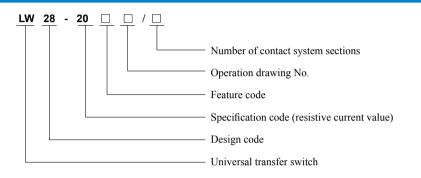




### **1** Product overview

LW28 series Rotary Change-over Cam Switches is mainly used in AC 50Hz main circuit with a rated working voltage of 380V and below and with a DC voltage of 220V and below for power-on, power-off and change-over of circuit and also for direct master control and circuit measurement.

### 2 Type designation



## **3** Product parameters

Item	LW28-20				
i com	AC-15	DC-13			
Rated working voltage Ue (V)	380	220			
Rated working current Ie (A)	1.5	0.14			
Rated insulation voltage Ui(V)	550				
Resistive current Ith (A)	2	20			
Electrical life (times)	$20 \times 10^{4}$	$6 \times 10^{4}$			
Mechanical life (times)	30×10 <sup>4</sup>				
Operating frequency (times/h)	1	20			

### 4 Others

4.1 Classification

- 4.1.1 There are main circuit change-over, direct control motor and master control according to the purpose.
- 4.1.2 There are location type, self-reset type and location and self-reset type.
- 4.1.3 There are location type 1-12 sections, self-reset 1-3 sections, and direct control motor 1-6 sections according to the number of the contact system sections.
- 4.1.4 There are 30°, 45°, 60°, and 90° according to the operating angle.
- 4.1.5 There are the following types according to the shape and size of the panel (see Table 2).

			table 2	
Large squ	are panel	panel Small square panel		
Length	Width	Length	Width	
64	64	48	48	

table 2



4.2 Classified according to the operating method and operator position (see Table 3)

		Table 3
Use category	Feature code	Operator position
Self-reset	А	0° 30°
Self-reset	В	30° 0° 30°
	С	0° 90 ° 0° 30°
	D	90° 0° 90 ° 30 ° 0° 30°
	Е	90° 0° 90° 180° 30° 0° 30° 60°
	F	60° 30° 0° 30° 60°
Location	G	60° 30° 0° 30° 60° 90°
type	Н	90° 60° 30 ° 0° 30° 60 ° 90 °
	Ι	90° 60° 30 ° 0° 30° <b>60</b> ° 90°120°
	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°
	М	150°120° 90° 60° 30° 0° 30° 60° 90°120°150° 180°
	Ν	45° 45°
Location type	Z	30° 0° 60° 135° 90° 0° 45°
Self-set type	L	90° 0° 45°

4.3 Wiring diagram of common control switch used in LW28 series voltage and current measurement switching box

Phase voltage phase-change switch

LW28-20/YH1/2	0	UA	UB	UC
L#20-20/111/2				270°
A		×		
$ \begin{array}{c} B \longrightarrow 3-4 \\ C \longrightarrow 5-6 \end{array} \qquad (V) $			×	
				×
N		×	×	×

LW28-20/YH1/3			UC
L#20 20/111/3			270°
A1 − 2•	×		
$\begin{array}{c} A \longrightarrow 1 - 2 \bullet \\ B \longrightarrow 3 - 4 \bullet \\ C \longrightarrow 5 - 6 \bullet \end{array} $		×	
c (v)			×
N910•	×	×	×

LW28-20/YH3/2			
L#20 20/1113/2			
A 2	×		
$ \begin{array}{c} B \longrightarrow 3 - 4 \\ C \longrightarrow 5 - 6 \end{array} $		×	
			×
N - 1 - 8	×	×	×
C 5 - 6 • N 7 - 8 • ↓	×	×	×

LW28-20/YH2/2			UCA
L#20 20/1112/2			270°
A			×
	×		
B	×	×	
C 7 - 8		×	×

LW28-20/YH4/2			UCA
5#20 20/1114/2			
A 1-2			×
$ \begin{array}{c} \begin{array}{c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ \end{array} \end{array} \xrightarrow{3-4} \begin{array}{c} \\ \\ \end{array} \xrightarrow{V} \end{array} $	×		
B → 5-6 → Y	×	×	
C 7-8 •		×	×

#### Line voltage phase-change switch

LW28-20-YH2/3			UCA
L#20-20-1H2/3			270°
	×	×	
B 2			
A5-6			×
A56	×		
С —11-12			
		×	×

LW28-20-YH3/3	0	UAB	UBC	UCA
LW28-20-1H3/3	0 °	90°	180°	270°
		×		
$A \xrightarrow{1-2} \xrightarrow{3-4} \xrightarrow{3-4} \xrightarrow{7-8} 7-8$				×
			×	
		×		
C				×
			×	



Three-phase line voltage and three-phase phase voltage phase-change switch

LW28-20-YH5/4	UCA					UCN
L#20/20/110/4	135°					135°
		×				×
C			×		×	
	×					
				×		
· · · · · · · · · · · · · · · · ·				×		×
A → ← ← •11-12 • → ↓ N ← •13-14 • →	×		×			
15-16					×	
		×				

LW28-20-YH5/3	UCA 135°	UBC 90°	UAB 45°	0 0°	UAN 45°	UBN 90°	UCN 135°
	100	×	10	V	10	50	×
$\begin{array}{c} C & \bullet & 1-2 & \bullet \\ \bullet & 3-4 & \bullet \\ B & \bullet & 5-6 & \bullet \\ \hline & & & & \\ \end{array}$	×					×	
$ \begin{array}{c} \begin{array}{c} & & & & \\ A \end{array} \xrightarrow{} 9 - 10 \\ N \end{array} \phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	×	×	× ×		X		
					×	×	×

Current measurement transfer switch

LW28-20 LH2/2				IC
LW20 20 LH2/2				$270^{\circ}$
A B C	×			×
		Х	×	
	×	×		
			Х	×

LW28-20 LH2/4				
				$270^{\circ}$
	×	×	×	
ABCN 	$\times$		×	×
	×	×		×
		×	×	×
				×
		×		
			×	
	×			

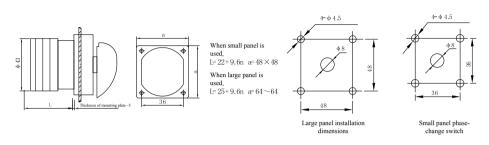
LW28-20LH3/4	0	IA		IC
L#20 20L113/4	0°			270°
ABC	×	×		×
• 1-2 •	×		×	×
5-6 •	×	×	×	
			×	
		×		
÷				×

#### Break during direct start and operation

		1	
	LW28-20/Q1/5.5		60°
Pa	anel	A 1-2	×
		$B \longrightarrow 3-4 $	×
	<b>≜</b>	C - 5-6 •	$\times$
		• 7-8 •	



## 5 Outline and installation dimensions



# 6 Order information

Please specify the complete model of switch when ordering.

For example: To order the universal change-over switch, the wiring diagram type is order code LW28-20 D303/2.

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