



## LW8 Universal Change-over Switch

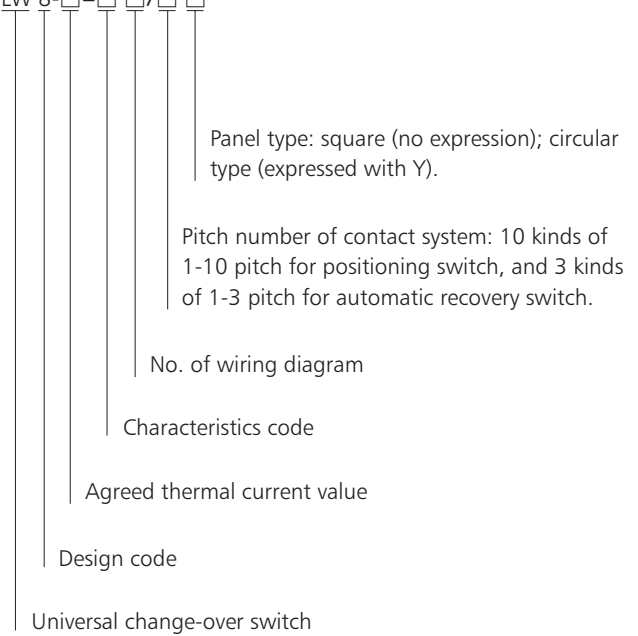
### 1. General

Universal change-over switch of LW8 series is mainly applicable to transmit electrical control circuit and meter measuring circuit with alternating current of 50Hz~60Hz, voltage not more than 380V and DC voltage not more than 220V, it can also directly control three-phase AC cage induction motor with small capacity (2.2kW and 5.5kW).  
Standard: GB 14048.5 IEC 60947-5-1.

### 2. Type designation

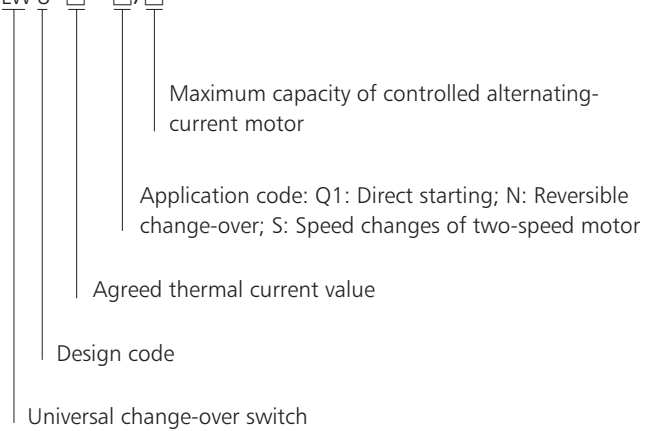
#### 2.1 Type of master control

LW 8-□-□□/□□



#### 2.2 Type of direct control motor

LW 8-□ · □/□



# Change-over Switch

## 3. Technical data

Items	LW8-10			LW8-20		
	AC-15	DC-13	AC-3	AC-15	DC-13	AC-3
Working voltage (V)	380	220	380	380	220	380
Working current (A)	2.6	0.27	5	2.6	0.23	12
Isolation voltage (V)	550V					
Thermal current (A)	10A			20A		
Electrical durability (time)	10×10 <sup>5</sup>	5×10 <sup>4</sup>		10×10 <sup>5</sup>	5×10 <sup>4</sup>	
Mechanical life (time)	30×10 <sup>4</sup>					
Operation frequency time/hour	120					

## 4. Classification

Make assembly and classification as per operating mode and position of actuator

Table 2

Use category	Code of operating mode	Position of operating handle								
Automatic recovery type	A	0° ← 30°								
	B	30° → 0° ← 30°								
Positioning type	C	0° 60°								
	D	60° 0° 60°								
	E	90°	30°	0°	30°	90°				
	F	120°	60°	0°	60°	120°				
	G	120°	60°	0°	60°	120°	180°			
	H	30°		0°	30°	60°				
	I	60°	30°	0°	30°	60°				
Positioning type	J	60°	30°	0°	30°	60°	90°			
	K	90°	60°	30°	0°	30°	60°	90°		
	L	90°	60°	30°	0°	30°	60°	90°	120°	
	M	120°	90°	60°	30°	0°	30°	60°	90°	120°
	N	30°		30°						
	P	90°		0°	90°					
	R	0°		90°	180°	270°				

## 5. Wiring diagram

Wiring diagram of change-over switch and common control switch of LW8 series for voltage and current measurement.

Phase-change switch for phase voltage

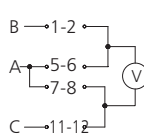
LW8-10-T.YH1/2	0	U <sub>A</sub>	U <sub>B</sub>	U <sub>C</sub>
LW32-20-T.YH1/2	0°	90°	180°	270°
	1-2	x		
	3-4		x	
	5-6			x
	7-8	x	x	x

LW8-10-T.YH3/2	U <sub>A</sub>	U <sub>B</sub>	U <sub>C</sub>	
LW32-20-T.YH3/2	90°	0°	90°	
	1-2	x		
	3-4		x	
	5-6			x
	7-8	x	x	x

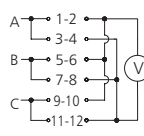


Phase-change switch for circuit voltage


LW8-10-YH2/3	0	$U_{AB}$	$U_{BC}$	$U_{CA}$
LW32-20-YH2/3	0°	90°	180°	270°
	1-2	x	x	
	3-4			
	5-6			x
	7-8	x		
	9-10			
	11-12		x	x



LW8-10-YH3/3	0	$U_{AB}$	$U_{BC}$	$U_{CA}$
LW32-20-YH3/3	0°	90°	180°	270°
	1-2	x		
	3-4			x
	5-6		x	
	7-8	x		
	9-10			x
	11-12		x	

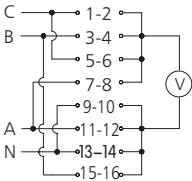


LW8-10-T.YH4/2	$U_{AB}$	$U_{BC}$	$U_{CA}$
LW32-20-T.YH4/2	90°	0°	90°
	1-2		x
	3-4	x	
	5-6	x	x
	7-8		x

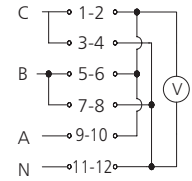


Phase-change switch for three-phase circuit voltage and three-phase phase voltage

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						x
	3-4		x			x	
	5-6	x					
	7-8				x		
	9-10				x		x
	11-12	x	x				
	13-14					x	
	15-16		x				



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						x
	3-4	x					
	5-6					x	
	7-8		x	x			
	9-10	x	x		x		
	11-12				x	x	x



# Change-over Switch

Change-over switch of current measurement

LW8-10LH1/2	0	I <sub>A</sub>	I <sub>B</sub>	I <sub>C</sub>
LW32-20LH1/2	0°	90°	180°	270°
	1-2	x		x
	3-4		x	x
	5-6	x	x	
	7-8			x

LW8-10LH2/4	0	I <sub>A</sub>	I <sub>B</sub>	I <sub>C</sub>	
LW32-20LH2/4	0°	90°	180°	270°	
	1-2	x	x	x	
	3-4	x		x	x
	5-6	x	x		x
	7-8		x	x	x
	9-10				x
	11-12		x		
	13-14			x	
	15-16	x			

LW8-10LH3/4	0	I <sub>A</sub>	I <sub>B</sub>	I <sub>C</sub>	
LW32-20LH3/4	0°	90°	180°	270°	
	1-2		x	x	
	3-4				x
	5-6		x		x
	7-8		x	x	
	9-10			x	
	11-12				
	13-14			x	
	15-16				x

direct starting and breaking in operation

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

Forward and reverse direct starting and breaking in operation

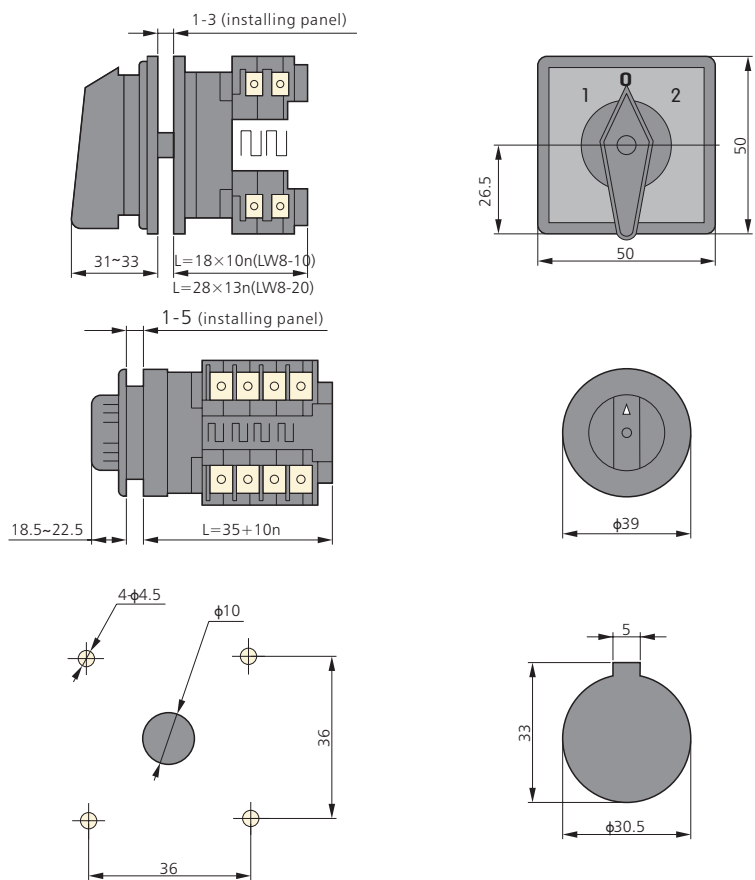
LW8-10/N1/2.2	1	0	2
LW8-20/N1/5.5			
LW32-20/N1	60°	0°	60°
	1-2		x
	3-4	x	
	5-6	x	
	7-8		x
	9-10	x	x
	11-12	x	x

Speed changing switch of double speed motor

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



**6. Overall and mounting dimensions**



Note: n = Pitch number of contact system

**7. Ordering instructions**

Full type of products shall be provided when users ordering. For example: Ordering of universal change-over switch: LW8 and 100 sets switches with wiring diagram.

No.of wiring diagram	D303		
	60°	0°	60°
Change-over angle	60°	0°	60°
1-2	x		x
3-4	x		
5-6			x
7-8	x		x

Ordering No. is LW8-10 D303/2 and 100 sets W8-10 D303/2 and 100 sets.