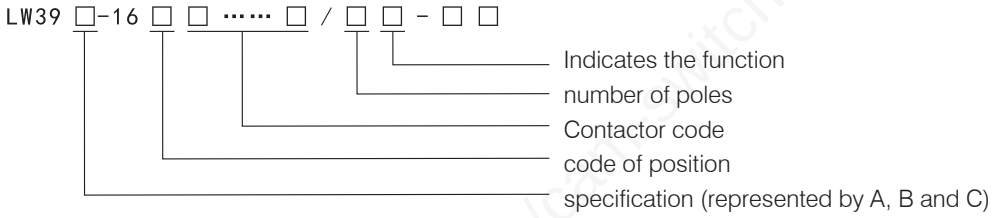
(1) The two codes "A, B" and "Function Representation" in the old models LW39A-16 and LW39B-16 are integrated into the "function model" in the new model.

(2)"Code of position", for easy memorization and to reduce the errors during the ordering, please use the new code applicable rules in the definition of a new model. (Reference to Code of Position in p16 for details)

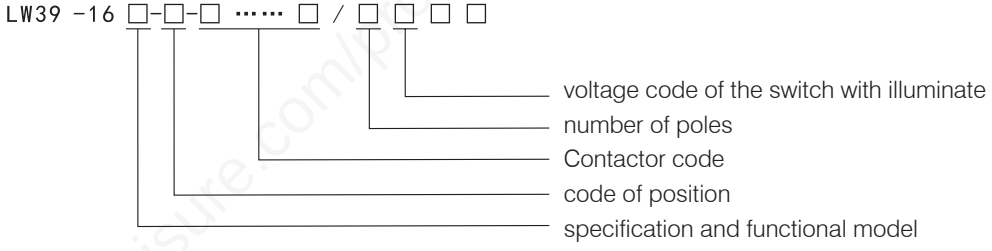
(3) The contactor codes can be prepared by the user or us flexibly or follow the existing "contactor codes handbook'" for easy memorization and individualized compiling (reference to Code of Position in p17 for details)

Please try to order the products according to the new defining method of the models and we feel sorry for any inconvenience to you!

Example of Old Model:



Example of New Model:



Comparison Table for New and Old Codes of Position

To make the existing customers to easily understand and use the new codes of position, the following table is to list the comparison between the new and old codes.

Comparison Table for New and Old Codes of Position

Type A (LW39-16A) Codes of Positioning		
Old Code	New Code	Position
C	4AB	0° 45°
D	4OB	45° 0° 45°
E	4OC	45° 0° 45° 90°
F	4GC	90° 45° 0°45° 90°
G	4GD	90° 45° 0°45° 90° 135°
V	4GE	90° 45° 0°45° 90° 135°180°
U	4GF	90° 45° 0°45° 90° 135°180° 225°
UT	4GG	90° 45° 0° 45° 90° 135° 180° 225° without limiting part
H	3OC	30° 0° 30° 60°
I	3KC	60° 30° 0° 30° 60°
J	3JC	90° 60° 30° 0° 30° 60°
K	3JD	90° 60° 30° 0° 30° 60° 90°
L	3JE	90° 60° 30° 0° 30° 60° 90° 120°
LD	3OG	30° 0° 30° 60° 90°120°150°180°
M	3JF	90°60°30°0°30°60°90°120°150°
N	3JG	90°60°30° 0° 30° 60° 90°120°150°180°
ND	3OI	30° 0° 30° 60° 90°120°150°180° 210° 240°
P	3JH	90° 60° 30° 0° 30° 60° 90° 120° 150° 180° 210°
Q	3JI	90° 60° 30° 0° 30° 60° 90° 120° 150° 180° 210° 240°
QD	3OK	30°0°30°60°90°120°150°180°210°240°270°300°
QT	3JJ	90° 60° 30° 0° 30° 60° 90° 120° 150° 180° 210° 240° without limiting part
R	9OB	45° 45°
RA	9GA	90° 0°
RE	9AC	0° 90°
S	9GC	90° 0° 90°
T	9GE	90° 0° 90° 180°
TT	9GG	90° 0° 90° 180° without limiting part

Type B (LW39-16B) Codes of Positioning		
Old Code	New Code	Position
C	6AC	0° 60°
D	6KC	60° 0° 60°
E	6JD	90° 30° 30° 90°
F	6IE	120° 60° 0° 60° 120°
G	6IG	120° 60° 0° 60° 120° 180°
GT	6II	120° 60° 0° 60° 120° 180° without limiting part
H	3OC	30° 0° 30° 60°
I	3KC	60° 30° 0° 30° 60°
J	3JC	90° 60°30° 0° 30° 60°
K	3JD	90° 60°30° 0° 30° 60° 90°
L	3JE	90° 60°30° 0° 30° 60° 90° 120°
LD	3OG	30° 0° 30° 60° 90° 120°150° 180°
M	3JF	90° 60°30° 0° 30° 60° 90° 120° 150°
N	3JG	90° 60°30° 0° 30° 60° 90° 120° 150° 180°
ND	3OI	30° 0° 30° 60° 90° 120°150° 180° 210° 240°
P	3JH	90° 60°30° 0° 30° 60° 90° 120° 150° 180° 210°
Q	3JI	90° 60°30° 0° 30° 60° 90° 120° 150° 180° 210° 240°
QD	3OK	30°0°30°60°90°120°150°180°210°240°270°300°
QT	3JJ	90° 60°30° 0° 30° 60° 90° 120° 150° 180° 210° 240° without limiting part
R	6OB	30° 30°
RA	9GA	90° 0°
RE	9AC	0° 90°
S	9GC	90° 0° 90°
T	9GE	90° 0° 90° 180°
TT	9GG	90° 0° 90° 180° without limiting part

LW39 Series Cam switches

Models of Common Cam switches

Normal ON/OFF Switches

Number of Pole	Printing	0	1	Model
1 Pole	1-2		×	LW39-□□-□-02/1
	3-4		×	
2 Pole	5-6		×	LW39-□□-□-04/2
	7-8		×	
3 Pole	9-10		×	LW39-□□-□-06/3
	11-12		×	
4 Pole	13-14		×	LW39-□□-□-08/4
	15-16		×	
5 Pole	17-18		×	LW39-□□-□-0A/5
	19-20		×	
6 Pole	21-22		×	LW39-□□-□-0C/6
	23-24		×	
7 Pole	25-26		×	LW39-□□-□-0E/7
	27-28		×	
8 Pole	29-30		×	LW39-□□-□-0G/8
	31-32		×	
9 Pole	33-34		×	LW39-□□-□-0I/9
	35-36		×	
10 Pole	37-38		×	LW39-□□-□-0K/10
	39-40		×	

Example: LW39-16A-4AB-06/3, indicates LW39-16A type 3-pole ON/OFF switch with the positioning angle as 0°,45°and printing on panel as 0, 1

Double-throw Switches without “0” position and with independent contact

Number of Pole	Printing	1	2	Model
1 Pole	1-2	×		LW39-□□-□-11/1
	3-4		×	
2 Pole	5-6	×		LW39-□□-□-22/2
	7-8		×	
3 Pole	9-10	×		LW39-□□-□-33/3
	11-12		×	
4 Pole	13-14	×		LW39-□□-□-44/4
	15-16		×	
5 Pole	17-18	×		LW39-□□-□-55/5
	19-20		×	
6 Pole	21-22	×		LW39-□□-□-66/6
	23-24		×	
7 Pole	25-26	×		LW39-□□-□-77/7
	27-28		×	
8 Pole	29-30	×		LW39-□□-□-88/8
	31-32		×	
9 Pole	33-34	×		LW39-□□-□-99/9
	35-36		×	
10 Pole	37-38	×		LW39-□□-□-AA/10
	39-40		×	

Example: LW39-16A-90B-33/3, indicates LW39-16A type 3-pole double-throw switch with the positioning angle as -45°, 45° and printing on panel as 1, 2

Double-throw Switch, without “0” position and double connecting straps

Number of Pole	Printing	1	2	Model
1 Pole	1-2	×		LW39-□□-□-11J/1
	3-4		×	
2 Pole	5-6	×		LW39-□□-□-22J/2
	7-8		×	
3 Pole	9-10	×		LW39-□□-□-33J/3
	11-12		×	
4 Pole	13-14	×		LW39-□□-□-44J/4
	15-16		×	
5 Pole	17-18	×		LW39-□□-□-55J/5
	19-20		×	
6 Pole	21-22	×		LW39-□□-□-66J/6
	23-24		×	
7 Pole	25-26	×		LW39-□□-□-77J/7
	27-28		×	
8 Pole	29-30	×		LW39-□□-□-88J/8
	31-32		×	
9 Pole	33-34	×		LW39-□□-□-99J/9
	35-36		×	
10 Pole	37-38	×		LW39-□□-□-AAJ/10
	39-40		×	

Example: LW39-16B-60B-33J/3, indicates LW39-16B type 3-pole double-throw switch, with connecting strap, positioning angle as -30°, 30° and printing on panel as 1, 2

Double-throw Switch, with “0” position and with independent contact

Number of Pole	Printing	1	0	2	Model
			0°		
1 Pole	1-2	×			LW39-□□-□-101/1
	3-4			×	
2 Pole	5-6	×			LW39-□□-□-202/2
	7-8			×	
3 Pole	9-10	×			LW39-□□-□-303/3
	11-12			×	
4 Pole	13-14	×			LW39-□□-□-404/4
	15-16			×	
5 Pole	17-18	×			LW39-□□-□-505/5
	19-20			×	
6 Pole	21-22	×			LW39-□□-□-606/6
	23-24			×	
7 Pole	25-26	×			LW39-□□-□-707/7
	27-28			×	
8 Pole	29-30	×			LW39-□□-□-808/8
	31-32			×	
9 Pole	33-34	×			LW39-□□-□-909/9
	35-36			×	
10 Pole	37-38	×			LW39-□□-□-A0A/10
	39-40			×	

Example: LW39-25-40B-303/3, indicates LW39-25 type 3-pole double-throw switch, with positioning angle as -45°, 0°, 45° and printing on panel as 1, 0, 2

Double-throw Switches with "0" position and double connecting straps

Number of Pole	Printing	1	0 (0°)	2	Model
1 Pole	1-2	×			LW39-□□-□-101J/1
	3-4			×	
2 Pole	5-6	×			LW39-□□-□-202J/2
	7-8			×	
3 Pole	9-10	×			LW39-□□-□-303J/3
	11-12			×	
4 Pole	13-14	×			LW39-□□-□-404J/4
	15-16			×	
5 Pole	17-18	×			LW39-□□-□-505J/5
	19-20			×	
6 Pole	21-22	×			LW39-□□-□-606J/6
	23-24			×	
7 Pole	25-26	×			LW39-□□-□-707J/7
	27-28			×	
8 Pole	29-30	×			LW39-□□-□-808J/8
	31-32			×	
9 Pole	33-34	×			LW39-□□-□-909J/9
	35-36			×	
10 Pole	37-38	×			LW39-□□-□-A0AJ/10
	39-40			×	

Example: LW39-25-40B-404J/4, indicates LW39-25 type 4-pitch double-throw switch, with connecting strap, positioning angle as -45°, 0°, 45° and printing on panel as 1, 0, 2

Multi-gear Switches 3-gear Switches

Number of Pole	Printing	1	2	3	Model
1 Pole	1-2	×			LW39-□□-□-111J/2
	3-4		×		
2 Pole	5-6			×	LW39-□□-□-222J/3
	7-8	×			
3 Pole	9-10		×		
	11-12			×	
4 Pole	13-14	×			LW39-□□-□-333J/5
	15-16		×		
5 Pole	17-18			×	LW39-□□-□-444J/6
	19-20	×			
6 Pole	21-22		×		
	23-24			×	
7 Pole	25-26	×			LW39-□□-□-555J/8
	27-28		×		
8 Pole	29-30			×	
	31-32	×			
9 Pole	33-34		×		LW39-□□-□-666J/9
	35-36			×	

Multi-gear Switch, 4-gear Switch

Number of Pole	Printing	1	2	3	4	
1 Pole	1-2	×				LW39-□□-□-1111J/2
	3-4		×			
2 Pole	5-6			×		
	7-8				×	
3 Pole	9-10	×				LW39-□□-□-2222J/4
	11-12		×			
4 Pole	13-14			×		
	15-16				×	
5 Pole	17-18	×				LW39-□□-□-3333J/6
	19-20		×			
6 Pole	21-22			×		
	23-24				×	
7 Pole	25-26	×				LW39-□□-□-4444J/8
	27-28		×			
8 Pole	29-30			×		
	31-32				×	
9 Pole	33-34	×				LW39-□□-□-5555J/10
	35-36		×			
10 Pole	37-38			×		
	39-40				×	
11 Pole	41-42	×				LW39-□□-□-6666J/12
	43-44		×			
12 Pole	45-46			×		
	47-48				×	

Multi-gear Switch, 5-gear Switch

Number of Pole	Printing	1	2	3	4	5	
1 Pole	1-2	×					LW39-□□-□-1 × 5J/3
	3-4					×	
2 Pole	5-6		×				
	7-8			×			
3 Pole	9-10				×		
	11-12		×				LW39-□□-□-2 × 5J/5
4 Pole	13-14			×			
	15-16				×		
5 Pole	17-18	×					
	19-20					×	
6 Pole	21-22	×					LW39-□□-□-3 × 5J/8
	23-24					×	
7 Pole	25-26		×				
	27-28			×			
8 Pole	29-30				×		
	31-32		×				LW39-□□-□-4 × 5J/10
9 Pole	33-34			×			
	35-36				×		
10 Pole	37-38	×					
	39-40					×	

Voltage Measurement Cam switch

With “0” position, N line and 3-phase phase voltage of changeover measurement

LW39-16A-YH1/3
LW39-16B-YH1/3
LW39-25-YH1/3

A74 B102		0	A	B	C
		0°	90°	180°	270°
A	1-2		×		
C	3-4				×
B	5-6			×	
N	9-10		×	×	×

With “0” position, 3-phasse wire voltage of changeover measurement

LW39-16A-YH2/3
LW39-16B-YH2/3
LW39-25-YH2/3

A75 B103		O	AB	BC	CA
		0°	90°	180°	270°
B	1-2		×	×	
A	5-6				×
	7-8		×		
C	11-12			×	×

Without “0” position, with N line, 3-phase phase voltage of changeover measurement

LW39-16A-YH3/3
LW39-16B-YH3/3
LW39-25-YH3/3

A72 B100		A	B	C
		-90°	0°	90°
A	1-2	×		
C	3-4			×
B	5-6		×	
N	9-10	×	×	×

Without “0” position, 3-phase wire voltage of changeover measurement

LW39-16A-YH4/2
LW39-16B-YH4/2
LW39-25-YH4/2

A73 B101		AB	BC	CA
		-90°	0°	90°
B	1-2	×	×	
C	3-4		×	×
A	5-6			×
	7-8	×		

With “0” position, N line, 3-phase phase voltage and 3-phasse wire voltage of changeover measurement

LW39-16A-YH5/4
LW39-16B-YH5/4
LW39-25-YH5/4

A57 B4-1		CA	BC	AB	O	AN	BN	CN
		-135°	-90°	-45°	0°	45°	90°	135°
C	1-2		×					×
B	3-4			×			×	
	5-6	×						
A	7-8					×		
	9-10					×		×
	11-12	×		×				
N	13-14						×	
	15-16		×					

With “0” position, 3-phase wire voltage of changeover measurement separate for 2 power supplies

LW39-16A-YH6/4
LW39-16B-YH6/4
LW39-25-YH6/4

		CA	BC	AB	O	AB	BC	CA
		-135°	-90°	-45°	0°	45°	90°	135°
2A	1-2					×		×
1A	3-4	×		×				
2B	5-6						×	
1C	7-8		×					
	9-10					×		
	11-12	×						
2C	13-14						×	×
1B	15-16		×	×				

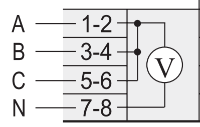
With “0” position, N line, 1-phase phase voltage and 3-phasse wire voltage of changeover measurement

LW39-16A-YH8/4
LW39-16B-YH8/4
LW39-25-YH8/4

A57 B4-1		CA	BC	AB	O	AN
		-135°	-90°	-45°	0°	45°
C	1-2		×			
B	3-4			×		
	5-6	×				
A	7-8					×
	9-10					×
	11-12	×		×		
N	13-14					
	15-16		×			

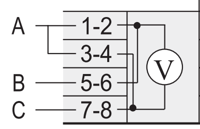
Voltage Measurement Cam switch

With “0” position, without N line, 3-phase wire voltage of changeover measurement



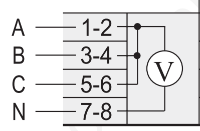
LW39-16A-YH11/2 LW39-16B-YH11/2 LW39-25-YH11/2	O	A	B	C
A74 B102	0°	90°	180°	270°
1-2		×		
3-4			×	
5-6				×
7-8		×	×	×

With “0” position, without N line, 3-phase wire voltage of changeover measurement



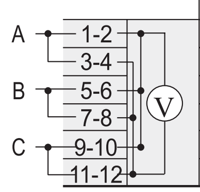
LW39-16A-YH12/2 LW39-16B-YH12/2 LW39-25-YH12/2	O	AB	BC	CA
A75 B103	0°	90°	180°	270°
1-2				×
3-4		×		
5-6		×	×	
7-8			×	×

Without “0” position, with N line, 3-phase phase voltage of changeover measurement



LW39-16A-YH13/2 LW39-16B-YH13/2 LW39-25-YH13/2	A	B	C
A72 B100	-90°	180°	90°
1-2	×		
3-4		×	
5-6			×
7-8	×	×	×

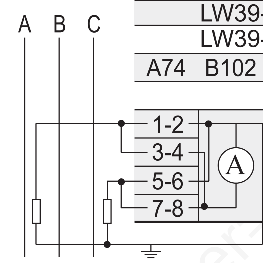
With “0” position, without N line, 3-phase wire voltage of changeover measurement



LW39-16A-YH22/3 LW39-16B-YH22/3 LW39-25-YH22/3	O	AB	BC	CA
A75 B103	0°	90°	180°	270°
1-2		×		
3-4				×
5-6			×	
7-8		×		
9-10				×
11-12			×	

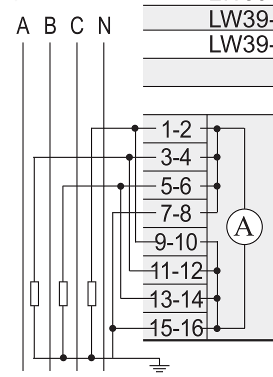
Current Measurement Cam switch

2 transformers, with “0” line, without N line, 3-phase current of changeover measurement



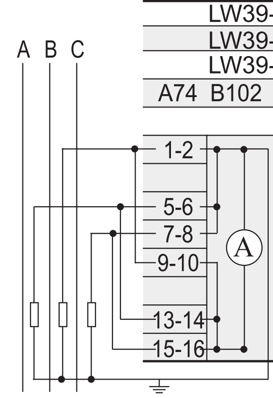
LW39-16A-LH1/2 LW39-16B-LH1/2 LW39-25-LH1/2	O	A	B	C
A74 B102	0°	90°	180°	270°
1-2	×			×
3-4		×	×	
5-6	×	×		
7-8			×	×

3 transformers, with N line, changeover measurement A, B, C, N 3-phase 4-wire current



LW39-16A-LH2/4 LW39-16B-LH2/4 LW39-25-LH2/4	N	A	B	C
	0°	90°	180°	270°
1-2	×	×	×	
3-4	×		×	×
5-6	×	×		×
7-8		×	×	×
9-10				×
11-12		×		
13-14			×	
15-16	×			

3 transformers, with “0” position, changeover measurement A, B, C 3-phase current



LW39-16A-LH3/4 LW39-16B-LH3/4 LW39-25-LH3/4	O	A	B	C
A74 B102	0°	90°	180°	270°
1-2	×	×		×
5-6	×		×	×
7-8	×	×	×	
9-10			×	
13-14		×		
15-16				×

Power Transmission and Distribution ON/OFF Control Switches LW39A Type

Model of Switch		LW39-16A-ZJ/1a.4.6a.40.20/7					
		LW39-25-ZJ/1a.4.6a.40.20/7					
Panel Symbol		After Break	Pre-close	Close	After Close	Pre-break	Break
Handle Direction		←	↑	↗	↑	←	↙
Handle Angle		-90°	0°	45° →	0°	-90°	-135° →
1a	1-3		×		×		
	2-4	×				×	
4	5-8			×			
	6-7						×
6a	9-10		×		×		
	10						
	9-12			×			
	11-10	×				×	×
40	13-14		×			×	
	15-14	×					×
	13-16			×	×		
20	17-19			×	×		
	20-18	×					×
	17-18		×			×	

Note: replace LW2-Z-1a.4.6a.40.20./F8

Model of Switch		LW39-16A-Z/49.6781/8					
		LW39-25-Z/49.6781/8					
Panel Symbol		After Break	Pre-close	Close	After Close	Pre-break	Break
Handle Direction		←	↑	↗	↑	←	↙
Handle Angle		-90°	0°	45° →	0°	-90°	-135° →
1-2			×		×		
3-4		×				×	
5-6				×			
7-8							×
9-10			×		×		
11-12							
13-14				×			
15-16		×				×	×
17-18							×
19-20							
21-22			×			×	
23-24		×					×
25-26				×	×		
27-28				×	×		
29-30			×			×	
31-32		×					×

Note: replace LW12-16D/49.6781/7

Model of Switch		LW39-16A-Z/1a.4.20/4					
		LW39-25-Z/1a.4.20/4					
Panel Indication		After Break	Pre-close	Close	After Close	Pre-break	Break
Handle Direction		←	↑	↗	↑	←	↙
Position Angle		-90°	0°	45°	0°	-90°	-135°
1a	1-2		×		×		
	3-4	×				×	
4	5-6			×			
	7-8						×
20	9-10			×	×		
	11-12		×			×	
	13-14	×					×
	15-16						

Note: replace LW2-Z-1a.4.20/F8

Model of Switch		LW39-16A-Z/1a.4.6a.40.20/5					
		LW39-25-Z/1a.4.6a.40.20/5					
Panel Indication		After Break	Pre-close	Close	After Close	Pre-break	Break
Handle Direction		←	↑	↗	↑	←	↙
Position Angle		-90°	0°	45°	0°	-90°	-135°
1a	1-2		×		×		
	3-4	×				×	
4	5-6			×			
	7-8						×
6a	9-10		×	×	×		
	11-12	×				×	×
40	13-14	×	×			×	×
	15-16			×	×		
20	17-18			×	×		
	19-20	×					×

Note: replace LW2-Z1a.4.6a.40.20/F8

Model of Switch		LW39-16A-ZJ/1a.4.6a.20/6					
		LW39-25-ZJ/1a.4.6a.20/6					
Panel Indication		After Break	Pre-close	Close	After Close	Pre-break	Break
Handle Direction		←	↑	↗	↑	←	↙
Position Angle		-90°	0°	45°	0°	-90°	-135°
1a	1-3		×		×		
	2-4	×				×	
4	5-8			×			
	6-7						×
6a	9-10		×		×		
	10						
	9-12			×			
	11-10	×				×	×
20	13-14		×			×	
	13-15			×	×		
	16-14	×					×

Capacitor Enclosure Regulating Switches

8-loop Main Capacitor Enclosure Regulating Switch

LW39-16A-3OI-21-9/6 LW39-16B-3OI-21-9/6										
	Auto	0	1	2	3	4	5	6	7	8
	-30°	0°	30°	60°	90°	120°	150°	180°	210°	240°
1-2		×	×	×	×	×	×	×	×	×
3-4	×									
5-6	×									
7-8			×	×	×	×	×	×	×	×
9-10				×	×	×	×	×	×	×
11-12					×	×	×	×	×	×
13-14						×	×	×	×	×
15-16							×	×	×	×
17-18								×	×	×
19-20									×	×
21-22										×
23-24										

8-loop Auxiliary Capacitor Enclosure Regulating Switch

LW39-16A-3JF-0-8/4 LW39-16B-3JF-0-8/4									
	0	1	2	3	4	5	6	7	8
	-90°	-60°	30°	0°	30°	60°	90°	120°	150°
1-2		×	×	×	×	×	×	×	×
3-4			×	×	×	×	×	×	×
5-6				×	×	×	×	×	×
7-8					×	×	×	×	×
9-10						×	×	×	×
11-12							×	×	×
13-14								×	×
15-16									×

6-loop Main Capacitor Enclosure Regulating Switch

LW39-16A-3OG-21-7/5 LW39-16B-3OG-21-7/5								
	Auto	0	1	2	3	4	5	6
	-30°	0°	30°	60°	90°	120°	150°	180°
1-2		×	×	×	×	×	×	×
3-4	×							
5-6	×							
7-8			×	×	×	×	×	×
9-10				×	×	×	×	×
11-12					×	×	×	×
13-14						×	×	×
15-16							×	×
17-18								×
19-20								

6-loop Auxiliary Capacitor Enclosure Regulating Switch

LW39-16A-3JD-0-6/3 LW39-16B-3JD-0-6/3							
	0	1	2	3	4	5	6
	-90°	-60°	30°	0°	30°	60°	90°
1-2		×	×	×	×	×	×
3-4			×	×	×	×	×
5-6				×	×	×	×
7-8					×	×	×
9-10						×	×
11-12							×

10-loop Main Capacitor Enclosure Regulating Switch

LW39-16A-3OK-21-AC/7 LW39-16B-3OK-21-AC/7											
	Auto	0	1	2	3	4	5	6	7	8	9	10
	-30°	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
1-2		×	×	×	×	×	×	×	×	×	×	×
3-4	×											
5-6	×											
7-8			×	×	×	×	×	×	×	×	×	×
9-10				×	×	×	×	×	×	×	×	×
11-12					×	×	×	×	×	×	×	×
13-14						×	×	×	×	×	×	×
15-16							×	×	×	×	×	×
17-18								×	×	×	×	×
19-20									×	×	×	×
21-22										×	×	×
23-24											×	×
25-26												×
27-28												×

10-loop Auxiliary Capacitor Enclosure Regulating Switch

LW39-16A-3JH-0-A/5 LW39-16B-3JH-0-A/5											
	0	1	2	3	4	5	6	7	8	9	10
	-90°	-60°	30°	0°	30°	60°	90°	120°	150°	180°	210°
1-2		×	×	×	×	×	×	×	×	×	×
3-4			×	×	×	×	×	×	×	×	×
5-6				×	×	×	×	×	×	×	×
7-8					×	×	×	×	×	×	×
9-10						×	×	×	×	×	×
11-12							×	×	×	×	×
13-14								×	×	×	×
15-16									×	×	×
17-18										×	×
19-20											×

LW39 Series Cam switches

Product Model of Operating Motor Switch

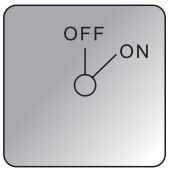
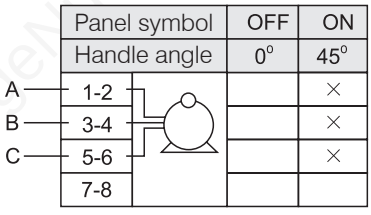
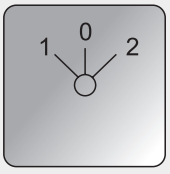
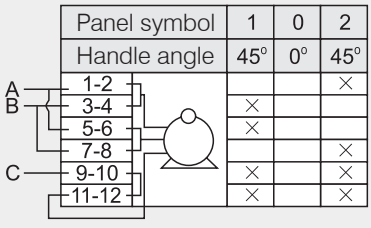
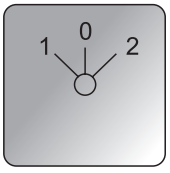
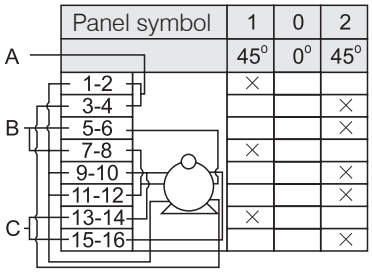
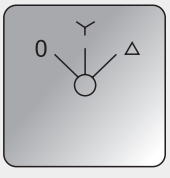
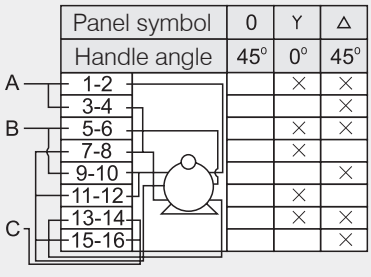
LW39-□ □ □□ / □ - □

- Motor Power (kW)
- Code of Usage Feature (reference to Table 2)
- Conventional Thermal Current

Usage

Table 2 Codes of Usage Features of Operating Motor

Usage	Direct Startup Cage Motor	Forward / Backward Startup Cage Motor	Two-speed Motor Direct Startup and Variable Speed	Star delta Startup Cage Motor
Code of Feature	Q	N	S	XS

Function	Model	Panel Symbol	Junction List
Direct startup, disconnected during the operation	LW39-63-Q15/2 LW39-25-Q5.5/2 LW39-16A-Q3/2 LW39-16B-Q3/2		
Startup, plug braking Reversal, closed ON/OFF	LW39-63-N6/3 LW39-25-N4/3 LW39-16A-N1.2/3 LW39-16B-N1.2/3		
Two-speed motor Startup and variable speed	LW39-63-S15/4 LW39-25-S5.5/4 LW39-16A-S3/4 LW39-16B-S3/4		
Star delta startup	LW39-63-XS18.5/4		

Blank Contactor diagram

Customer Name: _____ Contact Person: _____

Contact: (Tel No.) _____ (Fax No.) _____

Description of Basic technical data of Cam switch:

Ith: _____ A

Handle : _____ (Fill the code)

Model: _____

Escutcheon Plates													
Position													
Terminal Number and contactor closed/ opened Status	1 o—o o—o 2												
	3 o—o o—o 4												
	5 o—o o—o 6												
	7 o—o o—o 8												
	9 o—o o—o 10												
	11 o—o o—o 12												
	13 o—o o—o 14												
	15 o—o o—o 16												
	17 o—o o—o 18												
	19 o—o o—o 20												
	21 o—o o—o 22												
	23 o—o o—o 24												
	25 o—o o—o 26												
	27 o—o o—o 28												
	29 o—o o—o 30												
	31 o—o o—o 32												
	33 o—o o—o 34												
	35 o—o o—o 36												
	37 o—o o—o 38												
	39 o—o o—o 40												
	41 o—o o—o 42												
	43 o—o o—o 44												
	45 o—o o—o 46												
	47 o—o o—o 48												

Model of Cam switch (confirmed by the manufacturer): _____