



## LW32 Universal Change-over Switch

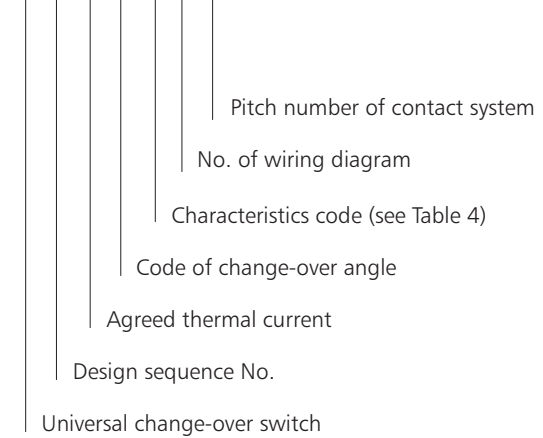
### 1. General

Universal change-over switch of LW32 series is mainly applicable to circuit with alternating current of 50Hz~60Hz, rated operational voltage not more than 380V and DC voltage not more than 220V for remote control or transformation of power distribution equipment, it can also used as change-over switch of various electrical measuring meter and servo moto. Standard: GB 14048.5 IEC 60947-5-1.

### 2. Type designation

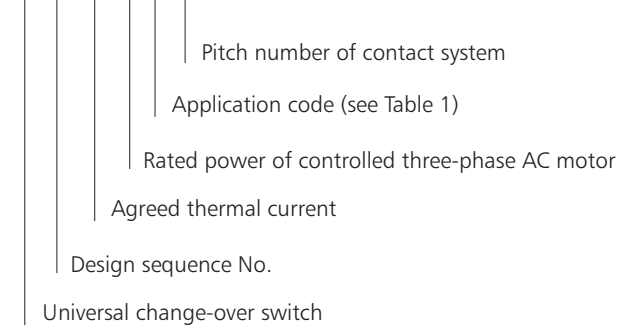
#### 2.1 Type of master control

LW 32-□/□-□□□□



#### 2.2 Change-over switch for direct control motor

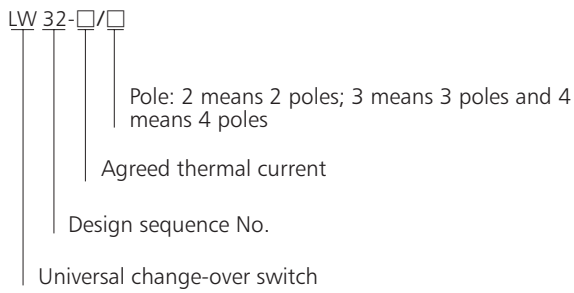
LW 32-□/□□□□



Note: Switch with application code of Q, S and N shall be transformed with 60° and with application code of SN shall be transformed with 45°.

# Change-over Switch

## 2.3 Change-over switch for main circuit



Note: The change-over switch for main circuit shall be transformed with 60°.

Table 1

Use code	Use
Q	Direct starting
N	Reversible conversion
S	Two-speed motor shifting
SN	Two-speed motor shifting, reversible

Table 2

Ue V	AC-21A		AC-22A		AC-23A		AC-2A		AC-3A		AC-4A		AC-15		DC-13	
	Ie A	P kW	Ie A	P kW	Ie A	P kW	Ie A	P kW	Ie A	P kW	Ie A	P kW	Ie A	P kW	Ie A	P kW
440	20		20		15	7.5	15	7.5	11	5.5	3.5	1.5	2.4			
240																0.27
120																5
Number of operating cycle	No load		8500										Electrical life / time			
	Load		1500										20×10 <sup>4</sup>		6×10 <sup>4</sup>	
	Total		10000										Mechanical life / time		60×10 <sup>4</sup>	

### 3. Others

#### 3.1 Category

- 3.1.1 There are three kinds, including main circuit switching, direct control of the motor and master control according to applications;
- 3.1.2 There are three types including location, self-rehabilitation and location self-rehabilitation according to operations;
- 3.1.3 For sessions of the contact system , locations are 1-8 section, self-rehabilitation are 1-3 section and direct control of motors are 1-6 section;
- 3.1.4 There are four types including 30°,45°, 60°, 90°according to operating angles;
- 3.1.5 Four types according to panel shape and size (see Table 3).

Table 3

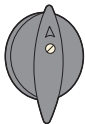
Large rectangular panel		Large square panel		Small rectangular panel		Small square panel	
Length	Width	Length	Width	Length	Width	Length	Width
80	64	64	64	60	48	48	48

3.2 Combination classification based on operation modes and positions of actuator (see Table 4)

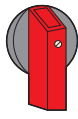
Table 4

Use category	Feature code	Self-rehabilitation type				
Actuator position	A	0° 30°		0° 45°		
	B	30° 0° 30°		45° 0° 45°		
Location type	C	0° 90°	0° 30°	0° 45°		
	D	90° 0° 90°	30° 0° 30°	45° 0° 45°	60° 0° 60°	
	E	90° 0° 90° 180°	30° 0° 30° 60°	45° 0° 45° 90°		60° 30° 30° 60°
	F	60° 30° 0° 30° 60°		90° 45° 0° 45° 90°	150° 90° 30° 30° 90° 150°	
	G	60° 30° 0° 30° 60° 90°		90° 45° 0° 45° 90° 135°		90° 30° 30° 90° 150°
	H	90° 60° 30° 0° 30° 60° 90°		135° 90° 45° 0° 45° 90° 135°		
	I	90° 60° 30° 0° 30° 60° 90° 120°		135° 90° 45° 0° 45° 90° 135° 180°		
	J	120° 90° 60° 30° 0° 30° 60° 90° 120°				
	K	120° 90° 60° 30° 0° 30° 60° 90° 120° 150°				
	L	150° 120° 90° 60° 30° 0° 30° 60° 90° 120° 150°				
	M	150° 120° 90° 60° 30° 0° 30° 60° 90° 120° 150° 180°				
Location	Z	30° 0° 60°		135° 90° 0° 45°		
				90° 0° 45°		

3.3 Handle connections are divided into the following two types.



R Type



I Type

Wiring diagram on commonly used control switch for voltage and current measurement converter box of LW32 series  
Phase voltage phase-change switch

LW8-10-YH1/2	0	U <sub>AN</sub>	U <sub>BN</sub>	U <sub>CN</sub>
LW32-20-YH1/2	0°	90°	180°	270°
		×		
			×	
				×
		×	×	×

LW8-10-YH3/2	U <sub>AN</sub>	U <sub>BN</sub>	U <sub>CN</sub>
LW32-20-YH3/2	90°	0°	90°
	×		
		×	
			×
	×	×	×

Line voltage phase-change switch

LW8-10-YH4/2	U <sub>AB</sub>	U <sub>BC</sub>	U <sub>CA</sub>
LW32-20-YH4/2	90°	0°	90°
	1-2	×	×
	3-4		×
	5-6		×
	7-8	×	

LW8-10-YH2/3	0	U <sub>AB</sub>	U <sub>BC</sub>	U <sub>CA</sub>
LW32-20-YH2/3	0°	90°	180°	270°
	1-2	×	×	
	3-4			
	5-6			×
	7-8	×		
	9-10			
	11-12		×	×

LW8-10-YH3/3	0	U <sub>AB</sub>	U <sub>BC</sub>	U <sub>CA</sub>
LW32-20-YH3/3	0°	90°	180°	270°
	1-2	×		
	3-4			×
	5-6		×	
	7-8	×		
	9-10			×
	11-12		×	

# Change-over Switch

Phase-change switch for three-phase line voltage and three-phase voltage

LW8-10-YH5/4	$U_{CA}$	$U_{BC}$	$U_{AB}$	0	$U_{AN}$	$U_{BN}$	$U_{CN}$
LW32-20-YH5/4	135°	90°	45°	0°	45°	90°	135°
	1-2		×				×
	3-4			×		×	
	5-6	×					
	7-8					×	
	9-10					×	
	11-12	×		×			×
	13-14						×
15-16		×					

LW8-10-YH5/3	$U_{CA}$	$U_{BC}$	$U_{AB}$	0	$U_{AN}$	$U_{BN}$	$U_{CN}$
LW32-20-YH5/3	135°	90°	45°	0°	45°	90°	135°
	1-2		×				×
	3-4	×					
	5-6						×
	7-8		×	×			
	9-10	×		×		×	
	11-12					×	×
							×

Change-over switch for current measurement

LW8-10LH1/2	0	$I_A$	$I_B$	$I_C$
LW32-20LH1/2	0°	90°	180°	270°
	1-2	×		×
	3-4		×	×
	5-6	×	×	
	7-8			×

LW8-10LH2/4	0	$I_A$	$I_B$	$I_C$
LW32-20LH2/4	0°	90°	180°	270°
	1-2	×	×	×
	3-4	×		×
	5-6	×	×	
	7-8		×	×
	9-10			
	11-12		×	
	13-14			×
15-16	×			

LW8-10LH3/4	0	$I_A$	$I_B$	$I_C$
LW32-20LH3/4	0°	90°	180°	270°
	1-2	×	×	×
	3-4			
	5-6	×		×
	7-8	×	×	×
	9-10			×
	11-12			
	13-14		×	
15-16			×	

Direct start-up and breaking during operation

LW8-10/Q1/2.2	0	1
LW8-20/Q1/5.5	0°	60°
LW32-20/Q1		
	1-2	×
	3-4	×
	5-6	×
	7-8	

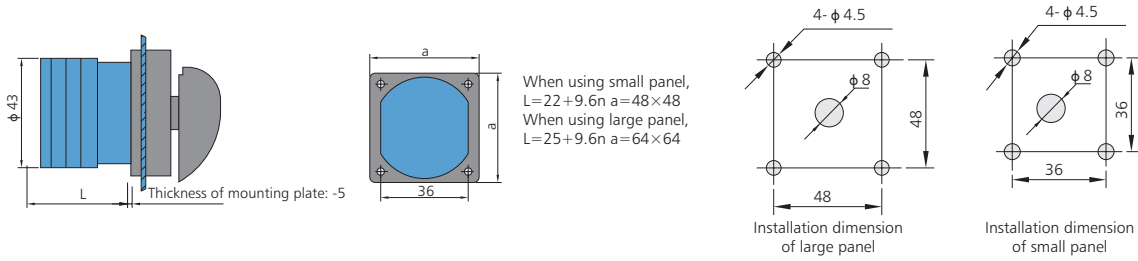
Forward and reverse direct start-up, breaking during operation

LW8-10/N1/2.2	1	0	2
LW8-20/N1/5.5	60°	0°	60°
LW32-20/N1			
	1-2		×
	3-4	×	
	5-6	×	
	7-8		
	9-10	×	×
	11-12	×	×

Variable-speed switch of two-speed motor

LW8-10/S1/2.2	1	0	2
LW8-20/S1/5.5	60°	0°	60°
LW32-20/S1			
	1-2	×	
	3-4		×
	5-6		×
	7-8	×	
	9-10		×
	11-12		×
	13-14	×	
15-16		×	

**4. Overall and mounting dimensions**



**5. Ordering information**

When ordering, the user shall use complete model of switch. For example: Order universal change-over switch LW32, type of wiring diagram is 100 sets. Order code: LW32-20/D303/2 100 sets.

Wiring diagram No.	D303		
	60°	0°	60°
Conversion angle	60°	0°	60°
1-2	×		×
3-4	×		
5-6			×
7-8	×		×